

An Investigation of Teachers' and Teaching Assistants' Causal Attributions for Challenging Behaviour in Primary School Settings

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List of Abbreviations

DfE	Department for Education
CAMHS	Child and Adolescent Mental Health Services
EHCP	Education, Health and Care Plan
EP	Educational Psychologist
EPS	Educational Psychology Service
LA	Local Authority
NHS	National Health Service
Ofsted	Office for Standards in Education, Children's Services and Skills
SEMH	Social, Emotional and Mental Health
SENCo	Special Educational Needs Co-Ordinator
SEND	Special Educational Needs and Disabilities
TA	Teaching Assistant
TEP	Trainee Educational Psychologist

Abstract

The negative impact of challenging behaviour within the primary school classroom is widely acknowledged, with research indicating that the attributions held by school staff can affect their approach to behaviour management, as well as their overall motivation and confidence in supporting challenging behaviour. The present study aimed to explore the causal attributions made by school staff for challenging behaviour observed in pupils aged 4-11.

This study implemented a non-experimental, fixed design and utilised a survey strategy to elicit the views of primary school teachers and teaching assistants (TAs). The first stage involved the development of the survey measure, which was updated from a previous attribution questionnaire (Miller et al., 2000, 2002) through the use of focus groups and piloting procedures. This was then distributed both in paper and online form to school staff across the local authority (LA). The final sample taken forward for analysis included 195 teachers and 153 TAs.

Data were analysed using factor analysis, which led to the extraction of a 5-factor model for teachers and 4-factor model for TAs. Similarities and differences are noted within the models, with both populations perceiving factors relating to difficult home circumstances to be the most important in terms of influencing challenging behaviour. Teachers also assigned a high level of importance to negativity within the school environment and ineffective classroom management strategies, while TAs perceived this to be the least important factor within their model. Both participant groups indicated a self-serving bias in their attribution patterns, although this appeared to be more prominent among TAs. Overall, the attributions of TAs within the present study seem to align more closely with the attributions made by teachers in previous studies. However, present teacher attributions appear to be variable, providing some support for previous studies, but also indicating new attributional patterns.

Methodological limitations are addressed and the implications of this study are outlined. These include the need for professionals to acknowledge the similarities and differences between the attribution patterns demonstrated by teachers and TAs, as well as schools ensuring that resources are targeted in a way that responds to these views. Finally, implications for future research are discussed.

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1 Introduction

Assessing and intervening with the behaviour of pupils in school remains one of the key areas of work for Educational Psychologists (EPs) in the United Kingdom (UK). It plays a fundamental role in both statutory and traded work for most Educational Psychology Services (EPSs) and the nature of such work is often varied, including systemic input (Smith, Travell, & Worton, 2004), supervision (Maxwell, 2013) and individual interventions (Hardman, 2001). The dialogue around how to approach challenging behaviour in schools is of interest to a number of professional groups, including the media, as its impact on successful teaching and learning is widely acknowledged. This often results in widespread public and political concern over the management of challenging behaviour in schools, which is generally exacerbated by the rising number of students receiving fixed term and permanent exclusions in the UK (Department for Education, 2017b). These concerns can cause policy and practice to sometimes be developed in advance of substantial research evidence (Miller, Ferguson, & Byrne, 2000).

An example of this is the recent advice published by the Department for Education (DfE) on behaviour and discipline (Department for Education, 2016) where an emphasis is placed on punishment and negative consequences, regardless of the fact that there is mounting evidence to suggest that negative interactions associated with punitive discipline are not conducive to a positive school environment and lasting behaviour change (Bosworth & Judkins, 2014; Mowen & Brent, 2016). Furthermore, while the DfE implements top-down strategy planning, it is professionals in frontline Children's Services who are responsible for the day-to-day realisation of these strategies, that is, teachers, teaching assistants (TAs) and pastoral workers among others.

The study of challenging behaviour has been approached using a number of psychological paradigms throughout the literature and research continues to be produced by several disciplines, including medicine, education and sociology (Miller et al., 2000). Inevitably, this has resulted in a somewhat mixed evidence base, with overlapping objectives and methodologies (Miller, 2000). However, it has been argued that attribution theory could seek to address some of these discrepancies, as it

focuses on both core psychological theory and 'factors that influence social action' (Miller et al., 2000, p. 86). Therefore, the aim of the present research is to obtain an understanding of how staff in mainstream primary school settings attribute challenging behaviour among their pupils.

1.1 The Researcher's Personal and Professional Interest

The researcher first developed her interest in challenging behaviour during her early professional experiences as a performing arts teacher, where she taught children with a range of behavioural needs. She became aware of how the challenging behaviour exhibited by some students was attributed differently among staff and how this affected their behaviour towards the students in terms of patience, empathy and even investment in their futures.

In her following role as an Assistant EP, the researcher was frequently sent to conduct structured observations of children in school, which often related to concerns around their behavioural presentation. During this time, she noticed the vital role that TAs played in supporting challenging behaviour in lessons and how they were often also tasked with running behaviour interventions outside the classroom. These experiences fed into the researcher's current role as a Trainee Educational Psychologist (TEP), where she uses consultation as a key facet of her professional role, particularly in regards to behaviour cases. The eco-systemic nature of consultation involves gathering the views of all stakeholders involved in the case, therefore the relevance of their attributions becomes evident.

As such, the researcher's interest in how individuals attribute challenging behaviour and previous experiences supporting teachers and TAs led to the development of the present study. This allowed her to further explore these ideas and build on the previous foundation of literature within this area.

1.2 Overview of Chapters

Chapter 2: The **Literature Review** presents a brief account of the existing literature pertaining to challenging behaviour in education settings, alongside an overview of attribution theory and the current evidence regarding causal attributions among

school staff. The rationale for the present study is also developed and research objectives are outlined.

Chapter 3: The **Methodology** provides an overview of issues relating to real world research, including philosophical paradigms and research design. The methodology of the present study is then outlined and justified. Finally, issues of data quality and ethical issues are considered.

Chapter 4: The **Results** section further outlines the methods of statistical analysis used within the current study and presents the findings in relation to the research objectives.

Chapter 5: The **Discussion** provides a summary of key findings and reviews these in light of previous literature and theory. Methodological limitations of the present study are also considered, as well as implications for schools, EPs and future research. A conclusion summarises the overall findings of the current research project, including its unique contribution to the literature.

2 Literature Review

The aim of this chapter is to provide a comprehensive overview of the existing body of research that has studied challenging classroom behaviour within the framework of attribution theory. The following section will begin by considering and defining the term 'challenging behaviour' and how this is situated in a national and cultural context, as well as the role of school staff in relation to this type of behaviour. This will be followed by an overview of attribution theory, including outlines of Kelley's Covariation Model (1967) and Weiner's Dimensions of Causality (1979), then a summary of how previous research has used this theory to contribute to the understanding of challenging behaviour in schools. Finally, a systematic literature review is presented, which provides a rigorous database search, a detailed summary and qualitative synthesis of seven studies pertaining to the review question. A rationale for the current study is then developed and the research objectives are outlined.

2.1 Challenging Behaviour

2.1.1 Definition

The term 'challenging behaviour' was originally adopted by The Association for Severe Handicaps in the United States (US), where it was used with the intention of shifting the focus from trying to 'fix' the person with behaviour problems towards 'fixing' the environment and organisation around them (Royal College of Psychiatrists, British Psychological Society, & Royal College of Speech and Language Therapists, 2007). Prior to this, such behaviour had been described as 'maladaptive', 'abnormal' and 'dysfunctional', among other things, although subsequent research has shown that this behaviour is, in fact, quite adaptive, normal and functional, given the circumstances (National Institute for Health and Care Excellence, 2015). Thus, the term 'challenging behaviour' was introduced, as it appeared to present less semantic contradictions. Some professionals have since felt that the original intention of the term has been forgotten and it is now being used as a diagnostic phrase, for example 'he has challenging behaviour'; as such, some organisations now prefer the term 'behaviour that challenges'.

It should be recognised that the term 'challenging behaviour' appears to be a socially determined construct. That is, an individual's behaviour can only be deemed as challenging when another person judges that the behaviour has invoked feelings in others that are somehow intolerable (Royal College of Psychiatrists & British Psychological Society, 2016). However, this judgement is highly subjective and varies greatly even among professional bodies. For example, the Royal College of Psychiatrists and British Psychological Society define challenging behaviour as being:

> *'…of such an intensity, frequency or duration as to threaten the quality of life and/or the physical safety of the individual or others and is likely to lead to responses that are restrictive, aversive or result in exclusion'* (Royal College of Psychiatrists & British Psychological Society, 2016, p. 8).

This definition may lead people to consider challenging behaviour to encompass more extreme responses, such as violence and aggression, and indeed this type of conduct can attract the most public attention via the media (Hart, 2010). Nonetheless, public reports into challenging behaviour in schools suggest that education professionals are more concerned about the cumulative effects of low-level disruption in the classroom, as highlighted by the Elton Report (Department for Education and Science, 1989) and evidence from school inspections (Ofsted, 2006). In fact, the SEND Code of Practice (Department for Education & Department of Health, 2015) states that continued concerns around a pupil displaying disruptive or withdrawn behaviour should warrant further assessment to determine causal factors (Frederickson & Cline, 2015).

Therefore, it is clear that the term 'challenging behaviour' covers a broad range of behavioural presentations, including low level disruption, as well as high-level incidents. The subjective nature of this term can be problematic, particularly when conducting research, as individuals' understanding of challenging behaviour is relative to their own experiences. This is perhaps why a number of other phrases have become commonplace for describing needs relating to behaviour, such as 'emotional and behavioural difficulties' and 'social, emotional and mental health difficulties', with these acknowledging some of the underlying causes of challenging behaviour. Nonetheless, while acknowledging the issues surrounding the definition

of challenging behaviour, the present paper will continue to use this phrase, in part because of its generality and also because it is commonly used in previous attribution studies.

2.1.2 National Context

Concerns surrounding challenging behaviour have been apparent in the UK for several decades, particularly within the school context (Department for Education, 2017a; Department for Education and Science, 1989). School staff often report feeling unprepared to manage such behaviour in the classroom (Briesch, Briesch, & Chafouleas, 2015) and some consider this to be a primary reason for leaving the profession (Department for Education and Skills, 2012). It is estimated that 10-17% of individuals with SEND display challenging behaviour (Allen, Lowe, Moore, & Brophy, 2007) and, within the school context, children with SEND encompass approximately 15% of the student population (Department for Education, 2018).

While there are dedicated services across the country designed to provide assessment and intervention for children and adults demonstrating challenging behaviour, these have often been inadequate (Department of Health, 2007) and, in the most extreme cases, have resulted in the abhorrent mistreatment and abuse of vulnerable individuals (Mencap & Challenging Behaviour Foundation, 2012). For children and young people, support is generally provided via the LA through their school and EPS or via the National Health Service (NHS) through child and adolescent mental health services (CAMHS). In both scenarios, support is often difficult to navigate for parents and requires referrals to various services, which will decide whether the child meets their 'criteria'.

However, in most cases, many of these support services will not become involved until the behaviour has escalated to a level that is unmanageable by the family and school, meaning that any opportunity for prevention or early intervention work is lost (National Institute for Health and Care Excellence, 2015). The government has made efforts to improve this system with the passing of the Children and Families Act (2014) and subsequent code of practice (Department for Education & Department of Health, 2015) to ensure that education, health and social care colleagues work together to produce a comprehensive package of support for

children and young people with SEND. Nonetheless, the national picture appears to be variable, with many inadequate support services coexisting alongside pockets of excellent practice.

2.1.3 Classroom Context

While challenging behaviour exhibited in schools is not restricted to the classroom, this is the context in which the lowest level of disruption can often have the most profound effect. Classrooms present a confined environment within a school building and behaviour is often managed by fewer members of teaching staff. As such, challenging behaviour in this context can often have a large impact on both the pupils and teaching staff. Previous research suggests that classroom disruption can reduce learning opportunities for all students, as teachers have to take the time to respond to these behaviours (Clunies-Ross, Little, & Kienhuis, 2008; Gordon, 2001; Murphy, Theodore, Aloiso, Alric-Edwards, & Hughes, 2007). Furthermore, this is likely to impact upon the students' ability to acquire and develop new skills (Erbas, Turan, Gulec Aslan, & Dunlap, 2010), affecting their overall attainment (Finn & Zimmer, 2012).

Students demonstrating challenging behaviour can also be stigmatised in the classroom, as they are often labelled as 'naughty' or 'disruptive' by adults and peers in the school; this, in turn, can lead to social withdrawal (Holden & Gitlesen, 2006) and poor peer relationships (Horner & Carr, 1997). In more extreme cases, students exhibiting severe challenging behaviour are sometimes subject to restrictive measures (Feldman, Atkinson, Foti-Gervais, & Condillac, 2004; Sturmey, 2009) and persistently problematic behaviour can lead to school exclusion (Cunningham & Schreibman, 2008; Department for Education, 2017b). Government policy stipulates that exclusion should only be used when all other possibilities have been exhausted, as the negative impact of this action on student outcomes is clear within the literature, including feelings of shame and resentment (Partington, 2001), as well as depression and isolation (Leyden & Miller, 1998).

2.1.4 The Impact on School Staff

It is also important to note the impact of challenging behaviour on teachers within the classroom context. Research suggests that teachers have a tendency to spend less

time teaching and interacting with students who exhibit disruptive behaviour, which can restrict the students' access to the curriculum (Rae, Murray, & McKenzie, 2011) and lower student outcomes (Carr, Taylor, & Robinson, 1991). In turn, this pattern of behaviour and outcomes is known to greatly increase teacher stress (Brouwers & Tomic, 2000; Male & May, 1997a, 1997b), as challenging behaviour can often present persistently throughout the school day and cause high levels of general frustration.

It is often presumed that the primary role of school staff, including both teachers and TAs, is to educate students, while managing disruptive behaviour becomes an incidental element of this process. However, the broad variation of behaviour exhibited across school settings can cause these roles to inverse, with the priority shifting towards managing challenging classroom behaviour in order to allow pupils to learn. This can be a daily struggle for school staff and become a significant source of stress (Brouwers & Tomic, 2000; Raczka, 2005). Furthermore, research suggests that frequent contact with individuals with challenging behaviour can lead to an increase in negative emotions (Bromley & Emerson, 1995), which results in staff burnout and emotional detachment (Rose, Horne, Rose, & Hastings, 2004).

Further adverse effects of challenging behaviour in the classroom include a reduction in overall teaching time and decreased levels of energy in teaching staff; in addition, the management of challenging behaviour can generate a high level of emotional involvement from both pupils and teachers, in some cases undermining feelings of competence and personal control among school staff (Brophy & Rohrkemper, 1981; Safran & Safran, 1985). It also becomes the role of school staff to attempt to minimise the impact of these adverse effects, while managing classroom behaviour to the level that will allow students to optimise their learning. Furthermore, while behaviour policies published by individual schools and the wider education system endeavour to provide guidelines for practising teaching staff, the daily implementation of these policies is not always conducive to each classroom setting and does not detract from the negative impact of persistent challenging behaviour on the wellbeing of school staff.

2.1.5 The Impact of Culture

The differences in education systems across the world are widely acknowledged, however this is usually discussed within the context of learning and not so often considered in relation to the impact of culture on challenging behaviour. Nonetheless, research indicates that all behaviours are affected by cultural context (Chen, Downing, & Peckham-Hardin, 2002), thus this should be recognised as an important variable to consider within the literature surrounding school staff perceptions of challenging classroom behaviour (Ho, 2004). In fact, Artiles (1996) suggested that neither the thinking nor practice of school staff can be fully understood without first exploring the cultural context in which they occur.

The reasons for considering cultural context might include how certain cultural values can influence how teaching staff perceive particular behaviours and subsequent intervention strategies (Erbas et al., 2010). In addition, some behaviours may be considered as problematic in some cultures, but not others, depending on behavioural expectations of children within the home and school context (Wang, Mccart, & Turnbull, 2007). Therefore, it is imperative that the impact of culture and associated factors, such as school system, values and political context, are considered when attempting to understand the views of school staff regarding challenging behaviour in the classroom.

2.2 Attribution Theory

Research concerning attribution theory has a history spanning at least five decades, with its influence being notable in several major psychological paradigms, including social psychology in particular (Fosterling, 2001). The central tenets of the theory focus on a search for causality across all domains of life; in this way, Heider (1958) believed that all people can be described as naïve psychologists as we attempt to make sense of an ever-changing world. The need to attribute causality and subsequent effects of these judgements are evident throughout our daily lives, from arguably inconsequential decisions to broad political movements. For example, when an individual is asked to judge someone's outfit and gives positive feedback, it could be perceived that they gave this opinion because they were being honest or because they felt that they did not want to hurt the other person's feelings, but both scenarios

would warrant different responses for the person receiving the opinion based on their attribution. Larger scale examples include the criminal justice system, where judges must decide the underlying causes of an action, thus leading to different verdicts, such as murder versus manslaughter (Hart & Honore, 1959). As such, attribution theory tries to make sense of how individuals view the world. It ascertains that people instinctively seek the causes of events and formulate hypotheses in order to predict the outcomes of different circumstances, thus establishing an element of control.

When considering the process of assigning causality, it is widely accepted that attributions can fall into two broad categories: internal and external (Heider, 1958). Internal attributions, also known as dispositional factors, perceive an event or action to have been caused by something personal to the individual, rather than outside forces. This could include personality traits, motivational factors, belief systems and so on. An example would be someone attributing a good score on an exam to the hard work and revision that they had completed prior to the test date. However, if someone were to attribute their good exam score to the test being easy, then this would be known as an external, or situational, attribution. Namely, that the cause of an event or action is something beyond the person's control, rather than factors within themselves. Moreover, research suggests that people tend to have a self-serving bias when making these judgments, meaning that they will take credit if something is perceived to be a success, while they will downplay their involvement if something is perceived to be a failure (Campbell & Sedikides, 1999).

2.2.1 Kelley's Covariation Model

A further strand of attribution theory was proposed by Kelley (1967), who developed a model to determine whether a particular action or event should be attributed to internal or external factors. Kelley (1967) stipulated that individuals take the following three types of evidence into account when determining attributions:

- *Consensus*

  This is the extent to which others are behaving the same way in a similar situation. For example, Rachel goes to a café to meet her friends and orders a cup of coffee; if her friends also order coffee then consensus is high, if they order wine then consensus is low.
- *Distinctiveness*

  This is the extent to which the individual would behave in the same way in similar situations. For example, if Rachel only drinks coffee when she is with her friends then distinctiveness is high, if she drinks coffee at home and work too, then distinctiveness is low.
- *Consistency*

  This is the extent to which the individual would behave in this way every time they are in the same situation. For example, if Rachel drinks coffee every time she meets her friends then consistency is high, if she was only drinking coffee on this occasion because she was driving, then consistency is low.

According to Kelley (1967), the types of information gathered above are used to make judgements about a person's motivation. That is, if Rachel's behaviour is observed to be low in consensus, low in distinctiveness and high in consistency, then we might conclude that Rachel enjoys drinking coffee, whereas alternative observations might lead to different conclusions.

Some researchers have criticised Kelley's model for the fact that it is not always possible to collect information about all three dimensions within a given situation (Beattie & Anderson, 1995). It is also argued that he fails to consider the fundamental attribution error (Ross, Amabile, & Steinmetz, 1977), which refers to a tendency that individuals have to overestimate the role of dispositional factors and downplay situational factors when making attributions. Therefore, it could be argued that Kelley's Covariation Model is best considered as a normative model, meaning that it shows how a certain process should work, even though it does not always appear to happen this way in real life situations.

2.2.2 Weiner's Dimensions of Causality

Guided by the work of Heider (1958), Weiner and colleagues initially aimed to develop a finite list of causes that they hypothesised would account for a broad spectrum of basic attributions (Weiner et al., 1971). As such, they postulated that the following four causes were responsible for success and failure in achievement-related contexts: ability, effort, task difficulty and luck. In articles that followed, Weiner stipulated that the four causes were not intended to be an exhaustive list and research that treated them as such might draw false conclusions (Weiner, 1979); however, they continue to be considered as broad categories in contemporary attribution research.

Furthermore, having identified possible causes, Weiner then began to work on understanding the dimensions of causality in the development of attributions. He again intended to create a finite list, drawing on the work of Rotter (1966) and Heider (1958). Rotter proposed a one-dimensional classification system, namely that attributions are either internal or external, a concept that continues to be widely accepted today. Moreover, Weiner (1979, 1985) identified the following three dimensions for classifying causality:

- *Locus*
  This draws on previous categorisations of attributions as being internal or external, although Weiner (1979) stipulates that judgments on this dimension are subjective and can vary between time or people.
- *Stability*
  This enables causes to be defined on a continuum of stable versus unstable. Again, Weiner (1979) states that the taxonomic placement of a cause should be dependent on its subjective meaning within any given situation.
- *Controllability*
  This refers to the level of perceived control that an individual has over the cause, ranging from controllable to uncontrollable.

The dimensions listed above have formed the basis of many attribution studies in the field of education and provide a framework for understanding the purpose of certain causal attributions in more depth. An additional dimension, labelled as 'globality',

was identified by Abramson, Seligman and Teasdale (1978) and aimed to capture the idea of stimulus generalisation. Although this dimension was considered as a possibility by Weiner (1979), he deemed that more evidence was needed before it was accepted into the model (Weiner, 1985).

2.2.3 Causal Attributions in Education

The term 'causal attributions' refer to the ways in which people attempt to explain actions or events. For example, every individual who observes an incident of challenging behaviour will be inclined to attribute a reason as to why it occurred. These judgments are subjective (Alevriadou & Pavlidou, 2016) and can affect feelings and behaviour towards the target individual in the future (Weiner, 1985). Causal attributions are also related to perceptions of control and motivation (Skinner, 1995), therefore by understanding the way in which an individual explains the cause of a behaviour, it is possible to also extract information about their expectations for control over the behaviour and how motivated they might be to intervene if similar events occurred in the future.

Over recent decades, several groups of researchers have used attribution theory as a theoretical foundation for their study of academic attainment (Diener & Dweck, 1978; Dweck, 1975) and behaviour (Blunt Bugental, Collins, Collins, & Chaney, 1978; Elliott, 1996; Johnston, Patenaude, & Inman, 1992). Many studies have sought to form an evidence base around how different individuals attribute challenging behaviour in the classroom. Currently represented within the literature are the causal attributions of teachers (Croll & Moses, 1985; Gibbs & Gardiner, 2008; Miller, 1995), parents (Miller, Ferguson, & Moore, 2002) and pupils (Miller et al., 2000), and, in an as yet unpublished paper, the attributions of learning support assistants (Page, 2005).

2.2.3.1 School Staff Attributions

Studies into the causal attributions of school staff for challenging behaviour span across several decades and generally suggest that teachers have a tendency to perceive the causes of challenging behaviour to be related to pupil or family factors, rather than teacher- or school-related factors (Brophy & Rohrkemper, 1981; Christenson, Ysseldyke Jen Wang, & Algozzine, 1983; Medway, 1979; Miller, 1995;

Soodak & Podell, 1994). In this way, it would appear that teachers hold a self-serving bias in the way that they attribute challenging behaviour (Campbell & Sedikides, 1999).

By means of a postal survey, Croll and Moses (1985) found that 66% of teachers attributed challenging emotional and behavioural difficulties in pupils to 'home factors', a notion that was also supported by a series of detailed interviews undertaken by Miller (1995), who found that teachers attributed the origins of pupils' behaviour difficulties to factors under the control of parents in 71% of cases. Similar findings have also been obtained from teachers in Greece (Mavropoulou & Padeliadu, 2002), China and Australia (Ho, 2004).

However, more recent research by Gibbs & Gardiner (2008) found that teachers attributed pupils' misbehaviours at least as much to teachers' and adult behaviours as to any distinctive parental or home factors, causing some conflict with previous findings. It is, therefore, important for future literature to address this anomaly and determine whether these results were found as a result of changing times and attitudes, or that the researchers simply sampled a unique population on this occasion.

As well as the attributions of teachers, the attributions of secondary school learning support assistants have also been explored by Page (2005). This study found that these members of staff identified factors such as 'fairness of teachers' actions', 'adverse family circumstances' and 'pupil vulnerability to peer influence and lack of adult guidance', as important underlying causes of challenging behaviour in the classroom. In this way, the attributions of learning support assistants appear to align more closely with those made by parents and pupils, in comparison to teachers.

While there appears to be a reasonable number of studies exploring teacher attributions, the limited research on the attributions of auxiliary teaching staff is acknowledged. It would also appear that this is not restricted to the area of challenging behaviour. Instead, wide gaps in the literature would suggest that this population is rarely asked to give their views about anything other than their own role (A. Russell, Blatchford, Bassett, Brown, & Martin, 2005; Wren, 2017), meaning that it is currently difficult to ascertain an overall picture of their attribution patterns.

2.2.3.2 Pupil Attributions

Furthermore, the causal attributions made by pupils for the behaviour of their peers have been explored by a number of researchers, including Miller et al. (2000), who found that they identified 'fairness of teachers' actions', 'pupil vulnerability', 'strictness of classroom regime' and 'adverse family circumstances' as mitigating factors for other students' challenging behaviour. These are more comparable to the factors identified by parents (see below) and learning support assistants, rather than those identified by teachers. Lambert & Miller (2010) also found that adolescents' causal attributions for difficult classroom behaviour remain stable over time and are predictive of teachers' later judgments about their behaviour.

2.2.3.3 Parent Attributions

Parents' causal attributions for students' challenging behaviour have been examined by Miller et al. (2002) as an extension to their study of students' attributions in 2000, with both studies using the same questionnaire in order to draw parallels between the outcomes. The authors undertook a factor analysis on questionnaires returned from 144 parents and determined that parents attributed behaviour to 'fairness of teachers' actions', 'pupil vulnerability to peer influence and adverse family circumstances' and 'differentiation of classroom demands and expectations'. These results were in line with previous findings by Guttmann (1982), who surveyed the causal attributions of 107 mothers, alongside teachers and pupils. The differences between parental attributions and those made previously by teachers were noted, while the similarities between parents and learning support assistants were determined a few years later.

2.2.4 The Impact of Causal Attributions on Behaviour Management

There is increasing evidence to suggest that teachers' beliefs and attributions towards challenging behaviour considerably influence their classroom practice (Brophy & Rohrkemper, 1981; Hollingsworth, 1989; Merret & Wheldall, 1984), including the nature of their interactions with both disruptive students and students in general (Poulou & Norwich, 2002). Furthermore, research suggests that once beliefs have been formed, they are often very difficult to change, and the initial development of these beliefs occurs prior to teaching staff entering the profession (Erbas et al.,

2010). This poses the question of when and if it is appropriate to intervene with teachers' beliefs in this area, given their fixed and preconceived nature.

However, given that teaching staff have such a vital role in identifying specific behavioural problems and referring students for specialist support (Zimmerman, Khoury, Vega, Gil, & Warheit, 1995), it is important that we continue to identify their causal attributions and seek to challenge them where necessary (Tillema, 1995). Studies also show that students are aware of the attributions of the teaching staff around them and this will often influence their behaviour in the classroom, causing them to behave according to their teachers' expectations (Babad, 1990),

The research is clear that the beliefs of teaching staff are a significant antecedent to their professional practice (Hollingsworth, 1989; Jones & Vesilind, 1995; Prawat, 1992) and the effect of this on behaviour management styles has been explored by a number of authors (Alevriadou & Pavlidou, 2016; Soodak & Podell, 1994; Tollefson, 2000). Weiner (1985) stated that a person experiences more stress and less feelings of optimism if they perceive a cause of challenging behaviour to be stable, thus unlikely to change. For example, if a teacher attributes the challenging behaviour demonstrated by one of their students to the parenting style experienced by that student, they may feel less optimistic about the behaviour improving, even with intervention, as they believe that the primary factor influencing it is unlikely to change.

Weiner (1985) also implied that if a person was perceived to be in control of the challenging behaviour that they are exhibiting, this is likely to lead to emotions such as anger, fear and antipathy by those observing the behaviour (Alevriadou & Pavlidou, 2016). Overall, Weiner's theories have received widespread support across the literature (Dagnan, Trower, & Smith, 1998; Sharrock, Day, Qazi, & Brewin, 1990; Stanley & Standen, 2000), although some authors have criticised the reductionist approach towards the relationships between those exhibiting challenging behaviour and those managing it. It has been argued that the dynamic nature of these interactions is not fully considered (Bailey, Hare, Hatton, & Limb, 2006; Jones & Hastings, 2003; Rose & Rose, 2005).

Perceptions of control appear to be a theme throughout the literature and have a significant effect on how teaching staff respond to challenging behaviour. For example, when teaching staff perceive that the causes of behaviour are not within the student's control, research suggests that they are more sympathetic and likely to instruct and advise the student, as well as seek additional help (Soodak & Podell, 1994). However, if the student is not seen to be a victim of their circumstances and is viewed to have control of the cause of their behaviour, then teaching staff are more likely to use punitive measures and demonstrate less sympathy (Tollefson, 2000).

Additional to the points above, it is clear that variance between the causal attributions of key stakeholders involved in supporting challenging behaviour within the school environment will likely be problematic when attempting to address this behaviour. That is, school environments are optimised when there is consensus and collaboration between key individuals, but this will be impeded if they hold differing attributions. Miller (1999) argued that this is particularly pertinent during the development of school policies, as these are unlikely to be effective or valued if they do not address the differences in attributional styles between key stakeholders.

Furthermore, the discrepancies between the attributions made by teachers, parents and pupils could help to explain the emotionally charged atmospheres that can often occur in schools when external professionals attempt to bring these different individuals together around instances of challenging behaviour. Attribution theory states that each individual holds an explicit set of perceived causes for challenging behaviour and these, in turn, may influence the way in which they seek to address and intervene with this behaviour. This could incite potential conflict when viewpoints between individuals are not shared.

2.3 Systematic Literature Review

2.3.1 Introduction

The following section provides a systematic review of the literature surrounding the aforementioned topics of challenging classroom behaviour and attribution theory. In contrast to the previous sections, the studies outlined below have met a specific set

of inclusion criteria, as described within this review, and are presented alongside an assessment of their quality and relevance to the review objectives.

2.3.1.1 Objectives of the Review

The present review adopts a realist epistemology with an aim to appraise and present a systemic overview of the evidence around how teaching staff attribute challenging behaviour in the classroom. The review also aims to obtain an understanding of the strength of the current evidence base in this area and identify avenues in need of further research.

2.3.2 Method

2.3.2.1 Eligibility Criteria

In order to meet the objectives of the review, it was decided that a search would be carried out to identify studies with characteristics that met a specific list of criteria relating to the review question. While no parameters were put on the number of participants within the study, a stipulation was made that participants should be school-based teaching staff. The rationale behind this criterion was to ensure that the views of TAs could also be included in the review, if the relevant studies were obtained. It was also important to ensure that papers which analysed the attributions of alternative populations (for example, parents and students) were excluded, as the objectives of the review did not link to these populations. However, research papers that studied the attributions of teaching staff alongside other populations were included, provided that data collected from these populations were analysed completely separately.

It had become apparent through previous literature searches that causal attributions were often identified as a secondary objective to answer a sub-question within a study, thus it was decided that criteria should be developed in order to rule this type of research out of the present review. This decision was taken in order to provide simplicity and clarity to the synthesis process, as well as ensure that the included studies were grounded in attribution theory, rather than implementing it as an afterthought. As such, it was stipulated that collecting causal attributions should be the primary focus of the study or at least be a joint focus alongside other, separate objectives.

It also appeared to be common in the literature for causal attributions to be studied in relation to a wide range of school-based issues, therefore criteria were developed to ensure that only studies relating to challenging classroom behaviour could be included. Furthermore, no boundaries were set on the experience of school staff or requirements for specific roles or additional training. Criteria around the type of data presented were also included in order to provide consistency within the synthesis. Full inclusion and exclusion criteria can be found in Table 2.1.

Table 2.1 – Inclusion and Exclusion Criteria

Inclusion criteria	*Exclusion criteria*
Participants are school-based teaching staff (including trainee teachers, specialist teachers and those in senior leadership)	Participants work in a setting other than school, e.g. residential care
Study is published in a peer-reviewed journal	Study found in a source other than a peer-reviewed journal
Collecting causal attributions remains the primary focus of the study (or is a joint focus alongside other, separate objectives)	Causal attributions are collected in association with other variables
Causal attributions are collected for challenging behaviour only	Causal attributions are collected for school-related issues other than challenging behaviour (even if challenging behaviour is included among other things)
Article describes an individual study	Meta-analyses and systematic reviews
Access to full text is available	Access available to abstract only
Analysis of causal attribution data is presented	Causal attribution data is not analysed (or analysis is not presented)
Study reports mostly quantitative data	Study reports mostly qualitative data

2.3.2.2 Search Strategies

Evidence included in this review was identified through systematic searches conducted in 3 well-established databases: 'PSYCHinfo', 'Scopus' and 'Web of Science'. A full list of search terms and the number of articles returned are outlined in Table 2.2.

Simple search terms were used in order identify a broad range of literature. The term 'teach' was searched with truncation in order to cover a range of keywords, such as 'teacher', 'teachers' and 'teaching', and variations were also included in the form of separate searches using the terms 'school' and 'education'. The terms 'causal attribution' (with truncation to allow 'causal attributions') and 'behavi' (with truncation to allow both the British and American spellings of 'behaviour') remained static throughout the searches. A decision was made to not specify the terms 'challenging behaviour' within the database search, as the number of variations of this term (for example, 'problem behaviour', 'misbehaviour') was deemed to be too great.

An initial search of the 3 databases was carried out on 21st July 2018, as well as a manual search through the reference lists of several relevant articles. Duplicates were then removed and abstracts were scanned according to inclusion and exclusion criteria, this identified a number of articles that appeared suitable to include within the review. Several further articles were excluded upon full text reading (see Figure 2.1 for a full deconstruction of the search process).

Table 2.2 – Database Search

Database searched	*Date*	*Search terms*	*Number of hits*
PSYCHinfo	21.07.18	(school and "causal attribution*" and behavi*)	144
	21.07.18	(teach* and "causal attribution*" and behavi*)	117
	21.07.18	(education and "causal attribution*" and behavi*)	73
Scopus	21.07.18	(school and "causal attribution*" and behavi*)	147
	21.07.18	(teach* and "causal attribution*" and behavi*)	67
	21.07.18	(education and "causal attribution*" and behavi*)	150
Web of Science	21.07.18	(school and "causal attribution*" and behavi*)	98
	21.07.18	(teach* and "causal attribution*" and behavi*)	77
	21.07.18	(education and "causal attribution*" and behavi*)	65

2.3.2.3 Quality Assessment

In order to broaden the scope of the review, a decision was made to include all research that satisfied the aforementioned inclusion criteria. This was justified by applying Gough's (2007) Weight of Evidence framework, which allowed each study to be appraised individually on the areas outlined below. Given the heterogeneous nature of the studies, it was felt that Gough's model provided a useful heuristic for making individualised judgements on the quality of each article and the weight that should be ascribed to it within the synthesis process. Criteria to make judgments on each weighting (see Appendix 7.1) were developed in relation to the review question and were based on previous research into judging methodological quality (Gersten et al., 2005; Robson & McCarten, 2016).

Weight of Evidence A – This is a judgement on the methodological quality of the evidence in its own terms and is not specific to the review question.

Weight of Evidence B – This involves judging the relevance of the methodology for answering the review question, i.e. some research designs may be more appropriate than others.

Weight of Evidence C – This judgement pertains to how relevant the focus of the evidence is in answering the review question.

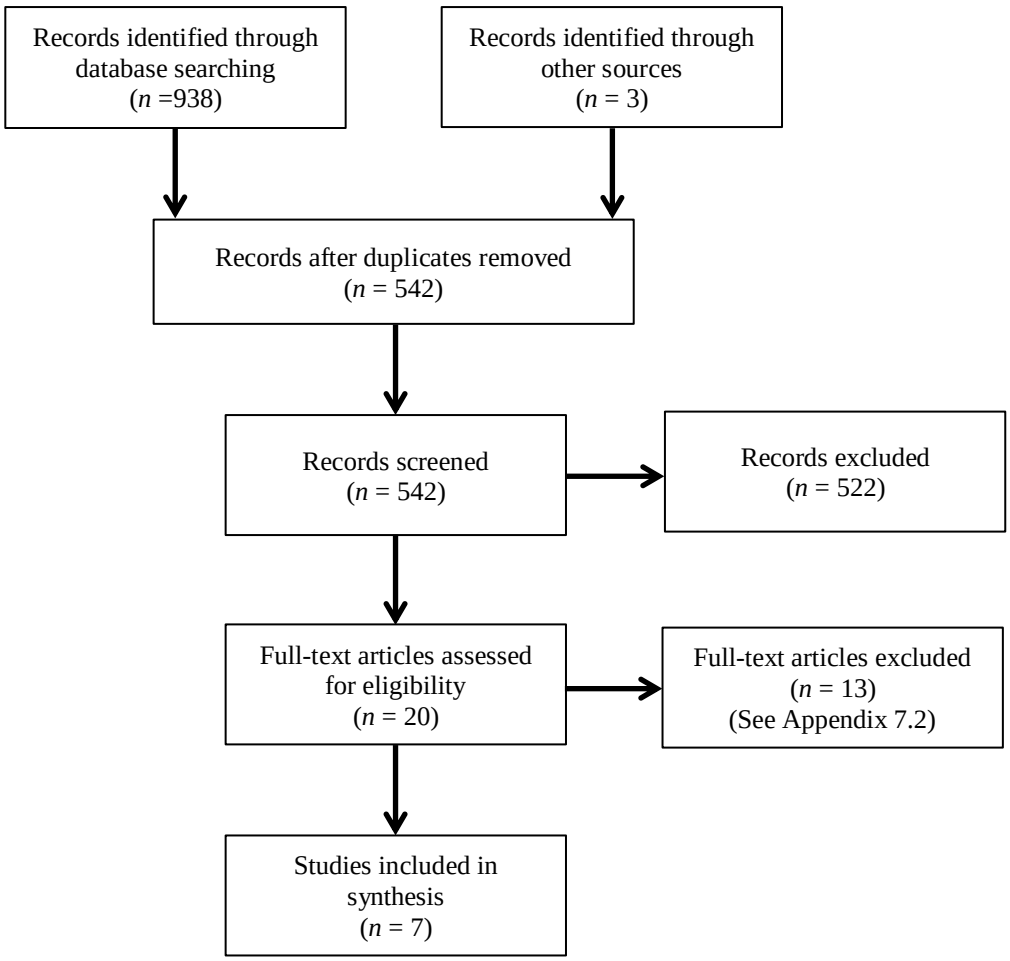
Weight of Evidence D – This is an overall judgement of the extent to which evidence can contribute to the review, based on weighting A-C.

2.3.3 Results

2.3.3.1 Study Selection

The specified search strategies rendered an output of 938 papers in the first instance. This was then filtered through the process outlined in Figure 2.1, leaving a total of 7 papers that fully met the inclusion criteria: Bibou-Nakou, Kiosseoglou and Stogiannidou (2000); Cunningham and Sugawara (1988); Erbas, Turan, Gulec Aslan and Dunlap (2010); Gibbs and Gardiner (2008); Guttmann (1982); Ho (2004); Mavropoulou and Padeliadu (2002). A summary of studies that were excluded following full-text reading and the reasons for this exclusion can be found in Appendix 7.2. Summaries of included studies are detailed in Table 2.4.

Figure 2.1 – PRISMA flow diagram of database search and study selection (Moher, Liberati, Tetzlaff, & Altman, 2009)



2.3.3.2 Reliability and Validity of Selected Studies

The general levels of reliability and validity were good within the included studies, as most seemed to be large scale projects with an adequate level of academic rigour. However, the most common issue was related to methodology, which was consistent across all articles. Each study relied on a self-report method of data collection, which is often associated with participant bias and a reduction in validity. Self-report measures also rely on participants forming a collective understanding of the terms used within a questionnaire/survey and developing a homogenous interpretation of how to quantify Likert scales (Likert, 1932), which were used many times throughout the selected studies. In addition, Cronbach's alpha coefficients were only presented for all measures in two of the seven studies, which suggested that either

internal consistency was not calculated for the others measures or it was calculated and not reported, most likely because it was not perceived to be of an acceptable standard. Nonetheless, as the inclusion criteria guaranteed the removal of any study not published within a peer-reviewed journal, it was determined that, overall, all studies offered appropriate levels of reliability and validity.

2.3.3.2.1 Quality Assessment

An assessment of study quality was made using Gough's (2007) Weight of Evidence framework, as detailed above. Results of this process are shown in Table 2.3.

Table 2.3 – Weight of Evidence

Study	*Weight of Evidence A*	*Weight of Evidence B*	*Weight of Evidence C*	***Weight of Evidence D***
Bibou-Nakou et al. (2000)	Medium	High	High	**High**
Cunningham & Sugawara (1988)	Medium	High	Medium	**Medium**
Erbas et al. (2010)	Medium	Medium	High	**Medium**
Gibbs & Gardiner (2008)	Medium	High	Medium	**Medium**
Guttmann (1982)	Medium	High	Medium	**Medium**
Ho (2004)	Low	Medium	Medium	**Medium**
Mavropoulou & Padeliadu (2002)	Medium	Medium	Medium	**Medium**

2.3.3.3 Results of Individual Studies

The main details of the 7 studies included in this review and their overall Weight of Evidence ratings can be found in Table 2.4.

Table 2.4 – Summary of Study Characteristics

Study	*Sample*	*Method*	*Findings*	*Weight of Evidence D*
Bibou-Nakou et al. (2000) Greece	*n* = 200 Participants: elementary school teachers 32.7% male, 62.8% female *M* age = 23-45 Length of teaching experience = 0-22 years	Questionnaire design Questionnaire developed by authors. Data analysed used Principal Component Analysis with varimax rotation.	The authors found that teachers most frequently attributed student-related factors to instances of misbehaviour, although explanations varied significantly across behaviour types. Teachers indicated a preference for using neutral behaviour strategies, while punitive strategies were noted as being least used. Teacher judgements of the frequency and intensity of misbehaviour was not significantly affected by the age of the teachers or years of teaching experience.	High
Cunningham & Sugawara (1988) United States of America	*n* = 152 Participants: trainee teachers (Training Level I: *n* = 34 Training Level II: *n* = 80 Training Level III: *n* = 38) 74% female, 26% male *M* age = 22.57	Questionnaire design Teacher Tolerance Scale (Algozzine, 1977) Vignettes developed by authors Causal Dimensions Scale (D. Russell, 1982) The Costs Scale (Brophy & Rohrkemper, 1981; Safran & Safran, 1985) Strategies Scale (derived from (Algozzine, Ysseldyke, Christenson, & Thurlow, 1983; Brophy & Rohrkemper, 1981;	The authors found that trainee teachers were more tolerant of socially immature behaviour than defiant behaviour, and both types of behaviour were attributed to internal, controllable and unstable factors. Trainee teachers were oriented towards helping children presenting with both types of behaviour, but were more likely to restrict children showing social defiance. Level of training had little effect on participants' perceptions of the problems behaviours. Social defiance and social immaturity were attributed to factors that are unstable,	Medium

		Moore & Cooper, 1984; Witt & Martens, 1983) Data analysed used *t*-tests and multivariate analysis of variance.	suggesting that trainee teachers believe that problem behaviour is temporary in nature.	
Erbas et al. (2010) Turkey	*n* = 408 Participants: special education teachers 63% female, 37% male Age = 22 years + (majority between 20-30 years)	Questionnaire design Questionnaire developed by authors, drawing on surveys designed by other researchers (Chandler & Dahlquist, 2002; Hemmeter & Santos, 2008; Peckham-Hardin, 2002) Sections 1 and 4 of overall questionnaire presented in this study: • Demographic information • Attributions Data analysed using both descriptive and inferential statistics, including *t*-tests and one-way analyses of variance.	The authors found that special education teachers attributions of problems behaviours varied, with some teacher showing agreement with a behavioural perspective, while others attributed the behaviour to other factors (e.g. within-child factors, poor parenting, God etc.). Results indicated that teachers' attributions of problem behaviours were affected by their area of speciality and training on behavioural interventions.	Medium
Gibbs & Gardiner (2008) England Republic of Ireland	*n* = 234 Participants: teachers (Primary: *n* = 121 Secondary: *n* = 113)	Questionnaire design Questionnaire derived from earlier research (Miller et al., 2000, 2002), with three additional items included by the authors.	The authors found that teachers attributed pupils' misbehaviour at least as much to teacher and adult behaviour as to any parental or home factors. Attribution patterns differed between primary and secondary school teachers.	Medium

		Data analysed using initial descriptive statistics, exploratory factor analysis and multivariate analyses of variance.	'Demands of the curriculum', which encompassed the three items added to the additional questionnaire, was not rated highly in teachers' perceptions of the causes of misbehaviour.	
Guttmann (1982) Israel	*n* = 355 Participants: pupils, teachers, mothers (Pupils: *n* = 220 Teachers: *n* = 28 Mothers: *n* = 107)	Questionnaire design Questionnaire developed by the authors. Data analysed using factor analysis, multivariate analyses of variance and post-hoc comparisons.	The authors found that, with regards to problem behaviour at school, teachers attributed the most importance to the child's need for attention, their need to let off steam, their psychological problems, bad examples at home, their desire to gain status with classmates and their parents' level of education (majority internal factors). Teachers attributed less importance to the child being unlucky, ethnic discrimination, not being punished enough, other children bother them, being misunderstood and parents' level of income (majority external factors).	Medium
Ho (2004) China Australia	*n* = 473 Participants: teachers Australian teachers: *n* = 204 106 female, 98 male Chinese teachers: *n* = 269 135 female, 134 male	Questionnaire design Questionnaire developed by the authors to include vignettes and subsequent rating scales. Vignettes were developed based on preliminary studies in both cultural contexts. Data analysed using analyses of variance and multivariate analyses of variance.	The authors found that both groups of teachers mostly attributed misbehaviour to student effort and least to teacher factors. Australian teachers emphasised ability, while Chinese teachers attributed more importance to family factors. Significant variation was found in attribution patterns across different types of behaviour problems.	Medium

Mavropoulou & Padeliadu (2002) Greece	*n* = 305 Participants: elementary school teachers 47% male, 53% female *M* length of teaching experience = 13.8 years	Questionnaire design Vignette derived from the literature (Houghton, Wheldall, & Merret, 1988; Merret & Wheldall, 1984; Oswald, 1995; Soodak & Podell, 1994) Spheres of Control Scale (Paulhus, 1983) Data analysed using comparison and correlation statistics.	The authors found that teachers mainly attributed behaviour problems to family and pupil-related factors, while they rejected school and organic factors. Teachers also indicated that they had a high perception of control in three areas: personal efficacy, interpersonal relationships and socio-political behaviour. Some areas of perceived control were found to be correlated with various causal attributions (e.g. as teachers' perception of interpersonal control increased, so too did their view that parents' attitude may cause behaviour problems).	Medium

2.3.3.4 Synthesis of Results

2.3.3.4.1 Sample Size

While the overall sample size appeared to be relatively high for all studies, with six out of seven reporting findings from 200 or more participants, it should be noted that some samples were split into a number of separate populations, meaning that, in reality, the analyses were performed on comparably smaller numbers. For example, while Guttmann's (1982) overall sample is reported as 355 participants, he was only able to do factor analysis on the causal attributions of 28 teachers. Similarly, while Gibbs and Gardiner (2008) have an overall sample of 234 participants, this is split into 121 primary school teachers and 113 secondary school teachers, again reducing the numbers for the final analysis and potentially decreasing the generalisability of their findings.

Nonetheless, four studies did manage to conduct their analyses with 200 or more participants in each of their sample groups (Bibou-Nakou et al., 2000; Erbas et al., 2010; Ho, 2004; Mavropoulou & Padeliadu, 2002) and the reliability of their subsequent statistical results will most likely have benefitted from the increased numbers. Given the variation in statistical tests used by researchers across the review, it is not possible to propose an optimal number of participants for studies of this kind; however, the quantitative nature of the topic would suggest that higher numbers of participants are favourable, in order to gather the widest range of opinions.

2.3.3.4.2 Participants' Characteristics

Other than the fact that all studies included a sample of teaching staff, participants' characteristics varied to a great degree within this review. Three studies recruited teachers from elementary/primary schools only (Bibou-Nakou et al., 2000; Guttmann, 1982; Mavropoulou & Padeliadu, 2002), while one recruited from secondary schools only (Ho, 2004), one from both primary and secondary schools (Gibbs & Gardiner, 2008), one from special schools (Erbas et al., 2010) and one from a university teacher training scheme (Cunningham & Sugawara, 1988). The variability in these populations provides an interesting overview of teachers' causal

attributions across a range of settings, but it also precludes a meta-analysis of the results, regardless of the varying methodologies.

From a cross-cultural perspective, it is clear that the value of this area of research has been recognised by academics across the world, with these seven studies alone representing the views of teachers from eight different countries (Australia, China, Greece, Israel, Republic of Ireland, Turkey, UK and US). Each study sampled a unique cultural population, with the exception of Bibou-Nakou et al. (2000) and Mavropoulou and Padeliadu (2002) who both recruited teaching staff from Greece.

Of further note is the demographic data concerning gender, which is detailed in five of the seven studies (Bibou-Nakou et al., 2000; Cunningham & Sugawara, 1988; Erbas et al., 2010; Ho, 2004; Mavropoulou & Padeliadu, 2002). The vast majority of participants are female across the review, with the most stark contrast occurring in Cunningham and Sugawara (1988) with a division of 74% female and 26% male. While these gender differences are likely representative of the teacher population as a whole within the country in which each study took place, it is nevertheless important to consider these statistics and the possible implications for future policies and systemic work developed on the basis of these studies.

Finally, although the search terms were purposely designed to allow for auxiliary teaching staff to be included within the review, it is telling that no such populations are mentioned within the final seven articles. This would indicate a need for further exploration in this area to ensure that the views of a broader range of teaching staff are included within the literature.

2.3.3.4.3 Methodology

Every study within the systematic review implemented a questionnaire design as part of their methodology, which indicates the universal appeal of this method when studying attribution theory; however, the content of questionnaires remained varied. Four studies incorporated vignettes into their questionnaires in order to orient participants towards particular instances of challenging behaviour (Cunningham & Sugawara, 1988; Guttmann, 1982; Ho, 2004; Mavropoulou & Padeliadu, 2002), while the others presented statements of attribution without additional context.

Only three out of the seven studies implemented a questionnaire measure that only sought to identify participants' causal attributions for challenging classroom behaviour (Gibbs & Gardiner, 2008; Guttmann, 1982; Ho, 2004), while the others included additional measures pertaining to their individual research questions. Nonetheless, all studies included quantitative methods for collecting data associated with participants' causal attributions, which allowed a statistical analysis to be undertaken (to varying degrees of rigour) within each piece of research included within this review.

2.3.3.4.4 Findings

Regardless of the variance across participant characteristics, methodology and culture, a remarkable amount of similarity was noted across the findings of the studies within this review. A total of six out of seven articles concluded that teachers mainly attributed challenging classroom behaviour to family- and pupil-related factors, while they downplayed the role of school- and teacher-related factors (Bibou-Nakou et al., 2000; Cunningham & Sugawara, 1988; Erbas et al., 2010; Guttmann, 1982; Ho, 2004; Mavropoulou & Padeliadu, 2002). Only Gibbs and Gardiner (2008) were found to present contrasting views to those outlined above, with them concluding that teachers attributed pupils' challenging behaviour at least as much to teacher and adult behaviour as to any parental or home factors. The reasons behind these opposing findings are unclear, but possible causes could relate to the influence of the attribution measure used or the particular population that was sampled.

In addition, two studies found that teachers' judgements were not affected by their level of experience (Bibou-Nakou et al., 2000; Cunningham & Sugawara, 1988), although one found that they were affected by teachers' area of speciality and training in behaviour interventions (Erbas et al., 2010). Furthermore, where discrete populations were studied and compared, variations were noted in attribution patterns; for example, Gibbs and Gardiner (2008) found that attribution patterns differed between primary and secondary school teachers, while Ho (2004) found a similar variation between Chinese and Australian teachers.

2.3.4 Summary of the Review

The small number of studies identified for this review, despite broad inclusion criteria, suggests a lack of literature in this area, particularly in comparison to the research available on teachers' attributions for wider school-based issues. The publication dates of the included studies are also of note, with the most recent dating from 2010 (Erbas et al., 2010) and others spanning the previous three decades. This indicates that interest in this topic has been ongoing for a number of years, although research in this specific area has been somewhat sporadic. Results from this review suggest that teachers generally attribute challenging behaviour in school to family and pupil factors, although there is variability based on the type of behaviour.

2.3.4.1 Limitations

This review is limited by the fact that the measures used to identify participants' causal attributions were not consistent across studies, meaning that only tentative comparisons can be made between the results. Another weakness is the small number of databases searched, although other sources were checked informally alongside these. Methodological quality also varied between the studies, including the rigour of statistical tests and acknowledgment of sampling biases. Furthermore, the review aimed to present evidence around how teaching staff attribute challenging behaviour in the classroom, yet only qualified and trainee teachers' views are presented in the final articles, rather than a full breadth of teaching staff, including auxiliary staff; in this way, this objective has only partially been met.

2.4 Conclusion

The aim of this literature review was to provide a comprehensive overview of the existing body of research that has investigated challenging classroom behaviour within the framework of attribution theory. Exploration of the literature surrounding the term 'challenging behaviour' indicated the origins and subsequent issues pertaining to the use of this term; therefore, while this phrase is still deemed to be appropriate in most contexts, it should be used with caution and in full understanding of possible semantic implications. The importance of culture was also highlighted across several studies, drawing the conclusion that any research involving teaching

staff must not be considered without first establishing an understanding of their cultural context and related educational system.

The impact of causal attributions on teacher behaviour in the classroom also appeared to be significant and research indicated that it was broadly influenced by perceptions of control and stability in relation to different types of behaviour. This has implications for how external professionals might seek to intervene with teachers' perceptions of student behaviour, as evidence suggests that it would be most effective for any training or consultation sessions to target factors relating specifically to their perceptions of control and stability. Furthermore, the vast majority of studies also indicated that teachers demonstrate a self-serving bias when attributing challenging classroom behaviour.

Results from the systematic literature review suggest that that causal attributions for challenging behaviour in the school context are an area of global interest spanning across several decades. However, the small number of studies identified to meet the inclusion criteria suggests that further research is necessary in order to draw more general conclusions. The lack of representation of the views of auxiliary teaching staff, for example TAs, was also disappointing and indicates that future research into this area is an absolute necessity. Finally, this review concludes that there is a broad literature-base surrounding both challenging behaviour and attribution theory, which forms a solid foundation for the development and implementation of future research drawing upon both of these areas.

2.5 The Aims of the Proposed Research

2.5.1 Rationale for the Research

The notion of circular causality and eco-systemic approaches form the foundation of much of the work undertaken by EPs, particularly in relation to consultation. This involves eliciting and exploring the attributions of those involved in the situation, in order to reframe the problem and establish common ground. Therefore, to gain a comprehensive understanding of how these attributions have developed, it is imperative that we can obtain a wide range of views from the relevant populations.

Furthermore, both teachers and TAs are populations for whom it remains a priority to examine their causal attributions. While it could be argued that attribution studies have been undertaken for both groups previously, it is also clear that this research is not substantive for various reasons. For example, even the most recent exploration of teachers' attributions was completed almost ten years ago and is, therefore, not representative of more recent developments in factors affecting students, such as increased social media, presence of technology and identification of neurodevelopmental disorders. Additionally, previous studies have focused primarily on the attributions of secondary school teachers, meaning that less is known on the views of primary school teachers. In a similar way, the researcher is not aware of any studies that have explored the attributions of primary school TAs, leaving a gap in the literature that it would seem important to address.

2.5.2 Research Questions

The overarching research question for the present study is as follows:

- What causal attributions are made by school staff for challenging behaviour observed in pupils aged 4-11?

In addressing this question, the study aims to achieve the following objectives:

- Establish an understanding of teachers' attributions for challenging behaviour in the primary school setting.
- Establish an understanding of TAs' attributions for challenging behaviour in the primary school setting.
- Explore the similarities and differences between the attributions made by teachers and TAs for challenging behaviour in the primary school setting.

3 Methodology

In order to provide context for the present study, this chapter will begin by presenting an overview of various methodological issues, including ontology, epistemology and real world research. A number of paradigms will then be explored in order to provide a rationale for the methodology utilised within the current study. Methodology pertaining to the present research is then described, including research design, sampling and procedure. Finally, issues of data quality and ethical considerations are explored.

3.1 Real World Research

The study outlined in the current paper is an example of real world research, which is a term often given to smaller scale research projects that take place in an applied setting. This type of research is usually interested in topics that have a direct impact on people's lives and seeks to 'shape the world as well as explain to us why the world is in the shape that it is' (Robson & McCarten, 2016, p. 3). Real world research is commonly carried out both in academic institutions and by scientist-practitioners working on the ground within their field, often in applied settings such as business, education and healthcare. While there are many strengths associated with laboratory-based research, there is also evidence to suggest that findings in the laboratory are not always replicated in a real world setting (Levitt & List, 2007). Therefore, one of the benefits of real world research is the ability to bridge the gap between theory and practice by seeking to understand how specific issues affect the lives of real people within a particular setting.

However, alongside the advantages of real world research are a number of difficulties that persistently hinder the process. For example, real world contexts are often part of a wider, complex system that includes individuals from a number of different disciplines; therefore, this interdisciplinary nature means that the researcher may be required to navigate several different approaches and agendas in order to access the information needed to answer the research question (Gray, 2017). In addition, lack of control over extraneous variables poses an acute threat to the internal reliability and validity of any real world research (Mertens, 2015).

3.2 Evidence-Based Practice

Originating in the field of medicine in the 1980s, the rise of evidence-based practice aimed to promote a disciplined approach to decision making based on the best available evidence (Barends & Briner, 2014). Professionals engaging in evidence-based practice are required to maintain awareness of scientific research pertaining to their field and ensure that this is reflected in their practice, thus decreasing dysfunctional practice based solely on tradition and personal experience (Rousseau & Gunia, 2016). However, while the benefits of engaging in evidence-based practice are widely acknowledged, the practical applications can be difficult within an applied setting (Dunsmuir, Brown, Iyadurai, & Monsen, 2009). For example, the pragmatic issues surrounding conducting research within an educational setting can result in very little rigorous data being collected within these contexts. As such, studies using methodologies which are considered to be 'gold standard', such as randomised control trials (Torgerson & Torgerson, 2001), are not readily available due to practical and ethical issues. Professionals within these contexts are, therefore, required to draw on a wider evidence base, which will likely include elements of real world research, as mentioned above.

3.3 Philosophical Paradigms in Research

Epistemology (or the 'theory of knowledge', Delanty & Strydom, 2003, p. 4) is one branch of the meta-theoretical enterprise comprising the 'philosophy of science' (Baert, 2005). It is argued that, by consciously declaring our own epistemological standpoint, and being aware of the standpoints of others, we are able to engage in a logical debate and critique of social research, while remaining informed of the reasoning behind methodological choices (Grix, 2010). Benton & Craib (2001) refer to social scientific philosophy as a toolkit to help researchers be 'more systematic in our reflexive investigation' (p. 3), thus it is not always necessary to align permanently within a single paradigm of social enquiry. Instead, we should be open to considering a variety of perspectives within social science philosophy, contingent on the claims to knowledge that we wish to achieve within our research. However, it is also important to remember that these positions are not interchangeable, as each

reflects fundamentally different approaches to how we define social science and pursue knowledge within this field.

Mertens (2015) stipulates that researchers should be able to identify the paradigm most aligned to their personal ontological and epistemological beliefs, as this will influence the types of research questions that they pursue and, in turn, inform the design of their studies. While there are several nuanced paradigms throughout the scientific literature, four in particular remain popular in real world research: positivism, post-positivism, constructivism, and pragmatism. These will be explored in further detail below.

3.3.1 Positivism

The origins of the positivist approach are strongly founded in the natural sciences (Grix, 2010) and can be traced back to Aristotle, although the perspective has been advanced over the years by the likes of Francis Bacon, René Descartes, and Auguste Comte. It is underpinned by a foundationalist ontology dictating that we live in an 'ordered universe made up of atomistic, discrete and observable events' (Blaikie, 2000, p. 94); therefore, knowledge can only be gathered from sources that can be directly observed by the senses. This principle falls under the broad term of empiricism and defines what is seen as worthy of scientific investigation. Another principle said to form the backbone of positivism is 'value freedom' (Delanty, 2005), which refers to the dualism of facts and values, whereby positivist researchers remain neutral and desist from extracting value from the facts they observe.

Therefore, it is clear to see how positivism can appear to be an attractive approach for those seeking precision, exactitude and predictive power indicative of the natural sciences (Grix, 2010). However, this paradigm has come under criticism from those who argue that it is impossible to conduct social research without undertaking any interpretation. For example, Quine (1961) states that all sensory knowledge is mediated by the methods used to collect and analyse it, thus interpretation is present from the offset. This may undermine the researcher's ability to separate the theory and experiment, meaning that the developed theory might influence their interpretation of the obtained facts. Another common critique of positivism is the

fact that researchers strive to maintain ‘value freedom’, which is, in itself, a value (Grey, 2016).

3.3.2 Post-Positivism

Owing to the problems arising from the rigidness of positivism, some researchers prefer to define their work under the epistemological umbrella of post-positivism, which encompasses a range of perspectives generally founded on a realist ontology (Grix, 2010). Similarly to positivists, post-positivists assume that the ‘world exists independently of our knowledge of it’ (Furlong & Marsh, 2002, p. 204); however, unlike positivism, post-positivism allows for an element of contingency within causal laws, rather than labelling them as universally deterministic. Therefore, the laws developed within this epistemology are only required to express the tendencies of social phenomena (Blaikie, 2000), thus anticipating issues pertaining to reliability and validity within the data.

Researchers subscribing to a post-positivist epistemology would argue that it may not be possible to ascertain reliable truth from a single study, but that knowledge is gradually built through combining the findings of multiple studies that have addressed the same question (Robson & McCarten, 2016). Similarly to positivism, post-positivism standpoints have also been criticised for their reduced concept of knowledge acquisition (Baert, 2005), with some researchers arguing that the approach focuses only on the outer world rather than considering other reasons behind social mechanisms, such as individual motivation.

3.3.3 Constructivism

When considering the epistemological spectrum, the constructivist tradition is often regarded in direct opposition to positivism. Constructivist approaches are often linked to an interpretivist theoretical position (Gray, 2017) and encompass a wide range of viewpoints, including phenomenology, hermeneutics and symbolic interactionism. Within this perspective, researchers assume that the world does not exist independently of our knowledge of it (Grix, 2010); in fact, social reality is intrinsically defined by our individual interpretations of it (Blaikie, 2000). Advocates of interpretivism dismiss the bluntness of quantitative data, instead opting for qualitative methodology to collect rich, language driven data. As such, interpretivists

accept the double hermeneutic (Furlong & Marsh, 2002; Grix, 2010), thus might use an interview method to collect the data, before conducting a form of narrative analysis on the interview transcripts.

Of course, major criticisms of this approach come from positivists who state that with such high levels of subjectivism, there is no way to assess the validity of the researcher's claims to knowledge (Furlong & Marsh, 2002). Moreover, Giddens (1986) argues that the very foundations of interpretivism are misleading, as it is assumed that social actors are continuously aware of their intentions and reasons behind their actions, whereas this should not automatically be presumed.

3.3.4 Pragmatism

While pragmatism is sometimes referred to as a more recent epistemological standpoint, the approach was actually founded in the early 20th century by American philosophers Charles Pierce, William James and John Dewey (Gray, 2017). The likely reason for this confusion is the more recent resurgence of popularity for the approach, not least because it is often seen to justify the use of mixed methods (Johnson & Onwuegbuzie, 2004). Pragmatic researchers are less concerned about ideology and more interested in generating practical consequences and actions from their work (Robson & McCarten, 2016). In this sense, pragmatism advocates for the fact that mixing quantitative and qualitative data in any given study is not only valid, but sometimes necessary in order to adequately answer a particular research question (Gray, 2017).

3.4 Research Designs

3.4.1 Fixed Designs

There are several umbrella terms that could be used to group research designs, often based on underlying philosophical assumptions and methods of data collection, but Robson & McCarten (2016) make a helpful distinction between fixed, flexible and mixed method designs. Fixed designs are theory-driven and require the study design to be fixed prior to data collection. While this type of thinking generally lends itself to the collection of quantitative data within a positivist or post-positivist paradigm, this is not a mandatory feature and fixed designs using qualitative methods are

entirely possible, if less common (Oakley, 2000). Given that this type of design is based on theory, it is likely that the researcher will have a good conceptual understanding of the phenomena which are to be studied, thus fixed designs are generally confirmatory in nature, with the researcher already knowing the likely outcome of the results (Robson & McCarten, 2016).

Fixed design research is a broad term that can encompass true experimental, single-case experimental, quasi-experimental and non-experimental fixed designs. While these designs might be chosen for different purposes, similar features are shared among them, such as the desire to reduce experimenter bias and long periods of preparation and piloting prior to commencing the main phase of data collection (Robson & McCarten, 2016). Criticisms of fixed designs include their propensity for engaging in ecological fallacy based on their general use of large group averages (Connolly, 2006), as well as their inability to capture the more subtle complexities of human behaviour (Robson & McCarten, 2016).

3.4.2 Flexible Designs

In contrast to fixed designs, flexible designs are informed by existing traditions within the research and may draw on several procedures throughout the course of the research (Creswell & Poth, 2018). The design is considered to evolve during the research process and typically draws on qualitative data collection techniques, although a small amount of quantitative data is sometimes included (Robson & McCarten, 2016). This adaptable and nuanced approach often lends itself well to research within applied social sciences and education, with it generally being accepted as a valid and useful contribution to these fields.

Flexible designs are often underpinned by constructivist and interpretivist philosophies and Robson & McCarten (2016) discuss three broad traditions within flexible design research, namely case studies, ethnographic studies and grounded theory studies. Case studies are a long-established research design within the social sciences and involve collecting data (usually using multiple methods) around a single case, this could include anything from an individual person to an individual educational setting. Furthermore, ethnographic studies often draw on observational methods to study a culture or social group over an extended period of time, while

grounded theory studies aim to develop a theory of the social phenomenon that is being studied, generally using interview methods (Robson & McCarten, 2016). This list is not exhaustive and further types of flexible designs are available, such as phenomenological research and participatory action research (Mertens, 2015). Flexible designs are often criticised for their lack of predictive power and difficulties in ascertaining measure of reliability and validity (Robson & McCarten, 2016); however, researchers using these designs often argue that the traditional standards held for scientific enquiry are not relevant within the paradigm of flexible designs (Guba & Lincoln, 1989).

3.4.3 Mixed Method Designs

The fundamental principle of mixed method designs is that a substantial amount of data is collected from both qualitative and quantitative sources. This is largely founded on pragmatism, with methodological decision-making centred around how to best generate the information needed to produce practical and demonstrable actions (Robson & McCarten, 2016). While some researchers continue to argue the incompatibility thesis between qualitative and quantitative methods based on their opposing philosophical paradigms (Sale, Lohfeld, & Brazil, 2002), others have strongly rebutted this and indicate that these methods can work complimentary to each other within a pragmatic paradigm (Howe, 2007).

Nonetheless, it cannot be denied that there are differences between qualitative and quantitative methods, which need to be accounted for within mixed methods designs. Thus, researchers often subscribe to particular approaches, such as sequential or concurrent designs, which can be further defined as explanatory, exploratory or transformative, among other things (Robson & McCarten, 2016). Despite the complexities of mixed methods designs, such as the broad range of skills required by the researcher, there are also many potential benefits, such as the opportunity to triangulate multiple data sources and the ability to present a more complete picture of the research phenomena (Bryman, 2006).

3.5 The Current Research

3.5.1 Paradigm

The present paper proposes a quantative study; this is founded on a post-positivist epistemology, which is a philosophical standpoint that pursues objective truth while acknowledging that a researcher's unique background, knowledge and values may have an effect on what is observed. This paradigm was chosen as it is reflective of the researcher's personal epistemological perspective and is in keeping with their previous research experience. In addition, this paradigm has previously been used in studies of a similar nature (Lambert & Miller, 2010; Miller et al., 2000, 2002) and it is hoped that the current study will add to the body of research in this area.

3.5.2 Design

In keeping with the post-positivist paradigm, the present research implemented a survey strategy in order to answer the research question outlined in Chapter Two. This can be considered as a non-experimental fixed research design, which aims to provide descriptive data about pre-specified phenomena: in the case of this study, this refers to causal attributions and challenging behaviour in primary schools. As such, the present research does not test any pre-conceptualised hypotheses, but rather *a posteriori* hypotheses are generated in Chapter Five.

The present study utilised a simple descriptive approach, meaning that the data was gathered in a short amount of time and this is not planned to be repeated (Mertens, 2015). In this sense, the results obtained from this research design are representative of a specific sample of individuals at a distinct point in time, therefore any attempts to extract more general meaning from the data should be approached with caution. This survey design was chosen over cross-sectional and longitudinal designs due to the nature of the research questions and timescale available for this study.

Furthermore, the use of a survey strategy allowed for information to be gathered in a highly standardised way from a relatively large sample within a restricted time period; however, the disadvantages of surveys are acknowledged. For example, it is recognised that there may have been misunderstandings regarding particular items on the questionnaire, which will not have been detected during analysis, and it is not

possible to know if a representative sample has been obtained. Additionally, response rates were generally low and social desirability bias is likely to have affected the reliability of individual answers (Robson & McCarten, 2016). Nonetheless, the precedent of successfully using a survey strategy in previous real world attribution research, as mentioned above, added to the researcher's confidence in the suitability of this design.

The design of the present study was, therefore, divided into the following two stages:

1. Develop a survey instrument to collect the causal attributions of primary school teaching staff regarding challenging behaviour in the classroom.
2. Gather data about the causal attributions of primary school teaching staff regarding challenging behaviour in the classroom using the aforementioned survey instrument.

3.5.3 Measures

The current research sought to draw on an existing questionnaire that had been created and updated during previous studies into causal attributions among teachers, pupils and parents (Lambert & Miller, 2010; Miller et al., 2000, 2002). The items on this questionnaire had initially been elicited via interviews with 20 Year 7 pupils, who were asked to consider the causes behind the classroom behaviour that they had witnessed in their primary schools (Miller et al., 2000). The questionnaire was then piloted with eight pupils of varying ability and a final version was created, which consisted of 30 items rated on a four-point Likert scale (Likert, 1932) based on how important the item is perceived to be in causing challenging behaviour in the classroom: Very Important; Quite Important; Not Very Important; Not Important At All.

This questionnaire has since been updated through additional interview processes across the course of several further studies, with most recent iteration containing 63 items (see Appendix 7.3), which is thought to include an equal representation between items that might be considered 'teacher causes', 'parent causes' and 'pupil causes' (as used in Lambert & Miller, 2010). The present research sought to further adapt this measure to take into account more contemporary perceived influences on children's behaviour. This was done through the use of two focus groups, one each

for teachers and TAs, where participants were asked to discuss the existing 63-item questionnaire and identify items that were potentially missing from the list, as well as those which were perceived to be no longer relevant. A new questionnaire was then developed following these discussions, which was piloted with a small group of teaching staff before being implemented in the main study.

3.5.3.1 Focus Groups

Originating in the field of market research in the 1920s, focus groups have since become a popular method within social sciences, partly due to their ability to attract participation from individuals who might be reluctant to be interviewed on their own (Robson & McCarten, 2016). In addition, focus groups are explicitly interested in the process of group interaction and encourage participants to discuss their experiences and anecdotes in order to stimulate further ideas (Kitzinger, 1995).

Given that the current research was interested in the views of both primary school teachers and TAs, it was decided that separate focus groups should be conducted with these two groups in order to allow them to talk freely without influencing one another. A primary school was approached with whom the researcher had a pre-existing professional relationship and the Inclusion Manager approached school staff to ascertain their interest in taking part in the focus groups. Once it was established that there was a substantial amount of interest, an after-school slot was booked for the teachers and a lunchtime slot for the TAs.

The groups were attended by ten teachers and eight TAs respectively, with both sessions following the same format. Participants were presented with the 63-item questionnaire (Lambert & Miller, 2010) and asked to discuss it initially in pairs and then with the wider group. Ideas, pertaining both to broad themes and individual items on the questionnaire, were recorded on a flip chart visible to all participants. Information shared across both focus groups was then collated and developed into questionnaire items. After the completion of the focus groups, the following items relating to additional potential causes of challenging behaviour were added to the questionnaire:

- Lack of consistency between home and school
- Changes in school routine

- Teachers' workload is too high
- Teaching Assistants are too strict
- Pupil has experienced trauma
- Teachers are tired
- Pupils' overall physical wellbeing (e.g. diet, physical fitness)
- Parents are not limiting their child's screen time at home
- Parents do not give their child attention or praise when they are good
- Behaviour expectations are inconsistent among school staff
- Parent's mental health
- Teaching Assistants are not given sufficient training
- Teachers and Teaching Assistants do not communicate well with each other
- Parents seek medical explanations to excuse, and to avoid addressing, challenging behaviour
- Pupil is tired

The original questionnaire employed a four-point Likert scale (Likert, 1932); however, through informal piloting, this scale was deemed restrictive and it was decided that a five-point scale (Very Important; Quite Important; Neither Important Nor Unimportant; Not Very Important; Not Important At All) would offer the opportunity for greater nuance in participants' responses. Additional changes to the existing items were also made, as outlined in Table 3.1 below, which resulted in the final questionnaire consisting of 73 items.

While the use of focus groups allowed for a useful discussion around questionnaire items and ultimately enhanced the final survey measure, it is acknowledged that there were a number of issues that like affected the development of the questionnaire. For example, it was originally planned that two focus groups would be conducted each for teachers and TAs, which would have created a broader dialogue around the questionnaire, but time restrictions and a lack of interest negated this possibility. The running of the focus groups themselves also lacked rigour as teaching staff found it difficult to commit to the time required, with some arriving late and others needing to leave early. Finally, while based on participants' views, the wording of the new questionnaire items was largely reliant on researcher interpretation, which added a level of subjectivity into the measure. Overall, the

process of developing the survey would have benefitted from additional time for planning and delivering the focus groups.

3.5.3.2 Pilot Testing

Staff from the same school who took part in the focus groups were then contacted and invited to participate in piloting the updated questionnaire, with a prerequisite of their involvement being that they must not have taken part in the initial focus groups. Pilot questionnaires were completed by four teachers and four TAs; visual analysis suggested a good spread of answers across the scale, meaning that all options (from 'Very Important' to 'Not Important At All') were utilised at some point throughout the questionnaires. It was acknowledged that the answers were generally biased towards the 'agree' end of the scale, but this was to be expected given that the items had been collected through interviews and focus groups that encouraged participants to discuss factors that did impact upon challenging behaviour, rather than did not, thus all items were expected to be relevant to some extent for many participants. On reflection, it may have been useful to address this issues by reverse scoring some of the items and adding in distraction items that could have been used to assess the validity of the questionnaire responses. This should be considered for future research of this nature.

Questions also appeared to have been appropriately understood and qualitative feedback from the staff suggested that the instructions were clear and questions were worded appropriately. Therefore, the updated questionnaire was incorporated into the final survey instrument, which also included an information sheet and consent form, as well as list of six additional multiple-choice questions included to collect demographic information; the final survey instrument can be found in Appendix 7.4.

Table 3.1 – Changes to attribution questionnaire following focus groups with teachers and TAs

Item	*Outcome*	*Re-phrase*
Parents let their children get away with too much	KEEP	
Teachers not rewarding good work	RE-PHRASE	School staff not noticing good work
Too much class work is given	KEEP	
Pupil is bored	KEEP	
Other pupils want the pupil to be in the gang	DISCARD	
Parents bully their children	KEEP	
There are fights and arguments at home	KEEP	
Teachers are too strict	KEEP	
Pupils do not like the teacher	KEEP	
Other pupils stir up trouble	KEEP	
Parent's behaviour sets a bad example	KEEP	
Teachers not seeming to punish bad behaviour	RE-PHRASE	School staff not seeming to punish bad behaviour
Other pupils have racist attitudes	RE-PHRASE	Other pupils have intolerant attitudes
Teachers are rude to pupils	RE-PHRASE	School staff are rude to pupils
Pupils' feelings about themselves	KEEP	
Government pressures on schools	RE-PHRASE	Government pressures on schools (budget cuts, attainment objectives etc.)
Pupil needs more help in class	KEEP	
Too many children with special needs in one class	KEEP	
Parents have no control over their children	KEEP	
Pupil is unable to see their mum/dad	RE-PHRASE	Parental separation
Teachers seeming to have an unfair system of punishments	KEEP	
Teachers are not supported in the school	KEEP	
Too much homework is given	KEEP	
Pupil does not want to stand out as good	KEEP	
Other pupils wanting to copy work	KEEP	
Parents are uncaring	KEEP	
Class work is too difficult	KEEP	
Pupil has a racist attitude	RE-PHRASE	Pupil has an intolerant attitude
Pupil wants to be in charge	KEEP	
Other pupils encourage it	KEEP	
Parents do not accept any responsibility for disciplining their child	KEEP	
Alcohol/drug abuse by a family member	KEEP	
Teachers are too soft	KEEP	
Pupils are picked on by teachers	KEEP	

Pupil likes misbehaving	KEEP	
Pupil is picked on or tormented by other pupils	KEEP	
Parents do not communicate well with their children	RE-PHRASE	Parents not ensuring their children have appropriate opportunities and skills to communicate and interact with themselves and other adults
Teachers give more time to pupils who misbehave	KEEP	
Parents have racist attitudes	RE-PHRASE	Parents have intolerant attitudes
Teachers shout all the time	KEEP	
Pupil wants to fit in	KEEP	
Pupil is being bullied	DISCARD	
Teachers have a lot of time out of the classroom	KEEP	
Parents do not give their child attention or praise when they are good	KEEP	
Pupil wants attention	KEEP	
Teachers have racist attitudes	RE-PHRASE	School staff have intolerant attitudes
Teachers have favourites	RE-PHRASE	School staff have favourites
Pupil is unfairly blamed	KEEP	
Nobody likes the pupil	KEEP	
Class sizes	KEEP	
Problems at home	KEEP	
Teacher's general classroom management	KEEP	
Teachers have bad moods	KEEP	
Pupil's personality	KEEP	
Pupil is worried about other things	KEEP	
Parents do not show respect for others (teachers, police, other parents, etc.)	KEEP	
Teachers seeming to have an unfair system of rewards	KEEP	
Good work is not noticed	DISCARD	
Pupil does not know how to behave	KEEP	
Families do not have enough money to eat or buy clothes	KEEP	
Teachers do not listen to pupils	RE-PHRASE	School staff do not listen to pupils
Teachers lack awareness of pupil's culture	RE-PHRASE	School staff lack awareness of pupil's culture
Other pupils tell the pupil to misbehave	DISCARD	

3.5.4 Context and Participants

3.5.4.1 Stakeholders

The following stakeholders were considered during the planning and execution of the present study.

3.5.4.1.1 The University of Nottingham

The completion of this research project was a mandatory requirement for completion of the Doctorate in Applied Educational Psychology at the University of Nottingham.

3.5.4.1.2 The Researcher

The researcher was required to complete this research in order to pass the Doctorate in Applied Educational Psychology on which they were enrolled.

3.5.4.1.3 The Local Authority

Throughout the completion of this study, the researcher was employed as a TEP within a large countywide LA. This project was agreed with the Principle EP and the Senior EP who was supervising the TEP, both of whom agreed that it would be useful for the researcher to feedback the findings of this research to the EP team. Ethical approval was also obtained from the LA research team and it was agreed that countywide feedback would be provided.

3.5.4.1.4 School Staff

The school staff who completed the questionnaires were also stakeholders within the research, including both teachers and TAs.

3.5.4.2 Sampling

Opportunity sampling was used to recruit teachers and TAs from across the county and particular effort was made to ensure that recruitment efforts were balanced between urban and rural schools as far as possible. Following precedent from similar attribution research, it was planned that the data would be explored using factor analysis (see section 3.5.5.1), which provides stipulations for adequate sample size. However, while there is a general consensus that larger sample sizes produce more precise estimates of population loadings that are more stable across repeated

sampling (MacCallum, Widaman, Zhang, & Hong, 1999), there is a wide variation of opinion within the literature as to how large a sample should be in order to meet this objective.

Ferguson and Cox (1993) outline the importance of considering sample size when conducting factor analysis and indicate a number of heuristics related to this subject for ensuring stable factors:

1. *Minimum sample size*: While this assertion in itself is variable among statisticians, Ferguson and Cox (1993) suggest a minimum sample size of 100-200 participants, based on advice outlined by Kline (2015) and Comrey (1978).
2. *Minimum ratio of participants to variables*: This is considered to vary between 2:1 and 10:1, as outlined by Kline (2015) and Gorsuch (2015).
3. *Minimum ratio of participants to expected factors*: This is suggested to range between 2:1 and 6:1, based on advice by Cattell (1978).

Given the real world nature of this research and anticipated constraints, in particular due to the limited timeframe, it was decided that the present study would seek to meet the minimum requirements outlined within the heuristics above. Therefore, the sampling strategy was aiming to obtain an absolute minimum of 100 participants, although it was also hoped that a ratio of 2:1 could be achieved between participants and variables, which required a minimum of 146 participants. This would also meet the ratio of participants to expected factors heuristic, as a model consisting of four to five factors was expected to be extracted, based on findings from similar previous research (Miller et al., 2000, 2002). Given that the analysis for teachers and TAs was to be conducted separately, the target number of at least 146 participants applied discretely to both groups.

3.5.4.2.1 Recruitment Process

Contact was initially made via email with headteachers of mainstream primary schools across the county outlining the proposed research and inviting their school to take part (see Appendix 7.5 for email template). Correspondence was also sent to some Special Educational Needs Co-ordinators (SENCos) where the researcher was aware that they had a role within the senior management team, although it was

stipulated that they needed to obtain permission from the headteacher before staff in their school could be invited to participate. Given the professional position of the researcher, in that they worked within a team of EPs who had ongoing relationships with many primary schools across the county, some emails were sent via the school's link EP, in order to increase the chance of it being read. Following the initial email phase, follow-up phone calls were made to any schools who had not explicitly declined to participate in the study.

Having obtained agreement from headteachers, paper copies of the questionnaire were distributed to 26 primary schools across the county. Opportunities for the researcher to be present while the questionnaires were completed were variable, with the most common occurrence being to introduce and explain the purpose of the research within a staff meeting and outline the content of the questionnaire. Staff were then given two weeks to complete the questionnaire, with a follow-up email being sent two days prior to the researcher return to collect the completed paper copies. The researcher was also given one opportunity to present the questionnaires at an Inset day attended by all school staff, as well as a number of training events for teachers and TAs across the county.

During the initial stages of the recruitment process, feedback from headteachers indicated that they would be more likely to agree for their school to participate in the research if they could distribute an online measure to their school staff. Therefore, following a period of using only the paper questionnaires and obtaining a very low response rate, it was agreed that it would be useful to offer school staff the option of completing an online questionnaire. As such, this was created using SmartSurvey software and distributed via email to headteachers by the researcher and other link EPs within the EPS. The online questionnaire was also posted on one online forum each for teachers and TAs.

The limitations of including an online questionnaire are acknowledged, for example there is much less control over who is accessing the measure and whether they are being truthful when declaring their occupation. However, given that there was no incentive for completing the questionnaire, other than contributing to knowledge within this area, it was felt that individuals would be unlikely to complete it under false pretences. In addition, it is recognised that a limitation of online questionnaire

tools is that the researcher has little control over the time and effort that is ascribed to the questionnaire completion; however, this was equally felt to be the case for most paper copies of the questionnaire that were left with schools to complete. Therefore, despite these limitations, it was deemed beneficial to include the online option alongside the paper copies in order to increase uptake and produce a larger sample.

3.5.4.3 Characteristics of Participants

Having followed the sampling strategy outlined above and discarded responses that contained missing items, the final sample consisted of 195 teachers and 153 TAs. Demographic information relating to each population is described below.

3.5.4.3.1 Teachers

Table 3.2 – Years of experience and gender split within the teacher sample

Years of experience in current position	*Female*	*Male*	*Prefer not to say*	*Total*
Less than 5 years	57	9	1	67
5-10 years	33	8	0	41
More than 10 years	79	8	0	87
Total	169	25	1	195

Table 3.3 – Specialisms and further training within the teacher sample

	Yes	*No*	*Yes previously*
Role in the senior management team	55	118	22
Specific role in supporting children with behavioural difficulties	46	140	9
Additional training around SEND	74	121	0

3.5.4.3.2 Teaching Assistants

Table 3.4 – Years of experience and gender split within the TA sample

Years of experience in current position	*Female*	*Male*	*Prefer not to say*	*Total*
Less than 5 years	55	2	1	58
5-10 years	45	1	0	46
More than 10 years	47	0	2	49
Total	147	3	3	153

Table 3.5 – Specialisms and further training within the TA sample

	Yes	*No*	*Yes previously*
Role in the senior management team	4	147	2
Specific role in supporting children with behavioural difficulties	67	62	24
Additional training around SEND	98	55	0

3.5.5 Procedure

The present research was undertaken in four stages, which are diagrammatically represented in Figure 3.1. The first stage was concerned with the development of the survey instrument, which involved updating an existing measure through the use of focus groups with teachers and TAs, as noted above. The updated measure was then piloted with a small group of teachers and TA, with the feedback being taken forward as appropriate. The processes related to stage one are outlined in further detail in section 3.5.3.

The second stage of the study involved a wide distribution of the survey instrument across the county. This entailed recruiting headteachers, via email and phone, to agree to distribute the paper measures among their staff members and often included the researcher attending a staff meeting or briefing order to explain the research and take questions. Following six weeks of distributing and collecting paper questionnaires, it became apparent that this method of data gathering would not result in a large enough sample of responses within the given timeframe to meet the

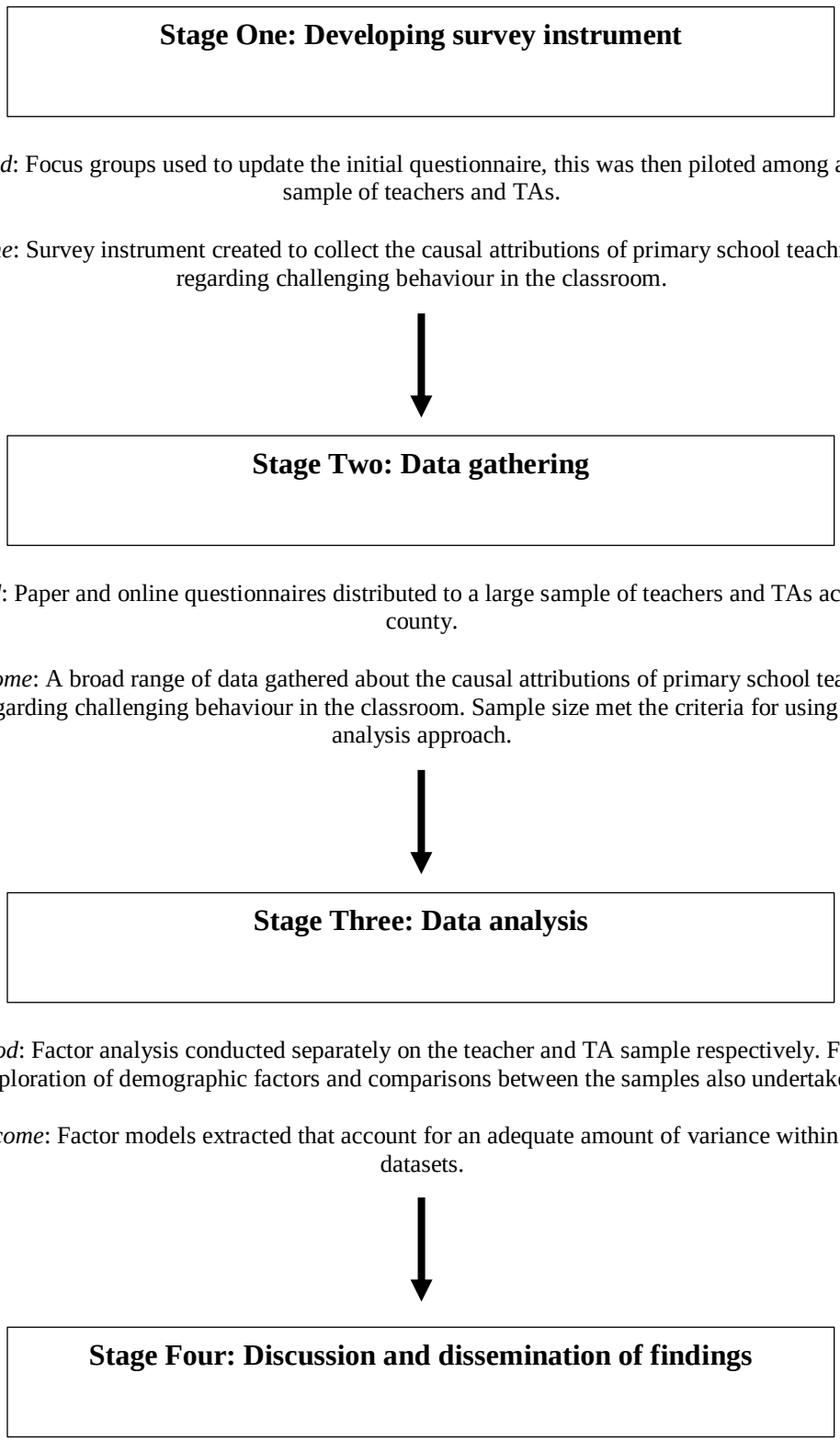
criteria to conduct factor analysis. This was particularly apparent for TAs, whose response rate was approximately half that of the teachers. Therefore, following requests from numerous school staff, an online version of the questionnaire was created and distributed via email and on limited online forums. Further details around the sampling strategy and recruitment process can be found in section 3.5.4.2.

3.5.5.1 Data Analysis

Data gathered from the survey instrument were separated in teacher and TA responses. Both groups met the initial sample size criteria for conducting factor analysis and each group was then analysed separately using this method. Initial pre-analysis checks were carried out in accordance to guidelines within the literature (Ferguson & Cox, 1993), which included conducting a Bartlett test of sphericity to determine whether a discoverable relationship existed between the variables (Bartlett, 1937) and the Kaiser-Meyer-Olkin (KMO) measure to determine whether the correlation could be accounted for by a smaller set of factors (Kaiser, 1970). Factors were then extracted using principal components analysis with varimax rotation. Observation of the scree plot and identification of eigenvalues then determined how many factors were extracted before repeating the analysis. Mean ratings for each item and correlations between factors were also explored. This process is outlined in further detail in Chapter Four.

Following the discussion of this data, as outlined in Chapter Five, results will be feedback to relevant stakeholders via personal emails to each of the 26 primary schools that completed paper questionnaires, as well as an online bulletin that will be received by all schools across the county. The researcher will also present the findings to colleagues within the EPS and relevant LA managers.

Figure 3.1 – Flow diagram of research process



3.5.6 Issues of Data Quality

While it will never be possible to eliminate all the threats to the reliability and validity within a given study, it is important that researchers remain aware of these issues and ensure that any limitations that they create are acknowledged and understood (Cohen, Manion, & Morrison, 2011). As such, common threats relating to reliability and validity are highlighted and addressed below; comment is also made on the objectivity and credibility of the study.

3.5.6.1 Reliability

Reliability refers to the ability of a piece of research to consistently measure what it purports to measure (Mertens, 2015). In the case of the present study, this predominantly relates to the competence of the survey measure to deliver a true estimate of teachers and TAs attributions of challenging behaviour in the classroom. Table 3.6 outlines possible threats to the reliability of the present research, alongside a description of the efforts taken to decrease this threat.

3.5.6.2 Validity

Within a realist ontology, validity can be described as whether a piece of research has produced an accurate result (Robson & McCarten, 2016). In experimental research, this often refers to whether changes in the dependent variable can be attributed to the independent variable within a given study (Mertens, 2015). Given that the present study utilises a non-experimental fixed design, many of the usual threats to internal validity, such as history, maturation and diffusion of treatments, do not readily apply (Cook & Campbell, 1979). However, threats to external validity, such as the validity of the survey instrument and generalisability of findings, remain relevant (LeCompte & Goetz, 1982); these are addressed in Table 3.7 below.

Table 3.6 – Threats to reliability within the present study

Threat	*Description*	*Action taken to reduce impact*
Participant error	Within-participant factors that are extrinsic to the research process but may affect their responses on a given day (e.g. stress).	• The entirely voluntary nature of the research was made explicit for all staff and they were generally completed without the researcher being present. Therefore, it was hoped that staff would only complete the questionnaire if they felt that they had the time and emotional energy to do so. • The paper copies of the questionnaire were generally left with schools for two weeks, in the hope that staff who wished to participate would be able to pick a time of their convenience to complete the questionnaire, thus reducing the likelihood that they would choose to complete it during a particularly busy or pressurised period. • In a similar way, the timeframe for the availability of the online questionnaire was approximately four weeks, which again allowed participants to complete it at a time of their convenience. • Perhaps the most significant threat to participant error in the current research were the most recent incidents of challenging behaviour that school staff had experienced within their school. This was very likely to have had an impact upon their answers, but this was addressed as far as possible by having standardised wording across the questionnaire packs.
Participant bias	Participants are aware of the research aims and thus change their answers (consciously or unconsciously) to aid or hinder the research process.	• While some school staff held professional relationships with the researcher, participant bias is unlikely to be a significant threat to the reliability of the data because there were no particular desired outcomes of the research that could be affected by data collection and no hypotheses were made explicit or implicit to participants.
Researcher error	Within-researcher factors that are extrinsic to the research process	• This is most likely to have occurred during the data handling phase when questionnaires were checked and data inputted into the statistical software. This was undertaken over a

	but may affect their actions on a given day (e.g. tiredness).	period of two days in order to reduce researcher tiredness and all data inputted was checked twice by the researcher.
Conditions of administration	Differences in the way that the survey instrument was administrated (e.g. changing instructions, environment etc.)	• It is acknowledged that this is a credible threat to the reliability of the present research, as questionnaires were not administered in a standardised environment. However, this is true for the majority of studies using a survey strategy and it is hoped that the larger sample size will reduce the impact of this threat. • Instructions were administered in a standardised way and all participants has access to the same information sheet, as well the researchers email address in order to ask any further questions. It is acknowledged that not all participants were able to gain face-to-face access to the researcher in order to ask their questions and this is likely to have had an impact on some participants' responses.

Table 3.7 – Threats to validity within the present study

Threat	*Description*	*Action taken to reduce impact*
Content	The extent to which the items included in the questionnaire cover the full range of issues within the topic that they are intended to measure.	• Within this study, content validity refers to whether the survey measure covers a broad enough range of attributions in order to ensure that the possible views of all participants are encapsulated to a large extent. This was addressed by utilising an existing attribution questionnaire that had already been found to be a valid measure of attributions among several different population groups (teachers, TAs, parents and pupils). • The threat was also addressed by not only utilising an existing measure, but also seeking to update it with the views of currently practising teachers and TAs. In this way, it was hoped that the content of the final measure would encompass a broad range of possible

		attributions, including issues that may be relevant for the minority as well as the majority of school staff.
Selection	The findings only remain relevant within the specific sample group.	• This is an inevitability of the present study due to its research design. The survey instrument was designed to collect the views of teachers and TAs, thus findings cannot be generalised beyond these groups of participants. • While the sample size is adequate for conducting factor analysis, it is not large enough to confidently generalise the findings to all teachers and TAs. Tentative comparisons may be drawn, but caution should be exercised when discussing the finding beyond the specific sample group. This is an acknowledged limitation of the current study.
Setting	The findings are specific to the context within which the study took place.	• This threat is reduced within the current study because the survey instrument was completed across a large variety of settings, therefore it is unlikely that the findings linked to any specific context. • While the majority of questionnaires were completed within the school context, there remained a large variation in school settings within the sample, including a range mainstream infant, junior and primary schools, as well as one independent school.
History	The findings are affected by specific historical experiences.	• No specific large-scale initiatives or policies relating to challenging behaviour were implemented during the period of data collection, therefore this is unlikely to be a large threat to external validity. • It is possible that some teachers and TAs within the sample may have experienced specific events during their participation in the research that may have affected their responses (e.g. specific training around challenging behaviour, the introduction of a new behaviour policy at school etc.). This was partly addressed by included specific demographic questions around further training and specialisms within the survey instrument, but it is difficult to know the extent to which this affected survey responses, therefore this continues to be a potential limitation within the present study.

Construct effects	The constructs observed within the measure are specific to the sample group.	• This is not the case, as demonstrated by the use of the attribution questionnaire in previous studies with alternative sample groups (Gibbs & Gardiner, 2008; Lambert & Miller, 2010; Miller et al., 2000, 2002; Page, 2005). While the present survey instrument has slightly altered this measure, the central concept measured continues to be attributions of challenging behaviour in the classroom, which is a construct that could be studied with a wide variety of populations.

3.5.6.3 Objectivity

The aim of objectivity is to ensure that the researcher remains as detached from the research process as possible so as not to influence the results. The desire for maximum objectivity is common within experimental research and, as discussed earlier, is central to positivist epistemology (Robson & McCarten, 2016). Given that the present study is based on a post-positivist epistemology, it is acknowledged that full objectivity will be unattainable, although it is still being strived for as far as possible throughout the research process. The main threats to objectivity within the present study relate to two main areas:

- *Interpretation of the focus group data*: While every effort was made to take notes verbatim from the focus groups and check back phrasing with participants, it was necessary for ideas to be re-worded to capture issues raised across both groups, therefore requiring some researcher interpretation. This threat to objectivity was minimised by presenting the information from the focus groups to other EPs within the EPS and triangulating their views into the process. The wording of the final questionnaire items was also checked with EP colleagues to ensure that they were not presented in a biased or leading way.

- *Researcher contact with participants*: Due to the real-world nature of the research, it was not possible for the researcher to have contact with all participants in a standardised way. While this threat was minimised by presenting a standardised information sheet within the questionnaire pack, it was still the case that the presence of the researcher while the survey was being completed varied greatly across participants. It is acknowledged that the variation in the physical presence of the researcher to explain the survey and answer queries may have affected the objectivity of the research process.

3.5.6.4 Credibility

Robson and McCarten (2016) suggest that it is difficult to assess the reliability and validity of a given study if its level of credibility cannot first by ascertained. That is, enough detail pertaining to the methodology should be presented to ensure that the reader can be satisfied as to how the researcher reached their conclusions and a

replication of the study could be achieved based on the information available. While it is the case that all research will be criticised to some extent, researchers continue to strive to improve the credibility of their studies, particularly in the field of education where credibility has often been lacking (Winne, 1999). The present research has sought to be explicit in its methodology, regarding both strengths and limitations, in the hope of increasing the credibility of this study.

3.5.7 Ethical Considerations

The British Psychological Society emphasises the importance of researchers striving for mutual trust and respect with their participants through maintaining ethical principles. A number of steps were taken throughout the design and implementation of this study to ensure that it met the ethical standards held by the researcher and the professional organisations with which they are affiliated. The following guidance documents were consulted throughout this process:

- Code of Ethics and Conduct (The British Psychological Society, 2018)
- Code of Human Research Ethics (The British Psychological Society, 2014)
- Standards of conduct, performance and ethics (Health & Care Professions Council, 2016)
- Code of Research Conduct and Research Ethics (The University of Nottingham, 2016)

Prior to commencing this research, the researcher received ethical approval from the LA within which they were based, as well as the University of Nottingham Research Ethics Committee (see Appendix 7.6). Ethical considerations that were most pertinent to the present study are outlined in Table 3.8.

Table 3.8 – Ethical considerations within the present study

Ethical consideration	*Description*	*Action taken*
Valid consent	Researchers 'should ensure that every person from whom data are gathered for the purposes of research consents freely to the process on the basis of adequate information' (The British Psychological Society, 2014, p.15)	• Signed consent forms were obtained for all participants (see Appendix 7.4); this included either an electronic or handwritten signature. Any questionnaires that were returned without a signed consent form were not included within the data analysis.
Confidentiality	'Subject to the requirements of legislation, including the Data Protection Act, information obtained from and about a participant during an investigation is confidential unless otherwise agreed in advance' (The British Psychological Society, 2014, p.22)	• All data included within this research has been fully anonymised. • Although participants gave their names upon signing the consent forms, these were removed upon entering data into the statistical software in preparation for data analysis. • Paper copies of raw data and consent forms have been stored in a locked filing cabinet that can only be accessed by the researcher. • Data collected via the online questionnaires are stored within the SmartSurvey servers, based in the UK, and access to this information is password protected. SmartSurvey comply with the European Union General Data Protection Regulation legislation and have ISO27001 certification.
Right to withdraw	Participants 'should be able, during the data gathering phase, freely to withdraw or modify their consent and to ask for the destruction of all or part of the data that they have contributed' (The British Psychological Society, 2014, p.15)	• Participants were informed of the fact that the research was completely voluntary and that they had the right to withdraw from the study at any time and without giving a reason. They were also asked to acknowledge that they had read and understood this before signing the consent form (see Appendix 7.4). • Participants were also verbally informed that they were able to withdraw from the study and have their data destroyed at any point until the end of the data gathering phase (the autumn term 2018).

Minimising harm	Psychologists 'should consider all research from the standpoint of the research participants, and any other persons, groups or communities who may be potentially affected by the research, with the aim of avoiding potential risks to psychological well-being, mental health, personal values, the invasion of privacy or dignity' (The British Psychological Society, 2014, p.11)	• It was deemed possible that potentially emotional topics may be touched upon within the questionnaires, including the recall of personal memories and contentious topics (such as parental attitudes). However, this was considered to be a low-level risk and participants were clearly informed about the nature of the study and their right to withdraw at any time, prior to their participation.
Scientific integrity	'Research should be designed, reviewed and conducted in a way that ensures its quality, integrity and contribution to the development of knowledge and understanding' (The British Psychological Society, 2014, p.9)	• The researcher sought supervision throughout the research process and discussed the study with other professionals who had previously completed research of a similar nature. • The unique contribution of this research within the existing field of literature is outlined in Chapter One. • A summary of research findings will be given to key stakeholders, including specifically to participating schools and more generally within a countywide bulletin distributed by the LA. • The researcher acknowledges that they have a link with some prominent researchers within the field of attribution research in education through the University of Nottingham. However, not only does the present research attempt to access a population not previously studied within this field, but the findings were also analysed and interpreted independently from prior studies, in order to ensure integrity.

3.6 Summary

The current chapter began by outlining the opportunities and constraints provided by conducting real world research within a number of different philosophical paradigms and their related research designs. The nature of the present research was then located within this information and details pertaining to measures, participants and procedure were outlined. Issues of data quality were then explored and relevant ethical issues were addressed. The next chapter discusses procedures used for data analysis and presents the results from the current study.

4 Results

This chapter presents the results from the present study (as outlined in section 3.5). Findings from the factor analysis of the teacher sample will initially be presented, followed by findings from the TA sample. The two separate factor models will then be broadly compared and any congruence between factors will be explored.

4.1 Analysis of Teacher Data

4.1.1 Data Screening

Following completion of the data gathering phase over a period of 10 weeks, a total of 232 teachers completed the survey both on paper (153) and online (79). These responses were then manually checked to ensure that all items had been completed appropriately and that the consent form had been signed. A total of 37 survey responses were discarded during this process (see Table 4.1). The most common reason for discarding was missing items within the questionnaire, but some survey responses also included unsigned consent forms. A total of 195 teacher responses were inputted into the SPSS Statistics (Version 24) software package.

Table 4.1 – Teacher sample following manual data checks

Survey Responses	*Paper*	*Online*	***TOTAL***
Received overall	153	79	**232**
Removed following manual data checks	37	0	**37**
Taken forward for data analysis	116	79	**195**

4.1.2 Pre-Analysis Checks

The researcher completed a number of pre-analysis checks in order to ensure that the teacher data met the criteria required to perform factor analysis. This included specific heuristics for determining appropriate sample size, as presented by Ferguson and Cox (1993); this was outlined in section 3.5.4.2 and stated that 146 was the minimum number of participants that would be deemed as acceptable in the current study. As such, the teacher sample met this threshold and was considered large enough to undertake factor analysis.

In accordance with guidelines from Ferguson and Cox (1993), the KMO test of sampling adequacy was carried out to determine whether the associations between variables in the correlation matrix could be accounted for by a smaller number of factors (Kaiser, 1970). This was found to be .87, which is above the required value of .5, indicating the suitability of the sample.

Bartlett's test of sphericity was also found to be significant, χ^2 (2628) = 8261.91, $p <$ .001, indicating that a discoverable relationship existed between the variables (Bartlett, 1937).

4.1.3 Factor Extraction and Factor Rotation

Given that no predictions had been developed pertaining to the outcome of the factor model, an exploratory factor analysis was employed to generate, rather than confirm, hypotheses. As such, factors were extracted using principle components analysis.

In order to ascertain the appropriate number of factors to extract, a number of common heuristics can be employed, as detailed below (Ferguson & Cox, 1993):

- *Kaiser 1 (K1; Kaiser, 1970)* – extract all factors with an eigenvalue of greater than one.
- *Scree test* (Cattel, 1966) – plot the eigenvalues against the factor number and visually establish where a break occurs on the graph.
- *Minimum Average Partial* (Velicer, 1976) – stop extracting factors when the average squared partial correlations reaches a minimum.
- *Parallel Analysis* (Horn, 1965)– create a random set of eigenvalues (based on the same sample size as the real data) and plot both sets of data (real and fabricated) against the number of variables and establish the point at which these graphs cross. The value immediately prior to the cross becomes the number of factors that should be extracted.

Furthermore, both K1 (Kaiser, 1970) and the Scree test (Cattel, 1966) were deemed to be appropriate heuristics to employ within the present research. However, initial analysis indicated that 18 factors were extracted with eigenvalues of greater than one, which could be considered as too many to create a simple, coherent model. As such, the researcher observed the Scree plot (see Appendix 7.7) and requested that three

additional raters (all EP colleagues) did the same. All agreed that a 5-factor model should be extracted based on the visual analysis of the Scree plot.

Five-factor solutions were explored using both orthogonal and oblique rotations, with the orthogonal rotation (varimax) appearing to demonstrate the best outcome. The initial 5-factor rotated matrix accounted for 43.89% of the total variance within the data; however, a total of 9 items failed to meet the minimum criteria of having a primary factor loading of .4 or above. These were subsequently removed from the dataset and principle components analysis was conducted with the remaining 64 items. The resultant solution accounted for 46.84% of the total variance, but two additional items failed to meet the minimum primary factor loading criteria. Again, these were eliminated from the dataset and the analysis was conducted with the remaining 62 items. The full list of removed items were as follows:

- Other pupils have intolerant attitudes (item 13)
- Pupil is tired (item 69)
- Pupil wants attention (item 52)
- Pupils' feelings about themselves (item 15)
- Changes to school routine (item 16)
- Teachers are tired (item 38)
- Class sizes (item 59)
- Teachers give more time to pupils who misbehave (item 43)
- Pupil's personality (item 65)
- Families do not have enough money to eat or buy clothes (item 71)
- Too many children with special educational needs in one class (item 19)

A principle components factor analysis of the final 62 items was conducted using varimax rotation, which resulted in a 5-factor model that explained 47.08% of the total variance (see Table 4.3). KMO for this model was good at .88 and Bartlett's test of sphericity was significant, $\chi^2(1891) = 6809.88$, $p < .001$. A total number of 6 items showed significant cross loadings, but the overall model appeared to be good. Alpha coefficients for each of the five factors were also calculated and all were found to be above .7 (see Table 4.3), which is generally seen as adequate within statistical literature (Nunnally, 1978).

Table 4.2 – Means and standard deviations of teacher ratings for the importance of each item in causing challenging behaviour in the classroom.

Variable	*Mean*	*Standard Deviation*	*N*
Parents let their children get away with too much	4.18	.61	195
School staff not noticing good work	4.09	.84	195
Too much class work is given	3.46	.99	195
Pupil is bored	4.44	.66	195
There are fights and arguments at home	4.58	.63	195
Teachers are too strict	3.15	1.04	195
Pupils do not like the teacher	3.98	.82	195
Lack of consistency between home and school	4.44	.79	195
Other pupils stir up trouble	3.97	.71	195
School staff not seeming to punish bad behaviour	4.07	.88	195
Other pupils have intolerant attitudes	3.49	.93	195
School staff are rude to pupils	4.31	.89	195
Pupils' feelings about themselves	4.83	.42	195
Changes to school routine	4.13	1.07	195
Government pressures on schools (budgets cuts, attainment objectives etc.)	4.01	1.00	195
Pupil needs more help in class	4.25	.66	195
Too many children with special educational needs in one class	4.12	.86	195
Parents have no control over their children	4.24	.73	195
Parental separation	3.83	.78	195
Teachers seeming to have an unfair system of punishments	4.24	.84	195
Parents not ensuring their children have appropriate opportunities and skills to communicate and interact with themselves and other adults	4.22	.70	195
Pupil does not want to stand out as good	3.27	.90	195
Teaching Assistants are too strict	3.10	.98	195
Other pupils wanting to copy work	2.74	.94	195
Pupil has experienced trauma	4.8	.52	195
Pupil has an intolerant attitude	4.01	.85	195
Pupil wants to be in charge	4.04	.81	195
Other pupils encourage it	3.91	.87	195
Parents do not accept any responsibility for disciplining their child	4.43	.78	195
Alcohol/drug abuse by a family member	4.56	.64	195
Teachers are tired	3.62	.95	195
Teachers are too soft	3.64	.93	195
Pupil likes misbehaving	3.82	.93	195

Pupil is picked on or tormented by other pupils	4.31	.77	195
Teachers give more time to pupils who misbehave	3.97	.87	195
Pupil's overall physical wellbeing (e.g. diet, physical fitness)	3.94	.91	195
Parents have intolerant attitudes	4.13	.78	195
Teachers shout all the time	4.08	.93	195
Pupil wants to fit in	3.91	.77	195
Parents are not limiting their child's screen time at home	3.89	.98	195
Teachers have a lot of time out of the classroom	3.64	1.00	195
Parents do not give their child attention or praise when they are good	4.29	.69	195
Behaviour expectations are inconsistent among school staff	4.61	.59	195
Pupil wants attention	4.36	.63	195
School staff have intolerant attitudes	4.11	.88	195
Parent's mental health	4.49	.67	195
Pupil is unfairly blamed	4.21	.78	195
Nobody likes the pupil	4.04	1.01	195
School staff have favourites	3.83	1.07	195
Class sizes	4.00	.90	195
Teachers and Teaching Assistants do not communicate well with each other	4.14	.87	195
Problems at home	4.70	.53	195
Teacher's general classroom management	4.58	.60	195
Pupil's personality	3.65	.88	195
Pupil is worried about other things	4.41	.66	195
Parents do not show respect for others (teachers, police, other parents, etc.)	4.52	.68	195
Teachers seeming to have an unfair system of rewards	4.16	.88	195
Pupil is tired	4.25	.67	195
Pupil does not know how to behave	4.34	.74	195
Families do not have enough money to eat or buy clothes	3.97	1.04	195
School staff do not listen to pupils	4.34	.81	195
School staff lack awareness of pupil's culture	4.11	.90	195
Too much homework is given	2.81	.99	195
Parents are uncaring	4.35	.76	195
Parents bully their children	4.19	.95	195
Parent's behaviour sets a bad example	4.44	.66	195
Teachers are not supported in the school	4.30	.76	195
Teacher's workload is too high	3.61	1.12	195
Class work is too difficult	4.19	.69	195
Pupils are picked on by teachers	3.93	1.06	195

Teaching Assistants are not given sufficient training	4.30	.78	195
Teachers have bad moods	3.70	.98	195
Parents seek medical explanations to excuse, and to avoid addressing, challenging behaviour	4.13	.81	195

Table 4.3 – The 5-factor varimax rotated pattern matrix with additional summary information (teacher data)

	Factor				
Item	*1*	*2*	*3*	*4*	*5*
Teachers seeming to have an unfair system of rewards	**.751**	-.019	.243	.186	.039
School staff have favourites	**.731**	.104	.117	.113	.235
School staff have intolerant attitudes	**.729**	.273	.138	.076	.236
Teachers and Teaching Assistants do not communicate well with each other	**.720**	.125	.270	.138	.093
School staff do not listen to pupils	**.697**	.243	.238	-.014	.151
Teachers shout all the time	**.696**	.164	.028	.197	.200
School staff are rude to pupils	**.694**	.136	-.042	.059	.234
Pupil is unfairly blamed	**.692**	.095	.206	.134	.159
Teachers seeming to have an unfair system of punishments	**.669**	-.048	.084	.031	.040
Nobody likes the pupil	**.654**	.242	.098	.162	.140
School staff lack awareness of pupil's culture	**.597**	.311	.262	-.099	.208
Pupils are picked on by teachers	**.587**	.225	.051	.202	**.470**
Teachers have bad moods	**.559**	.028	.128	.304	.103
Behaviour expectations are inconsistent among school staff	**.558**	-.063	.318	.223	-.032
Class work is too difficult	**.557**	.091	.097	.110	.169
Teacher's general classroom management	**.542**	.136	.098	.065	-.133
Teachers have a lot of time out of the classroom	**.539**	.034	.009	.126	.236
Pupil is picked on or tormented by other pupils	**.534**	.198	.355	.118	.228
Pupil is bored	**.495**	.104	.039	.057	.173
School staff not noticing good work	**.474**	.134	-.032	-.097	.232
Pupil does not know how to behave	**.446**	.243	.243	.277	-.034
Pupils do not like the teacher	**.434**	.030	-.041	.112	.282
Teachers are too soft	**.414**	-.043	.058	.358	.170
Problems at home	-.120	**.660**	.117	.121	.090
Parent's mental health	.240	**.635**	.122	-.101	.147

Alcohol/drug abuse by a family member	.257	**.623**	.144	.037	.127
There are fights and arguments at home	.112	**.606**	.030	.080	.350
Parent's behaviour sets a bad example	.182	**.588**	-.023	.368	.086
Pupil has experienced trauma	.361	**.577**	-.049	.096	.039
Parental separation	-.014	**.571**	.211	.039	-.052
Parents are uncaring	.276	**.566**	.192	.243	.206
Parents do not show respect for others (teachers, police, other parents, etc.)	.294	**.501**	.033	.373	-.029
Pupil is worried about other things	**.445**	**.478**	.120	-.062	-.050
Parents do not give their child attention or praise when they are good	.304	**.470**	.332	.093	.045
Parents bully their children	.390	**.440**	.078	.117	**.422**
Lack of consistency between home and school	-.156	**.426**	.232	.238	.210
Parents have intolerant attitudes	.084	**.409**	.274	.379	.197
Teachers are not supported in the school	**.409**	-.026	**.605**	.126	.058
Parents not ensuring their children have appropriate opportunities and skills to communicate and interact with themselves and other adults	.189	.244	**.565**	.142	-.027
Pupil needs more help in class	.140	.040	**.561**	.021	.299
Government pressures on schools (budgets cuts, attainment objectives etc.)	-.091	.100	**.550**	-.015	.099
Pupil wants to fit in	.246	.112	**.549**	.145	.074
Teacher's workload is too high	.085	.115	**.545**	.190	.111
Parents are not limiting their child's screen time at home	.050	.222	**.539**	.240	.017
Pupil's overall physical wellbeing (e.g. diet, physical fitness)	.204	.388	**.534**	-.078	.145
Teaching Assistants are not given sufficient training	**.474**	-.091	**.517**	.134	.023
Pupil likes misbehaving	.343	-.003	.042	**.606**	.265
Parents have no control over their children	-.224	**.427**	.133	**.595**	.078
Parents do not accept any responsibility for disciplining their child	.065	.300	.256	**.576**	-.105
Other pupils stir up trouble	.140	-.039	-.004	**.545**	.151
Other pupils encourage it	.349	-.121	.237	**.516**	.025
Pupil has an intolerant attitude	.330	.157	.124	**.498**	.234
Parents let their children get away with too much	-.259	.326	-.034	**.465**	.073
Parents seek medical explanations to excuse, and to avoid addressing, challenging behaviour	.363	.219	.007	**.453**	-.039
Pupil wants to be in charge	.059	.154	.239	**.430**	-.014
School staff not seeming to punish bad behaviour	.250	.049	.135	**.427**	.066

Teachers are too strict	.260	.092	-.030	.143	**.725**
Teaching Assistants are too strict	.382	.100	.074	.148	**.643**
Too much class work is given	.257	.160	.218	-.065	**.584**
Pupil does not want to stand out as good	.181	.101	.221	.118	**.539**
Other pupils wanting to copy work	.238	.128	.353	.234	**.528**
Too much homework is given	.146	.232	.396	.049	**.501**
Eigenvalues	**11.08**	**5.67**	**4.44**	**4.18**	**3.82**
% Variance	**17.88**	**9.15**	**7.16**	**6.74**	**6.16**
Cronbach's alpha	**.944**	**.879**	**.795**	**.784**	**.856**

4.1.4 Factor Naming

The process of factor naming involves an element of researcher subjectivity and this is accounted for within the post-positivist paradigm in which this study is situated (see section 3.5.1). However, two methods are available that seek to reduce researcher subjectivity within the factor naming process, namely the recaptured item technique (Meehl, Lykken, Schofield, & Tellegen, 1971) and pre-naming the factors prior to analysis (Ferguson & Cox, 1993). The present study utilised the recaptured item technique, which consisted of three stages:

1. The total items in each factor are split into two halves.
2. A number of judges develop names for the factors based on one half of the variables. This is initially done independently and then together with each other.
3. A different set of judges are given the devised factor names and the other half of the variables, they are then asked to match the variables with the factor names.

Meehl et al. (1971) argue that if agreement is achieved between the two sets of judges, then subjectivity has been reduced and the factor names can be seen as valid.

Within the present study, three judges, including the researcher and two EP colleagues, worked first independently and then in conference to develop names for each of the five factors, based on half of the items loaded onto the factor. A second set of three judges (also EP colleagues) were then presented with the factor names

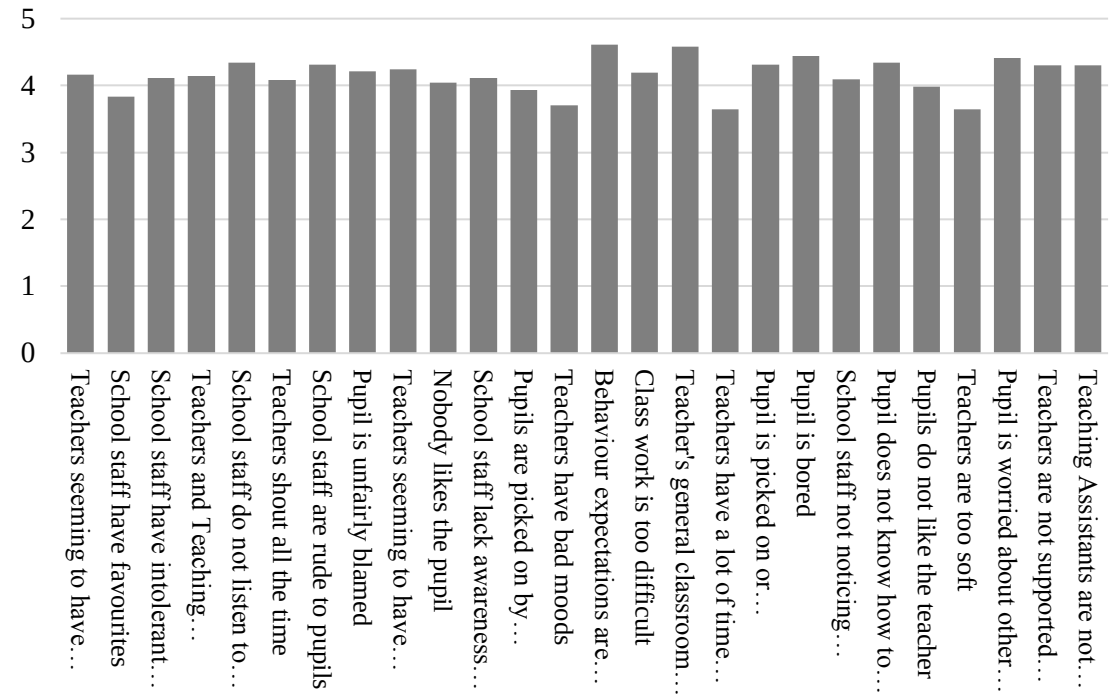
and the other half of the items, they were then asked to match the name to the group of variables. The decisions made by the second set of judges agreed entirely with those made by the first set, thus the factor naming process was deemed to have been completed with an adequate amount of objectivity. The final factor names are outlined below.

4.1.4.1 Factor 1

'Negativity within the school environment and an unfair/ineffective system of classroom management'

Factor 1 was made up of 26 items and was termed as 'Negativity within the school environment and an unfair/ineffective system of classroom management' (see Figure 4.1). This factor appeared to attribute challenging behaviour in the classroom to negativity within the school environment (e.g. 'Teachers have bad moods', 'Pupils do not like the teacher', 'Nobody likes the pupil', 'Teachers are not supported in the school', 'Teachers and Teaching Assistants do not communicate well with each other', 'Pupil is picked on or tormented by other pupils', 'School staff have intolerant attitudes', 'School staff are rude to pupils', 'Pupil is bored', 'Pupil is worried about other things') and school staff have a system of classroom management that is both unfair (e.g. 'Teachers seeming to have an unfair system of rewards', 'School staff have favourites', 'Pupil is unfairly blamed', 'Teachers seeming to have an unfair system of punishments', 'Pupils are picked on by teachers', Behaviour expectations are inconsistent among school staff', 'Class work is too difficult') and ineffective (e.g. 'School staff not noticing good work', 'School staff lack awareness of pupil's culture', 'School staff do not listen to pupils', 'Teacher's general classroom management', 'Teachers shout all the time', 'Teachers are too soft', 'Teaching Assistants are not given sufficient training', 'Teachers have a lot of time out of the classroom', 'Pupil does not know how to behave').

Figure 4.1 – A graph to show mean ratings for each item included in factor 1: 'Negativity within the school environment and an unfair/ineffective system of classroom management'

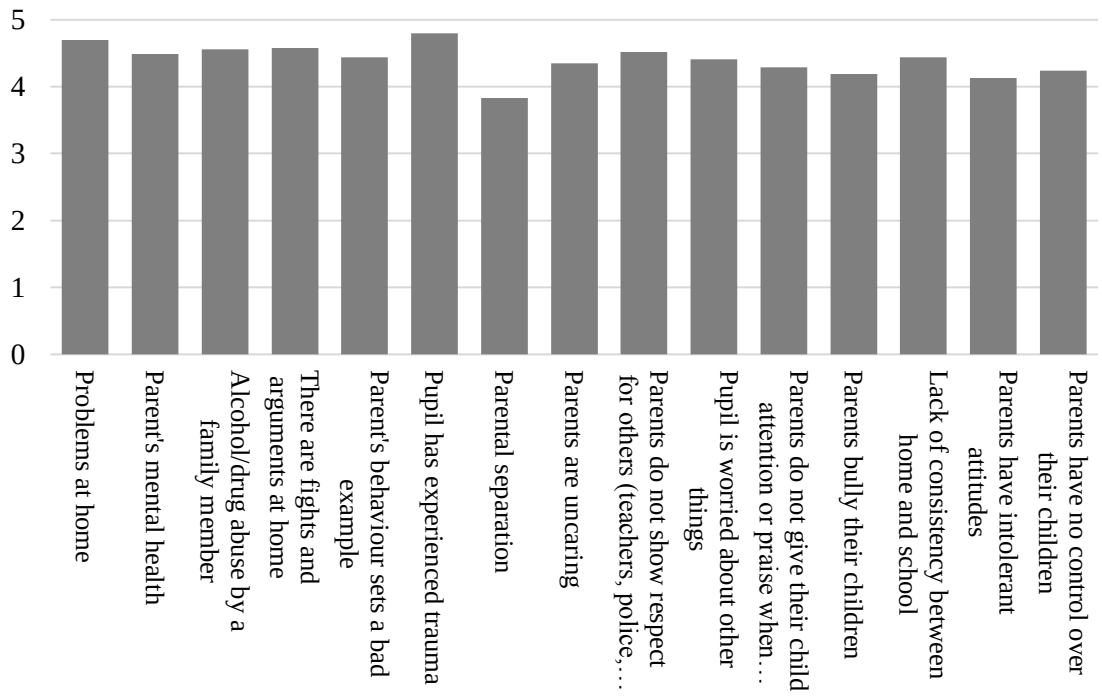


4.1.4.2 Factor 2

<u>'Adverse family circumstances and parental behaviour'</u>

Factor 2 was made up of 15 items and was termed as 'Adverse family circumstances and parental behaviour' (see Figure 4.2). This factor appeared to attribute challenging behaviour in the classroom to difficulties within the home environment (e.g. 'Problems at home', 'Alcohol/drug abuse by a family member', 'There are fights and arguments at home', 'Pupil has experienced trauma', 'Parental separation', 'Pupil is worried about other things', 'Lack of consistency between home and school') and parental behaviour, both in terms of internal factors (e.g. 'Parents have intolerant attitudes', 'Parent's mental health') and their behaviour towards others (e.g. 'Parents do not show respect for others (teachers, police, other parents, etc.), 'Parent's behaviour sets a bad example') and their children (e.g. 'Parents are uncaring', 'Parents do not give their child attention or praise when they are good', 'Parents bully their children', 'Parents have no control over their children').

Figure 4.2 – A graph to show mean ratings for each item included in factor 2: 'Adverse family circumstances and parental behaviour'

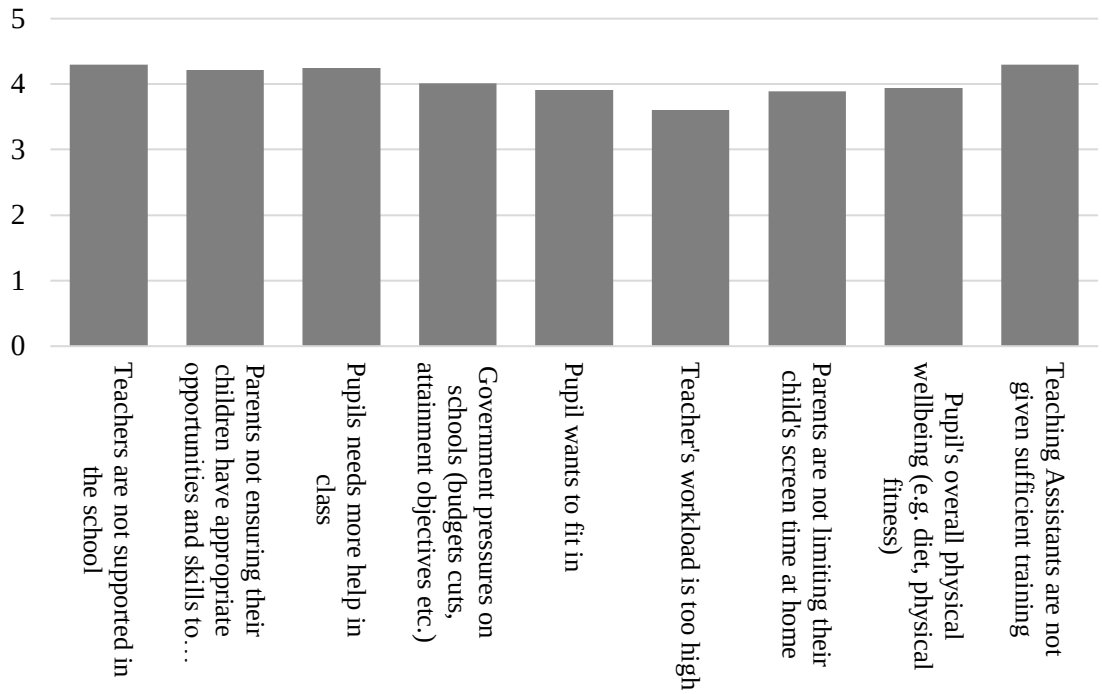


4.1.4.3 Factor 3

'Excessive expectations of teachers and parents adding to this pressure by not adequately preparing their children for school'

Factor 3 was made up of 9 items and was termed as 'Excessive expectations of teachers and parents adding to this pressure by not adequately preparing their children for school' (see Figure 4.3). This factor appeared to attribute challenging behaviour in the classroom to the pressures that teacher face in school with regards to workload (e.g. 'Teachers are not supported in the school', 'Government pressures on schools (budgets cuts, attainment objectives etc.)', 'Teacher's workload is too high) and supporting both staff (e.g. 'Teaching Assistants are not given sufficient training') and pupils (e.g. 'Pupil needs more help in class', 'Pupil wants to fit in'). This factor also refers to the responsibility that parents have to prepare their children to thrive within the school environment through implementing appropriate boundaries at home (e.g. 'Parents are not limiting their child's screen time at home', 'Parents not ensuring their children have appropriate opportunities and skills to communicate and interact with themselves and other adults', 'Pupil's overall physical wellbeing (e.g. diet, physical fitness)).

Figure 4.3 – A graph to show mean ratings for each item included in factor 3: 'Excessive expectations of teachers and parents adding to this pressure by not adequately preparing their children for school'

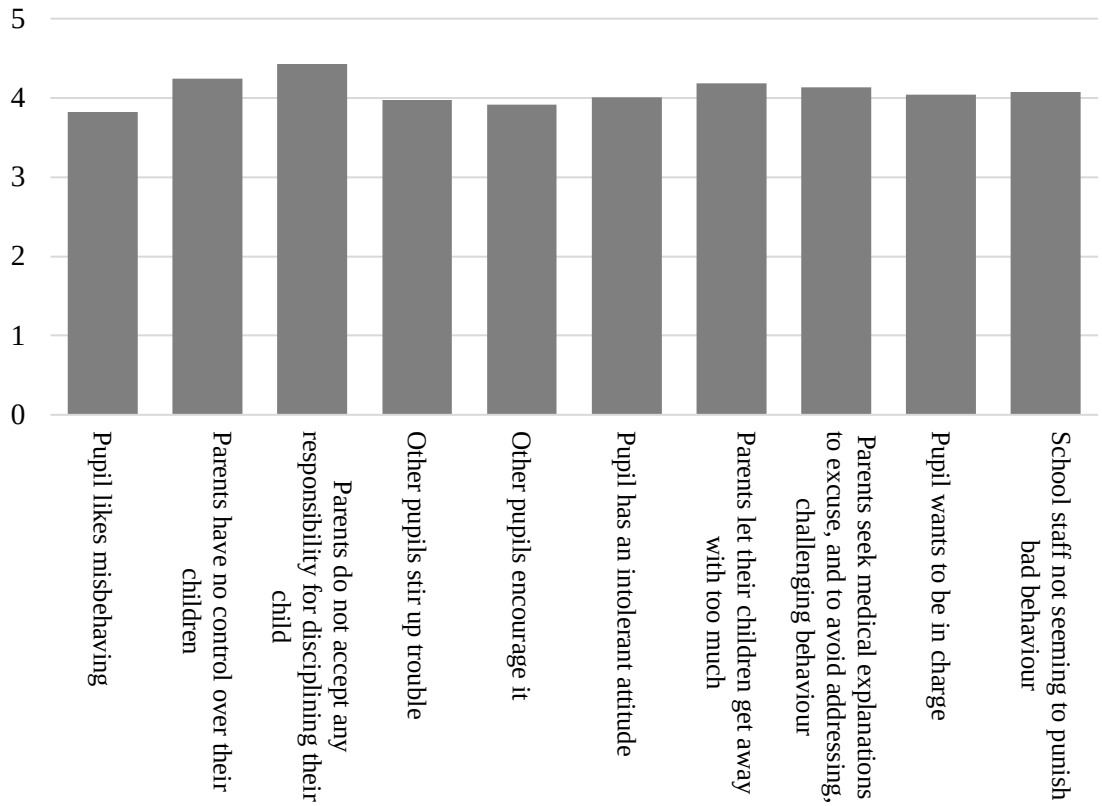


4.1.4.4 Factor 4

'Pupil culture that promotes and facilitates misbehaviour, and a home culture that does not challenge this'

Factor 4 was made up of 10 items and was termed as 'Pupil culture that promotes and facilitates misbehaviour, and a home culture that does not challenge this' (see Figure 4.4). This factor appeared to attribute challenging behaviour in the classroom to factors intrinsic to pupils (e.g. 'Pupil likes misbehaving', 'Other pupils stir up trouble', 'Other pupils encourage it', 'Pupil has an intolerant attitude', 'Pupil wants to be in charge') and an absence of discipline predominantly from parents (e.g. 'Parents have no control over their children', 'Parents do not accept any responsibility for disciplining their child', 'Parents let their children get away with too much', 'Parents seek medical explanations to excuse, and to avoid addressing, challenging behaviour'), but also from school (e.g. 'School staff not seeming to punish bad behaviour').

Figure 4.4 – A graph to show mean ratings for each item included in factor 4: 'Pupil culture that promotes and facilitates misbehaviour, and a home culture that does not challenge this'

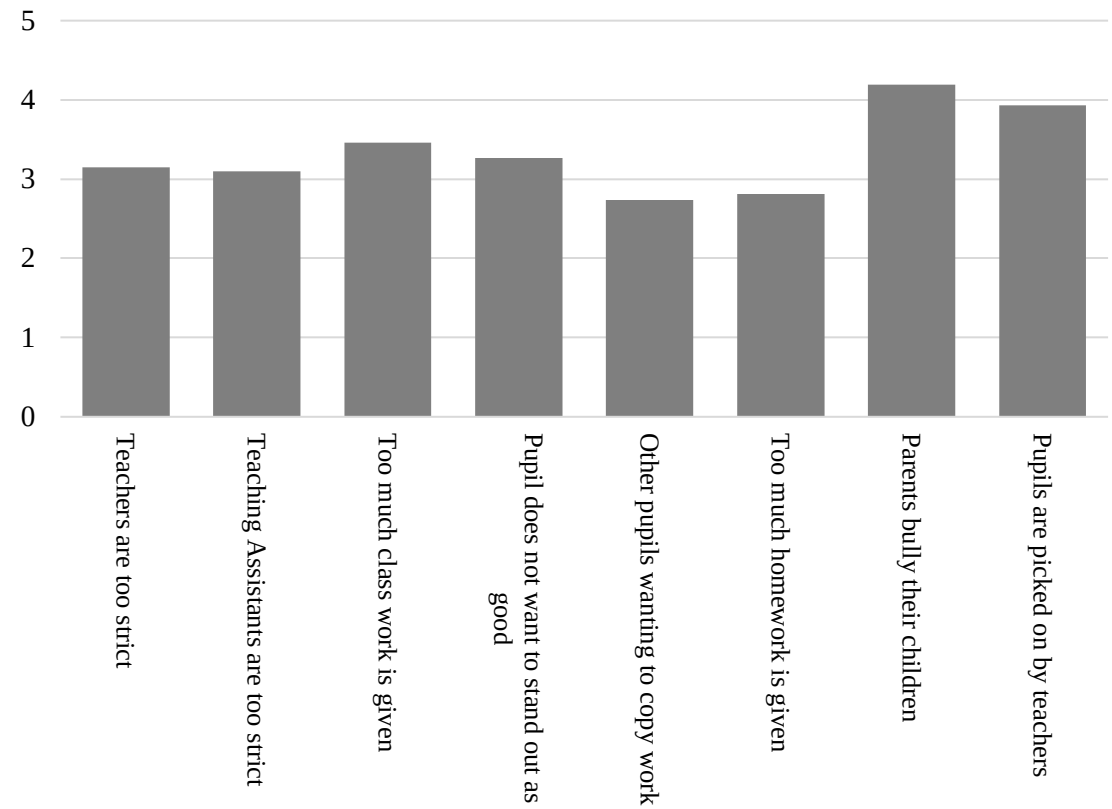


4.1.4.5 Factor 5

'Teachers (and sometimes parents) being overly demanding in terms of work and behaviour-related expectations'

Factor 5 was made up of 8 items and was termed as 'Teachers (and sometimes parents) being overly demanding in terms of work and behaviour-related expectations' (see Figure 4.5). This factor appeared to attribute challenging behaviour in the classroom to unrealistic expectations in relation to schoolwork (e.g. 'Too much class work is given', 'Too much homework is given', 'Other pupils wanting to copy work') and school staff displaying a behaviour management style that is too strict (e.g. 'Teachers are too strict', 'Teaching Assistants are too strict', 'Pupil does not want to stand out as good', 'Pupils are picked on by teachers'). One item also referred to a similar authoritarian behaviour management style being used by parents (Parents bully their children).

Figure 4.5 – A graph to show mean ratings for each item included in factor 5: 'Teachers (and sometimes parents) being overly demanding in terms of work and behaviour-related expectations'



4.1.5 Intercorrelation Between Factors

In order to explore correlations between the five factors, the percentage of the maximum possible score was calculated for each participants' rating of each factor. This was achieved by totalling participants rating on all items within a factor and calculating this figure as a percentage of the score that would have been obtained if they had rated all items as being 'very important'.

A significant degree of intercorrelation was found between all factors, as indicated in Table 4.4, with the strongest correlation being demonstrated between factor 1 ('Negativity within the school environment and an unfair/ineffective system of classroom management') and factor 5 ('Teachers (and sometimes parents) being overly demanding in terms of work and behaviour-related expectations'). This suggests that teachers who rated the 'Negativity within the school environment and an unfair/ineffective system of classroom management' factor as highly important in terms of contributing towards challenging behaviour in the classroom, also attributed

a high level of importance to ‘Teachers (and sometimes parents) being overly demanding in terms of work and behaviour-related expectations’.

Table 4.4 – Intercorrelations between the five extracted factors (teacher data)

	Factor 1	*Factor 2*	*Factor 3*	*Factor 4*	*Factor 5*
Factor 1	1				
Factor 2	.55*	1			
Factor 3	.57*	.51*	1		
Factor 4	.52*	.58*	.46*	1	
Factor 5	.70*	.61*	.50*	.47*	1

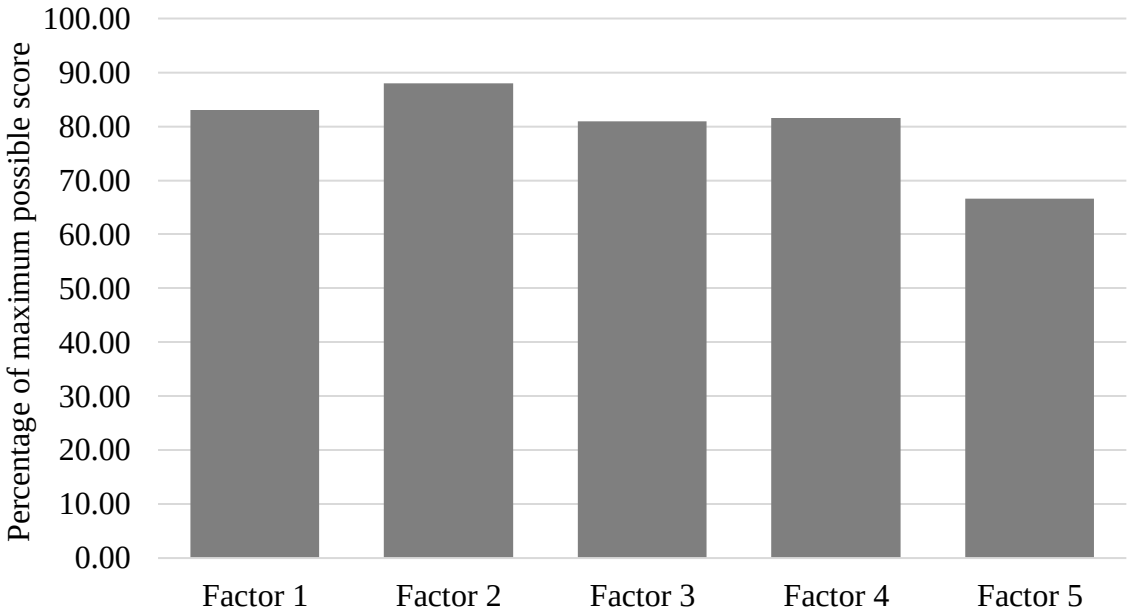
*$p < .001$

4.1.6 Perceived Importance of Factors

The percentage of the maximum possible score rating, as calculated above, also served to demonstrate how important participants deemed each factor to be in contributing to challenging behaviour in the classroom (see Figure 4.6). Calculation of the mean values indicates that participants perceived factor 2, ‘Adverse family circumstances and parental behaviour’, as being the most important cause of challenging behaviour in the primary school classroom, with it receiving 87.95% of the maximum possible rating. Overall, the factors were perceived in the following order of important:

1. Factor 2: ‘Adverse family circumstances and parental behaviour’ (87.95%)
2. Factor 1: ‘Negativity within the school environment and an unfair/ineffective system of classroom management’ (83.09%)
3. Factor 4: ‘Pupil culture that promotes and facilitates misbehaviour, and a home culture that does not challenge this’ (81.58%)
4. Factor 3: ‘Excessive expectations of teachers and parents adding to this pressure by not adequately preparing their children for school’ (80.93%)
5. Factor 5: ‘Teachers (and sometimes parents) being overly demanding in terms of work and behaviour-related expectations’ (66.65%)

Figure 4.6 – A graph to show the percentage of the maximum possible score rating achieved by each of the five extracted factors (teacher data)



4.1.7 Exploring the Relationship between Factors and Demographic Variables

One-way between groups multivariate analyses of variance (MANOVA) were conducted to explore any differences between factor scores based on the demographic information collected within the survey. Independent variables included years of experience, gender and training in SEND, while percentage of the maximum possible score for each of the five factors were used as dependent variables.

4.1.7.1 Experience

This linked to the survey question 'How many years of experience do you have in your current position (including work in previous schools)?', where participants were given the following options: 'less than 5 years' (67 respondents), '5-10 years' (41 respondents) and 'more than 10 years' (87 respondents).

Results from the MANOVA indicated that there was not a significant overall difference in the perceived importance of factors based on years of experience, $F(10, 376) = .60$, $p = .82$, Wilk's $\Lambda = .97$. Visual analysis of the mean scores for each

factor also showed that very similar perceptions of importance were indicated by each group (see Table 4.5).

Table 4.5 – Means and standard deviations for the percentage of maximum possible score ratings by experience (teacher data)

	Mean percentage of maximum possible score by years of experience (standard deviation)		
	Less than 5 years	*5-10 years*	*More than 10 years*
Factor 1: 'Negativity within the school environment and an unfair/ineffective system of classroom management'	82.69 (10.98)	82.35 (13.18)	83.76 (9.72)
Factor 2: 'Adverse family circumstances and parental behaviour'	87.46 (9.89)	88.52 (7.89)	88.06 (7.91)
Factor 3: 'Excessive expectations of teachers and parents adding to this pressure by not adequately preparing their children for school'	80.43 (10.26)	79.08 (13.77)	82.20 (9.17)
Factor 4: 'Pupil culture that promotes and facilitates misbehaviour, and a home culture that does not challenge this'	80.75 (10.16)	81.51 (8.26)	82.25 (9.27)
Factor 5: 'Teachers (and sometimes parents) being overly demanding in terms of work and behaviour-related expectations'	67.05 (15.34)	65.49 (15.46)	66.90 (11.90)

4.1.7.2 Gender

This linked to the survey question 'What is your gender?', where participants were given the following options: 'male' (25 respondents), 'female' (169 respondents), 'other' (0 respondents) and 'prefer not to say' (1 respondent). Given that only 1 participant indicated an answer other than 'male' or 'female', their answers were excluded from the analysis so as not to skew the data.

Results from the MANOVA indicated that there was a significant overall difference in the perceived importance of factors based on gender, $F(5, 188) = 3.64$, $p < .01$, Wilk's $\Lambda = .91$, $\eta_p^2 = .09$. However, further tests of between-subjects effects showed that significant differences based on gender were only present for factor 1 ($F(1, 192) = 7.43$, $p < .01$, $\eta_p^2 = .04$), factor 2 ($F(1, 192) = 5.43$, $p < .05$, $\eta_p^2 = .03$), factor 3 ($F(1, 192) = 15.44$, $p < .001$, $\eta_p^2 = .07$) and factor 5 ($F(1, 192) = 7.26$, $p < .01$, $\eta_p^2 =$

.04). No significant difference was found in the perceived importance of factor 4 between males and females ($F(1, 192) = .93$, $p = .34$).

Visual analysis of the mean scores for each factor showed that, in all cases, female participants perceived the factor to be more important than male participants (see Table 4.6). Nonetheless, these findings should be interpreted with caution, given the large disparity in sample size between the male and female participants.

Table 4.6 – Means and standard deviations for the percentage of maximum possible score ratings by gender (teacher data)

	Mean percentage of maximum possible score by gender (standard deviation)	
	Male	*Female*
Factor 1: 'Negativity within the school environment and an unfair/ineffective system of classroom management'	77.57 (13.01)	83.83 (10.35)
Factor 2: 'Adverse family circumstances and parental behaviour'	84.21 (9.03)	88.47 (8.44)
Factor 3: 'Excessive expectations of teachers and parents adding to this pressure by not adequately preparing their children for school'	73.33 (12.52)	81.99 (9.91)
Factor 4: 'Pupil culture that promotes and facilitates misbehaviour, and a home culture that does not challenge this'	79.84 (8.08)	81.78 (9.53)
Factor 5: 'Teachers (and sometimes parents) being overly demanding in terms of work and behaviour-related expectations'	59.70 (15.73)	67.56 (13.28)

4.1.7.3 Additional Training in SEND

This linked to the survey question 'Do you have any additional training around Special Educational Needs and Disability?', where participants were given the following options: 'yes' (74 respondents) and 'no' (121 respondents).

Results from the MANOVA indicated that there was not a significant overall difference in the perceived importance of factors based on additional training in SEND, $F(5, 189) = 1.62$, $p = .16$, Wilk's $\Lambda = .96$. Visual analysis of the mean scores for each factor also showed that very similar perceptions of importance were indicated by each group (see Table 4.7).

Table 4.7 – Means and standard deviations for the percentage of maximum possible score ratings by additional training in SEND (teacher data)

	Mean percentage of maximum possible score by additional training in SEND (standard deviation)	
	Yes	*No*
Factor 1: 'Negativity within the school environment and an unfair/ineffective system of classroom management'	83.08 (12.64)	83.10 (9.76)
Factor 2: 'Adverse family circumstances and parental behaviour'	87.15 (9.98)	88.44 (7.74)
Factor 3: 'Excessive expectations of teachers and parents adding to this pressure by not adequately preparing their children for school'	81.56 (11.11)	80.55 (10.41)
Factor 4: 'Pupil culture that promotes and facilitates misbehaviour, and a home culture that does not challenge this'	79.92 (11.43)	82.60 (7.72)
Factor 5: 'Teachers (and sometimes parents) being overly demanding in terms of work and behaviour-related expectations'	55.81 (15.19)	67.29 (13.03)

4.2 Analysis of Teaching Assistant Data

4.2.1 Data Screening

Following completion of the data gathering phase over a period of 10 weeks, a total of 179 TAs completed the survey both on paper (71) and online (108).

These responses were then manually checked to ensure that all items had been completed appropriately and that the consent form had been signed. A total of 26 survey responses were discarded during this process (see Table 4.8). The most common reason for discarding was missing items within the questionnaire, but other responses were also eliminated for not signing the consent form and changing the wording on either the items or the Likert scale (Likert, 1932). A total of 153 TA responses were inputted into the SPSS Statistics (Version 24) software package.

Table 4.8 – TA sample following manual data checks

Survey Responses	*Paper*	*Online*	***TOTAL***
Received overall	71	108	**179**
Removed following manual data checks	24	2	**26**
Taken forward for data analysis	47	106	**153**

4.2.2 Pre-Analysis Checks

The researcher completed a number of pre-analysis checks in order to ensure that the TA data met the criteria required to perform factor analysis. This included specific heuristics for determining appropriate sample size, as presented by Ferguson and Cox (1993); this was outlined in section 3.5.4.2 and stated that 146 was the minimum number of participants that would be deemed as acceptable in the current study. As such, the TA sample met this threshold and was considered large enough to undertake factor analysis.

In accordance with guidelines from Ferguson and Cox (1993), the KMO test of sampling adequacy was carried out to determine whether the associations between variables in the correlation matrix could be accounted for by a smaller number of factors (Kaiser, 1970). This was found to be .87, which is above the required value of .5, indicating the suitability of the sample.

Bartlett's test of sphericity was also found to be significant, $\chi^2 (2628) = 8181.54$, $p < .001$, indicating that a discoverable relationship existed between the variables (Bartlett, 1937).

4.2.3 Factor Extraction and Factor Rotation

Given that no predictions had been developed pertaining to the outcome of the factor model, an exploratory factor analysis was employed to generate, rather than confirm, hypotheses. As such, factors were extracted using principle components analysis. In a similar way to the teacher data, the K1 (Kaiser, 1970) and Scree test (Cattel, 1966) heuristics were employed in order to ascertain the appropriate number of factors to extract.

Initial analysis indicated that 16 factors were extracted with eigenvalues of greater than one, which was considered to be too many to create a simple, coherent model. Therefore, the researcher observed the Scree plot (see Appendix 7.8) and requested that three additional raters (all EP colleagues) did the same. All agreed that both a 4-factor and 6-factor model could be justified based on the visual analysis of the Scree plot, thus both 4-factor and 6-factor solutions were explored using both orthogonal and oblique rotations. Following this process, it was decided that the 4-factor model with orthogonal (varimax) rotation demonstrated the best outcome.

The initial 4-factor rotated matrix accounted for 48.48% of the total variance within the data; however, a total of 2 items failed to meet the minimum criteria of having a primary factor loading of .4 or above. These items (listed below) were subsequently removed from the dataset:

- Other pupils stir up trouble (item 10)
- Pupils' feelings about themselves (item 15)

A principle components factor analysis of the final 71 items was conducted using varimax rotation, which resulted in a 4-factor model that explained 49.24% of the total variance (see Table 4.10). KMO for this model was good at .88 and Bartlett's test of sphericity was significant, $\chi^2 (2485) = 7893.24$, $p < .001$. A total number of 8 items showed significant cross loadings, but the overall model appeared to be coherent. Alpha coefficients for each of the four factors were also calculated and all were found to be above .8 (see Table 4.10), which is generally seen as good within statistical literature (Nunnally, 1978).

Table 4.9 – Means and standard deviations of TA ratings for the importance of each item in causing challenging behaviour in the classroom.

Variable	*Mean*	*Standard Deviation*	*N*
Parents let their children get away with too much	4.29	.78	153
School staff not noticing good work	4.18	.81	153
Too much class work is given	3.62	.95	153
Pupil is bored	4.43	.69	153
Parents bully their children	4.50	.74	153
There are fights and arguments at home	4.68	.55	153
Teachers are too strict	3.29	1.04	153
Pupils do not like the teacher	3.94	.92	153
Lack of consistency between home and school	4.68	.52	153
Other pupils stir up trouble	4.09	.78	153
Parent's behaviour sets a bad example	4.51	.60	153
School staff not seeming to punish bad behaviour	4.15	.94	153
Other pupils have intolerant attitudes	3.77	.91	153
School staff are rude to pupils	4.26	1.06	153
Pupils' feelings about themselves	4.82	.49	153
Changes to school routine	4.33	.67	153
Government pressures on schools (budgets cuts, attainment objectives etc.)	4.21	.93	153
Pupil needs more help in class	4.44	.70	153
Too many children with special educational needs in one class	4.14	1.02	153
Parents have no control over their children	4.27	.84	153
Parental separation	4.10	.81	153
Teachers seeming to have an unfair system of punishments	4.18	.95	153
Parents not ensuring their children have appropriate opportunities and skills to communicate and interact with themselves and other adults	4.35	.70	153
Teachers are not supported in the school	4.45	.73	153
Too much homework is given	3.1	1.12	153
Teacher's workload is too high	4.21	.95	153
Pupil does not want to stand out as good	3.5	1.01	153
Teaching Assistants are too strict	3.2	1.13	153
Other pupils wanting to copy work	3.14	1.02	153
Parents are uncaring	4.41	.85	153
Pupil has experienced trauma	4.78	.53	153
Class work is too difficult	4.26	.71	153
Pupil has an intolerant attitude	4.14	.91	153

Pupil wants to be in charge	4.08	.90	153
Other pupils encourage it	3.98	.96	153
Parents do not accept any responsibility for disciplining their child	4.59	.68	153
Alcohol/drug abuse by a family member	4.67	.57	153
Teachers are tired	3.79	1.00	153
Teachers are too soft	3.84	1.05	153
Pupils are picked on by teachers	4.04	1.09	153
Pupil likes misbehaving	3.93	1.04	153
Pupil is picked on or tormented by other pupils	4.33	.81	153
Teachers give more time to pupils who misbehave	4.04	.96	153
Pupil's overall physical wellbeing (e.g. diet, physical fitness)	4.15	.91	153
Parents have intolerant attitudes	4.24	.88	153
Teachers shout all the time	3.86	1.08	153
Pupil wants to fit in	4.06	.88	153
Parents are not limiting their child's screen time at home	4.09	.94	153
Teachers have a lot of time out of the classroom	3.86	1.08	153
Parents do not give their child attention or praise when they are good	4.43	.75	153
Behaviour expectations are inconsistent among school staff	4.48	.76	153
Pupil wants attention	4.31	.79	153
School staff have intolerant attitudes	4.04	1.03	153
Parent's mental health	4.64	.55	153
Pupil is unfairly blamed	4.22	.88	153
Teaching Assistants are not given sufficient training	4.43	.80	153
Nobody likes the pupil	4.14	1.00	153
School staff have favourites	3.85	1.07	153
Class sizes	4.25	.87	153
Teachers and Teaching Assistants do not communicate well with each other	4.26	1.01	153
Problems at home	4.75	.54	153
Teacher's general classroom management	4.5	.74	153
Teachers have bad moods	3.80	.97	153
Parents seek medical explanations to excuse, and to avoid addressing, challenging behaviour	4.29	.94	153
Pupil's personality	4.04	.96	153
Pupil is worried about other things	4.52	.61	153
Parents do not show respect for others (teachers, police, other parents, etc.)	4.56	.72	153
Teachers seeming to have an unfair system of rewards	4.14	.91	153
Pupil is tired	4.38	.67	153

Pupil does not know how to behave	4.51	.70	153
Families do not have enough money to eat or buy clothes	4.21	.97	153
School staff do not listen to pupils	4.33	.97	153
School staff lack awareness of pupil's culture	4.23	.93	153

Table 4.10 – The 4-factor varimax rotated pattern matrix with additional summary information (TA data)

	Factor			
Item	*1*	*2*	*3*	*4*
School staff do not listen to pupils	**.838**	.158	.047	.080
Teachers seeming to have an unfair system of rewards	**.788**	.188	.131	.037
School staff have favourites	**.754**	.167	.090	.092
Pupils are picked on by teachers	**.753**	.280	-.002	.287
Teachers shout all the time	**.752**	.098	.201	.199
School staff have intolerant attitudes	**.748**	.280	.195	.176
Pupil is unfairly blamed	**.734**	.244	.093	.183
School staff are rude to pupils	**.724**	.167	.016	.311
Teachers seeming to have an unfair system of punishments	**.706**	.148	.001	.288
Nobody likes the pupil	**.686**	.216	.128	.186
Teachers and Teaching Assistants do not communicate well with each other	**.667**	.179	.288	.125
Teachers have bad moods	**.663**	.212	.241	.048
Teaching Assistants are too strict	**.627**	.125	.345	.138
Teachers have a lot of time out of the classroom	**.627**	.295	.156	.001
Behaviour expectations are inconsistent among school staff	**.616**	.102	.317	.062
School staff lack awareness of pupil's culture	**.607**	.159	.368	.100
Pupil is picked on or tormented by other pupils	**.552**	.263	.258	.369
Pupil does not know how to behave	**.542**	.237	.261	.247
Pupils do not like the teacher	**.538**	.184	.208	-.010
Other pupils wanting to copy work	**.535**	.364	.356	.000
Teachers are too strict	**.523**	.146	.330	.019
Teaching Assistants are not given sufficient training	**.491**	.204	**.477**	-.095
Teacher's general classroom management	**.473**	.106	.394	.129
Pupil wants to fit in	**.469**	.247	**.455**	-.075
Pupil is bored	**.456**	-.096	.234	.075
School staff not noticing good work	**.421**	.089	.267	.149

Parents do not accept any responsibility for disciplining their child	.086	**.792**	-.006	.211
Parents have no control over their children	.101	**.775**	-.050	.297
Parents let their children get away with too much	-.049	**.684**	-.025	.128
Pupil has an intolerant attitude	.288	**.680**	.128	.163
Parents do not show respect for others (teachers, police, other parents, etc.)	.271	**.624**	.243	-.013
Pupil wants to be in charge	.182	**.617**	.175	-.108
Parents seek medical explanations to excuse, and to avoid addressing, challenging behaviour	.173	**.595**	.181	.146
Pupil likes misbehaving	**.441**	**.576**	.078	-.031
School staff not seeming to punish bad behaviour	.359	**.562**	-.019	.140
Other pupils encourage it	.399	**.555**	.011	.046
Teachers are too soft	**.517**	**.552**	-.002	-.057
Parents are not limiting their child's screen time at home	-.079	**.547**	.276	.236
Parents have intolerant attitudes	.364	**.544**	.204	.318
Parents do not give their child attention or praise when they are good	.297	**.536**	.197	.223
Teachers give more time to pupils who misbehave	.254	**.521**	.202	-.108
Pupil wants attention	.238	**.501**	.193	-.176
Too many children with special educational needs in one class	.034	**.490**	.356	.081
Other pupils have intolerant attitudes	**.468**	**.489**	.143	.210
Parent's behaviour sets a bad example	.097	**.485**	.101	.399
Parents not ensuring their children have appropriate opportunities and skills to communicate and interact with themselves and other adults	.096	**.465**	.257	.284
Pupil's personality	.254	**.432**	.344	-.168
Pupil does not want to stand out as good	.323	**.428**	.332	.079
Lack of consistency between home and school	.132	**.406**	.298	.164
Pupil needs more help in class	.027	.174	**.628**	.078
Too much homework is given	.298	.185	**.624**	.038
Teacher's workload is too high	.027	.336	**.593**	-.001
Pupil's overall physical wellbeing (e.g. diet, physical fitness)	.174	-.049	**.591**	.299
Changes to school routine	.103	-.039	**.562**	.079
Government pressures on schools (budgets cuts, attainment objectives etc.)	-.079	.239	**.559**	.015
Class work is too difficult	.323	.152	**.547**	.058
Too much class work is given	.388	-.059	**.533**	-.018
Teachers are tired	.266	.355	**.488**	-.039

Class sizes	.161	.222	**.484**	.124
Pupil is worried about other things	.293	.021	**.470**	.386
Families do not have enough money to eat or buy clothes	.316	.145	**.466**	.351
Teachers are not supported in the school	.305	.317	**.462**	.085
Pupil is tired	.197	-.023	**.436**	.203
Parental separation	.189	.224	**.408**	.143
Alcohol/drug abuse by a family member	.180	.126	.230	**.705**
Pupil has experienced trauma	.054	.121	.030	**.692**
Problems at home	.120	.130	.287	**.684**
There are fights and arguments at home	.157	.075	.092	**.673**
Parents are uncaring	**.477**	.285	-.009	**.620**
Parents bully their children	**.445**	.138	-.056	**.548**
Parent's mental health	.152	.080	**.424**	**.457**
Eigenvalues	**13.68**	**9.26**	**7.21**	**4.82**
% Variance	**19.26**	**13.04**	**10.15**	**6.78**
Cronbach's alpha	**.963**	**.931**	**.893**	**.837**

4.2.4 Factor Naming

The researcher utilised the recaptured item technique (Meehl et al., 1971) during the factor naming process. This technique was similarly used to name the factors in the teacher data and the method is outlined in section 4.1.4. The same two sets of judges who named the teacher factors were also used to name the TA factors. The decisions made by the second set of judges agreed entirely with those made by the first set, thus the factor naming process was deemed to have been completed with an adequate amount of objectivity. The final factor names are outlined below.

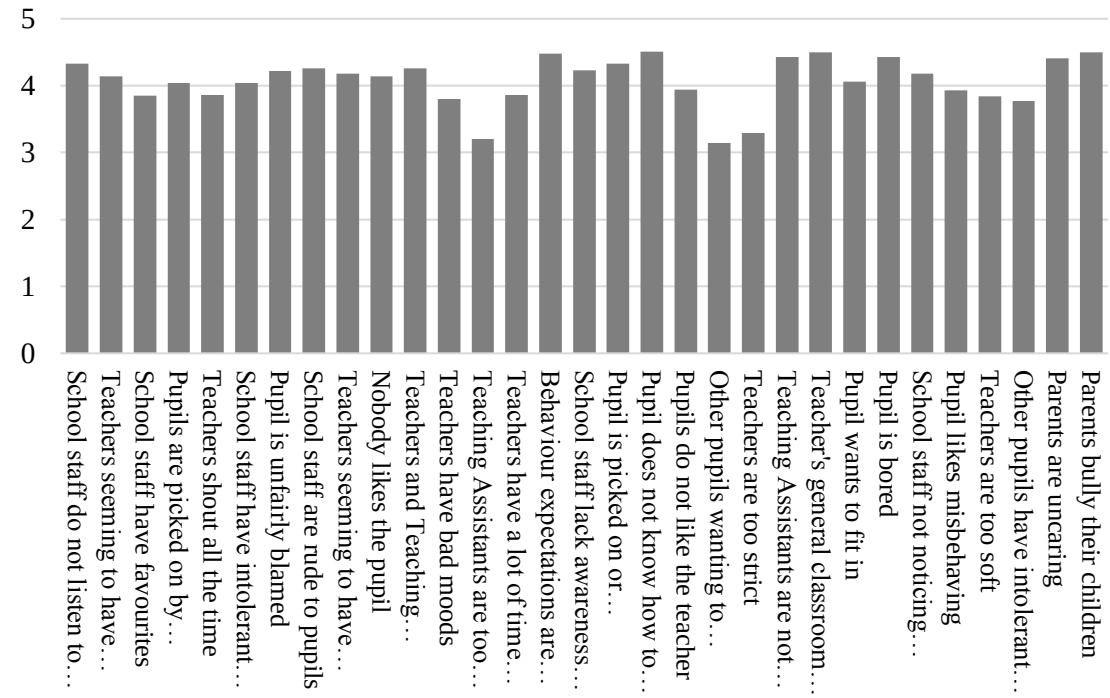
4.2.4.1 Factor 1

'Negativity within the school (and home) environment and an unfair/ineffective system of classroom management'

Factor 1 was made up of 31 items and was termed as 'Negativity within the school (and home) environment and an unfair/ineffective system of classroom management' (see Figure 4.7). This factor appeared to attribute challenging behaviour in the classroom to a negative environment predominantly at school (e.g. 'School staff are

rude to pupils', 'Teachers have bad moods', 'Teachers and Teaching Assistants do not communicate well with each other', 'Nobody likes the pupil', 'Pupils do not like the teacher', 'Other pupils have intolerant attitudes', 'Other pupils wanting to copy work', 'Pupil is bored', 'Pupil is picked on or tormented by other pupils'), but also at home (e.g. 'Parents are uncaring', 'Parents bully their children'), as well as a system of behaviour management in the classroom that is both unfair (e.g. 'Teachers seeming to have an unfair system of rewards', 'School staff have favourites', 'School staff do not listen to pupils', 'Pupils are picked on by teachers', 'School staff have intolerant attitudes', 'Pupil is unfairly blamed', 'Teachers seeming to have an unfair system of punishments', 'Behaviour expectations are inconsistent among school staff') and ineffective (e.g. 'Teachers are too strict', 'School staff not noticing good work', 'Teacher's general classroom management', 'Teachers shout all the time', 'School staff lack awareness of pupil's culture', 'Teachers are too soft', 'Teaching Assistants are too strict', 'Teachers have a lot of time out of the classroom', 'Pupil likes misbehaving', 'Pupil wants to fit in', 'Teaching Assistants are not given sufficient training', 'Pupil does not know how to behave').

Figure 4.7 – A graph to show mean ratings for each item included in factor 1: 'Negativity within the school (and home) environment and an unfair/ineffective system of classroom management'

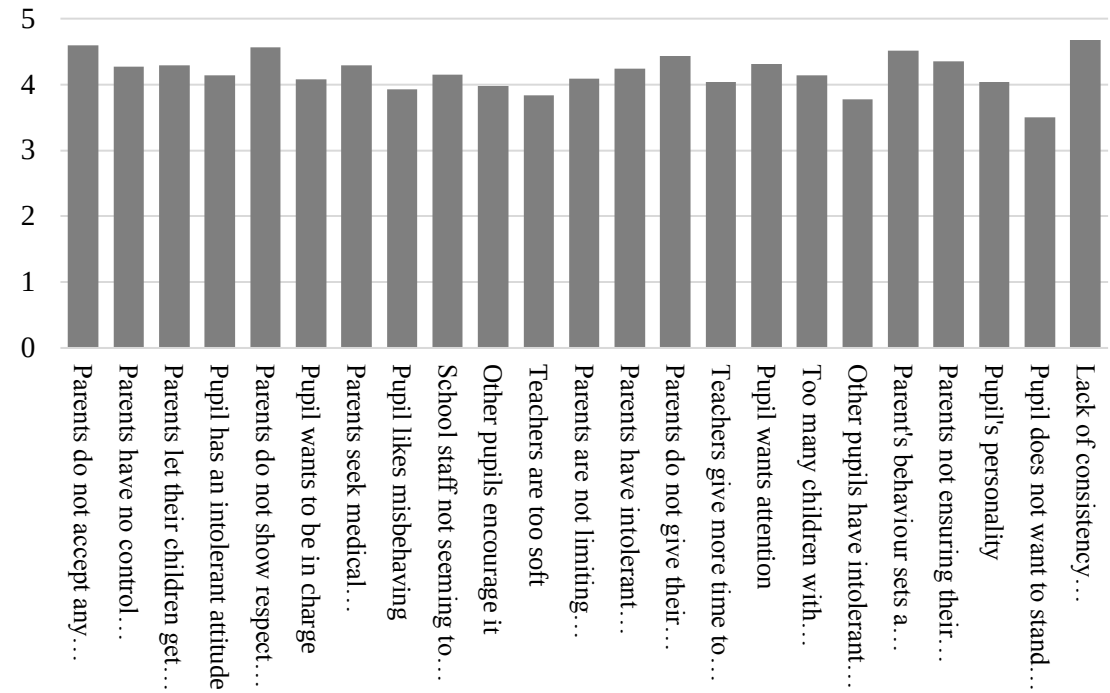


4.2.4.2 Factor 2

‘Parental behaviour and a lack of discipline from home (and sometimes school) is reflected in negative pupil attitudes’

Factor 2 was made up of 23 items and was termed as ‘Parental behaviour and a lack of discipline from home (and sometimes school) is reflected in negative pupil attitudes’ (see Figure 4.8). This factor appeared to attribute challenging behaviour in the classroom to the behaviour of parents (e.g. ‘Parent's behaviour sets a bad example’, ‘Parents do not show respect for others (teachers, police, other parents, etc.)’, ‘Parents have intolerant attitudes’, ‘Parents not ensuring their children have appropriate opportunities and skills to communicate and interact with themselves and other adults’) and an absence of discipline at home (e.g. ‘Parents do not accept any responsibility for disciplining their child’, ‘Parents have no control over their children’, ‘Parents let their children get away with too much’, ‘Parents seek medical explanations to excuse, and to avoid addressing, challenging behaviour’, ‘Parents do not give their child attention or praise when they are good’, ‘Lack of consistency between home and school’, ‘Parents are not limiting their child's screen time at home’), as well as intrinsic attitudes within the pupils (e.g. ‘Pupil has an intolerant attitude’, ‘Pupil wants to be in charge’, ‘Pupil likes misbehaving’, ‘Other pupils encourage it’, ‘Pupil wants attention’, ‘Other pupils have intolerant attitudes’, ‘Pupil's personality’, ‘Pupil does not want to stand out as good’). This factor also referred to ineffective discipline at school (e.g. ‘School staff not seeming to punish bad behaviour’, ‘Teachers are too soft’, ‘Too many children with special educational needs in one class’, ‘Teachers give more time to pupils who misbehave’)

Figure 4.8 – A graph to show mean ratings for each item included in factor 2: 'Parental behaviour and a lack of discipline from home (and sometimes school) is reflected in negative pupil attitudes'

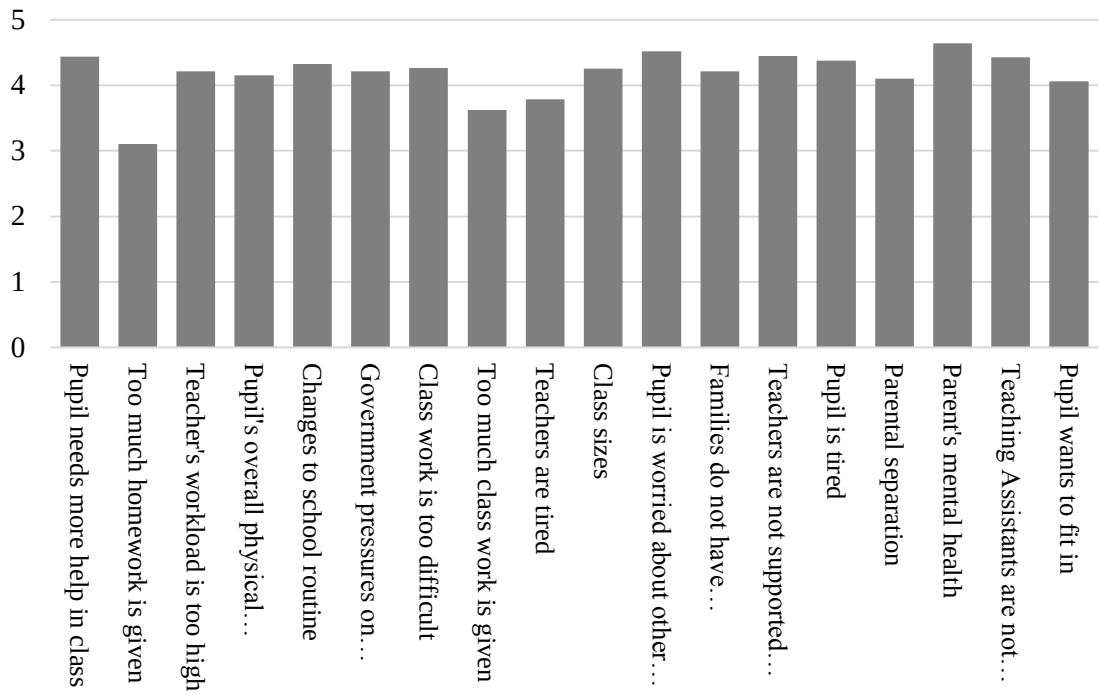


4.2.4.3 Factor 3

'External pressures within the education system and home circumstances'

Factor 3 was made up of 18 items and was termed as 'External pressures within the education system and home circumstances' (see Figure 4.9). This factor appeared to attribute challenging behaviour in the classroom to the external pressures that school staff face with regards to workload (e.g. 'Teacher's workload is too high', 'Teachers are tired', 'Changes to school routine', 'Government pressures on schools (budgets cuts, attainment objectives etc.)', 'Teaching Assistants are not given sufficient training', 'Class sizes', 'Teachers are not supported in the school') and curriculum (e.g. 'Too much class work is given', 'Pupil needs more help in class', 'Too much homework is given', 'Class work is too difficult'), as well as pressures within the home environment (e.g. 'Families do not have enough money to eat or buy clothes', 'Pupil is worried about other things', 'Pupil is tired', 'Parent's mental health', 'Pupil's overall physical wellbeing (e.g. diet, physical fitness)', 'Pupil wants to fit in', 'Parental separation')

Figure 4.9 – A graph to show mean ratings for each item included in factor 3: 'External pressures within the education system and home circumstances'

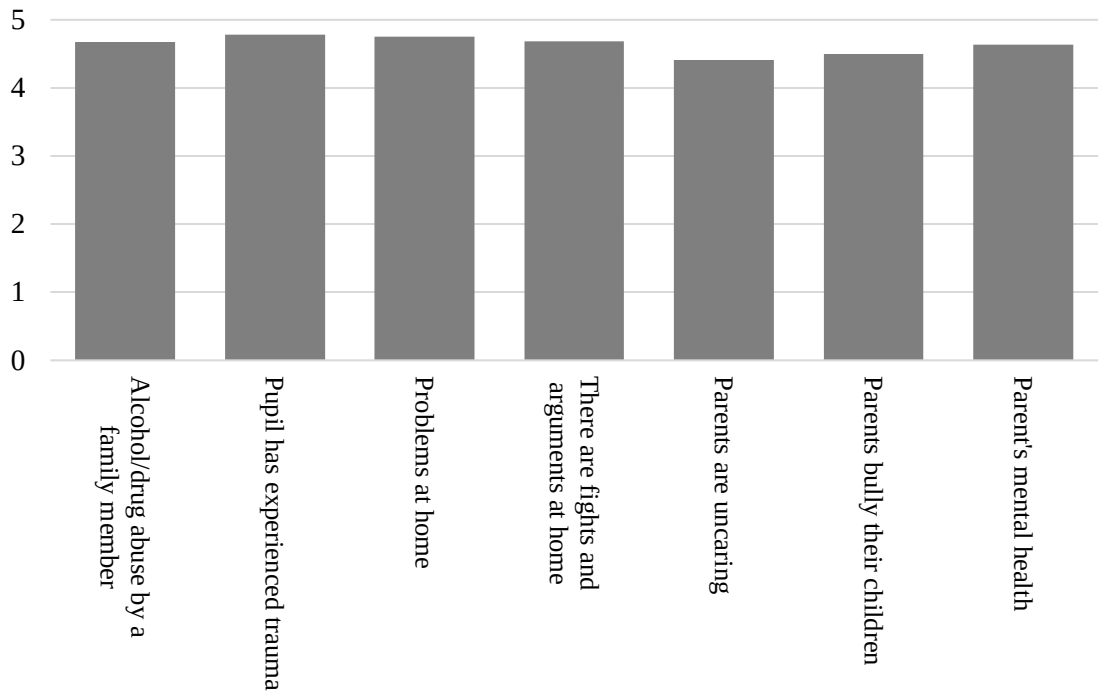


4.2.4.4 Factor 4

<u>'Adverse family circumstances'</u>

Factor 4 was made up of 7 items and was termed as 'Adverse family circumstances' (see Figure 4.10). This factor appeared to attribute challenging behaviour in the classroom to adversity within the home environment (e.g. 'Alcohol/drug abuse by a family member', 'Pupil has experienced trauma', 'Problems at home', 'There are fights and arguments at home', 'Parents are uncaring', 'Parents bully their children', 'Parent's mental health').

Figure 4.10 – A graph to show mean ratings for each item included in factor 4: 'Adverse family circumstances'



4.2.5 Intercorrelation Between Factors

In order to explore correlations between the four factors, the percentage of the maximum possible score was calculated for each participants' rating of each factor. Similarly to the teacher data, this was achieved by totalling participants rating on all items within a factor and calculating this figure as a percentage of the score that would have been obtained if they had rated all items as being 'very important'.

A significant degree of intercorrelation was found between all factors, as indicated in Table 4.11, with the strongest correlation being demonstrated between factor 1 ('Negativity within the school (and home) environment and an unfair/ineffective system of classroom management') and factor 2 ('Parental behaviour and a lack of discipline from home (and sometimes school) is reflected in negative pupil attitudes'). This suggests that TAs who rated the 'Negativity within the school (and home) environment and an unfair/ineffective system of classroom management' factor as highly important in terms of contributing towards challenging behaviour in the classroom, also attributed a high level of importance to 'Parental behaviour and a lack of discipline from home (and sometimes school) is reflected in negative pupil attitudes'.

Table 4.11 – Intercorrelations between the four extracted factors (TA data)

	Factor 1	*Factor 2*	*Factor 3*	*Factor 4*
Factor 1	1			
Factor 2	.71*	1		
Factor 3	.69*	.60*	1	
Factor 4	.60*	.48*	.48*	1

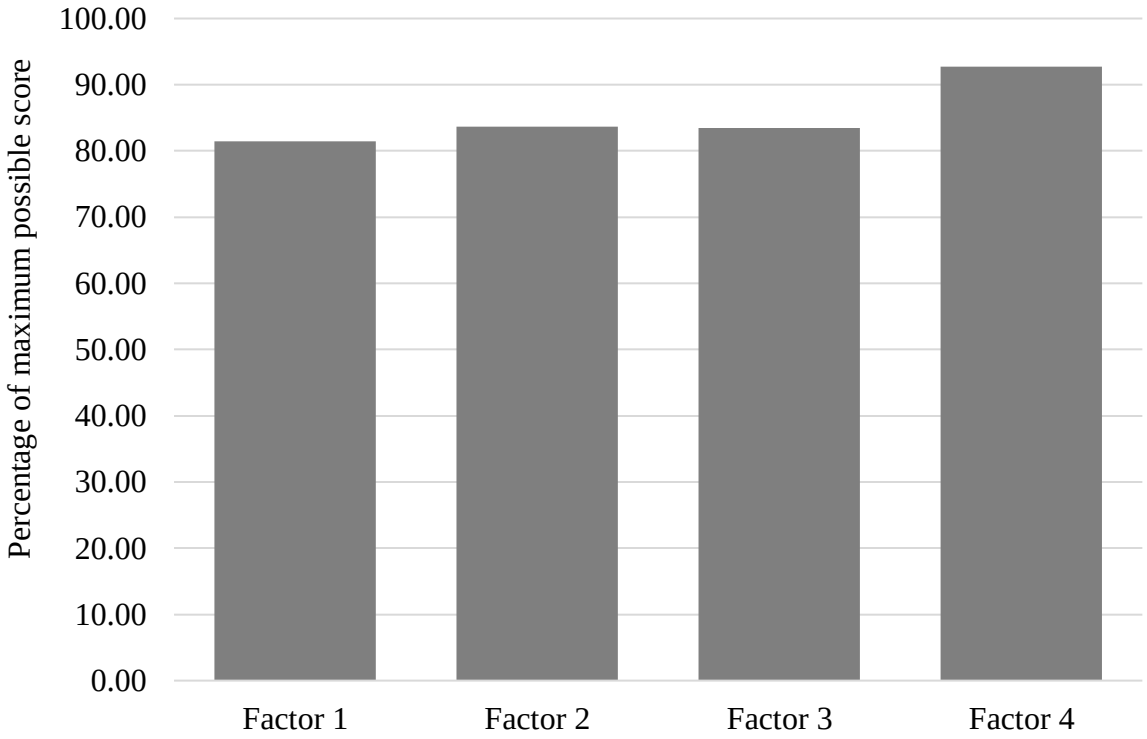
*$p < .001$

4.2.6 Perceived Importance of Factors

The percentage of the maximum possible score rating, as calculated above, also served to demonstrate how important participants deemed each factor to be in contributing to challenging behaviour in the classroom (see Figure 4.11). Calculation of the mean values indicates that participants perceived factor 4, 'Adverse family circumstances', as being the most important cause of challenging behaviour in the primary school classroom, with it receiving 92.68% of the maximum possible rating. Overall, the factors were perceived in the following order of important:

1. Factor 4: 'Adverse family circumstances' (92.68%)
2. Factor 2: 'Parental behaviour and a lack of discipline from home (and sometimes school) is reflected in negative pupil attitudes' (83.68%)
3. Factor 3: 'External pressures within the education system and home circumstances' (83.49%)
4. Factor 1: 'Negativity within the school (and home) environment and an unfair/ineffective system of classroom management' (81.41%)

Figure 4.11 – A graph to show the percentage of the maximum possible score rating achieved by each of the four extracted factors (TA data)



4.2.7 Exploring the Relationship between Factors and Demographic Variables

One-way between groups multivariate analyses of variance (MANOVA) were conducted to explore any differences between factor scores based on the demographic information collected within the survey. Independent variables included years of experience, gender and training in SEND, while percentage of the maximum possible score for each of the four factors were used as dependent variables.

4.2.7.1 Experience

This linked to the survey question 'How many years of experience do you have in your current position (including work in previous schools)?', where participants were given the following options: 'less than 5 years' (58 respondents), '5-10 years' (46 respondents) and 'more than 10 years' (49 respondents).

Results from the MANOVA indicated that there was not a significant overall difference in the perceived importance of factors based on years of experience, $F(8, 294) = 1.95$, $p = .05$, Wilk's $\Lambda = .90$. However, further tests of between-subjects effects showed that a significant difference based on years of experience was present for factor 1, $F(2, 150) = 3.62$, $p < .05$, $\eta_p^2 = .05$, although no differences were found for the other three factors.

Therefore, Tukey's HSD post-hoc tests were completed for factor 1, which indicated that the mean percentage of the maximum possible scores for factor 1 were significantly different between TAs with 5-10 years' experience and more than 10 years' experience ($p < .05$), but not between TAs with less than 5 years' experience and 5-10 years' experience ($p = .19$) or between TAs with less than 5 years' experience and more than 10 years' experience ($p = .55$). Visual analysis of the mean scores for each factor (see Table 4.12) showed that participants with more than 10 years of experience attributed significantly more importance to factor 1 than participants with 5-10 years of experience.

Table 4.12 – Means and standard deviations for the percentage of maximum possible score ratings by experience (TA data)

	Mean percentage of maximum possible score by years of experience (standard deviation)		
	Less than 5 years	*5-10 years*	*More than 10 years*
Factor 1: 'Negativity within the school (and home) environment and an unfair/ineffective system of classroom management'	81.89 (14.12)	77.53 (14.41)	84.48 (8.50)
Factor 2: 'Parental behaviour and a lack of discipline from home (and sometimes school) is reflected in negative pupil attitudes'	82.83 (12.51)	82.08 (12.21)	86.19 (6.91)
Factor 3: 'External pressures within the education system and home circumstances'	82.30 (10.98)	82.85 (9.93)	85.51 (8.58)
Factor 4: 'Adverse family circumstances'	91.48 (11.01)	92.48 (7.93)	94.29 (6.75)

4.2.7.2 Gender

This linked to the survey question 'What is your gender?', where participants were given the following options: 'male' (3 respondents), 'female' (147 respondents), 'other' (0 respondents) and 'prefer not to say' (3 respondents). Given the overwhelming majority of respondents were female, it was not deemed useful to conduct a statistical analysis of gender differences between the perceived importance of each factor. Descriptive statistics can be found in Table 4.13.

Table 4.13 – Means and standard deviations for the percentage of maximum possible score ratings by gender (TA data)

	Mean percentage of maximum possible score by gender (standard deviation)		
	Male	*Female*	*Prefer not to say*
Factor 1: 'Negativity within the school (and home) environment and an unfair/ineffective system of classroom management'	75.70 (5.78)	81.58 (12.98)	78.71 (16.59)
Factor 2: 'Parental behaviour and a lack of discipline from home (and sometimes school) is reflected in negative pupil attitudes'	78.84 (5.92)	83.75 (11.13)	85.22 (9.16)
Factor 3: 'External pressures within the education system and home circumstances'	70.74 (8.63)	83.75 (9.83)	83.70 (13.80)
Factor 4: 'Adverse family circumstances'	88.57 (7.56)	92.75 (8.96)	93.33 (11.55)

4.2.7.3 Additional Training in SEND

This linked to the survey question 'Do you have any additional training around Special Educational Needs and Disability?', where participants were given the following options: 'yes' (98 respondents) and 'no' (55 respondents).

Results from the MANOVA indicated that there was not a significant overall difference in the perceived importance of factors based on additional training in SEND, $F(4, 148) = 2.34$, $p = .06$, Wilk's $\Lambda = .94$. Visual analysis of the mean scores for each factor also showed that very similar perceptions of importance were indicated by each group (see Table 4.14).

Table 4.14 – Means and standard deviations for the percentage of maximum possible score ratings by additional training in SEND (TA data)

	Mean percentage of maximum possible score by additional training in SEND (standard deviation)	
	Yes	*No*
Factor 1: 'Negativity within the school (and home) environment and an unfair/ineffective system of classroom management'	80.68 (12.94)	82.70 (12.88)
Factor 2: 'Parental behaviour and a lack of discipline from home (and sometimes school) is reflected in negative pupil attitudes'	83.35 (11.67)	84.27 (9.76)
Factor 3: 'External pressures within the education system and home circumstances'	83.65 (10.53)	83.21 (9.00)
Factor 4: 'Adverse family circumstances'	93.56 (7.23)	91.12 (11.28)

4.3 Comparison between Teacher and Teaching Assistant Factor Models

4.3.1 Congruent Factors

'Negativity within the school environment and an unfair/ineffective system of classroom management' (teacher factor)	*&*	*'Negativity within the school (and home) environment and an unfair/ineffective system of classroom management' (TA factor)*

Factor 1 of the teacher model, named 'Negativity within the school environment and an unfair/ineffective system of classroom management', appeared to be most compatible with factor 1 of the TA model, named 'Negativity within the school (and home) environment and an unfair/ineffective system of classroom management'. Moreover, the two factors shared a total of 23 items in common out of a possible 26 for teachers and 31 for TAs. The only difference in factor names was on account of the two items within the TA factor that linked to the home environment ('Parents are uncaring', Parents bully their children'), while there was no reference to parents or the home within the teacher factor.

In order to ascertain the level of similarity between the two factors, Tucker's congruence coefficient was calculated (Tucker, 1951). In general terms, the closer the coefficient to 1, the greater the degree of congruence between the two factors; however, there is less consensus within the literature as to how differing degrees of congruence should be defined. For example, Tucker's original guidance stipulates that a value in the range of .98-1.00 = excellent, .92-.98 = good, .82-.92 = borderline, .68-.82 = poor and below .68 = terrible, but more recent research suggests that a value in the range of .85-.94 indicates a fair similarity, while a value above .95 indicates that the two factors can be considered as equal (Lorenzo-Seva & Berge, 2006). Furthermore, for ease of reference, the present study will utilise Tucker's original parameters. Congruence coefficients between all factors can be found in Table 4.15.

In reference to the two factors above, Tucker's congruence coefficient was calculated as .93, which implies a good level of congruency between the two factors.

4.3.2 Factors with Limited Congruence

'Adverse family circumstances and parental behaviour' (teacher factor)	*&*	*'Adverse family circumstances' (TA factor)*

Factor 2 of the teacher model, named 'Adverse family circumstances and parental behaviour', appeared to be most compatible with factor 4 of the TA model, named 'Adverse family circumstances'. These two factors shared a total of 7 items in common out of a possible 15 for teachers and 7 for TAs, meaning that all items within the TA factor were also present in the teacher factor. The additional information accounted for within the name of the teacher factor referred to a number of items that specifically described parental behaviour, each of which were not present within the TA factor (e.g. 'Parents have intolerant attitudes', 'Lack of consistency between home and school', 'Parents do not show respect for others (teachers, police, other parents, etc.)', 'Parent's behaviour sets a bad example'. Tucker's congruence coefficient for the two factors above was calculated as .85, which implies a borderline level of congruency between the two factors.

'Pupil culture that promotes and facilitates misbehaviour, and a home culture that does not challenge this' *(teacher factor)*	&	*'Parental behaviour and a lack of discipline from home (and sometimes school) is reflected in negative pupil attitudes'* *(TA factor)*

Factor 4 of the teacher model, named 'Pupil culture that promotes and facilitates misbehaviour, and a home culture that does not challenge this', appeared to be most compatible with factor 2 of the TA model, named 'Parental behaviour and a lack of discipline from home (and sometimes school) is reflected in negative pupil attitudes'. These two factors shared a total of 9 items in common out of a possible 10 for teachers and 23 for TAs. The difference in wording between the two factor names reflected a stronger emphasis on parental behaviour within the TA factor, with the inclusion of an additional 6 items linking to parents that were not included within the teacher factor ('Parents do not show respect for others (teachers, police, other parents, etc.)', 'Parents are not limiting their child's screen time at home', 'Parents have intolerant attitudes', 'Parents do not give their child attention or praise when they are good', 'Parent's behaviour sets a bad example', 'Parents not ensuring their children have appropriate opportunities and skills to communicate and interact with themselves and other adults'). The reduced reference to parental items within the teacher factor is likely reflective of the fact that many of these items were already included within factor 2 of the teacher model. Tucker's congruence coefficient for the two factors above was calculated as .82, which implies a borderline level of congruency between the two factors.

'Excessive expectations of teachers and parents adding to this pressure by not adequately preparing their children for school' *(teacher factor)*	&	*'External pressures within the education system and home circumstances'* *(TA factor)*

Factor 3 of the teacher model, named 'Excessive expectations of teachers and parents adding to this pressure by not adequately preparing their children for school',

appeared to be most compatible with factor 3 of the TA model, named ‘External pressures within the education system and home circumstances’. These two factors shared a total of 7 items in common out of a possible 9 for teachers and 18 for TAs. The references to the home environment different between these two factors, with teachers emphasising the parents’ role in setting boundaries (e.g. ‘Parents are not limiting their child's screen time at home’), while TAs highlighted issues within the home that can be out of parental control (e.g. ‘Families do not have enough money to eat or buy clothes’, ‘Parental separation’, ‘Parent's mental health’). The TA factor also seemed to attribute more importance to external pressures faced by school staff, with 5 additional references to the wider education system in comparison to the teacher factor (‘Class work is too difficult’, ‘Too much class work is given’, ‘Teachers are tired’, ‘Class sizes’, ‘Too much homework is given’). However, Tucker’s congruence coefficient for the two factors above was calculated as .78, which implies a poor level of congruency between the two factors.

4.3.3 Non-Congruent Factors

‘Teachers (and sometimes parents) being overly demanding in terms of work and behaviour-related expectations’

Factor 5 of the teacher model, named ‘Teachers (and sometimes parents) being overly demanding in terms of work and behaviour-related expectations’, did not appear to be compatible with any of the factors within the TA model. As such, it seemingly represented a possible cause of challenging behaviour within the primary school classroom that was apparent and important to teachers, but not to TAs.

Table 4.15 – Tucker's congruence coefficients and descriptors between all teacher and TA factors

		Teacher Factors				
		1. 'Negativity within the school environment and an unfair/ineffective system of classroom management'	*2. 'Adverse family circumstances and parental behaviour'*	*3. 'Excessive expectations of teachers and parents adding to this pressure by not adequately preparing their children for school'*	*4. 'Pupil culture that promotes and facilitates misbehaviour, and a home culture that does not challenge this'*	*5. 'Teachers (and sometimes parents) being overly demanding in terms of work and behaviour-related expectations'*
TA Factors	*Factor 1: 'Negativity within the school (and home) environment and an unfair/ineffective system of classroom management'*	**.93** **(good)**	.45 (terrible)	.51 (terrible)	.51 (terrible)	.65 (terrible)
	Factor 2: 'Parental behaviour and a lack of discipline from home (and sometimes school) is reflected in negative pupil attitudes'	.46 (terrible)	.55 (terrible)	.56 (terrible)	**.82** **(borderline)**	.39 (terrible)
	Factor 3: 'External pressures within the education system and home circumstances'	.51 (terrible)	.48 (terrible)	.73 (poor)	.29 (terrible)	.52 (terrible)
	Factor 4: 'Adverse family circumstances'	.47 (terrible)	**.85** **(borderline)**	.37 (terrible)	.37 (terrible)	.41 (terrible)

4.4 Summary

The current chapter has presented the findings of this study in relation to the aforementioned research questions. Factor analysis was conducted separately on the teacher and TA samples, resulting in 5-factor and 4-factor models being developed respectively. Intercorrelations between the factors in each model were presented, as well as calculations of the importance attributed to each factor. Factor models were also explored in relation to the demographic variables collected within the survey, although minimal effects were found. Finally, comparisons between relevant teacher and TA factors were presented, including calculations of congruence coefficients. The next chapter discusses these findings in relation to previous literature.

5 Discussion

The present chapter discusses the findings of this study in relation to previous literature and theory, as described in Chapter Two. Findings pertaining to each research objective are initially outlined and links to key literature are explored. This is followed by an evaluation of the methodology implemented within the current study and how its limitations might affect the interpretation of results. Possible implications of the current study are then discussed with regards to schools, EPs and future research. Finally, conclusions are drawn that highlight key findings from the study and its unique contribution to the literature.

5.1 Summary of Findings

The current study sought to gain an understanding of how staff in mainstream primary school settings attribute challenging behaviour among their pupils. The overarching research question was as follows:

- What causal attributions are made by school staff for challenging behaviour observed in pupils aged 4-11?

In addressing this question, the study aimed to achieve the following objectives:

- Establish an understanding of teachers' attributions for challenging behaviour in the primary school setting.
- Establish an understanding of TAs' attributions for challenging behaviour in the primary school setting.
- Explore the similarities and differences between the attributions made by teachers and TAs for challenging behaviour in the primary school setting.

In order to meet the above objectives, the researcher implemented a survey strategy to establish factors that were perceived by school staff to have the biggest impact on challenging behaviour in the primary school classroom. The 'school staff' group was split into two subgroups ('teachers' and 'TAs') and the survey instrument was distributed accordingly. Factor analysis of the survey responses revealed a five-factor attribution model for teachers and a four-factor attribution model for TAs.

Findings in relation to each of these research objectives are discussed in further detail below.

5.1.1 Objective 1: Establish an understanding of teachers' attributions for challenging behaviour in the primary school setting

The above objective was met through a process of analysis which concluded in the extraction of five factors that teachers perceived to have a significant impact on causing challenging behaviour in primary school settings. These were labelled as follows:

- Factor 1: 'Negativity within the school environment and an unfair/ineffective system of classroom management'
- Factor 2: 'Adverse family circumstances and parental behaviour'
- Factor 3: 'Excessive expectations of teachers and parents adding to this pressure by not adequately preparing their children for school'
- Factor 4: 'Pupil culture that promotes and facilitates misbehaviour, and a home culture that does not challenge this'
- Factor 5: 'Teachers (and sometimes parents) being overly demanding in terms of work and behaviour-related expectations'

5.1.1.1 Factor 1: 'Negativity within the school environment and an unfair/ineffective system of classroom management'

A total of 26 out of the 73 questionnaire items loaded onto factor 1, making it the factor with the largest item loading within the model. This factor appeared to touch upon elements within the school environment that are creating a negative atmosphere, as well as difficulties with the classroom management techniques implemented by teaching staff. It is interesting to note that these classroom management strategies were perceived not only to be ineffective, but also unfair, which would indicate a level of responsibility held by those implementing the strategies in contributing to the negative school environment. This factor appears to be entirely school-based, which is pertinent because the impact of school factors on challenging behaviour have often been perceived as less important by teachers in previous literature (Croll & Moses, 1985; Ho, 2004; Mavropoulou & Padeliadu,

2002; Miller, 1995). Instead, this factor relates to findings by Gibbs and Gardiner (2008), which indicated that teachers perceived challenging behaviour to be caused as much by teacher behaviour as by any parental or home factors. This could imply a cultural shift in teachers' perspectives over the past two decades.

5.1.1.2 Factor 2: 'Adverse family circumstances and parental behaviour'

Factor 2, which comprised of 15 out of 73 questionnaire items, indicated that teachers also attributed the cause of challenging behaviour in the school setting to factors within the home environment. The specificity of this factor would suggest that teachers perceived some of the causes of challenging behaviour to be entirely out of the control of both school staff and the pupils themselves, instead directing the culpability towards elements of the home environment that are under parental control. Findings of a similar nature have previously been reported by Mavropoulou and Padeliadu (2002).

5.1.1.3 Factor 3: 'Excessive expectations of teachers and parents adding to this pressure by not adequately preparing their children for school'

The third factor included 9 of the 73 questionnaire items and strongly emphasised the external pressures that are placed on teachers in relation to workload and government strategy, as well as the impact that these can have on challenging behaviour within the school setting. This factor also eludes to the fact that parents can ameliorate or exacerbate these pressures with their own actions at home in preparing their children for the school environment. This factor does not appear to have been extracted in relation to teacher attributions within previous studies, which would suggest that this is something that teachers perceive to have become more pertinent in recent years. Furthermore, the perceived importance of government pressures (e.g. attainment objectives) contrasts with findings reported by Gibbs and Gardiner (2008), who stated that teachers did not perceive demands linked to the curriculum to be a significant cause of challenging behaviour.

5.1.1.4 Factor 4: 'Pupil culture that promotes and facilitates misbehaviour, and a home culture that does not challenge this'

Factor 4 comprised of 10 out of the 73 questionnaire items and appeared to mainly attribute challenging behaviour to factors linked to pupil personality and their motivation to misbehave. This relates strongly to previous findings by Bibou-Nakou, Kiosseoglou and Stogiannidou (2000) and Mavropoulou and Padeliadu (2002), who suggested that teachers in Greece most frequently attribute student-related factors to instances of challenging behaviour. The other element of this factor relates to a lack of discipline from adults, particularly within the home environment, which is frequently reported by teachers as a perceived causal attribution for challenging behaviour by pupils in the school setting (Croll & Moses, 1985; Ho, 2004; Mavropoulou & Padeliadu, 2002; Miller, 1995).

5.1.1.5 Factor 5: 'Teachers (and sometimes parents) being overly demanding in terms of work and behaviour-related expectations'

Factor 5 included 8 out of the 73 questionnaire items and emphasised the impact of excessive schoolwork demands, possibly linking back to the external pressures referred to in factor 3. In the same way as factor 3, the items included within this factor do not appear to have been given the same perceived level of importance in previous literature, with teachers not reporting this to be of particular significance in causing challenging behaviour. Behaviour management style, particularly relating to school staff, is also mentioned within this factor, which links to items mentioned in factor 1 and again appears to suggest that teachers perceive that they have control over particular factors that contribute towards the challenging behaviour of pupils within the school setting.

5.1.1.6 Links to Previous Literature

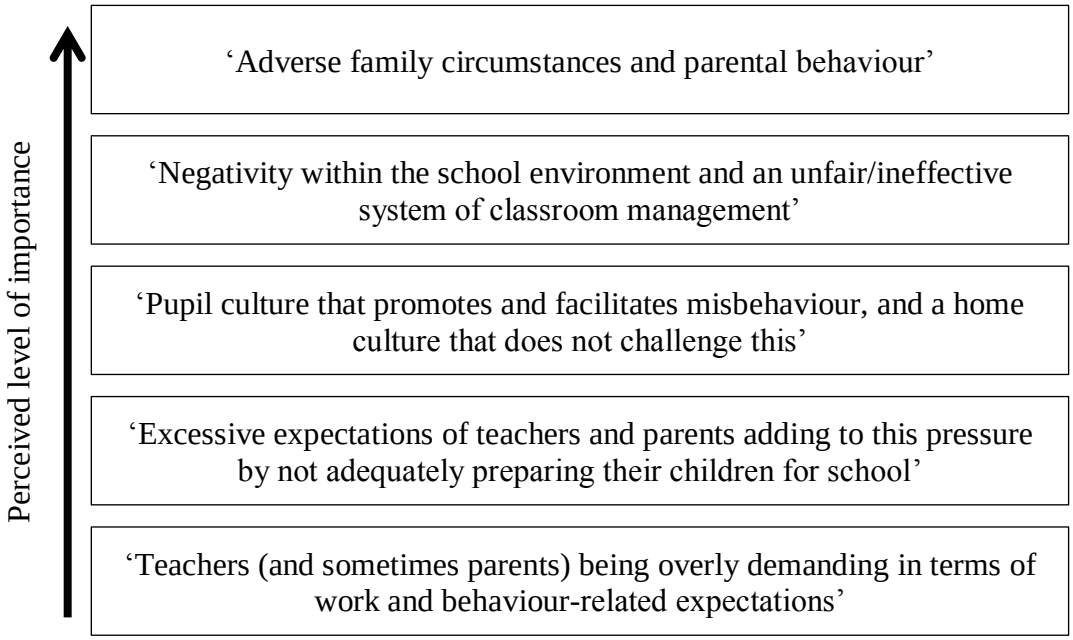
With regards to Weiner's dimensions of causality (Weiner, 1979, 1985), teachers within this study appeared to demonstrate a clear preference towards assigning an external locus of control to pupils exhibiting challenging behaviour within the school setting. Four out of five factors within the model are clearly linked to external factors, while factor 4 contains an element of both internal and external factors. This would suggest that, overall, teachers perceived the causes of challenging behaviour

in primary schools to be largely out of the pupils' control, with the responsibility instead being placed with school and home factors. This stands in direct contrast to studies by Guttmann (1982) and Ho (2004), among others, who found that teachers mainly attributed the causes of challenging behaviour to factors within the pupils' control. This contrast could be a reflection of general changes in teacher attitudes or teacher training programmes, such as additional training being delivered around child development and the effects of adverse childhood experiences. However, it should also be noted that while the teachers in Guttmann's (1982) study taught children of a primary school age, participants in Ho's (2004) study were high school teachers, therefore comparison with the results of the present study should be made with caution. As such, further exploration will be required before these findings can be generalised or any tentative conclusions drawn.

Furthermore, another key aspect of Weiner's theory was the notion of controllability, which referred to how the level of perceived control that an individual has over a cause might affect their attribution of causality. With regards to research within the field of education, Campbell and Sedikides (1999) previously reported a self-serving bias in the way that teachers attributed challenging behaviour, meaning that they were less likely to perceive the causes as being linked to teacher or school factors; however, the current study suggests that teachers acknowledged the influence that school factors can have on challenging behaviour in primary schools, with factors 1, 4 and 5 including an element of teacher control.

While each of the five factors extracted within the teacher model were perceived by participants to have some level of importance, it is critical to note the level of importance attributed to each factor in relation to previous literature. This notion was determined by calculating the percentage of the maximum possible score rating for each factor. A list of the factors in order of perceived level of importance can be found in Figure 5.1.

Figure 5.1 – A diagram showing the five factors within the teacher model in order of perceived level of importance



The factor with the highest perceived level of importance (receiving 87.95% of the maximum possible rating) was factor 2 ('Adverse family circumstances and parental behaviour'), which links entirely to factors within the home environment. The fact that teachers perceived this factor to be of highest importance is reflective of similar findings in several previous studies (e.g. Croll & Moses, 1985; Ho, 2004; Mavropoulou & Padeliadu, 2002; Miller, 1995) and would support the assertion that teachers demonstrate a self-serving bias in their attributions towards challenging behaviour (Campbell & Sedikides, 1999). However, it is pertinent to note that factor 1 ('Negativity within the school environment and an unfair/ineffective system of classroom management') followed closely in second place with 83.09% of the maximum possible rating, which directs a significant amount of control towards teacher and school factors, thus negating the notion of a self-serving bias. As such, the present study seems to suggest that teachers display a range of attributions towards challenging behaviour in primary school settings, including factors that are both within and outside of their own control.

Finally, the present study compared attributions across various demographic variables, including experience, gender and additional training in SEND. Results indicated no significant effects according to length of experience, which is in keeping with findings from previous literature (Bibou-Nakou et al., 2000; Cunningham & Sugawara, 1988). Additional SEND training was also found to not have a significant effect on item ratings, which directly contrasts research by Erbas, Turan, Gulec Aslan and Dunlap (2010) who found that teachers' attributions of challenging behaviours were affected by their area of speciality and training on behavioural interventions. One possible reason for this could be an improvement in foundational teacher training relating to challenging behaviour, however, it is also important to acknowledge the differing cultural contexts within which each study takes place and how this might affect the education systems and attitudes towards challenging behaviour.

Moreover, gender was found to have a significant effect on teachers' rating of questionnaire items, with female participants rating factors 1, 2, 3 and 5 as significantly more important than male participants. Gender effects do not appear to have been reported in previous literature, with possible reasons for this including the fact that there was no significant effect or perhaps because the disparity between participant numbers in each group made such analysis redundant. Indeed, the difference in group size between each gender in the present study renders any possible conclusions extremely tentative.

5.1.1.7 Conclusion

The five-factor model extracted from the data indicates variability in teachers' causal attributions for challenging behaviour within the primary school setting. Three factors make reference to notions that are within teachers' control, while four factors make reference to home and parent factors and one factor makes reference to intrinsic pupil qualities. The factor with the highest perceived level of important related to home environment and parent influence (factor 2), while the next most important factors related to school factors (factor 1) and then pupil factors (factor 4). While most findings appeared to be supported by previous literature, the greater emphasis on the importance of teacher- and school-related factors seems to contrast

with a number of earlier studies. This finding will therefore require further exploration in order to ascertain its significance.

5.1.2 Objective 2: Establish an understanding of TAs' attributions for challenging behaviour in the primary school setting

In a similar way to objective 1, the above objective was met through a process of analysis which concluded in the extraction of four factors that TAs perceived to have a significant impact on causing challenging behaviour in primary school settings. These were labelled as follows:

- Factor 1: 'Negativity within the school (and home) environment and an unfair/ineffective system of classroom management'
- Factor 2: 'Parental behaviour and a lack of discipline from home (and sometimes school) is reflected in negative pupil attitudes'
- Factor 3: 'External pressures within the education system and home circumstances'
- Factor 4: 'Adverse family circumstances'

5.1.2.1 Factor 1: 'Negativity within the school (and home) environment and an unfair/ineffective system of classroom management'

Factor 1 included 31 out of the 73 questionnaire items and was the only factor within the TA model to mention school related issues that could be considered to be within the control of school staff. Further exploration of the individual items indicated that these referred to the behaviour of both teachers and TAs, making this factor seemingly general to all school staff. The notion of 'fairness' within this factor links to a factor identified by Page (2005) in her exploration of secondary school LSA's attributions towards challenging behaviour, which was labelled 'Fairness of teachers' actions'. A similar factor was also identified by Miller, Ferguson and Moore (2002) in their study of parental attributions, as well as Miller, Ferguson and Byrne (2000) in their study of pupil attributions. In this way, this element of factor 1 appears to support Page's (2005) assertion that the attributions of school support staff align more closely with parents and pupils, than with teachers. However, the second element of this factor eludes to negative influences within the home and

school environment, which are not noted in Page's (2005) research. The fact that this element does not seem to appear in previous research is likely due to the varying measures used within each study, but might also be indicative of changes in attributions over time.

5.1.2.2 Factor 2: 'Parental behaviour and a lack of discipline from home (and sometimes school) is reflected in negative pupil attitudes'

A total of 23 out of the 73 questionnaire items loaded onto factor 2, with the majority of this factor appearing to reflect a lack of appropriate discipline being provided by adults both at home and school, as well as some intrinsic pupil qualities. This links to a similar factor identified by Page (2005), which was named as 'Pupil vulnerability to peer influence and lack of adult guidance'. While these notions are touched upon in previous literature, they are often extracted as separate factors, rather than grouped together as found within the present study and by Page (2005). Moreover, an element of this factor refers strongly to parental behaviour, which is not specifically touched upon in previous research into LSA, pupil or parental attributions. Instead, parental behaviour is more often extracted as a causal attribution by teachers (Mavropoulou & Padeliadu, 2002; Miller, 1995), meaning that TAs views appeared to align more with those of teachers on this particular point.

5.1.2.3 Factor 3: 'External pressures within the education system and home circumstances'

The third factor included 13 out of the 73 questionnaire items and referred to the impact that external pressures faced by schools and parents can have on challenging behaviour exhibited by primary school pupils. This factor is interesting in that it is suggesting that there are elements of both the home and school environments that are detrimental to pupils' behaviour, yet are beyond the control of the adults within these contexts. Factors of a similar nature do not appear to have been extracted in previous literature, which is possibly due to the difference in questionnaire items presented in this study. However, given that this questionnaire was developed through the use of focus groups, the fact that additional items of this nature were included (for example 'Teacher's workload is too high' and 'Parent's mental health') is likely reflective of an increase in understanding around these difficulties for teaching staff, as well as

possible feelings of helplessness with regards to supporting pupils who exhibit challenging behaviour.

5.1.2.4 Factor 4: 'Adverse family circumstances'

Factor 4 was comprised of 7 out of the 73 questionnaire items, all of which clearly referred to difficult family circumstances. Factors of a similar nature are extracted frequently among previous research around causal attributions for challenging behaviour in schools, and are included within the views of parents (Miller et al., 2002), pupils (Miller et al., 2000), teachers (Miller, 1995) and LSAs (Page, 2005), although there is some variability within the factor label. The extraction of this factor is, therefore, consistent with previous literature and further supports the notion that all stakeholders within the education system perceive adverse family circumstances to be a significant factor impacting upon the presentation of challenging behaviour within school settings.

5.1.2.5 Links to Previous Literature

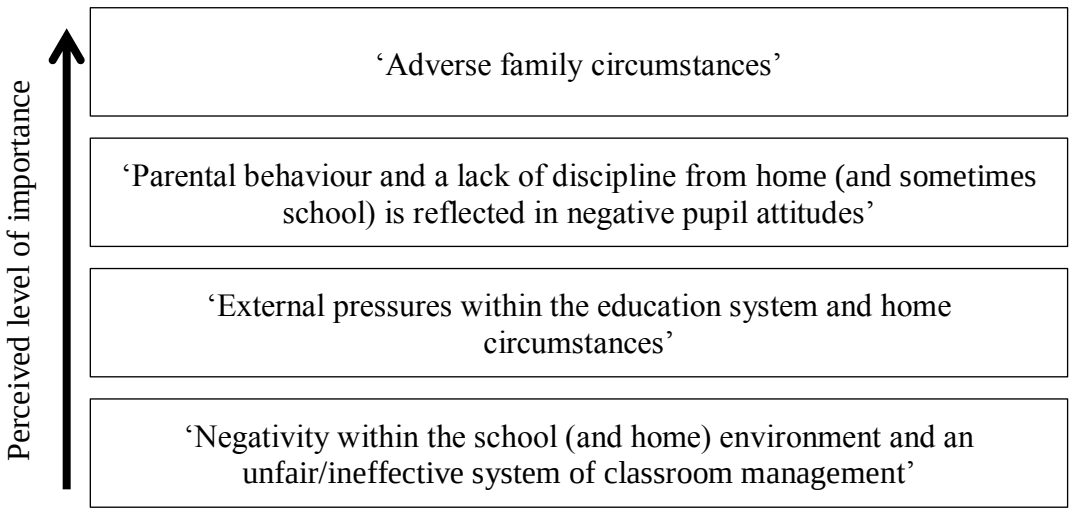
With regards to applying attribution theory to the TA model, findings would suggest that TAs also appear to make external attributions when considering the causes of challenging behaviour among pupils. That is, TAs perceive most causes of challenging behaviour to be outside the pupils' locus of control, with only one out of the four factors alluding to an element of pupil control over their own behaviour (factor 2). However, even factor 2 includes a notion of responsibility directed towards teachers and parents, which is in keeping with previous findings from Page (2005). Overall, it would seem that TAs do not perceive intrinsic pupil factors to be specifically responsible for challenging behaviour in school settings, but rather that they become relevant when interacting with a number of other external influences.

In reference to the TAs level of perceived 'controllability' (Weiner, 1979, 1985), only one out the four factors (factor 1) appears to partially be within the control of TAs, with this factor referring to classroom management, in which TAs often have a significant role. However, this factor is not specific to the TA role, as it also incorporates aspects of the school and home environment, therefore it can only be considered to partially have an element of TA controllability. In this way, it could be argued that TAs may have demonstrated a self-serving bias within their

questionnaire responses, as they appear to consider the causes of challenging behaviour to be largely out of their control.

In a similar way to the teacher data, while all four factors were perceived by TAs to be important to some extent, the specific level of perceived importance that TAs attributed to each of the factors should be noted. As such, the percentage of the maximum possible score rating was also calculated for the TA factors and a list of the factors in order of perceived level of importance can be found in Figure 5.2.

Figure 5.2 – A diagram showing the four factors within the TA model in order of perceived level of importance



The factor with the highest perceived level of importance (receiving 92.68% of the maximum possible rating) was factor 4 ('Adverse family circumstances'), which links entirely to factors within the home environment. This factor is specifically considered to be of importance in several previous studies, including Page's (2005) research with secondary school LSAs, which lends support to the notion that adverse family circumstances are considered by many key stakeholders to be of significant importance in contributing towards challenging behaviour in schools. Factors within the home environment were also mentioned in the next two most important factors, indicating that this is where TAs focused their attributions for challenging behaviour.

The factor with the least perceived level of importance within the model, though still achieving 81.41% of the maximum possible rating, was factor 1. This is the only

factor to include a degree of TA controllability, which would indicate that, while TAs perceive that their behaviour contributes in some way to pupils' challenging behaviour, they believe that external factors, particularly within the home environment, are more important. This view could be considered to be more in line with attributions made by teachers in previous studies (Croll & Moses, 1985; Ho, 2004; Mavropoulou & Padeliadu, 2002; Miller, 1995), compared with those previously reported for LSAs (Page, 2005), who attributed greater importance to teacher and pupil factors.

Furthermore, analysis of school support staff's attributions in relation to demographic variables does not appear to have been undertaken previously, therefore it is not possible to make a comparison between the findings of the present study and prior research. Similarly to Page (2005), it was not possible within the current research to conduct a comparison by gender due to the overwhelming majority of participants purporting to be female. Only 6 of the 153 participants identified as either 'male' or 'prefer not to say', rendering such an analysis as redundant. Moreover, it was possible to undertake a comparison of the perceived importance of factors based on additional training in SEND, but results indicated that there were no significant differences between population groups.

Results also showed that there was not a significant overall difference in the perceived importance of factors based on years of experience; however, a significant difference was noted specifically for the perceived importance of factor 1 between TAs with 5-10 years of experience and TAs with more than 10 years of experience. Overall, TAs with more than 10 years of experience rated factor 1 as significantly more important than TAs with 5-10 years of experience, which is pertinent because factor 1 is the only factor that does not highlight the importance of home factors. This could indicate that more experienced TAs are more likely to notice the factors within the school environment that are impacting upon challenging behaviour among the pupils, although this does not account for the fact that there was not a significant difference between TAs with less than 5 years and more than 10 years of experience.

An alternative explanation could be that TAs with less than 5 years of experience hold a high level of sympathy towards parental factors and the home environment, while maintaining perspective over the challenges within the school system that can

contribute towards misbehaviour among students. However, as TAs with 5-10 years of experience become more entrenched within the school system, it is possible that they become less able to see how changing factors within the school, including their own behaviour, could have an impact on pupil behaviour. Moreover, after 10 years of experience, it is likely that a TA will have undergone substantial training and hold higher level responsibilities, which might place them in a position to perceive how changes to the school system and factors within the control of teaching staff might impact upon the pupils' presentation of challenging behaviour.

5.1.2.6 Conclusion

The four-factor model extracted from the data indicates that TAs perceived external factors, particularly pertaining to the home environment, to be most important in contributing towards challenging behaviour among primary school pupils. Three out of four factors alluded to the importance of home factors, with the highest level of perceived importance being attributed to factor 4: 'Adverse family circumstances'. Overall, only one factor referenced an element of pupil control over their own behaviour and one factor referenced classroom systems over which TAs hold an element of control. All other factors mainly related to aspects of the home environment, which are reflective of the attribution patterns reported by teachers in previous research (Croll & Moses, 1985; Ho, 2004; Mavropoulou & Padeliadu, 2002; Miller, 1995).

Factors 1, 2 and 4 also appear to relate to factors extracted by Page (2005) in her study of LSA attributions, although a degree of caution should be exercised when comparing this with the present study. Not only did Page (2005) conduct her research with LSAs in a mainstream secondary school, meaning that her research accesses a different population of school support staff, but she also implemented a different questionnaire measure to the present study, meaning that any comparisons made between factors should be extremely tentative. Nonetheless, the similarities between the results from both studies should not be disregarded and are worthy of further exploration.

5.1.3 Objective 3: Explore the similarities and differences between the attributions made by teachers and TAs for challenging behaviour in the primary school setting

5.1.3.1 Key Findings

Before discussing the findings from the present research in relation to the above objective, it is important to note that, in methodological terms, this study was not designed to afford direct statistical comparison between the models extracted for teacher and TAs. The function of factor analysis is to produce a standalone model based on the data available and this was the primary purpose of the study. However, the fact that both groups of participants were presented with the same survey invites a certain amount of intrigue regarding the similarities and differences between the factor models that were extracted.

Furthermore, through the use of a method developed by Tucker (1951), it is possible to establish the level of congruence between factors in separate models, given that the same measures were used in both cases. Therefore, factors with a perceived level of similarity are presented alongside their congruence coefficients in Table 5.1. This allows for a tentative exploration of the similarities and differences between the models, although a direct comparison should be avoided.

Table 5.1 – Similarities between the 5-factor teacher model and 4-factor TA model, including Tucker's congruence coefficients

Teacher Factor	*Congruence Coefficient*	*TA Factor*
'Negativity within the school environment and an unfair/ineffective system of classroom management' (factor 1)	.93	'Negativity within the school (and home) environment and an unfair/ineffective system of classroom management' (factor 1)
'Adverse family circumstances and parental behaviour' (factor 2)	.85	'Adverse family circumstances' (factor 4)
'Pupil culture that promotes and facilitates misbehaviour, and a home culture that does not challenge this' (factor 4)	.82	'Parental behaviour and a lack of discipline from home (and sometimes school) is reflected in negative pupil attitudes' (factor 2)
'Excessive expectations of teachers and parents adding to this pressure by not adequately preparing their children for school' (factor 3)	.78	'External pressures within the education system and home circumstances' (factor 3)
'Teachers (and sometimes parents) being overly demanding in terms of work and behaviour-related expectations' (factor 5)		

With regards to differences between the two models, it is initially apparent that the teacher model has five factors, while the TA model has four, therefore discrepancies must exist in the way that both population groups answered the questionnaire. The broader range of factors within the teacher model might suggest that teachers were more nuanced in their responses, while TA answers appear to have fallen more

discretely into specific categories, although there is still some element of overlap in both models.

The factors displaying the highest amount of congruence were factor 1 in both models. These factors referred to the role that school staff can play in contributing towards challenging behaviour through unfair and ineffective classroom management strategies. The notion of equity and effectiveness is present in both factors, indicating that both teachers and TAs perceive these to have an impact on pupils' challenging behaviour. Both factors also reference the overall school environment and how general negativity can influence challenging behaviour.

This reference to negativity within the school environment (which includes variables such as 'Teachers have bad moods', 'School staff are rude to pupils' and 'Teachers and Teaching Assistants do not communicate well with each other' across both factor models) is particularly pertinent, as previous research has highlighted the adverse effects that this can have on wider student outcomes. For example, Milkie and Warner (2011) found that children in more negative learning environments have more learning, externalising, internalising and interpersonal problems, while Moon and Alarid (2015) also found that a negative school environment was a significant predictor for psychological bullying among students. Conversely, a recent study by Ramberg, Låftman, Fransson and Modin (2019) found that a positive school environment was associated with a lower likelihood of truancy. This suggests that results from the present study support the broader contemporary discussion around negativity within school settings, with participants highlighting the adverse effect that this has on student behaviour.

The fact that both models mention unfair classroom management is also interesting as pupils have previously stated that 'teacher's unfairness' is the most important factor influencing challenging behaviour in schools (Miller et al., 2000), although it should be noted that this research took place in a secondary school so pupil age demographics are different to the present study. Nonetheless, the similarity between these extracted factors would indicate that both teachers and TAs likely agree with the views of students in this area.

Furthermore, factor 2 from the teacher model and factor 4 from the TA model also showed a degree of congruency in their reference to difficult family circumstances. This was referred to in general terms in the TA model, while the teacher model also made a distinction between general circumstances and specific parental behaviour (for example, 'Parent's behaviour sets a bad example'). While these factors only showed a borderline level of congruency, likely because of the additional elements within the teacher factor, it remains evident that adversity within the home environment is perceived by both teachers and TAs to have an impact on challenging behaviour among primary school pupils.

Factor 4 from the teacher model and factor 2 from the TA model also demonstrated a borderline level of congruency in their reference to pupil-specific causes of challenging behaviour, as well as a lack of adult guidance, both from home and school. In this way, it would appear that both teachers and TAs perceive that the causes of some challenging behaviour lie within the pupils themselves and the fact that pupils can simply be prone to misbehaving. The notion of an inadequate level of discipline is also present in both factors, with this predominantly referring to the home, but with some elements of school also mentioned. Additionally, parental behaviour is specifically mentioned within the TA factor, in the same way that it was in factor 2 of the teacher model, although these factors are not congruent. This would suggest that both teachers and TAs consider parental behaviour to be a contributing factor towards challenging behaviour among pupils, but that teachers link it to adverse home circumstances, while TAs link it to an absence of discipline.

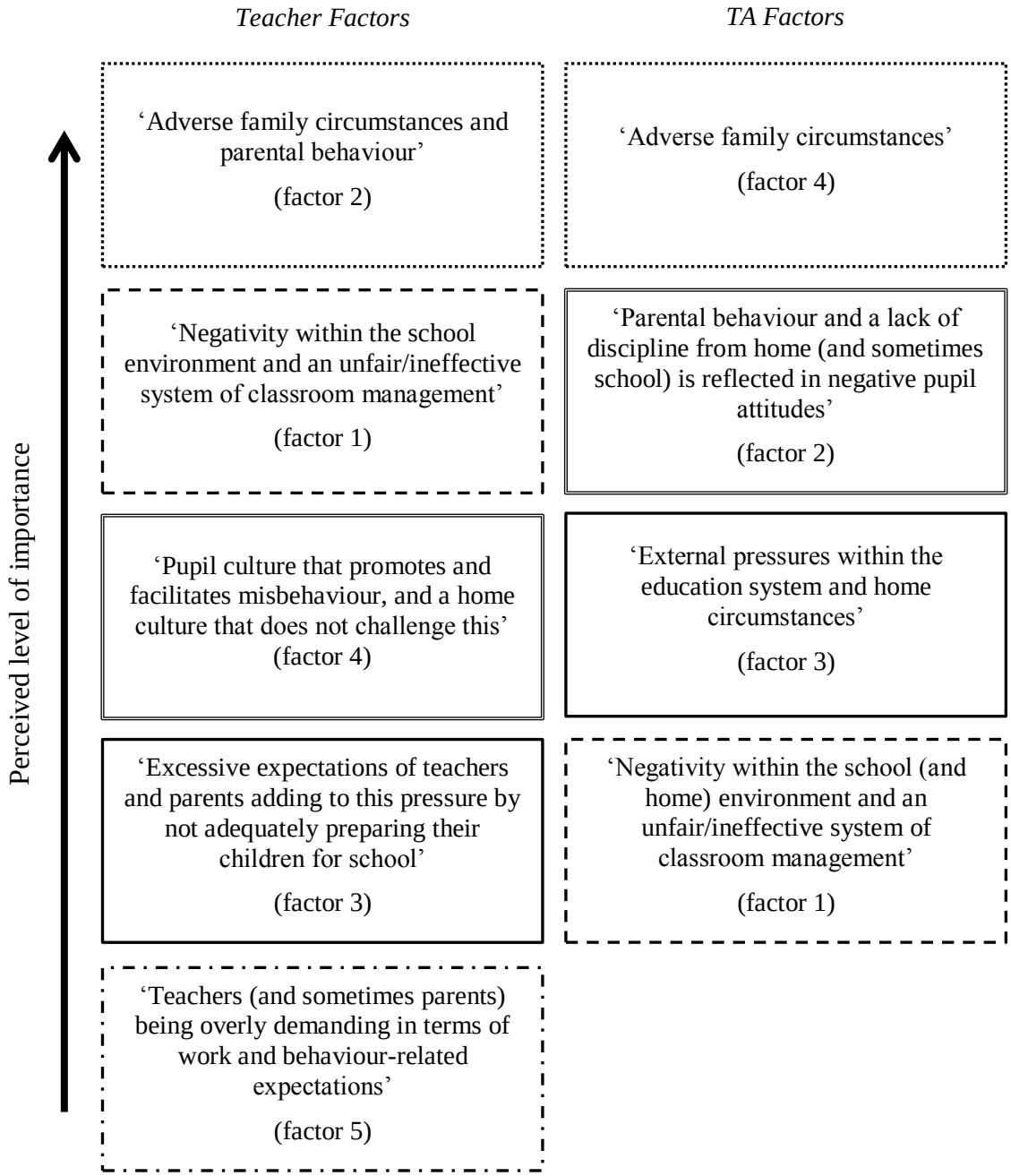
The third factors in both the teacher and TA models demonstrated a degree of similarity, although poor overall statistical congruence. Each factor referred to a level of external pressure placed on school staff through the education system and resulting expectations, indicating that both teachers and TAs perceive that factors external to schools, parents and pupils are contributing towards challenging behaviour in the classroom. Each of the two factors also referenced the home environment, although the teacher factor indicates an element of parental control, while the TA factor refers to external pressures that are often beyond parental control (for example, 'Families do not have enough money to eat or buy clothes'). Overall, it

would seem that the lack of controllability attributed to school staff and parents was greater among TAs, compared with teachers.

Factor 5 of the teacher model did not readily compare with any of the factors within the TA model, although elements of this factor were covered in the TA factors 1, 2 and 3. The separation of this factor within the teacher model is interesting, as it suggests that teachers perceived elements of this factor to be distinct from the others, but that TAs did not make this distinction. The essence of this factor relates to schoolwork expectations and the pressures of a demanding curriculum; therefore, it is possible that this was not extracted as a discrete factor within the TA model because TAs are less aware of curriculum demands, as compared with teachers. Instead, it is likely that TAs associated this with the general external pressures placed on the education system, as referenced in factor 3.

Alongside exploring the congruence between the individual teacher and TA factors, it is also interesting to note the similarities and differences in the perceived level of importance for each factor within the two models; this is illustrated diagrammatically in Figure 5.3. Both teachers and TAs perceived factors relating to adverse family circumstances to be the most important in contributing towards challenging behaviour in the classroom, with them receiving 87.95% and 92.68% of the maximum possible score respectively. This possibly indicates a self-serving bias in both groups of participants, whereby the factor that they perceived to be of the most importance related to circumstances beyond their control.

Figure 5.3 – A figure showing the perceived importance placed on factors within the teacher and TA model, outlines demonstrate factors with a degree of congruence as outlined in Table 5.1



Of further note are the respective placements of factor 1 within both models, as this was perceived to be second most important by teachers, but least important by TAs. These factors displayed the highest level of congruence between the two models, yet they are given very different priorities within their respective hierarchies of importance. The positioning of these factors would suggest that teachers are more likely to perceive that changes within the classroom and general school environment will have an impact on pupil behaviour, as compared with TAs.

However, while these factors remain in contrasting hierarchical positions, it is important to note that there is less difference in their comparable overall maximum possible score ratings, with teacher factor 1 receiving 83.09% and TA factor 1 receiving 81.41%. This appears to be significant on two levels: firstly, though comparably in a weaker position to the other factors within the TA model, TAs rated the overall importance of factor 1 to be similar to its counterpart within the teacher model; secondly, it is clear that TAs generally attributed an overall higher level of importance to items within the questionnaires, in comparison to the teachers. Possible reasons for this difference in overall rating remains unclear, but it should continue to be taken into account when considering the two models in parallel.

5.1.3.2 Conclusion

Exploration of the two factor models indicates that a level of similarity exists between the attributions made by teachers and TAs for challenging behaviour in the primary school setting. This is evidenced by Tucker's (1951) congruence coefficients, which found either a borderline or good level of congruence between three pairs of factors. When considering the level of perceived importance attributed to each factor, it is apparent that both teachers and TAs attribute the highest level of importance to adverse family circumstances, which is an external factor for both groups of participants.

Alongside similarities, several differences were noted between the two models, including the fact that TAs tended to attribute a higher overall level of importance to the factors within their model, as compared with teachers. This further supports the hypothesis that teachers were more nuanced with their responses to the questionnaire, which may have led to the extraction of the more specific 5-factor model. A further difference was found in the hierarchy of importance given to the

factors in each model, with the factor linking to school environment and classroom management (factor 1 in both models) being ranked as second most important by teachers and least important by TAs, which implies differences in the level of controllability experienced by teachers and TAs with regards to their ability to impact upon challenging behaviour in primary schools.

5.2 Methodological Limitations

The aim of the present study was to obtain descriptive data pertaining to a particular phenomenon, namely the causal attributions made by teachers and TAs with regards to challenging behaviour in primary school settings. However, the extent to which this has been achieved is tempered by the methodological limitations that were acknowledged prior to conducting the research, as well as those which became evident throughout the research process. These are described in further detail below.

5.2.1 Research Design

The present research implemented a survey strategy, which is considered to be a non-experimental fixed research design. A limitation of this research design is that it can only provide a snapshot of data regarding particular population groups at a given time, therefore any generalisation of the outcomes should be approached with extreme caution. As such, in reality, the outcomes of the present research should only be attributed to the particular teacher and TA populations that answered the questionnaire, although the relatively large and diverse samples do allow for wider conclusions to be tentatively drawn. In addition, the nature of survey research denotes that the questionnaire measure is finalised prior to the data collection process, meaning that it was not possible to collect information outside the survey instrument once data collection began. In this way, the data collection was limited to the scope of the survey instrument, which may have restricted participants from sharing their full views.

A further limitation of this design is the dependency on a large sample size in order to obtain meaningful data. While attempts were made to recruit as many participants as possible in the present study and a number of heuristics were used (Ferguson & Cox, 1993), it could still be argued that the sample size is not large enough to

robustly answer the research question. As with many survey designs, the take up from schools and overall response rate was low, thus it was not possible to gain a larger sample within the given timeframe. Furthermore, as described in Chapter Four, the overall participant numbers were higher than those taken forward for analysis, as a considerable number of questionnaires (37 teachers and 26 TAs) were removed from the sample due to missing data. In this way, it was deemed preferable to conduct the analysis with a more robust dataset, albeit at the expense of a larger sample.

5.2.2 Measures

While survey research holds a number of advantages in terms of reaching a wider population and minimising researcher subjectivity, it also presents a clear limitation in its reliance on self-report measures. As such, it could be argued that this is a disadvantage of the present study, as the data relies entirely on participants answering the questionnaires honestly and objectively. Despite the anonymous nature of the survey, it is likely that participants were affected by an element of social desirability, whereby they unconsciously or consciously answered the questionnaire in a way that might be deemed to be more socially acceptable, rather than giving their true opinions.

In addition, although every participant was presented with the same survey, it is possible that the wording of questionnaire items and the rating scale might have been understood differently between individuals, reducing construct validity. This will have affected the capacity of the study to obtain representative data from both sample populations. In this way, the research may have benefitted from more time having been spent on the development of the survey instrument, as well as a more thorough piloting process. Specifically related to this point is the fact that the term 'challenging behaviour' was not operationalised for participants within the questionnaire, therefore it is possible that each respondent defined it differently relative to their own experiences. Alternative responses may have been elicited if a definition had been provided, which is a limitation of the present data.

Furthermore, while rating scales are generally considered to be the most effective method of eliciting causal attributions (Elig & Frieze, 1979), the limitations of such a

structured and rigid approach are acknowledged. For example, by presenting participants with such a long list of potential causes for challenging behaviour, it may have prompted them to consider attributions that they would not have usually thought to be relevant, thus potentially manipulating their thought process and eliciting attributions according to the survey instrument, rather than the instinctive views of participants. In order to address this, future research could implement a mixed method approach to eliciting attributions in order to include open-ended questions. In this way, data could be assimilated from qualitative methods alongside questionnaires, thus providing a more complete picture of attribution patterns.

An additional limitation of the survey measure was the variable condition of administration, which may have affected participants' responses. Even within the distribution of the paper copies, there was a large variation in the circumstances under which teachers and TAs were asked to participate, with some being given the immediate opportunity to conduct the questionnaire in the presence of the researcher, while others were given two weeks to complete their answers at their leisure. It is likely that the presence of the researcher and the resultant increased opportunity to ask questions about the survey may have affected the data.

The specific issues pertaining to the online questionnaire are also of note, with this relying even more heavily on the honesty of participants and their commitment to following the instructions laid out in the information sheet. While the researcher ensured that participants who clearly did not meet the study requirements were removed from this sample (this included, for example, an assistant psychologist and a nurse), it is possible that some participants who fell outside the remit were missed. For instance, if an individual worked as a TA in a specialist provision, rather than a mainstream school, but still answered the questionnaire in error, there will have been no way for the researcher to note this and so their data will have been included in the sample.

5.2.3 Data Analysis

The data in this study were analysed using factor analysis and a limitation of this method is that answers can only be obtained in accordance with the questions that were asked. That is, factor analysis will always be able to observe patterns within the

data, but it cannot discern whether appropriate data were gathered. Therefore, the product of the data analysis within this study is only as good as the questions asked within the survey and, if these were lacking, then the final factor models will also be lacking.

Furthermore, there are a number of processes within factor analysis that are dependent on decisions made by the researcher, which will inevitably include an element of subjectivity. This occurred in the present study when deciding how many factors to extract from each dataset, as well as the most appropriate method of factor rotation. In addition, researcher subjectivity was also present within the factor naming process, although this was tempered by use of the recaptured item technique. Nonetheless, researcher influence and interpretation throughout the data analysis process should be noted as a limitation of the present study, particularly as it is founded within a post-positivist epistemology. These limitations should be thoroughly considered when drawing conclusions based on the results.

5.2.4 Extraneous Variables Associated with Real World Research

As outlined in Chapter Three, there are a number of additional complications that can affect the process of conducting research in real world settings, as these are often part of a wider, complex system that includes a number of different professionals (Mertens, 2015; Robson & McCarten, 2016). Navigating the potentially differing agendas between individuals within the research process often leads to a lack of control over particular extraneous variables, as the researcher seeks to find compromises in order to gather the information required to answer the research question, while maintaining the support of key stakeholders. Difficulties of this nature were experienced on several occasions within the present study.

The first challenge was presented during the development of the survey measure. Although a suitable school was quickly identified for the purpose of conducting the focus groups, it took longer than anticipated to confirm the dates for these groups, due to school timetable constraints. Consideration also had to be given to contractual differences between teachers and TAs, as the TAs were not paid beyond normal school hours, therefore their focus group could not take place after school. Instead, they were required to give up part of their lunch break, which was not ideal and put

them in a different position to the teachers, whose group was conducted after school. In addition, the process of piloting the questionnaire took much longer than anticipated due to school delays. While it was agreed that pilot questionnaires would be returned to the researcher prior to the summer holidays, this did not happen due to staff pressures. As such, the piloting process was restarted in the autumn term, which was originally intended as the time when full distribution of the final survey would occur. As such, timescales became tighter and the piloting process was not as long or thorough as had been planned, which is a limitation of the present study.

Additional challenges associated with the real world nature of this research were found during the recruitment and response phases, as accessing the number of participants needed proved very difficult within the given timescale. Many schools did not respond to the invitation to take part in the research after recruitment emails and follow-up telephone calls were made, while several others declined the invitation for fear of putting too much pressure on their school staff. Therefore, when headteachers seemed to show an interest in the study, the researcher needed to work hard to gain their trust and accommodate their requests as far as possible. This resulted in the method of distributing the questionnaire being variable between schools, with some members of staff gaining much more time with the researcher than others, depending on the wishes of the senior management within the school. The lack of control over the variable is a limitation of the current research and it is likely that this had an effect on response rate across the school settings.

5.3 Research Implications

5.3.1 Implications for Schools

The present research was underpinned by the assumption that if differences were observed between the attribution patterns of teachers and TAs with regards to the challenging behaviour exhibited by primary school pupils, then this would have implications for the policies and practices currently in place to support such behaviour in schools. These implications will almost certainly be relevant on a wider school policy level, but understanding the ways that different groups of professionals attribute challenging behaviour could also influence the practice of individual school

staff when planning behavioural interventions, classroom management and staff training.

The present study suggests that differences do exist between the attribution patterns made by teachers and TAs with regards to challenging behaviour exhibited by primary school pupils. Results indicated that teachers placed more importance on classroom management strategies and school environment in terms of influencing challenging behaviour, in comparison to TAs, which suggests that they perceive an element of controllability within their attributions. The implication of this is that schools will benefit from the implementation of a clear whole-school policy with regards to behaviour management that is evidence-based and promotes best practice among all school staff. The fact that TAs do not attribute such importance to school factors should be acknowledged and the reasons for this explored. Given that school staff report feeling unprepared to manage challenging behaviour in the classroom (Briesch et al., 2015), it may be that further training is required, particularly for TAs, in order to increase staff confidence and their understanding of the ways in which they can influence challenging behaviour in the classroom.

Furthermore, it is important to consider how and if these different attribution patterns might impact the way teachers and TAs work together to address challenging behaviour in schools. This could include the process of planning behaviour management approaches, implementing support strategies, reviewing the impact of this support, liaising with parents and contributing to further planning discussions with external professionals. Differences in attribution patterns might influence the efficacy of joint working at each stage of this process and, since these differences are predictable based on the present research, it seems important to consider how schools might respond to such challenges. One approach could be to develop a behaviour policy that ensures the use of a particular strategy, regardless of attributional bias; although this might restrict school staff in providing the necessary support for pupils with the most complex needs. Alternatively, the use of psychological frameworks could be promoted in order to provide a structured method for discussing challenging behaviour. This should, in turn, encourage open thinking and the consideration of multiple perspectives.

While differences were noted between the attributional patterns of teachers and TAs, the two groups also displayed some similarities, most notably in how they both rated adverse family circumstances as the most important factor contributing towards challenging behaviour among pupils. This has implications for the way in which schools target their family support programmes, as often this is not deemed to be the role of school staff, but rather for external agencies. Nonetheless, if both teachers and TAs perceive the home environment to be the most significant influence on challenging behaviour among their pupils, then this would suggest that schools should be targeting their resources towards employing more parent liaison staff, as well as creating stronger links with parent support groups and external family support agencies. This approach would likely be supported by teachers and TAs, given the views shared by both staff groups within this research. If schools do not prioritise this type of support, then it is likely that school staff will continue to feel a sense of helplessness resulting from a lack of control and perceived stability of the most important factor influencing challenging behaviour. This could lead to more stress and less feelings of optimism, which are associated with the perception that a cause of challenging behaviour is unlikely to change (Weiner, 1985).

As outlined in Chapter Two, research suggests that not only are attributional beliefs very difficult to change, but that they also occur prior to teaching staff entering the profession (Erbas et al., 2010). This means that it would not be helpful to try to change the attributions held by the two groups studied in the current research, but rather that their views should be understood and acknowledged when addressing challenging behaviour in primary schools. For example, it may not be effective to ask staff to engage in structured behavioural interventions and pastoral support without first acknowledging how other factors influencing the challenging behaviour within the classroom are also being addressed, such as parental behaviour. Failure to acknowledge these wider attributions may lead to less motivation among staff and pessimism towards the effectiveness of their role in supporting challenging behaviour.

5.3.2 Implications for Educational Psychologists

The results from this research have substantial implications for EP practice, particularly with regards to consultation. The eco-systemic approach employed by

many EPs involves understanding the views and underlying attributions of all key stakeholders within a case, usually including parents, pupils and school staff. The attribution models extracted within the current study provide a basis for understanding and further exploring the separate views of teachers and TAs, which might be particularly relevant when the pupil works closely with a specific TA in the school. It will be important for EPs to acknowledge the differences in the attributions held by teachers and TAs, while looking to support schools in finding common ground in which to implement a behaviour policy that will upskill and empower all school staff.

This study might also have implications for training delivered by EPs with regards to supporting challenging behaviour in primary schools, as it will be important to ensure that school staff understand the likely differing viewpoints within their own teams and how this, in turn, might affect the school environment. Similarly, there may be a role for EPs to play in supporting schools to acknowledge and manage these predictable differences in staff attributions through the use of structured psychological frameworks and strategies to support both inter- and intra-group dynamics.

5.3.3 Implications for Future Study

The present study has provided an answer for what causal attributions are made by school staff towards challenging behaviour observed in pupils aged 4-11, which included establishing an understanding of teachers' and TAs' attributions, as well as exploring the resultant similarities and differences. However, throughout this research process a number of questions were highlighted that are worthy of further investigation. For example, the current study did not ask participants how they would define 'challenging behaviour', but rather left this open to individual interpretation; this may have affected the results of the study through participants' subjective interpretation of this phrase. It would be useful for future research to spend time developing a clear definition of challenging behaviour alongside key stakeholders before distributing an attributional questionnaire.

In addition, both the current and previous research have not targeted the views of primary school pupils with regards to what influences challenging behaviour in

schools, thus it would be useful to elicit these attributions. Similarly, it would also be necessary to update the present survey instrument to include items developed by primary school students, as the original questionnaire only included the views of secondary school students. The implementation of a more thorough piloting process among all key stakeholders would also be beneficial before any further largescale data collection.

It would also be pertinent for future research to investigate the reasons for the changes in attribution patterns demonstrated by teachers over the past two decades. This could include an analysis of teacher training programmes over recent years or utilise qualitative methods, such as narrative or discourse analysis, to explore the views of teachers with varying levels of experience and training, possibly using interviews or focus groups.

As mentioned in section 5.2.2, while the current research collected information about how teachers and TAs attribute challenging behaviour among primary school pupils, it would be interesting for future studies to also address why these attributions are made. This could be done through the implementation of additional qualitative methods, such as interviews, alongside an attribution survey. Not only would this provide a deeper understanding of attribution patterns among school staff, but it could offer further guidance on how to optimise targeted behavioural interventions and alterations to school policies, as well as having implications for further school staff training.

Finally, it would be interesting for future research to explore whether the attribution patterns reported within this study are also observed in real world contexts, such as the primary school classroom. That is, do teachers and TAs behave differently or demonstrate different attitudes based on their perceived understanding of what is causing the challenging behaviour demonstrated by a child? This could be conducted through the use of a case study approach and a series of structured classroom observations.

5.4 Conclusions

5.4.1 Unique Contribution of the Current Study

The aim of this research was to respond to the need for a wider understanding of the causal attributions made by teaching staff in relation to challenging behaviour in primary school settings. This presented a unique contribution to this field of literature in several ways. Firstly, an updated attribution measure was developed throughout the course of this study and, while this measure was based on a previous questionnaire, a total of 15 new items were added, which also incorporated the previously neglected views of TAs.

The second unique contribution of the current study pertains to the age group of children for which school staff were asked to rate their attributions. Although the attributions of teachers had been elicited in previous research, this has predominantly taken place in secondary school settings, meaning that less was known about the attributions of primary school teachers; this is addressed within the present study. However, the principal unique contribution presented within this study is the attribution data relating specifically to the primary school TA population. Information of this kind has not previously been collected and the results of the current research provide a unique insight into the attributional patterns held by TAs, whose role appears to be of growing importance within primary school settings.

5.4.2 Key Findings

This research presents a quantitative study of the causal attribution held by teachers and TAs with regards to challenging behaviour presented within primary school settings. This included the development of an attribution measure through the use of focus groups, which was piloted and then implemented in widespread data collection. The final dataset was analysed separately for teachers and TAs using factor analysis, which revealed a 5-factor model for teachers and a 4-factor model for TAs.

Results from the teacher data suggested that this population noted that a range of factors influence challenging behaviour, including classroom management style, pupil vulnerability, pressures within the education system and parental behaviour.

Overall, teachers perceived adverse family circumstances to be the most important contributing factor. The perceived importance of factors appeared to differ significantly between male and female teachers, with female teachers perceiving each factor to be of more importance than the male teachers; however, no differences were noted with regards to level of experience or additional SEND training.

Factors extracted from the TA dataset differed in composition to the teacher factors, indicating a level of diversity between the views of these two populations. The slightly smaller range of factors suggested that TAs rated external home and school pressures, classroom management style, parental behaviour and family circumstances as some of the important influences on challenging behaviour among pupils. Similarly to teachers, TAs also perceived adverse family circumstances to be the most important causal factor, while no overall differences in the perceived importance of factors were found according to gender, level of experience or additional SEND training.

While a level of congruence was noted between three factors within each model, it was also evident that TAs generally attributed a higher level of importance to external factors, as compared with teachers. The findings from this study imply that it will be beneficial for all individuals working within the school environment, including school staff and external professionals, to acknowledge the likely causal attributions being held by all parties when addressing challenging behaviour. Furthermore, it will be important for the causal attributions of both teachers and TAs, as elicited within the current research, to be taken into account during the development of future school behaviour policies and the implementation of behaviour support within primary school settings.

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7 Appendices

7.1 Quality assessment: Weight of Evidence Criteria

Evidence from each study is weighed based on the following criteria, each tick is measured as one point (where the information is unknown, no tick is given). Studies were scored as follows:

- Weight of Evidence A – 0-8 (low), 9-12 (medium), 13-16 (high)
- Weight of Evidence B – judgements are given in table
- Weight of Evidence C – 0-3 (low), 4-5 (medium), 6-7 (high)

Weight of Evidence D was calculated as the average of weightings A-C. For example, if a study scored 'M' + 'M' + 'H' in ratings A-C respectively, their overall D rating would be 'M'.

The studies are numbered as follows:

1. Bibou-Nakou et al. (2000)
2. Cunningham & Sugawara (1988)
3. Erbas et al. (2010)
4. Gibbs & Gardiner (2008)
5. Guttmann (1982)
6. Ho (2004)
7. Mavropoulou & Padeliadu (2002)

Weight of Evidence A *(methodological quality)*

Criteria	*1*	*2*	*3*	*4*	*5*	*6*	*7*
Setting and Participants							
• Number of participants clearly noted	✓	✓	✓	✓	✓	✓	✓
• Age range or mean age of participants is clearly noted	✓	✓	✓				
• Gender distribution of participants is specified	✓	✓	✓			✓	✓
• Level of experience across participants is clearly noted	✓	✓					✓
• Additional demographic information is provided e.g. socioeconomic status			✓		✓	✓	✓
• Sampling method is specified with enough precision to replicate		✓	✓	✓	✓	✓	
• Main characteristics of setting in which school staff are employed are described in sufficient detail			✓	✓	✓	✓	✓
• Response rates are clearly noted				✓			
Measures							
• Measures are included that are appropriate to the research question	✓	✓	✓	✓	✓	✓	✓
• Measures are clearly explained and named with reference to the original source		✓	✓	✓	✓		✓
• Internal consistency calculation is presented clearly		✓					
• Internal consistency is reported for the present study				✓			
Data Analysis							
• Planned data analysis is made clear prior to the collection of data	✓		✓		✓		
	✓	✓	✓	✓	✓	✓	✓

• Data analysis techniques are appropriate and linked to research question	✓		✓				
• Variability in sampling is accounted for by either statistical tests or sampling techniques • Results are presented clearly	✓	✓	✓	✓	✓	✓	✓
Total	9	10	12	9	9	8	9

Weight of Evidence B *(relevance of research design to review question)*

Criteria	*1*	*2*	*3*	*4*	*5*	*6*	*7*
Design							
• Quantitative design: closed questionnaire/survey (H)	✓	✓	✓	✓	✓		✓
• Mixed method design: interview/open questionnaire + closed questionnaire/survey (M)						✓	
• Qualitative design: interviews (L)							
Data Collection							
• Factors rated on a 4-point or more Likert scale (H)	✓	✓	✓	✓	✓	✓	✓
• Factors rated on a Likert scale of less than 4 points (M)							
• Factors ranked in order of importance (M)							
• Factors extracted from qualitative data only (L)							
Data analysis							
• Factor analysis and multivariate analysis of variance (H)				✓	✓		
• Factor analysis only (H)	✓						
• Factor analysis and other inferential statistics (H)							
• Multivariate analysis of variance only (M)		✓				✓	
• Multivariate analysis of variance and other inferential statistics (M)			✓				
• Analysis of variance and/or *t*-tests and/or correlations only (L)							✓
• Non-parametric tests only or in conjunction with the above (L)							
Overall	H	H	M	H	H	M	M

Weight of Evidence C *(relevance of research focus to review question)*

Criteria	*1*	*2*	*3*	*4*	*5*	*6*	*7*
Sample							
• Participants include teaching staff	✓	✓	✓	✓	✓	✓	✓
• Mixed gender	✓	✓	✓		✓	✓	✓
• Mixed level of experience	✓	✓					
• Participants are sampled from one population of teaching staff (e.g. primary, secondary, special education) ○ If this is not the case, then equal numbers are present from each population	✓	✓	✓				✓
Measures							
• Measures are taken of causal attributions for challenging behaviour only			✓	✓	✓	✓	
• Demographic information is collected	✓		✓	✓	✓	✓	✓
• Measures are complete by school staff only	✓	✓	✓	✓		✓	✓
Total	6	5	6	4	4	5	5

7.2 Summaries of studies excluded upon full-text reading, including reasons for exclusion

Study	*Summary*	*Reason for Exclusion*
Alevriadou & Pavlidou (2016)	Questionnaire study aiming to investigate the emotions and causal attributions of three types of challenging behaviour: aggression, stereotypy and self-injury. Authors found that the type of challenging behaviour affected causal attributions. Emotions, teaching experience, expertise in special education and gender explained a significant amount of variance in interpersonal style. Emotions were also found to have a mediating role in the relationship between causal attributions and the interpersonal style of 'willingness to support' when challenging behaviour was attributed to causes that were stable or under the control of the individual.	Causal attributions are collected in association with other variables.
Andreou & Rapti (2010)	Questionnaire study with two main research objectives: 1. Examine the role that teaching experience plays in teachers' causal attributions for behaviour problems, perceived efficacy for class management and selected interventions 2. Investigate the predictive value of both teachers' causal attributions for behaviour problems and perceived efficacy for class management Authors found that responses were associated with teaching experience. Teachers with the longest experience seemed to disagree that family factors and school factors might cause behaviour problems. Teachers with the shortest teaching experience seemed to agree more than teachers with 10–15 years of teaching experience that both family and school factors might cause behaviour problems. Causal attributions for behaviour problems and perceived efficacy for class management were also found to predict specific interventions.	Causal attributions are collected in association with other variables.
Cuevas (2007)	Questionnaire study aiming to investigate teacher stress and its influence on their perceptions of student behaviour. Authors found that the higher the teachers' perceived stress scores, the more they tended to select family-related factors as the causal attributions for the student behaviour.	Access available to abstract only.

Lorenzo (2018)	Study aiming to explore the causal attributions of 'Early Career Teachers' for disruptive behaviour (n = 15). Qualitative analyses suggested that attribution categories were defined as follows: 1. Student-related: Interpersonal and self-regulatory skills at different developmental stages, and student apathy 2. Self-related: Preparedness and ability to engage students, and classroom rules and routines 3. Family-related: Limited involvement and behavioural support 4. School-related: Inconsistent development, implementation, and support of school-wide rules and consequences, behaviour of school staff, school conditions, and teacher authority.	Access available to abstract only.
Lucas, Collins, & Langdon (2009)	Questionnaire study aiming to explore whether staff attributions, emotions and helping behaviours in reaction to 'real' incidents of challenging behaviour were different from reactions to 'vignettes'. Authors found that attributions identified using vignettes were different from those detected when using 'real' incidents of challenging behaviour, which has implications for previous psychological research that has used vignettes.	Causal attributions are collected in association with other variables.
Medway (1979)	Study using interviews and rating scales to explore causal attributions of school-related problems. Authors found that teachers attributed classroom problems to student factors more than teacher factors, while teachers' attributions varied for learning vs. behaviour problems.	Causal attributions are collected for school-related issues other than challenging behaviour.
Morgan & Hastings (1998)	Questionnaire study aiming to explore the relationship between special educators' causal attributions and the underlying function of challenging behaviour in children with learning disabilities. Authors found that a minority of participants made accurate causal attributions about two examples of challenging behaviour (presented as vignettes). Staff experience had little effect causal attribution accuracy.	Study reports mostly qualitative data.

Page (2005)	Questionnaire study aiming to examine the causal attributions of Learning Support Assistants (LSAs) for challenging behaviour in school (Key Stage 3). The authors found that LSA's attributions were best represented by three factors: 1. Fairness of Teachers' Actions 2. Adverse Family Circumstances 3. Pupil Vulnerability (to peer relationships and to lack of adult guidance)	Study found in a source other than a peer-reviewed journal.
Poulou & Norwich (2002)	Questionnaire study aiming to explore teachers' causal attributions, emotional, cognitive and behavioural responses to students with emotional and behavioural difficulties. Authors found that teachers' causal attributions predicted their emotional and cognitive responses, and these predicted their intentional behaviour. Intentional behaviour and perceptions of effective coping strategies predicted teachers' actual behaviour.	Causal attributions are collected in association with other variables.
Rae, Murray, & McKenzie (2011)	Questionnaire study aiming to explore Scottish teaching staff's knowledge about the definition and management of challenging behaviour. Authors found that knowledge levels were low, with participants most likely to define challenging behaviour by function or topography. In addition, teaching staff were found to hold attributions that are associated with reduced helping behaviour and increased anger.	Study reports mostly qualitative data.
Savina, Moskovtseva, Naumenko, & Zilberberg (2014)	Questionnaire study aiming to explore the perception of children's internalising and externalising behaviours made by Russian teachers, mothers and school psychologists. Authors found that teachers perceived both types of behaviour to be more serious than mothers and psychologists. Correlational analyses found problem- and respondent-specific associations between causal attributions and recommended interventions.	Causal attributions are collected in association with other variables.
Simms (2015)	Questionnaire study aiming to explore the causal attributions that teachers of various disciplines and age groups hold for student problem behaviours. Authors found that teachers' causal attributions of student problem behaviour were predictive of teachers' intervention preferences.	Access available to abstract only.

Stinson (2010)	Questionnaire study aiming to explore teachers' beliefs about students with attention and behaviour difficulties. Authors found that, overall, teachers attributed the cause of the child's behaviour to internal, stable and uncontrollable factors, regardless of label, age or treatment condition. In addition, teachers rated interventions as more acceptable when the child had a diagnosis of Attention Deficit Hyperactivity Disorder.	Access available to abstract only.

7.3 Attribution questionnaire developed by Miller et al. (2000, 2002)

Attribution questionnaire

CONFIDENTIAL Please return to: _____

Here is a list of things that some people say causes misbehaviour in the school classroom.

How important do you think each of these are in causing a pupil to misbehave? Please tick one box for each item. For example ...

Causes	*Very important*	*Quite important*	*Not very important*	*Not important at all*
Pupil doesn't want to stand out as good or clever		✓		
Other pupils stir up trouble				

Now tick one box for each item…

Causes	*Very important*	*Quite important*	*Not very important*	*Not important at all*
1. Parents let their children get away with too much				
2. Teachers not rewarding good work				
3. Too much class work is given				
4. Pupil is bored				
5. Other pupils want the pupil to be in the gang				
6. Parents bully their children				
7. There are fights and arguments at home				
8. Teachers are too strict				
9. Pupils do not like the teacher				
10. Other pupils stir up trouble				

11. Parent's behaviour sets a bad example
12. Teachers not seeming to punish bad behaviour
13. Other pupils have racist attitudes
14. Teachers are rude to pupils
15. Pupils' feelings about themselves
16. Government pressures on schools
17. Pupil needs more help in class
18. Too many children with special needs in one class
19. Parents have no control over their children
20. Pupil is unable to see their mum/dad
21. Teachers seeming to have an unfair system of punishments
22. Teachers are not supported in the school
23. Too much homework is given
24. Pupil does not want to stand out as good or clever
25. Other pupils wanting to copy work
26. Parents are uncaring
27. Class work is too difficult
28. Pupil has a racist attitude
29. Pupil wants to be in charge
30. Other pupils encourage it
31. Parents do not accept any responsibility for disciplining their child
32. Alcohol/drug abuse by a family member
33. Teachers are too soft
34. Pupils are picked on by teachers
35. Pupil likes misbehaving
36. Pupil is picked on or tormented by other pupils
37. Parents do not communicate well with their children
38. Teachers give more time to pupils who misbehave

39. Parents have racist attitudes
40. Teachers shout all the time
41. Pupil wants to fit in
42. Pupil is being bullied
43. Teachers have a lot of time out of the classroom
44. Parents do not give their child attention or praise when they are good
45. Pupil wants attention
46. Teachers have racist attitudes
47. Teachers have favourites
48. Pupil is unfairly blamed
49. Nobody likes the pupil
50. Class sizes
51. Problems at home
52. Teacher's general classroom management
53. Teachers have bad moods
54. Pupil's personality
55. Pupil is worried about other things
56. Parents do not show respect for others (teachers, police, other parents, etc.)
57. Teachers seeming to have an unfair system of rewards
58. Good work is not noticed
59. Pupil does not know how to behave
60. Families do not have enough money to eat or buy clothes
61. Teachers do not listen to pupils
62. Teachers lack awareness of pupil's culture
63. Other pupils tell the pupil to misbehave

7.4 Survey instrument implemented in the current study

Teachers' and Teaching Assistants' Causal Attributions for Challenging Behaviour in the Primary School Classroom

Questionnaire Pack

School of Psychology

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Teachers' and Teaching Assistants' Causal Attributions for Challenging Behaviour in the Primary School Classroom

S1070R

Researcher: Sarah Raspin (Trainee Educational Psychologist)
sarah.raspin@nottingham.ac.uk

Supervisor: Dr Nathan Lambert (Academic and Professional Tutor)
nathan.lambert@nottingham.ac.uk

This is an invitation to take part in a research study on the causal attributions of teachers and teaching assistants for challenging behaviour in the primary school classroom.

Before you decide if you wish to take part, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully.

If you participate, you will be asked to complete a 73-item questionnaire. This is comprised of a list of statements which you will be asked to judge as to how important you think they are in causing challenging behaviour in the classroom. The answers you provide will remain **completely anonymous** and will be analysed alongside others completed by your colleagues to determine which factors you (as a group of teachers or teaching assistants) thought were the most important.

The whole procedure will last approximately 15-20 minutes.

Participation in this study is totally voluntary and you are under no obligation to take part. You are free to withdraw at any point before or during the study. All data collected will be kept confidential and used for research purposes only. It will be stored in compliance with the Data Protection Act.

If you have any questions or concerns please don't hesitate to ask. We can also be contacted after your participation at the above address.

If you have any complaints about the study, please contact:

Stephen Jackson (Chair of Ethics Committee)

stephen.jackson@nottingham.ac.uk

School of Psychology

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Teachers' and Teaching Assistants' Causal Attributions for Challenging Behaviour in the Primary School Classroom

S1070R

Researcher: Sarah Raspin (Trainee Educational Psychologist)
sarah.raspin@nottingham.ac.uk

Supervisor: Dr Nathan Lambert (Academic and Professional Tutor)
nathan.lambert@nottingham.ac.uk

The participant should answer these questions independently (highlight or circle as appropriate):

- Have you read and understood the Information Sheet? YES/NO
- Have you had the opportunity to ask questions about the study? YES/NO
- Have all your questions been answered satisfactorily? YES/NO
- Do you understand that you are free to withdraw from the study? (at any time and without giving a reason) YES/NO
- I give permission for my data from this study to be shared with other researchers provided that my anonymity is completely protected. YES/NO
- Do you agree to take part in the study? YES/NO

"This study has been explained to me to my satisfaction, and I agree to take part. I understand that I am free to withdraw at any time."

Signature of Participant (written or typed): Date:
Name (in block capitals):

Signature of researcher: Date:

Additional Information

Please provide answers for the following questions (highlight or circle as appropriate):

What is your job title?	Teacher Teaching Assistant (or equivalent) Other (please specify …….)
How many years of experience do you have in your current position (including work in previous schools)?	Less than 5 years 5-10 years More than 10 years
What is your gender?	male / female / other / prefer not to say
Do you have a role in the senior management team?	yes / no / yes previously
Do you have a specific role in supporting children with behavioural difficulties?	yes / no / yes previously
Do you have any additional training around Special Educational Needs and Disability?	yes / no

The following pages contain a list of factors that some people say cause challenging behaviour in the school classroom. I would like to know how important you think these factors are in causing pupils to demonstrate such behaviour.

Questionnaire

How important do you think each of these factors are in causing challenging behaviour in the classroom?

Please tick one box for each item.

For example…

Causes	*Very important*	*Quite important*	*Neither important nor unimportant*	*Not very important*	*Not important at all*
Pupil doesn't want to stand out as good or clever		✓			
Other pupils stir up trouble					

Now tick one box for each item…

Causes	*Very important*	*Quite important*	*Neither important nor unimportant*	*Not very important*	*Not important at all*
1. Parents let their children get away with too much					
2. School staff not noticing good work					
3. Too much class work is given					
4. Pupil is bored					
5. Parents bully their children					
6. There are fights and arguments at home					
7. Teachers are too strict					
8. Pupils do not like the teacher					
9. Lack of consistency between home and school					
10. Other pupils stir up trouble					
11. Parent's behaviour sets a bad example					
12. School staff not seeming to punish bad behaviour					

Causes	*Very important*	*Quite important*	*Neither important nor unimportant*	*Not very important*	*Not important at all*
13. Other pupils have intolerant attitudes					
14. School staff are rude to pupils					
15. Pupils' feelings about themselves					
16. Changes in school routine					
17. Government pressures on schools (budget cuts, attainment objectives etc.)					
18. Pupil needs more help in class					
19. Too many children with special educational needs in one class					
20. Parents have no control over their children					
21. Parental separation					
22. Teachers seeming to have an unfair system of punishments					
23. Parents not ensuring their children have appropriate opportunities and skills to communicate and interact with themselves and other adults					
24. Teachers are not supported in the school					
25. Too much homework is given					
26. Teacher's workload is too high					
27. Pupil does not want to stand out as good					
28. Teaching Assistants are too strict					
29. Other pupils wanting to copy work					
30. Parents are uncaring					
31. Pupil has experienced trauma					
32. Class work is too difficult					
33. Pupil has an intolerant attitude					

Causes	*Very important*	*Quite important*	*Neither important nor unimportant*	*Not very important*	*Not important at all*
34. Pupil wants to be in charge					
35. Other pupils encourage it					
36. Parents do not accept any responsibility for disciplining their child					
37. Alcohol/drug abuse by a family member					
38. Teachers are tired					
39. Teachers are too soft					
40. Pupils are picked on by teachers					
41. Pupil likes misbehaving					
42. Pupil is picked on or tormented by other pupils					
43. Teachers give more time to pupils who misbehave					
44. Pupil's overall physical wellbeing (e.g. diet, physical fitness)					
45. Parents have intolerant attitudes					
46. Teachers shout all the time					
47. Pupil wants to fit in					
48. Parents are not limiting their child's screen time at home					
49. Teachers have a lot of time out of the classroom					
50. Parents do not give their child attention of praise when they are good					
51. Behaviour expectations are inconsistent among school staff					
52. Pupil wants attention					
53. School staff have intolerant attitudes					
54. Parent's mental health					

Causes	*Very important*	*Quite important*	*Neither important nor unimportant*	*Not very important*	*Not important at all*
55. Pupil is unfairly blamed					
56. Teaching Assistants are not given sufficient training					
57. Nobody likes the pupil					
58. School staff have favourites					
59. Class sizes					
60. Teachers and Teaching Assistants do not communicate well with each other					
61. Problems at home					
62. Teacher's general classroom management					
63. Teachers have bad moods					
64. Parents seek medical explanations to excuse, and to avoid addressing, challenging behaviour					
65. Pupil's personality					
66. Pupil is worried about other things					
67. Parents do not show respect for others (teachers, police, other parents, etc.)					
68. Teachers seeming to have an unfair system of rewards					
69. Pupil is tired					
70. Pupil does not know how to behave					
71. Families do not have enough money to eat or buy clothes					
72. School staff do not listen to pupils					
73. School staff lack awareness of pupil's culture					

7.5 Recruitment Email Template

Dear [HEADTEACHER],

I hope this email finds you well.

I am a Trainee Educational Psychologist working for the Educational Psychology and Specialist Support team within Norfolk County Council (supervised by Dr Patrick Halcrow) and I am writing to invite [SCHOOL NAME] to take part in my doctoral research.

The aim of my research is to find out how primary school staff attribute challenging behaviour by pupils in the classroom. In order to do this, I will be distributing a questionnaire to teachers and teaching assistants across Norfolk in the hope of gathering their views on the subject – completion of the questionnaire will take approximately 5-10 minutes. This research has received ethical approval from the University of Nottingham (who are facilitating my doctoral training), as well as Norfolk County Council – further details around the ethical review process can be provided if necessary.

With that in mind, I would like to invite staff from [SCHOOL NAME] to take part in this research, with agreement from yourself. In practical terms, this would simply involve them completing the questionnaire, which I could distribute within a staff meeting/Inset day or any other time convenient for the school.

I would be very happy to further discuss my research with you, either in person or via telephone, in order to answer any questions that you may hold. If staff from [SCHOOL NAME] are able to take part, then the school will of course be credited in my final thesis as well as any resulting published articles. I will also distribute a summary of the results specifically to each school that takes part.

I look forward to hearing from you.

Best wishes,

Sarah Raspin, Trainee Educational Psychologist

7.6 Ethical approval letter

School of Psychology
The University of Nottingham
University Park
Nottingham
NG7 2RD
T: +44 (0)115 8467403 or (0)115 9514344

Ref: S1070R

Wednesday 4th April 2018

Dear Sarah and Neil,

Ethics Committee Review

Thank you for submitting an account of your proposed research '**Teachers' and Teaching Assistants' Causal Attributions for Challenging Behaviour in the Primary School Classroom'**.

That proposal has now been reviewed by the Ethics Committee and I am pleased to tell you that your submission has met with the committee's approval.

Final responsibility for ethical conduct of your research rests with you or your supervisor. The Codes of Practice setting out these responsibilities have been published by the British Psychological Society and the University Research Ethics Committee. If you have any concerns whatever during the conduct of your research then you should consult those Codes of Practice. The Committee should be informed immediately should any participant complaints or adverse events arise during the study.

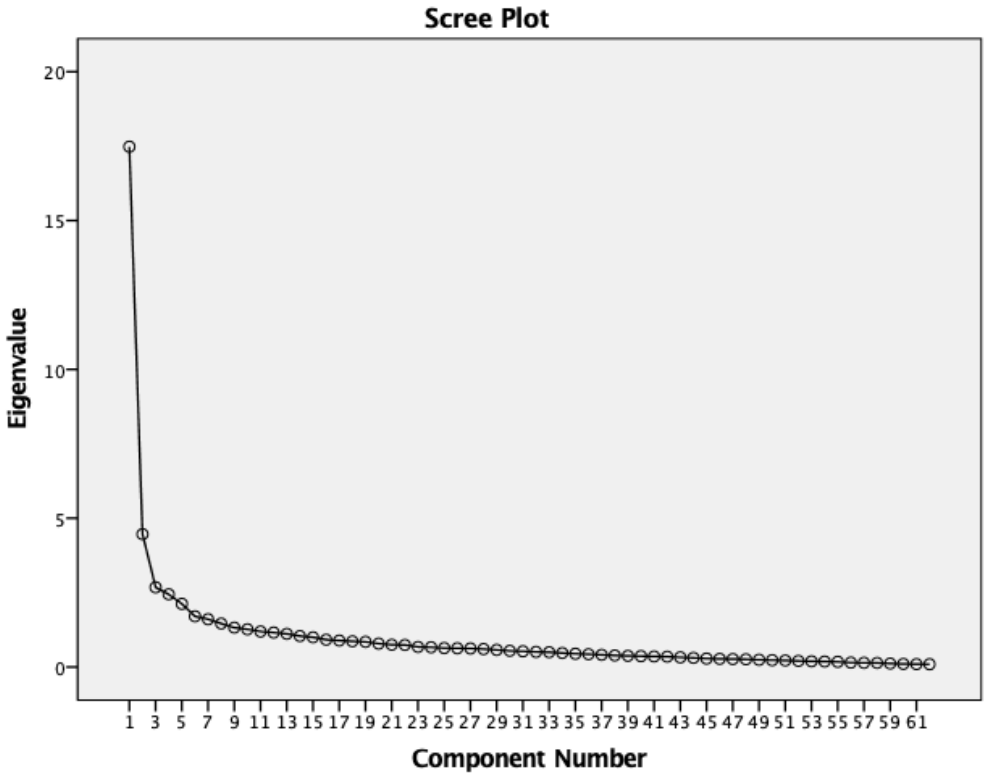
Independently of the Ethics Committee procedures, supervisors also have responsibilities for the risk assessment of projects as detailed in the safety pages of the University web site. Ethics Committee approval does not alter, replace, or remove those responsibilities, nor does it certify that they have been met.

Yours sincerely



Professor Stephen Jackson
Chair, Ethics Committee

7.7 Scree plot: teacher data



7.8 Scree plot: TA data

