# The Power of the Guinea Pig:
# Exploring Children's Sense of School Belonging
# Through Animal-Assisted Activities

## Louise Miller

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# Abstract

Having a sense of belonging in school is a powerful protective factor for supporting emotional wellbeing in children and young people, as well as promoting a range of educational outcomes (Frederickson & Baxter, 2009). In recent years, there has been growing interest in using interventions involving animals in schools, both for supporting emotional wellbeing, and in some cases learning (Pedersen, 2010). The current study explored children's thoughts and feelings about animal-assisted activities in the form of extra-curricular school pet clubs. Familiarisation groups and interviews were carried out with Key Stage 2 children in mainstream primary schools where they were asked open questions about their experiences of spending time with the animals. Thematic analysis revealed that animal-assisted activities had a positive impact on school belonging along with a number of additional benefits for emotional wellbeing. Discussion took place around how this approach could be used for future intervention to promote sense of belonging within the classroom and wider school community.

# Declaration

I, Louise Miller, declare that this thesis entitled "The Power of the Guinea Pig: Exploring Children's Sense of School Belonging Through Animal-Assisted Activities" and the work presented in it are my own and have been gathered by me as the result of my own original research.

I confirm that:

1. This research was done wholly while in candidature for a research degree at this University;

2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;

3. Where I have consulted the published work of others, this is always clearly attributed;

4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;

5. I have acknowledged all main sources of help;

6. Where the thesis is based on work done by myself jointly with others, I have made clearly exactly what was done by others and what I have contributed myself;

7. None of this work has been published before submission

Signed    ……………………………………………………………………

Date      ……………………………………………………………………

# Acknowledgements

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# Table of Abbreviations

| Abbreviation | Meaning |
|---|---|
| AAA | Animal-assisted activities |
| AAE | Animal-assisted education |
| AAI | Animal-assisted intervention |
| AAT | Animal-assisted therapy |
| EP | Educational Psychologist |
| EPS | Educational Psychology Service |
| HAI | Human-animal interaction |
| R.E.A.D | Reading Education Assistance Dogs |
| SENCo | Special Educational Needs Coordinator |
| SEMH | Social, emotional and mental health |
| TA | Thematic Analysis |

# 1  Introduction

Maintaining healthy emotional wellbeing is becoming increasingly difficult for young people today, with a recent study showing that in the UK, children's general happiness with life is at its lowest since 2010 (The Good Childhood Report, 2017).  Although there is no definitive cause for this negative trend, contributing factors include: pressure on academic achievement (Anderson, Whipple & Jimerson, 2002), rising income inequality and poverty (Psychologists for Social Change, 2018) and misuse of social media (O'Keeffe & Clarke-Pearson, 2011). Leading health professionals have been speaking out about the need for urgent intervention to tackle what has been reported in the media as the biggest mental health crisis in recent years (BBC, 2017; Guardian, 2017; The Independent, 2018). This high level of concern is being addressed by ongoing government legislation which is driving a number of national initiatives aimed at improving mental health outcomes for young people (BBC, 2018; Queen's Speech, 2017).

Having a good sense of wellbeing enables an individual to "function in society and meet the demands of everyday life; having the ability to recover effectively from illness, change or misfortune" (Imperial Health & Wellbeing, 2018). As professionals who work closely with schools, Educational Psychologists (EPs) not only have the unique training and expertise in psychology, but are also well positioned to identify when social, emotional and mental health needs (SEMH) may be affecting a child's development (Noble & McGrath, 2008). With over-subscription to the Children and Adolescent Mental Health services (CAMHS), there are often long waiting lists and high thresholds

for children to be seen by mental health specialists (BACP, 2017). Therefore, more and more demand is being placed on EPs to use their skills to support SEMH needs in schools (Noble & McGrath, 2008). Additionally, with the wave of educational psychology services employing traded models, EPs are reporting that schools are less willing to dedicate EP time to supporting pupils' wellbeing, wanting to focus instead on individual assessment to meet statutory demands (Islam, 2013).

One approach to improving this situation is for EPs to be more involved in preventative initiatives for supporting wellbeing at a group or school-wide level, such as the promotion of inclusion and positive relationships (Lindsay, 2007).  A strong protective factor for supporting pupil wellbeing in education is school belonging, with research showing this has a positive impact on a range of outcomes for pupils, including good attendance, engagement, achievement and happiness (Baumeister, Twenge & Nuss, 2002).

## 1.1   Theoretical underpinnings of belonging

"Belonging has the power to shape our everyday thoughts, decisions and actions. In essence, belongingness is at the very core of what it is to be human"

(Baumeister & Leary, 1995)

Although many schools are taking action to create an inclusive community for their pupils and families, there still exists a lack of understanding and

underestimation of the important role sense of belonging plays in achieving positive educational outcomes for children and young people (Frederickson & Cline, 2002). The psychological mechanisms which drive our need to belong are complex and varied, with theorists not always in agreement. The following section will give an overview of the relevant theories of belonging and expand upon theoretical frameworks which appear most prominently in the literature.

As with all human emotion, the origins of belonging are deeply rooted in the lives of our ancestors, through an evolutionary need to be with others. Forming social groups, hunting together, cooking together and travelling together are all driven by an instinct for survival and an unconscious endeavour to protect the species. Rather than fighting for individual success, each member played a supportive role within the group, meaning a collective investment in the wellbeing of others. Although we do not live the same lives as our ancestors today, fundamentally, the same instincts and emotions are present when we interact with friends and family in the modern world (Fiske, 2009). Across generations, the need to belong is a concept which has continued to fascinate academic thinkers and fuel creativity in writers and artists. As the English poet John Donne put it beautifully and simply, "no man is an island" (Carey, 2011).

### 1.1.1  Community Psychology.

Many theorists believe we can begin to explain belonging through Community Psychology, which is the study of an individual's relationship with their

community and wider society (Sarason, 1974). This branch of psychology was first established after the Second World War when social psychologists were trying to understand the effects of warfare on the general population, and as such had sparked an interest in understanding prejudice, racism, poverty and other complex social issues (Dalton, Elias, & Wandersman, 2001). This led to a shift in focus to thinking about the impact of environment and experiences on mental health, in turn questioning the principles of psychotherapeutic practices which assumed a within-patient cause (Spence, 1994). The Swampscott Conference in 1965 saw the positioning of social psychologists as agents of change, starting a progressive movement to deinstitutionalise mental illness and treat people within the community (Rickel, 1987). In the following decades, a growing body of research emerged serving the purpose of understanding how communities are affected by significant real world events (such as the trauma of the World Wars) and in turn, the impact this may have on the mental health and wellbeing of individuals (Kelly, 1987). In this way, Community Psychology helps us to think about belonging as being intrinsically linked to our relationships within communities and the larger society.

## 1.1.2  A Framework for Sense of Community.

A highly referenced theoretical framework within Community Psychology is that of McMillan and Chavis (1986) who define Sense of Community as the extent to which an individual feels connected to their community, such as their perceived

influence in the group and shared emotional connection. There are a number of elements within this framework which include:

Membership

A sense of personal relatedness or belonging

Influence

A feeling of making a difference to the group

Reinforcement of need

The fulfilment of needs; that resources will be received through the group

Shared emotional connection

A belief that members have a shared history and experience

Within this framework, "membership" is directly linked to sense of belonging and is comprised of five components: boundaries, emotional safety, sense of belonging & identification, personal investment and a common symbol system.

### 1.1.2.1 *Boundaries.*

Groups instinctively use boundaries in order to protect themselves from outside threat of harm (Perrucci & Pilisuk 1970). However, in modern day, boundaries

can be subtle, for example as sometimes seen through clothes worn or language used by the group. It signifies that some people belong, and that some do not.

### 1.1.2.2 *Emotional safety.*

This element is necessary in order for the member to feel able to share and explore uncomfortable feelings or experiences. This desire for intimacy and willingness to expose vulnerability in order to get it is an important mechanism for healthy emotional development and building strong relationships (Wood, as cited in McMillan & Chavis, 1986).

### 1.1.2.3 *Personal investment.*

It is suggested that members must show some kind of contribution to earn their place in the group and that this can be described as personal investment. A positive example of this may be the equal delegation of workload towards a shared goal, for example carrying your team's sports equipment to the playing field. However, a negative outcome may be that seen in bullying culture where new members of a group are expected to engage in anti-social behaviour in order to be accepted (Mellor, Stokes, Firth, Hayashi & Cummins, 2008).

### 1.1.2.4 *Sense of belonging & identification.*

This is the element of 'membership' which is most closely related to the current research. It is described as a feeling, expectation or belief that one has a place within the group and is fully accepted for who they are. This feeling is often linked to a more established sense of identity such as an awareness of own characteristics, attributes and how these are perceived by the group.

### 1.1.2.5 *Common symbol.*

White (1949) defined a symbol as "a thing the value or meaning of which is bestowed upon it by those who use it" (p. 22). This is closely related to 'boundaries' in that the symbol often represents confirmation of membership, such as a team name or item of clothing

### 1.1.3 A Systems Approach.

The Bioecological Theory of Human Development uses a systems approach to demonstrate how individuals live within a multi-layered social world starting from the closest relationships (such as immediate family), to the more indirect relationship with the wider political and cultural context (Ryan, 2001). This theory is attributed to Russian-born American developmental psychologist Urie Bronfenbrenner, who offers an overarching framework using a systems

approach where the child lives within a series of interconnected circumstances
(Bronfenbrenner, 1988):

Microsystem

Settings where the child actively participates such as home, classroom or
playground

Mesosystem

The relationship between two or more settings where the child actively
participates for example, home and school

Exosystem

Settings outside of the child's immediate experience but are yet influential and
significant such as extended family, or workplace of parents

Macrosystem

Cultural and political context

Chronosystem

Changes in wider systems across time

The child lives within all of these contexts and the quality of these relationships
determines their emotional development and therefore sense of belonging
(Hess & Schultz, 2008). It is thought that if a child experiences challenges on

any one of these levels, they can transfer these difficulties across into other contexts. For example, a child who does not have good attachments at home may find it difficult to create positive relationships with adults in school (Dunn 1993).

### 1.1.4  Personal Construct Theory & Social Construct Theory.

When exploring sense of belonging as both an individual and shared experience, it is useful to consider the principles of Personal Construct Theory and Social Construct Theory. Developed by American psychologist George Kelly in the 1950s, Personal Construct Theory suggests that people develop unique constructs of how the world works from observations and experience. These constructs help us to make predictions about our environment and influences how we interpret events, which links directly to our sense of identity (Kelly, 1977).  Although Personal Construct Theory can be used to explore a person's perception of how well they belong within a particular group, when thinking about "belongingness", it is also necessary to take into account the nature of environment and community within which that person lives (Pooley, 2008). Therefore, a more comprehensive description of belonging benefits from the complementary work of Berger and Luckmann (1991) who wrote *The Social Construction of Reality.* This paper explores how people create shared constructs based upon an understanding of how events or experiences are perceived by others. It is believed that this provides a necessary series of reference points so that society can function with a degree of consistency. For

example, this is demonstrated by society's agreement that certain behaviours are unacceptable and punishable by law (Burr & Dick, 2017).

In this way, personal constructs and social constructs are inextricably linked, to the point where the individual may have no conscious awareness of how their beliefs formed and the extent to which they are influenced by people in their social circle (Raskin, 2002). When considering the current research, it was important to keep this in mind, for example when considering how themes which were developed during familiarisation groups would be elaborated upon during individual interviews *(see Familiarisation Groups & Interviews sections of this thesis).*

### 1.1.5  Belongingness Hypothesis.

Baumeister & Leary suggest that the need to belong is a "powerful, fundamental and extremely pervasive human motivation" in their paper *The Need to Belong: Desire for Interpersonal Attachments as a Fundamental Human Motivation* (Baumeister & Leary, 1995). They accept that their Belongingness Hypothesis is not a new concept, more that it serves the purpose of both integrating and updating existing theories in the literature regarding interpersonal human behaviour and relationships.  Baumeister and Leary began by considering the metatheoretical requirements, in other words the criteria to which it can be proved that the need to belong is a fundamental human motivation:

a) produces effects readily under all but adverse conditions

b) has affective consequences

c) uses direct cognitive processing

d) leads to ill effects (such as on health or adjustment) when thwarted

e) elicits goal-oriented behaviour designed to satisfy it (subject to motivational patterns such as object substitutability and satiation)

f) universal in the sense of applying to all people

g) not derivative of other motives

h) affects a broad variety of behaviours

i) has implications that go beyond immediate psychological functioning

Baumeister and Leary then proceed to examine sense of belonging against each criterion in turn. For example, the first is that belonging must occur in a variety of settings and not be dependent upon a specific set of circumstances. Evidence for this can be seen in the Robert Cave study (Sherif, Harvey, White, Hood, 1988) which showed that when boys previously unknown to each other were randomly assigned into groups, they very quickly established loyalties and shared identification. However, when very opposing groups were later combined to form one large group, their behaviour and loyalties quickly changed and adapted to the new group identity. It was hypothesised that the desire to belong was stronger than the effect of previous competitive grievances (Sherif et al. 1988).

Once it had been established that belonging was a fundamental human need, Baumeister and Leary identify two main elements which must be present for belonging to take place: "Frequent experience of affectionate and pleasant

interaction with a small number of others, and secondly that these interactions take place within a stable and enduring relationship" (Baumeister & Leary, 1995). Baumeister and Leary accept that their hypothesis shares its principles with Bowlby's Attachment Theory, which states that the quality of bond between a child and care giver will have bearing on the child's ability to form positive relationships in adulthood (Birch, 1997). However, Baumeister & Leary argue that the key difference is that the feeling of belonging is not restricted to the immediate family or caregivers, and that it can be generated through a number of different relationships in the child's life (Baumeister & Leary, 1996).

### 1.1.6 Terminology.

Within the literature of educational research, the child's relationship with school is often described in terms which are used interchangeably with sense of belonging. Common terms include: sense of school connectedness, sense of school engagement and sense of school membership, all of which can present a significant challenge to the reader's understanding of belonging (Smith, Flowers & Osborn, 1997). However, there are theorists who helpfully draw very clear distinctions. Sense of school connectedness refers to the extent to which children feel the adults in their school are emotionally invested in them (Shochet, Dadds, Ham & Montague, 2006). The emphasis is therefore on emotional connection and relationships, in particular with adults or "care givers" as they may be perceived by younger children from the perspective of Attachment Theory (Bowlby, 2012). This is very different from sense of school

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engagement which has more emphasis on learning and academic achievement, referring to the child's enthusiasm and curiosity around learning in school (Jimerson, Campos & Greif, 2003). Sense of school membership, described by McMillan and Chavis' framework of Sense of Community (1986) is the experience of personal relatedness and belonging.

In thinking about the challenges faced by young people in education and the impact on their wellbeing, it is important to keep in mind that although sense of belonging has been conceptualised by theorists using the above terminology, the real life experience of belonging for young people may be very different. For example, children who are perceived by teachers as being strong members of the school community have a tendency to be those children who consistently comply with the rules and show prosocial behaviour (Libbey, 2004). For young people however, they have described sense of belonging as a more complex experience through subjects like friendships, self-worth and identity (Sancho & Cline, 2012). Therefore, in order for children's views to be influential in shaping how we support emotional wellbeing and belonging in schools, our understanding must come from listening to what young people have to say.

### 1.1.7  Issues impacting on school belonging.

An extensive research study was carried out by the Cambridge Primary Review Trust asking children about their experiences of school life (Robinson, 2014). In particular, the focus was on children's perceptions of the ethos and organisational aspects of school such as relationships, the learning environment

and assessment. Some of the findings from Robinson's report, along with other relevant research, will be used to explore issues impacting upon school belonging from the child's perspective.

1.1.7.1 *Learning & assessment.*

From the Robinson's Report, it was found that when asked about what makes learning enjoyable in school, children talked about being active learners by doing hands-on activities which were varied, social and also challenging (Hopkins, 2008). Most children felt pressure to achieve, especially at the end of primary school in year 6, and were unhappy and worried about the importance adults placed on getting good grades in exams (Daly, Chamberlain & Spalding, 2011). Children felt that covering curriculum content for the core subjects such as maths and English dominated their week, and left little time for more creative subjects such as art, drama and music. They felt that these subjects were highly valuable and taught them a lot about life and things which were meaningful to them (Robinson, 2014). The current "testing" culture in schools means there is more information to memorise and less opportunity for children to learn by exploring and developing their creativity (Hill, 2012; Psychologists for Social Change, 2018). With increasing privatisation, cost-cutting and marketization in education, there is a risk that initiatives to increase observable and measureable academic outcomes are on the rise (Hill, 2012). This seems at odds with classic child development theory which suggests that children are born as 'little scientists', needing to fulfil their natural curiosity by exploring their

environment and pursuing learning experiences which are related to the real world (Piaget, 1964).

Other studies have shown that when asked about school belonging, children often talk about having a strong friendship group which provides a sense of identity and emotional support in a variety of ways (Sancho & Cline, 2012). This can also be described as sense of school membership (McMillan & Chavis, 1985). Another outcome of this 'testing culture' is that it also increases competitiveness between peers as their academic performance is routinely compared. Several studies have looked at the effect this has on wellbeing, for example how poor academic achievement is linked to social isolation and rejection (Bradley, 2001). A study of young offenders in the UK also revealed a high correlation between low academic achievement and anti-social or bullying behaviour which leads to poor life outcomes (Olsson, 2013). Similarly, a study involving questionnaires anonymously completed by secondary school age pupils showed that engaging in bullying was linked to a lower sense of school belonging (Bosworth, Espelage, & Simon 1999).

1.1.7.2 *Child-teacher relationship.*

Children attending Rights-Respecting Schools were interviewed to gain their views about ethos and community (Robinson, 2014). The Rights-Respecting School Award (RRSA) is run by UNICEF UK to give schools a framework for developing children's understanding of their own rights as well as the responsibilities of adults in protecting these rights (Sebba & Robinson, 2009).

Pupils from schools where the RRSA had been introduced noticed better relationships between children and teachers, as well as improved behaviour in lessons, with everybody having a more respectful attitude towards learning. Incidences of bullying were low and when conflicts did arise, children felt more confident in managing them by themselves (UNICEF, 2013). The author hypothesised that one of the main reasons for these changes was an improvement in the child-teacher relationship, with many children commenting that they felt valued, cared for and listened to and that staff had a genuine concern for their wellbeing (Covell, 2010). Positive interpersonal relationships were linked to feelings of belonging, particularly present when the children were participating in social or team activities led by adults, such as playing sports, collecting litter, or going on school trips (Robinson, 2014).

It is not surprising that children's relationships with staff members in school have such a significant influence on their sense of belonging, considering that these adults can often represent the role of 'carer' in the absence of a parent, in particular for younger children (Hughes et al. 2001). When these relationships are looked at within the context of education, it can be described as school connectedness (Schocet, 2006). Research shows that some teachers find the constant pressure to drive their pupils towards academic success has left them with little capacity to offer pastoral care (Noble & McGrath, 2012). In these cases, the quality of the child-teacher relationship over time can become threatened; an issue which becomes even more prominent when children continue into secondary schools and face increasing academic pressure and exams (Bond, Butler, Thomas, Carlin, Glover, Bowes, & Patton, 2007).

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### 1.1.7.3 *Social media.*

In addition to the above issues as identified by children from Robinson's report, recent statistics produced by Ofcom have highlighted the impact of social media as another increasingly influential factor on young people's wellbeing (Ofcom, 2017). Most of children's early social experiences take place within educational settings (Raver, 2003) and it has been shown that children's popularity online is linked to their social status in the real world (Zywica & Danowski, 2008). Therefore, it is important to consider how online communities are impacting upon children's daily interactions, relationships and sense of belonging in school. For social psychologists interested in belonging, the last few decades of technological advancement have brought with them a fast-paced and unpredictable challenge. The gradual dominance of online connectivity through social media giants such as Twitter and Facebook, has resulted in people beginning to value "virtual membership" as equivalent to (or in some cases as a substitute for) real world interpersonal relationships (Block, 2009). There is some evidence to show that internet use can increase children's media literacy, knowledge and social connectedness (Strasburger et al. 2013). However, online relationships only have a limited impact on feelings of belonging which cannot replace long-lasting, quality, real world relationships which are crucial to wellbeing (Chambers et al. 2017). Ofcom reviewed media use by children and young people in 2017, finding that for the first time children over 12 years old were using interactive formats such as the internet more than passive activities such as watching television. It also raised the issue of children using multiple communication platforms, making them vulnerable to peer-pressure and

bullying (Ofcom, 2017). Identity and social conformity are an integral aspect of belonging, and young people have reported feeling compelled to "fit in" with their peers or risk social exclusion (Baumeister & Leary, 1995). With the huge number of social groups online, finding and sustaining a strong membership to multiple groups becomes increasingly complicated, especially when this involves frequently adapting language and behaviour to blend in with a particular crowd (Zywica & Danowski, 2008). This has negative consequences for affirming a concrete sense of self, compounded by images of "idyllic" and unrealistic physical perfection, leading to poor body image and an increase in eating disorders, depression and anxiety (O'Keeffe & Clarke-Pearson, 2011).

Brain imaging studies have suggested that humans are in a sense 'hard-wired' to make connections with others, where a sense of belonging stimulates reward mechanisms in the brain (Resnick 2005). Feeling included and accepted by your contemporaries leads to positive emotions such as elation, contentment, happiness and calm. However, feeling excluded leads to a range of negative emotions such as grief, jealousy, depression and anxiety, with studies showing social exclusion is often experienced in a very similar way to physical pain (Eisenberg et al. 2000). Whether lacking positive relationships with those in the real world or the online community, both can have an extremely detrimental impact on emotional wellbeing.

## 1.2 What are schools doing to promote sense of belonging?

Successful social integration has been found to support good mental health and is increasingly recognised as a protective factor for resilience and wellbeing (Benard, 1991; Blum, 2005; Libbey, 2004). Under the guidelines of the Department for Education and Skills, educational provisions are legally bound to promote the inclusion of all pupils within their settings including gender, ethnicity, sexual orientation, disability and religious beliefs (DfES, 2004). It has long been established amongst theorists that fostering a sense of belonging in school is a defining preventative strategy to combat discrimination and increase community cohesion (Schnorr 1997; Warnock 2005).

Over the years a range of governmental papers have been published, designed to provide guidance for schools in how to support emotional wellbeing. For example, there has been an increase in social and emotional skills being taught through the curriculum and a shift towards a more participatory teaching style encouraging children to talk about and manage their feelings (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger 2011). There are also a number of intervention programmes which have been designed to help children develop the key skills needed to develop positive relationships such as self-esteem, resilience and emotional regulation. Popular programmes include: Circle of Friends (Newton & Wilson, 2003), Building Resilience (MacConville, 2011), Quest Program (Cumpata & Fell, 2015), S.O.S (Dunn, 2005), and Stop & Think Social Skills Program (Knoff, 2001). However, research shows that these new skills will not necessarily be generalised within the wider school community without the existence of an embedded inclusive school culture (Roffey, 2013).

These interventions must be reinforced by children's every day experiences at school such as recognition of achievement in a range of areas, not just pedagogical practices (Vaidya & Zaslavsky, 2000). In recent years, various non-statutory awards have emerged where schools can choose to work towards achieving the highest standards in areas such as inclusion, equality and wellbeing. Examples include: the Rights Respecting Schools Award (UNICEF, 2017), IQM Inclusive School Award (IQM, 2017), SENDIA Special Educational Needs Inclusion Award (SENDIA, 2017), and the Autism-Friendly Award (NAS, 2017). There are also schools which adopt a philosophy of learning through nature and the outdoors such as Forest Schools (Maynard, 2007), or Growing Schools (Abilock, 2013). Ofsted inspections assess schools' pastoral care, with SEMH being one of the core areas of need. The Ofsted School Inspection Handbook provides a description of healthy wellbeing in children as summarised below (Ofsted, 2018):

Spiritual

The ability to be reflective about their own beliefs (religious or otherwise)

Moral

The ability to recognise the difference between right and wrong and to readily apply this understanding in their own lives

Social

The use of a range of social skills in different contexts, for example working and socialising with other pupils

<u>Cultural Development</u>

The understanding and appreciation of the wide range of cultural influences that have shaped their own heritage and those of others

From these definitions is it recognised that SEMH needs are complex, and that children exist within multiple systems including home, school and their wider community (Bronfenbrenner, 2001). For this reason, it is also important to note that it is not just what happens inside the school which impacts upon sense of belonging. Schools are more than educational provisions; they are social institutions playing an important role in bringing together the wider community through the shared goal of educating children (Sayer, Beaven, Stringer & Hermena, 2013). Studies show that children are more likely to find a sense of belonging in a new environment if it has been established somewhere else first, for example, the transference of secure attachments at home to relationships within school (Anderson & Meints, 2000). Therefore it has been found that schools which prioritise the home-school relationship (such as inviting parents to celebrations and sporting events), foster a greater sense of school community for their pupils (Mackay, 2006).

## 1.3 The human – animal relationship

"…he will be our friend for always and always and always."

(Rudyard Kipling, 1982, The Cat that Walked by Itself)

The current research aimed to explore children's experiences of school belonging through animal-assisted activities (AAA). Although no research could be found which directly linked human-animal relationships with sense of belonging, there are a number of theories which might serve to underpin and connect them together. Several theories of belonging were explored in the section of this thesis "Theoretical underpinnings of belonging". The two theories which shared the most parallels with the human-animal relationship were the Belonging Hypothesis (Baumeister & Leary, 1995) and Sense of Membership within the Sense of Community framework (McMillan & Chavis, 1986). Brief definitions of these theories for belonging are provided below and will be referenced when exploring the psychological mechanisms involved in children's relationships with animals.

<u>Belongingness Hypothesis</u>

The frequent experience of affectionate and pleasant interaction, and that these interactions take place within a stable and enduring relationship (Baumeister & Leary, 1995)

<u>Sense of Membership</u>

To include the elements: boundaries, emotional safety, identity, personal

investment and common symbol system (McMillan & Chavis, 1986)

## 1.3.1  Theoretical underpinnings of animal-human relationships.

Children's fascination with animals has been widely documented through the

centuries, as seen through the anthropomorphism of animals in children's

literature across the world (Power, 1999). The term Biophilia was created by

German social psychologist Erich Fromm and literally means 'the love of living

systems'. The theory is based on the biological evolution in humans where

investment in nature and wildlife comes from an instinct to preserve the

ecosystem we live in, which indirectly ensures the survival of our own species

(Eckardt, 1992). It represents the "urge to affiliate with other forms of life"

(Kellert & Wilson 1995). This theory was later popularised by American

biologist, researcher and theorist, Edward O. Wilson (1984), and subsequently

explored in more detail by Kahn and Kellert with the book *"Children and nature:*

*psychological, sociological and Evolutionary investigations"* (Kahn & Kellert,

2002). The collective emphasis of this work was to understand why children are

drawn to and show an affiliation for animals from a very young age.

One of the first people to dedicate themselves to using animals with

children in a therapeutic setting was psychotherapist Levinson (Levinson &

Mallon, 1997) who brought his pet dog to his therapy sessions and wrote widely

on the benefits he observed. He began noticing that the presence of the dog

encouraged children to converse with him, and he also perceived an improvement in their comfort during the session. When he reported this to the American Psychological Society, at first it was met with mockery and derision. However, other colleagues did later admit that they had noticed a similar experience, suggesting that this practice was being more widely used than was previously thought (Hooker, 2002). Evidence provided by Levinson at that time was largely anecdotal in nature, and using his own pet dog in the sessions could have affected his objectivity when perceiving the benefits. Nonetheless, the professional world was beginning to take the idea of animals in therapy more seriously, leading to the establishment of the peer reviewed academic journal Anthrozoology in 1999 which was dedicated to research into human-animal interaction (Herzog, Podberscek, & Docherty 2005).

1.3.1.1 *Social & Emotional Development.*

The Belongingness Hypothesis proposes that belonging represents a fundamental building block to positive wellbeing within individuals, and that this can be satisfied through many interpersonal bonds, not simply that of a parental figure *(*Baumeister & Leary, 1995). This theory suggests that as well as attachments between children and their caregivers, greater consideration must be given to the potential impact of siblings, friends and even family pets for the emotional support they can offer (Ainsworth, 1989).  Research shows that attachment to pets can be experienced in a similar way to human connection. Animals quickly develop dependency on their owners for both physical and

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emotional needs, resulting in owners perceiving them on an unconscious level, similar to an infant who requires nurture and love. It has been theorised that bonds with animals can be so strong that separation anxiety or grief is very common when an owner loses a pet (Cowels 1985). Dogs in particular seem to hold a special prominence in family households, being the most commonly owned pet in the UK (PFMA, 2017). This relationship with dogs is deep rooted in our ancestral history from when humans first domesticated wolves and later relied on them for protection (Gerwolls 1994). Although in modern society this is no longer the case, it is suggested that because of this history, dogs are subconsciously placed into our inner-working models of attachment and family relationships (Melson & Fogel, 1989). As a species, dogs are known to be extremely affectionate and loyal to their owners, which is one reason for their popularity and perceived human-like membership within families (Walsh, 2009). In this way, people's relationships with their dogs would satisfy the Belongingness Hypothesis as they experience frequent affectionate interaction within an enduring relationship (Baumeister & Leary, 1995).

When 7-10 year olds in England were asked about their top 10 closest relationships, on average two names on their list were pets (Bryant, 1990). Some theorists have suggested that pets can play a supportive role in children's social and emotional development by providing a non-judgemental companion to confide in when they are experiencing difficult emotions. This is explained by the pet offering a consistent and enduring affection for their owners, meaning the child feels there is no risk of rejection (Furman, 2006). This can be seen as representing emotional safety, a key component in Sense of Membership (McMillan & Chavis, 1986).

In addition, animals offer a gender-neutral opportunity for children to explore their nurturing side. Social stereotyping has historically pushed boys away from play involving dolls and child-care, whereas girls are often encouraged in this type of roleplay by adults (Melson & Fogel, 1989). Therefore, looking after an animal can provide boys with an opportunity to develop nurturing skills which are seen as having a key role in emotional development (Rost & Hartmann, 1994). It has also been theorised that animals present an opportunity for children to play the role of parent, where the pet represents an extension of themselves, otherwise known as *infantile parentalism* (Robin & Bensel, 1985*)*. In this role, the child will treat the pet as they would like to be treated themselves, simultaneously satisfying their need to be caring and their need to be cared for. In this way, it can be seen that the child's relationship with a beloved animal signifies something about their own identity and the way they view themselves in relation to others. Again, this rings true with Sense of Membership where the feeling of personal relatedness towards a particular group stems from having a strong sense of identity and personal investment (McMillan & Chavis, 1986).

### 1.3.1.2  *Perceptual and Cognitive Development.*

During the first year of life, babies begin to recognise the difference between inanimate and live objects, for example by showing surprise when a wooden block seemingly moves without human intervention (Woodward, 2003). Perceptual Development works on the premise that children gain knowledge by

exploring through their senses and are therefore attracted to the more novel

and surprising aspects of their environment (Gibson, 1988). A study found that

children are more likely to engage with a real life dog when compared to a

battery-operated soft toy dog, hypothesising that the unpredictability and variety

of movement from the real animal is more appealing than the stilted,

monotonous movement of the toy (Richard & Allard; 1992). This arguably fits

within classic child development theory which suggests that learning stems

from: cognitive incongruity, moderate divergence from established schemas (or

mental frameworks), and novel information (Piaget, 1969). In contrast, the same

situation could also be described as evidence of how a child will learn and retain

more information when personally invested in the subject of study, such as the

emotional connection felt towards a pet (Vygotsky, 1978). Personal investment

is vital to engaging successfully with the learning environment and school

community (Chavis & McMillan, 1985).

### 1.3.2   Terminology.

The following definitions were published by Animal-Assisted Interventions

International (AAII) in 2010. As a non-profit organisation AAII specialises in

animal-assisted interventions in professional healthcare and social service

settings. This publication is aimed at standardising terminology used within this

field:

Animal-assisted therapy (AAT)

An AAT intervention is formally goal-directed and designed to promote improvement in physical, social, emotional and/or cognitive functioning of the person(s) involved and in which a specially trained animal-handler team is an integral part of the treatment process

Animal-assisted education (AAE)

An AAE intervention is formally goal-directed and designed to promote improvement in cognitive functioning of the person(s) involved and in which a specially trained animal-handler team is an integral part of the educational process

Animal-assisted activity (AAA)

An AAA intervention is less goal-directed as specific objectives may not be planned. These interventions are more spontaneous, often no notes are taken nor records kept

(Animal Assisted Intervention International, 2010)

### 1.3.3  Animals in Education

Today, charity organisations are largely responsible for the use of animals to support the emotional wellbeing of vulnerable young people and their families,

the most prominent organisations being PAT Dogs (2015), Dogs for Good (2016) and Paws for Progress (2015). Dogs are still the most commonly used animals in therapeutic settings, closely followed by cats and then other small animals such as rabbits and guinea pigs. There is also practice where large animals are used such as horses and donkeys, and in some cases dolphins (Fine, 2010). All the above charities help provide therapeutic intervention for individuals, however, much less is known about the impact animals can have on the wellbeing of groups or communities (Endenburg, & van Lith, 2011). Additionally, although it is known that animals engage children's curiosity and interest (Jalongo, Astorino, & Bomboy 2005), it seems that this unique relationship has not been fully capitalised upon when it comes to engaging children in education.

The Organisation for Economic Co-operation and Development carried out a comprehensive study to investigate how reading performance and reading engagement in children differed across the world. It was discovered that the most significant factor in children becoming successful readers was enjoyment (OECD, 2010). One of the most widely used interventions involving animals to support learning is 'Reading Education Assistance Dogs'. The R.E.A.D approach was established in the 1990s by an American company called Intermountain Therapy Animals which provides animal-assisted therapy as part of a non-profit service (R.E.A.D, 2017). This approach is based upon the principle that for children, having a furry companion to read to will not only motivate them to pick up a book, but will also have the effect of reducing anxiety (Hall, Gee, & Mills 2016). There are only a small number of studies which provide evidence of the effectiveness of R.E.A.D however the interest in this

type of intervention is steadily increasing (Lewis, 2017). Numerous countries around the world have since set up their own services including: Classroom Canines (Delta Society, Australia), The Bark and Read Foundation (Kennel Club, UK) and Tail Waggin' Tutors (Therapy Dogs International).

The majority of approaches involving animals in schools however are targeted towards supporting emotional wellbeing, not learning. The most common practice is keeping classrooms pets, especially those which are friendly, easy to care for and take up little space (Meadan & Jegatheesan, 2010). The most highly recommended pet for a school, citing its relative cheapness and small size, is the guinea pig. In particular, guinea pigs are known for being amenable to handling and are very vocal when interacting with humans, such as squeaking when being fed (Flom, 2005). Surveys have shown that teachers perceive multiple benefits of having pets in the classroom, including: capturing children's attention (Zasloff, Hart and DeArmond 1999), promoting enjoyment and positive emotion (Meadan & Jegatheesan, 2010), providing a practical hands-on learning experience (Uttley, 2013), enhancing psychological and emotional wellbeing (Rud and Beck 2000, 2003), and teaching empathy and social skills (Daly and Suggs 2010). However, the benefits of animals for children in schools have been widely neglected by empirical evidence (Beck and Katcher 2003). The area of research which has been given the most attention over the last few decades is human-animal interactions (HAI). It has been suggested that animals in classrooms can support children socially both as a source of comfort, and also to facilitate human interaction (McNicholas & Collis, 2006). Interacting with animals involves many of the same skills required in human interaction, such as showing care, empathy, interpreting behaviour and anticipating reactions (Martin & Farnum,

2002). Less commonly, although still documented in the literature, is the use of animals to support individuals with social communication needs. Evidence shows that children with autism can develop strong relationships with dogs as they provide a safe, low-risk opportunity for interaction. It is suggested that a dog's natural disposition to be open and affectionate, combined with the absence of a language barrier, creates a less complicated and stressful social experience for the child (Stone, 2010).

### 1.3.4  Relevance of Research

The current research is of particular relevance to the South London Educational Psychology Service (EPS) where the researcher is completing a placement as a requirement of the doctoral training programme in Educational and Child Psychology. Within the borough, there has been a growing trend of high exclusion rates for children with SEMH needs, which has led the EPS to consider how to further promote inclusion within all schools and educational settings. Issues around inclusion have also been widely evident within the researcher's own practice within the service, as demonstrated in the following vignette.

### 1.3.4.1 *Vignette.*

Adam was a nine year old boy starting at a new primary school after being taken into foster care. The Special Educational Needs Coordinator (SENCo) reported that he had not yet spoken in school, had been completely withdrawn and disengaged in lessons, and was opting out of all social activities. Concerned about his emotional wellbeing, a meeting was called with his foster carers to find out if anything could be offered which Adam might engage with in school. This led to the discovery that his greatest joy in life was looking after his pet guinea pigs, Sherbet and Toffee. In an attempt to make Adam feel at home, the SENCo bought guinea pigs for her office and asked for his help in looking after them. Adam was soon visiting every lunch time to take care of the animals, and eventually started to build a rapport with the SENCo, a relationship based on trust, nurture and a shared passion for the animals. One day, Adam agreed for other children to visit the guinea pigs so that he could share his knowledge, the success of which led to the creation of the "Guinea Club". Adam soon found himself at the centre of a social hub where he was having fun, making new friends, and spending time with the animals with which he had developed a strong attachment. As his confidence grew, he began to participate in lessons and other aspects of school life, knowing that he could always go back to the comfort, safety and enjoyment of the Guinea Club. The animals gave Adam a sense of purpose and responsibility, as well as helping him to develop positive relationships and ultimately, a sense of belonging.

The Guinea Pig Club was successful in helping Adam find a sense of belonging in school because it tapped into something which was valuable and meaningful to him. Adam and his friends came to inspire the current research, highlighting the importance of listening to children's views and how they can help shape the way in which we plan and deliver intervention for supporting emotional wellbeing. From personal experience working with children for over 15 years, as well as being a keen advocate for classroom pets, the researcher is familiar with the sounds of curiosity and excitement when a group of children are introduced to a classroom pet for the first time. The researcher has observed how the shared responsibility of caring for an animal can provide a group identity for children, bringing them closer together and generating feelings of nurture and belonging.

# 2  Literature Review

Considering the majority of children in the UK own a pet at home (PFMA, 2017), it is surprising that the child-animal bond remains largely unrepresented in the literature (Melson, 2003). Further unrepresented is the impact animals have on children's emotional wellbeing, especially considering the wide range of benefits observed anecdotally and in the few emerging studies in this area (Melson, 2003). The purpose of the following Literature Review is to map out the existing research on school belonging as well as AAA, while drawing further theoretical links between these two areas. There will be a critical evaluation of relevant studies which have supported the decision-making process for the current research, in particular during the development of a methodological approach.

The following Literature Review was first conducted in July 2017 using the online library database EBSCO and carried out again in April 2018 to account for new publications. Search terms were entered into six databases separately to increase efficiency and relevance of results: ERIC (the Educational Research Information), PsycINFO, British Education Index, PsycArticles, Child Development & Adolescent Studies, Education Research Complete. First, a Boolean search was carried out using the combined terms "school belonging" and "animal-assisted activities". After retrieving very few results, the search was then expanded by combining alternative terms such as 1) "belonging" and "animal therapy" 2) "belonging" and "animals" 3) "belonging" and "pets". A table of search results can be found in Appendix A. Although some studies

addressed children's relationship with animals or the benefits of pets on child development, on closer reading of abstracts no studies were found which focussed specifically on animals and children's sense of belonging. Once it had been confirmed that the current research was a unique line of investigation within this field, the decision was made to carry out two separate literature searches; one for school belonging and one for animal-assisted activities.

Due to the exploratory nature of the current research, rather than a systematic literature review, the aim was to find papers which shared common elements to support thinking around how the current research might be conducted, such as: ontology & epistemology, research question, methodology and analysis. Inclusion and exclusion criteria were used to narrow down the initial search and then a more nuanced method was used to select the final papers for review based upon their individual merits. An explanation for how this was carried out for each paper is included in the 'Overview of Literature'.

## 2.1 Search results for school belonging

A Boolean search was carried out using the same six databases and the search term "school belonging" (for search results table see Appendix C). To increase relevance and efficiency of the search, criteria were applied including: publication date 2000 - 2018, age of participants 6-17 years old, and subject of belonging (if the database provided this option). In addition to using the EBSCO database, a subsequent search was carried out using the British Library EThOS Service for unpublished doctoral theses. From EThOS, 341 results were

retrieved, seven of which directly related to school belonging. These few had all been written within the last eight years, suggesting that school belonging might be a more recent growing area of interest within the world of educational and social sciences research. Abstracts from all search results were looked at and narrowed down by relevance according to the criteria in Table 2.1. Appendix B provides a more detailed description of inclusion and exclusion criteria applied.

*Table 2.1*

*Inclusion/ exclusion criteria for school belonging literature search*

| Inclusion Criteria | Exclusion Criteria |
|---|---|
| Children in Key Stage 2 or above | Children below Key Stage 2 |
| Children from any minority group (including ethnicity and special educational need) | Participants exclusively from the same minority group |
| Children's views | Children's views not included |
| 2008 – 2018 | Pre- 2008 |
| Participants in Western educational system | Children not in Western educational system |
| Peer reviewed | Not peer reviewed |

Reviewing results from all databases, the majority of literature on school belonging was weighted towards adolescence, with particular focus on the experiences of specific minority groups (Kia-Keating & Ellis, 2007). Intervention for fostering school belonging was underrepresented in the research with little

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exploration into how sense of belonging can impact upon school inclusion and

promoting educational outcomes for all children and young people

(Frederickson & Cline, 2002). Studies were critically evaluated on the basis of

ontology & epistemology, methodology, data analysis & findings and

participants. Table 2.2 provides a summary of the key papers used.  A more

detailed table is shown in Appendix D.

**Table 2.2**

*Summary of key papers from school belonging literature search*

| Ref | Authors | Date | Title | Methodology |
|---|---|---|---|---|
| A | Tara Diebel, Colin Woodcock, Claire Cooper & Catherine Brignell | 2017 | Establishing the effectiveness of a gratitude diary intervention on children's sense of school belonging | Experimental design. Control group completed event diaries and experimental group completed gratitude diaries. Questionnaires for belonging and gratitude given pre & post intervention |
| B | Elizabeth Cassidy Parker | 2010 | Exploring student experiences of belonging within an urban high school choral ensemble: an action research study | Focus groups and interviews |
| C | Michelle Sancho & Tony Cline | 2012 | Fostering a sense of belonging and community as children start a new school | Focus groups and interviews |

| D | Samantha Child | 2014 | Social Experiences and Belonging: an Ethnography of children in two primary schools supporting children with social, emotional and behavioural difficulties | Ethnographic approach gathering data using: field notes, social concept mapping technique and children 'recall watching' video footage |
|---|---|---|---|---|

### 2.1.1 Overview of literature.

2.1.1.1 *Establishing the effectiveness of a gratitude diary intervention on children's sense of school belonging (A)*

This study evaluated the effectiveness of using gratitude diaries in UK schools to increase children's sense of belonging. It was felt that this paper had particular relevance to the current research because the focus was on evaluating an intervention for school belonging which will be a consideration for animal-assisted activities.

Gratitude was defined as being thankful and having a readiness to show appreciation for kindness received (Stevenson, 2010). 100 children from Key

Stage 2 were asked to write in diaries every afternoon for 10 minutes for 4 weeks. The experimental group were asked to complete gratitude diaries which focussed on things in school which they were thankful for. The control group were asked to complete event diaries, commenting freely on anything which had happened in school. Questionnaires were given to children in the control group and experimental group pre and post intervention to measure levels of gratitude and levels of school belonging. Results showed that children who took part in the gratitude diary intervention had an increase in school belonging, however this was moderated by gender with greater benefits shown for boys. One key observation made by the researchers was that a correlational link had been established between gratitude and sense of belonging, meaning that belonging can be defined by a reciprocal relationship of mutual respect and shared values.

The questionnaires used to measure gratitude and sense of belonging were: Gratitude Questionnaire-Six Item Form (McCullough, Emmons, & Tsang, 2001) and The Belonging Scale (Frederickson & Dunsmuir, 2009), both standardised for British children with high alpha reliability and consistency reported (Froh, Fan, Emmons, Bono, Huebner & Watkins 2011, Frederikson; Simmonds, Evans & Soulsby, 2007). However, in order to measure gratitude towards school, the authors had to adapt the original GQ-6 questionnaire to make the questions more specific to education. These adaptations would invalidate standardisation and lower the validity of the questionnaire, limiting the conclusions drawn from results. In addition, a pilot had not been carried out beforehand to assess whether the children understood these adapted questions which may have affected how they answered. Another issue is that without analysing content of

the diaries, it cannot be assumed that all children had understood the task or followed the instructions correctly. The fact that both the experimental group and control group were carried out in the same school is also problematic. Over the course of 4 weeks it is possible that children from different groups would have been talking to each other and discovered that they were writing different things in the diary. This could have caused confusion with the rules around what their writing should be focussed on. Despite limitations, this study has shown how different factors can influence children's sense of school belonging and that gratitude invention may be effective. There is also a consideration of gender differences in how children might respond to this type of intervention.

2.1.1.2 ***Exploring student experiences of belonging within an urban high school choral ensemble: an action research study (B)***

This study from the USA aimed to explore the experience of adolescent singers who took part in a choir ensemble, to understand the impact it had had on their sense of school belonging. It was felt that this paper had particular relevance to the current research because the focus was on how sense of belonging was fostered within a school club. This was useful when considering what the particular benefits of a pet club might be in comparison to other extra-curricular activities.

Data was collected through individual and group interviews with choir members carried out by the researcher, who was also the music teacher who founded and conducted the choir. From the results, five themes were developed around pupil's experience of being in the choir including: non-competitiveness, singing as a shared experience, the choir as a safe space, choir trips as pivotal bonding experiences and sectional bonding as social bonding (i.e. greater belonging within one's own section of the choir). The researcher discussed each theme in detail. For example, "non-competitive" was mentioned by a student reporting that in other subject classes they had to compete for grades to get into colleges which sometimes put a strain on friendships. There were also several comments from individuals who felt that the choir provided a shared purpose and commitment, confirmed by the fact that all members had joined voluntarily with a high consistency in attendance.

The researcher is very transparent about their involvement in the study, and raised potential ethical issues from the outset. In particular, as the researcher was the choir leader, there was a concern that the young people may have felt obligated to be more positive about the choir than they would have been otherwise, either due to loyalty or in response to authority. To increase authenticity, once the data was collected and analysed, the researcher talked through the conclusions with the participants to see if it reflected accurately how they felt (Lincoln and Guba 1985).

It was interesting to note the homogeneity of the group in that it was exclusively female. Although people joined the choir on a voluntary basis, it raises the question about why other young people (for example boys) had declined from taking part. It would have been useful to hear the researcher's

reflections on the lack of diversity within the group and whether this may have affected the findings for sense of belonging. There could have been a genuine lack of interest from the boys, however, the girls in the choir could have inadvertently created "exclusive" belonging where boys in the school felt discouraged from joining. Despite limitations, this study shows how interviews and thematic analysis can provide data in a format which is conducive to exploring how belonging might be experienced by young people in school.

### 2.1.1.3 *Fostering a sense of belonging and community as children start a new school (C)*

This study uses 1:1 interviews with children having recently transitioned into secondary school to explore the issues which impact upon sense of belonging. It was felt that this paper had particular relevance to the current research because views were gathered directly from children using semi-structured interviews.

Although it is widely understood that moving schools can have a detrimental impact on children's learning, Sancho and Cline (2012) point to a gap in the research where little is known about how wellbeing and sense of belonging is affected by this transition. They argue that unsuccessful social integration could be a contributing factor to poor attainment for some young people in a new

secondary school. Views were gathered from 10 children in Year 7, first through focus groups and then further developed in 1:1 interviews. Transcripts from the interviews were analysed using Interpretive Phenomenological Analysis and only findings from the second part of the study were reported. It was found that the narratives from the children validated the authors' prediction that a feeling of valued involvement was a key element in finding a sense of belonging in a new school. However, being a "good fit" was not corroborated, where the children reported that it was not necessary to be the same as others because people accepted who you were. Other areas talked about by children were: positive emotions, teacher relationships, school environment and relationships with peers/siblings. Through closer analysis, it was reported that 'peer acceptance' came out as the most prominent theme in the narratives told by children, prompting discussion around the importance of friendships for young people when finding a sense of belonging in school.

Ten pupils were interviewed using a purposive selection of those who were thought to have an individual perspective on the issues of starting a new school and sense of belonging. Children were asked to describe themselves in a few words, allowing the researchers to put together the most diverse group including those who were: popular, unpopular, had special needs, had a dual heritage background. This diversity allowed for a broad representation of children with different views which meant conclusions generated from the data could be more easily generalised to a larger population. A pilot was carried out which resulted in refining the questions so that they could be easily understood by all children taking part. 'Credibility checks' were undertaken by a second researcher who was experienced in qualitative research which included auditing

themes against the primary source material. Three of the transcripts were also independently analysed. This led to discussion and modification of the analysis and results. As an additional credibility check, the data was also shown to a group of multi-disciplinary professionals on two different occasions to compare interpretations of the data. For these reasons, the findings from this research can be described as robust and reliable.

2.1.1.4 *Social Experiences and Belonging: an Ethnography of children in two primary schools supporting children with social, emotional and behavioural difficulties (D)*

This research was carried out as a requirement of a doctoral degree in Philosophy. The study aimed to explore the social experiences of 7 boys in UK primary education, in particular those who were identified by teachers as having difficulty in social situations. The focus was on how the boys felt they were treated by their peers, their sense of belonging, and the support network available in the school. It was felt that this paper had particular relevance to the current research because it explored how children function socially within groups, and issues which arise when these groups interact with the wider school community. This will be relevant when considering the generalisability of sense of belonging as generated through pet clubs in schools.

The author adopted an ethnographic approach using interviews and observations. From the findings, the theme most prominent in children's discourse was relationships with their peers. The researcher highlights that this can be defined as *Group Membership* from the Sense of Community framework (McMillan and Chavis, 1986). There was also a strong theme of belonging being fluid and changeable in relation to time and context. For example as children became more settled in their new class they developed closer bonds with a smaller group of peers. In addition, it was noted that children's sense of belonging within the resource base or nurture group did not necessarily translate to the feeling of membership within the rest of the school, highlighting the relational nature of belonging. Social hierarchy was another strong theme. Despite feeling a greater sense of belonging with their peers in the resource base, when back in the main school children were likely to distance themselves from association with the resource base by using derogatory language about those peers. The researcher attributes this to the children's determination to be accepted by the wider school community. The conclusion made was that 'relationships with peers' was the most prominent theme from the participants' discourse about belonging. School was seen as a constant negotiation of power and boundaries where individuals moved between the roles of being included or excluded.

The author sets out a strong moral stance from the beginning that the participants should be at the centre of the research. The ethnographic approach was adopted with the intention of empowering children by giving them ultimate control over their interactions with the researcher. This was a longitudinal study which took place over 12 months, meaning that the researcher took time

building rapport with the participants and dispelled some of the anxiety around being part of a study. The researcher was very reflective upon the approach used and highlights the issues around 'positioning' and 'influence'. For example, in order to fit in, it was necessary for the researcher to be reactive in situations such as helping to tidy up or joining in with conversations and games. With the established hierarchy of schools, it was unavoidable that children saw the researcher as an authority figure and therefore this may have impacted upon their interactions with her (Clifford 1986).

There is also the issue with any ethnographic research that subjectivity plays a part in the data collected. When describing the issue of keeping objective field notes, the researcher felt the use of a reflective diary was helpful in thinking about the impact of personal bias or assumptions. Although seeing the world through our own lens is unavoidable (Jackson 1990), the researcher showed a strong awareness of the impact this might have on the results. In terms of generalising findings, there was a very small participant group of only 7 children. Unintentionally, (due to availability of children with correct parental consent), there were only boys in the selection meaning that observations could not be made about possible gender difference in how children experienced sense of belonging in school.

### 2.1.2  Summary.

From close reading of the above studies, several points were taken forward to inform methodology planning for the current research. There were many

different ways to gain children's views on school belonging, a common and

seemingly effective approach being to use a Critical Realist ontology and

epistemology where data was collected through open and unstructured

questioning, followed by applying theoretical frameworks for belonging during

the analysis stage *(see Critical Realism section in this thesis)*. In this way, the

researcher is able to both capture the essence of what children have

expressed, as well as being able to pull themes together and make sense of

these experiences within a more standardised definition of belonging. The most

frequently used theoretical framework was the Belongingness Hypothesis

(Baumeister & Leary, 1995), which appeared in several of the key papers

discussed, as well as the Sense of Community framework (McMillan and

Chavis, 1986)**.** Thematic analysis was also used in several studies to bring

together ideas and themes to answer the research questions. However, this

method seemed to be more impactful when applied to in-depth interviews where

rich data was collected.

## 2.2  Animal-assisted activities.

The same six databases were used to carry out a Boolean search using the

term "animal-assisted activities" (for search results table see Appendix E). Due

to the small number of returns, no other criterion was applied in order to keep

the search field as wide as possible. In addition to using the EBSCO database,

a subsequent search was carried out using the British Library EThOS Service

for unpublished doctoral theses. Although 43 results were found, none were

directly related to AAA suggesting that this is a relatively unexplored area within

the world of educational and social sciences research. Abstracts from all results

were looked at and narrowed down by relevance using the criteria presented in

Table 2.3.

*Table 2.3*

*Inclusion/ exclusion criteria for AAA Literature Review search.*

| Inclusion Criteria | Exclusion Criteria |
|---|---|
| Animals used with groups of children | Animals used for therapeutic intervention with individuals |
| Theoretical links with belonging | No theoretical links with belonging |
| Educational setting | Outside of educational setting |

From this search, the majority of literature on AAA was weighted towards

individual therapeutic work with particular focus on children with special

educational needs (Peters, 2017), the elderly (Stickland & Davidson, 2016) and

complex medical needs (Hoagwood, 2017). There was also a body of research

looking into children's relationships with their pets at home, the studies

appearing to be largely divided into two areas: the nature of child-pet

relationships (Bryant 1990), and the impact of pet-ownership on social development (Van Houtte & Jarvis 1995). Less attention has been paid to the role of pets in a child's wider social network, such as the impact animals can have on how groups of children interact with each other. A number of anecdotal articles and editorials were also found which talked about animals in education in terms of practical guidelines for professionals. These included advice on choosing an appropriate classroom pet and precautions around health & safety, maintenance and sustainability of animals in a learning environment (Meadan & Jegatheesan, 2010). From the few scientific research studies in this area, most notable were: Rud & Beck (2000) who took surveys from teachers indicating that classroom pets were associated with better psychological wellbeing in children; Daly & Suggs (2010) who discovered an enhanced socio-emotional development in children from use of visiting animals in schools; Hergovich, Monshi, Semmler, Zieglmayer 2002, and Kortschal & Ortbauer 2003, who found that the presence of a dog in the classroom increased social cohesion; and O'Haire, McKenzie, McCune and Slaughter (2013) who discovered guinea pigs in the classroom increased social interaction and reduced problematic behaviour. The most relevant studies will be critically evaluated on the basis of ontology & epistemology, methodology, data analysis & findings and participants. Table 2.4 below provides a summary of the key papers used. A more detailed table is provided in Appendix F.

*Table 2.4*

*Summary of key papers from AAA literature search*

| Ref. | Authors | Date | Title | Methodology |
|------|---------|------|-------|-------------|
| E | Kotrschal & Ortbauer | 2003 | Behavioural effects of the presence of a dog in the classroom | Video footage coded using two methods: focal sampling (individual children identified and behaviours categorised) and scan sampling (the behaviour of all children categorised at specific time points) |
| F | O'Haire, McKenzie, McCune & Slaughter | 2013 | Effects of AAA with Guinea Pigs in the Primary School Classroom | Children and teachers completed a questionnaire identifying social skills & problem behaviours. Teachers also completed academic competence scale |
| G | McNicholas & Collis | 2000 | Children's representations of pets in their social network | First stage = children asked to rate top 10 special relationships. Second stage = individual interviews where children were asked which relationship they would choose to help them in hypothetical scenarios |
| H | Daly and Suggs | 2010 | Teachers' experiences with humane education and animals in the elementary classroom: implications for empathy development | Mixed methods: online questionnaire with closed and open questions |

**2.2.1  Overview of literature.**

2.2.1.1 *Behavioural effects of the presence of a dog in the classroom (E)*

This study aimed to find out whether introducing a dog into the classroom would have a positive impact on the social behaviour of children. It was felt that this paper had particular relevance to the current research because the authors are trying to establish a causal link between children interacting with animals and increased positive emotional wellbeing. Additionally, the intervention involves interaction with an animal without specific objectives, which can be defined as an animal-assisted activity.

In an elementary school in Vienna over a one month experimental period, a therapy dog was kept in the classroom with the children during teaching hours. Video footage was taken of the children's interaction with each other and their behaviour was coded for social competence skills. Results showed that after the intervention there was an increase in children's sensitivity to other people's moods and feelings, better social integration and a reduction in aggressive or maladapted behaviour. Children were more often found in a group than sitting alone and were less "troublesome and conspicuous" in their behaviour. A reported unexpected outcome was that children paid more attention to their teacher when the dog was in the room which the researchers hypothesised was due to an association between the dog and authority. Although these changes were seen across the group, there were some significant individual differences

depending on how much the children interacted with the dog. For example, the boys spent more time overall with the dog than the girls did. The researchers claimed that as a result, the intervention had a significantly more positive effect on boys than girls, especially in relation to maladaptive behaviour.

For the purposes of validity, the researchers chose to carry out the experiment only after the class had been together for 4 months so that a social equilibrium would have already been established. In addition, it was decided that the same classroom of children would be used both for the control and experimental group. The justification was that a classroom would have its own unique relationship between teacher and pupils and therefore other factors (such as group dynamic or teaching style) could influence the results found from the experiment. A further step towards ensuring validity could have been to compare the dog experiment against another intervention aimed at improving social skills and pro-social behaviour. The study took place over a 3 month period. A longitudinal study would be required to know whether the results would have been sustained over time after the intervention. However, the greatest limitation with the study is that the data collection was purely from behaviour observation which is open to the researcher's subjective interpretation. In order to validate the findings from this study, future research might want to focus on obtaining the views of children and the teacher to explore their individual experiences of having a dog in the classroom. By including qualitative data, insight could be gained into why and how this increase in social competence might have occurred.

Despite the limitations, this is one of the only studies found in the literature which investigates the impact of animals in education on the wellbeing

and social interaction of children. It also raises interesting questions about gender difference and how boys may be more likely to benefit from this type of intervention.

### 2.2.1.2 *Effects of AAA with Guinea Pigs in the Primary School Classroom (F)*

The study by O'Haire et al. (2013) aimed to find out if introducing guinea pigs into a primary school classroom as an animal-assisted activity would increase children's social functioning as well as academic achievement. It was felt that this paper had particular relevance to the current research, not only because it used guinea pigs for AAA, but that the focus was on how these animals might support children's emotional wellbeing in the classroom.

Every school day for 8 weeks, the children were assigned responsibilities for looking after the animals such as feeding and brushing, all of which was under close supervision of the teacher. Data was collected through questionnaires carried out by children and the teacher. Results from the study showed that there was a perceived improvement in social skills and a reduction of challenging behaviour for those children who had AAA. As reported by teachers, participants from the AAA group showed significant increases in cooperation, assertion and self-control, and significantly decreased problem behaviours. However, there had been no change in academic achievement.

Follow-up analyses included one-way ANOVAs to find out if pet ownership and non-pet ownership was an influencing factor. Results showed this did not affect outcomes of the study. At the end of the programme, half the teachers who took part opted to include guinea pigs in their classroom in the following term.

The *SSRS Social Skills and Problem Behaviours scale* (Gresham & Elliot, 1990) demonstrates good reliability for each domain, ranging from 0.84 to 0.95. It also has good construct and convergent validity, with correlations between 0.50 to 0.75 to similar measures (e.g. Scale of Social Competence and School Adjustment; Gresham and Elliott 1990). As is problematic with many experimental research designs, it is difficult to confirm whether the increase in social skills was the result of AAA or other contributing factors. For example, the novelty of having something different in the classroom, (especially live animals) can be a very exciting experience for children which might explain their increased sociability. Also, the children knew the facilitator would be returning to find out how they had managed the responsibility, adding an extra incentive to make a good impression on an unfamiliar adult. Alternatively, the children may also be presenting their best behaviour for fear of the reward being taken away if they demonstrate unwanted behaviour. To account for differences in teacher judgement of the children's progress, a Likert scale was administered at the start to show how enthusiastic the teacher was about taking part in the programme. Results showed that the level of teachers' motivation and positivity towards the intervention had no impact on how the teacher rated the progress of the children which increases the likelihood of validity in the data. It would also have been interesting to interview children and teachers to gain qualitative data around their experiences of being with the animals. In particular, the question

could be asked to teachers of why they chose or did not choose to continue AAA, giving an insight into the challenges, practicalities and benefits of this type of intervention.

### 2.2.1.3 *Children's representations of pets in their social network (G)*

This study used a creative and engaging method of finding out about children's representations of pets within their social support network. It was felt that this paper had particular relevance to the current research as it explores in depth the quality and nature of children's relationship with animals, in particular in relation to their social world which has links with sense of belonging (McMillan & Chavis, 1986).

22 primary school aged children were asked to list their top 10 most important or 'special' relationships. They were then told fictional stories about challenging situations and asked which of these 10 relationships would provide the most comfort and support if they found themselves in that situation. Quantitative data was collected through asking children whether relationships were ranked higher or lower in their preference for support. Out of 18 pet-owning participants, 17 of them placed at least one animal in their list of top 10 special relationships. Overall, there was a high level of consistency across the participants in the kinds of pet relationships they selected for different stories. This suggests that children discriminate between these relationships in terms of the emotional support they feel they would provide depending upon the situation

being faced. It also suggests that the participants had taken similar factors into account when coming to these decisions. For example, pets overall were not rated highly for problem-solving around how to deal with a bully, whereas dogs were rated highly for being protective during a scary situation. Small pets represented a non-judgemental friend and were ranked highly for recovering self-esteem after embarrassing situations. Both cats and dogs were rated highly for being supportive when a child was feeling unwell, wanted a playmate, or had a special secret to share. The researcher concludes that pets are seen as close family members in the eyes of children through the many functions they provide. However, children also showed an appreciation of the limitations of animals and how different relationships can play a role in their social support network.

It was acknowledged by the author that there are limitations of using self-questionnaires with children to reflect upon their relationships, asserting that younger children in particular might lack the ability to apply meaning and context to the questions. Therefore, using stories proved to be a successful way to capture children's interest and support their understanding of relationships as a topic for study. However, by only collecting quantitative data on which relationships were ranked more highly than others, it was not possible for the researcher to ask the children why they made certain choices. In addition, the researcher could not be sure that all children had interpreted each story in the same way and therefore may have had different emotional responses which would have required a different kind of support. With each of the two stages a re-test was administered to check for validity. When identifying their top 10 special relationships, 12 out of the 18 participants reproduced the exact same results (value of kappa coefficients was 0.89). A high correlation was also found

in the re-test session for ranking the stories, showing strong consistency in the children's choices of supportive relationships.

Despite limitations of the study, it is successful in highlighting the importance of animal relationships in children's lives. The authors make interesting formulations about how animals represent socially supportive roles for children, which will be considered when evaluating the possible impact of school pet clubs on sense of belonging.

2.2.1.4 ***Teachers' experiences with humane education and animals in the elementary classroom: implications for empathy development (H)***

The purpose of this study was to gain teacher's attitudes and experiences towards the use of classroom pets. It was felt that this paper had particular relevance to the current research as it explored the benefits of child-animal interactions on emotional wellbeing as identified by classroom teachers' observations.

75 primary school teachers in Canada responded to a survey of open-ended and closed questions, as well as providing anecdotes about their experiences of using animals in the classroom through informal interviews. Results showed the majority of teachers believed animals had a positive impact on children's emotional development, in particular with an increase in levels of empathy. The most common activity reported was learning how to look after

and care for animals with most children being encouraged to interact with the pets informally throughout the day. Respondents were also asked if they taught "humane education programmes", which teach children the importance of keeping the animals safe and healthy. Out of 72 teachers, 47 claimed to teach a specific programme, with 25 reporting that they delivered a more informal session. Qualitative data was presented through transcribed anecdotes from teachers, many of which included examples of an increase in children's excitement and interest in the curriculum when the animals were involved in the learning topic. Other stories focussed on children's increase in empathy through care-giving responsibilities with a noticeable decrease in challenging behaviours. In this way, teachers described the benefits of animals in the classroom as having a positive impact on socio-emotional needs and academic achievement.

The researcher initially intended to gain a much larger sample size, however it was reported that problems occurred when some board administrators refused permission for the survey to be sent out to their schools. As well as the number of respondents being small, the majority of those who chose to engage reported that they voluntarily used classroom pets in their everyday practice which means they were more likely to have a positive bias and see them as beneficial. The qualitative stage of the study did not include analysis as the teachers' stories were treated as informal anecdotes. Therefore, the main themes taken from the stories could have been influenced by the researcher's subjectivity. Another critique of the study in relation to relevance for the current research is that the benefits of interacting with animals are described only from the adult's perspective and so children's views are omitted.

## 2.3  Summary.

Findings from the above studies provide evidence to show that interacting with animals does support children's emotional development in a number of ways including: empathy towards others, cooperation, feelings of comfort, self-esteem, feelings of protection, strong emotional attachment and reduced problem behaviours. It was suggested that children discriminate between their relationships with animals in terms of the type of emotional support they provide, and that they do this in a similar way to their peers. Two studies looked at whether academic achievement improved through AAA. One study found no evidence at all (O'Haire et al. 2013), while one study found through teacher anecdotes that there was a perceived significant improvement in children's enthusiasm and excitement about the curriculum, but only when the topic being learned directly related to the animals (Daly and Suggs 2010).

## 2.4  Research question

The following research question was influenced by the personal interest of the researcher, themes from the literature review, and priorities of the EPS where the researcher is on placement. The Literature Review demonstrated that linking AAA with school belonging is a new area for educational research, and therefore the research question chosen was exploratory in nature with broad parameters.  This research also aimed to investigate how AAA could be used

as an intervention for fostering belonging in schools and the potential role for EPs. Implications for future research will be considered in the Discussion chapter of this thesis.

Research Question

How might children experience sense of school belonging through animal-assisted activities? What are the individual differences?

# 3 Methodology

The researcher's previous experience of conducting research includes a study which was carried out as a requirement of an MSc in Child Development. The aim of this study was to evaluate the effectiveness of the 5P Approach (Linda Miller, 2009), as an intervention for increasing children's engagement in learning. The 5P Approach is a framework which supports professionals and parents in identifying children's needs and putting intervention in place to support positive behaviour change. The researcher used this approach to design and implement personalised teaching resources & materials for primary school children with SEN. Results showed an increase in engagement in learning activities for all participants. The researcher believes that the key to children succeeding in education is to incorporate their views and interests and understand the things which are meaningful to them. In the current research, children will be asked about the unique relationship they have with school pets, with the aim of understanding how AAA can be used as an intervention to better engage children in school through an increasing sense of belonging.

## 3.1 Ontology & epistemology

When embarking on a piece of research it is important for the researcher to acknowledge their own beliefs about what reality is, and in what way something exists, in order to study it. In seeking knowledge, there needs to be a clear understanding of its nature in order to know how it might be discovered

(Scotland, 2012). In essence, a researcher's assumptions about the world will greatly influence the way in which they choose to interact with it. These considerations, although seeming philosophical, are the first building blocks on which to create meaningful scientific research (Guba & Lincoln, 1994). One of the first considerations when deciding upon an ontology and epistemology for a piece of research is what type of data would best answer the research question. It was decided that qualitative research would be most appropriate due to the exploratory nature of the current research, and the fact that children speaking about sense of belonging would produce rich and complex data.

### 3.1.1 Qualitative research

One of the earliest philosophers David Hume (1711–1776) declared that our knowledge of the world originates from our experiences, all of which are perceived by the senses (Waxman, 2003). However, it was Immanuel Kant in his 1981 publication *Critique of Pure Reason*, who suggests that it is not simply what the senses perceive, but the human interpretation of what our senses tell us that provides true meaning in the world (Kant, 1998). This school of thought which emphasises the importance of observation and interpretation in the understanding of the social world is called "interpretivism" and is widely seen as fundamental to the development of qualitative research (Richie, Lewis, Nicholls, & Ormston, 2013). In essence, qualitative research is anything which does not primarily rely on counting or quantifying empirical material (Strauss and Corbin, 1988).

From the late 19<sup>th</sup> to through the 20<sup>th</sup> century, qualitative methodology became increasingly popular. Some suggest that this was in part due to a gathering momentum at the time for dynamic assessment, which was a more flexible approach to understanding cognition and learning which looked at how children learnt, rather than what they knew according to a fixed standardised measurement for intelligence (Lidz, 1987). The main critique of qualitative research was that it was 'soft' and 'unscientific', a challenge put forward by those who favoured other paradigms such as positivism and postmodernism (Heshusius & Ballard, 1996). Denzin and Lincoln (2011) offer a definition of qualitative research in their *Handbook of Qualitative Research:* "Qualitative researchers study things in their natural settings, attempting to make sense of or to interpret phenomena in terms of the meanings people bring to them". (2000: 3). Some of the most common methods in qualitative research are observations, in-depth interviewing and focus groups. However, there is an increasing range of creative and innovative techniques being used by researchers who want to personalise the experience for participants in order to retrieve the richest data. In order to answer the current research question, qualitative research would provide the in-depth data required to capture the complex nature of children's experiences of belonging.

It is important to note that there is not one definitive way of conducting qualitative research and that there are a range of factors which influence decision-making (Taylor, Bogdan, & DeVault, 2015). Some of these include: the researcher's beliefs about the social world (ontology) and how information can be acquired (epistemology), the position of the researcher and who the stake holders are, aims of the research, the intended audience, and crucially the

nature of the participants and how to best engage with them (Richie, 2013).
These factors will be considered in the following sections.

### 3.1.2  Critical Realism

It has been argued that one of the ontologies most relevant to educational psychology is Critical Realism (Robson 2002). The belief is that there is one single reality but multiple interpretations, therefore any particular set of data can be explained by more than one theory. In this way, Critical Realism is a person-centred approach and is often associated with narratives where knowledge is a historical and social product (Harvey, 2002). Where knowledge comes from the participants, no prediction can be made about an individual's experience however, once data is collected, multiple ideas can be pulled together and defined against the existing social constructs. For the purposes of this research, the epistemology is an interactive relationship between the participant and the researcher. It is necessary from the beginning to establish a shared understanding of key concepts in order to facilitate discussion, and yet it is the unique experience of the participant which is being sought (Robson, 2002). This balance must be managed through careful questioning during the interview where the researcher guides the participant to stay within the parameters of the research area, while allowing the participant to explore their experience within this area freely. For example, one of the aims of the current research was to discover whether pet clubs can generate feelings of school belonging for its members. During the interview, if children were only asked questions relating to

belonging, there would be a risk that the subject area would become too narrow, limiting the richness of data. However, if the questions were too open there would be a risk that participants' responses might wander away from the topic and not focus on their relationship and interaction with the animals. To avoid this deliberation, some researchers have taken a Critical Realist approach through using an open and flexible epistemology to collect rich data, and then making sense of the data by applying shared constructs or theoretical frameworks during the analysis stage. However, other researchers have taken a Social Constructionist approach, asserting that by applying pre-conceived theories to explain the data there is a risk of distorting its true meaning (McCaslin & Hickey, 2001).

### 3.1.3 Social Constructionism

Social Constructionism suggests that there are multiple, equally valid socially constructed realities. Over the years, this ontology has become stronger within the educational psychology field (McCaslin & Hickey, 2001). There has been a growing need for more complex explanations, exploring interactive factors such as environment and relationships and how these impact upon behaviour and learning (Berger & Luckmann, 1991). In recent years, educational psychology has moved away from the medical within-child models with the introduction of more interactive frameworks where multiple factors are considered as contributing to the situation (Kelly, 2008). Social constructionism has become more popular during this transition as it provides a blank canvas where

individual narratives all have equal value and can be looked at within the context of environment, relationships and events, which will impact differently on behaviour and learning (Berger & Luckmann, 1991).

In order for children to answer questions relating to wellbeing they inevitably need to draw upon their unique personal experiences (Hall, 2010). The researcher believes that it is important to keep an open mind about what reality might mean for the participants and use an epistemological approach which is flexible enough to capture data in whichever form it is expressed. Arguably, Social Constructionism could provide an appropriate ontology, as there is an underlying assumption that multiple realities exist in how children describe their experiences. However, it is acknowledged that looking at AAA in relation to school belonging is a new area of research. In order to investigate this relationship, the researcher wanted to clearly define the concept of belonging, as seen through the theoretical frameworks provided in the Introduction chapter. It was felt that Critical Realism would best reflect the researcher's personal viewpoint and also provide a logical methodological approach for the research.

## 3.2 Methodology

### 3.2.1 Participant selection.

Two mainstream primary schools took part in the research, both of which were located within the local authority where the researcher was working on placement as a requirement of the doctoral training programme in Educational and Child Psychology. The local authority did not commission the work however the Principal Educational Psychologist was supportive of the research and showed an interest in discussing how the results may contribute to thinking around decreasing exclusion rates in the borough for children with SEMH needs.

In order to meet the criteria for taking part, schools had to be providing an animal-assisted activity (such as a pet club) on-site where children would regularly interact with the animals. The clubs had to be extra-curricular activities with no fixed agenda or educational outcomes to fit with the principles of AAA. Participants had to be attending the club for a minimum of 6 weeks so that they would have enough experience as well as having established themselves within the group. All children who attended the club had volunteered to do so and could stop attending at any time. In both schools the clubs were set up by the Special Educational Needs Coordinator (SENCo). Similar reasons for starting the club were given by both SENCos, including enjoyment and socialising for the children, as well as the indirect therapeutic benefits such as physical touch and affection from the animals. In negotiating the work with schools, it was agreed that the outcome of the research would be shared with all pupils and

staff to raise awareness of the school pet club and what children's experiences had been. It was also agreed that any resources used to collect data (such as the interview schedule) could be shared with the SENCOs for facilitating future discussion with other pupils around wellbeing.

### 3.2.2 Sampling.

From the Literature Review it became apparent that most studies involving animals in education were carried out with early years or primary school aged children (Meadan & Jegatheesan, 2010). It could be suggested that classroom pets are generally seen as less age-appropriate for older pupils (Fine, 2010). Additionally, a practical explanation could be that in secondary schools pupils typically move between different rooms for each subject and where teachers may not be assigned to a specific classroom, the consistency of care for the animal could not be ensured (Pedersen, 2010). Another consideration could be that with greater academic pressure and exam stress in secondary schools there is less capacity for schools to invest in interventions for wellbeing (Newbegin, & Owens, 1996). For the purposes of recruiting participants for this current study, it was decided that only primary schools would be approached as they would be the most likely to use this practice.

A decision also needed to be made about the optimum primary school age for children engaging with the research study. Concepts around wellbeing and sense of belonging are complex, and so children would need to be at a certain stage of emotional development to understand the subject and answer

the interview questions fully. In making this decision, the four stages of Piaget's child development theory were considered: (Sutherland, 1992)

Sensorimotor Stage

Exploratory play using senses (birth – 2 years)

Pre-operational Stage

Symbolic play, egocentricity (2 – 7 years)

Concrete Operational Stage

Applying logic, using rationality such as conservation (7 -11 years)

Formal Operational Stage

Thinking abstractly and hypothesising (11 years onwards)

Although Piaget's theories on the sequence in which skills are acquired have been largely accepted by the psychology community, many have criticised Piaget for underestimating the ability of children (Lourenço & Machado, 1996). From Piaget's model, a child would need to be 11 years old before they could engage in dialogue which involved abstract concepts such as sense of belonging. However, since then empirical evidence has shown that most children will reach this point much earlier (Sutherland, 1992) meaning that younger children could also be considered for the current research. On a practical note, children reaching the end of primary school in year 6 would be

preparing for exams and transitioning to secondary school which might have made it difficult to fit the interviews around a busy timetable. Therefore recruitment would be aimed at year groups 3, 4 and 5 (children aged between 7 and 10 years old).

### 3.2.3        Inclusion/ exclusion criteria.

To participate in the study, children had to be regularly attending the pet club as well as willing and able to participate. There was no exclusion criterion in terms of background or ethnicity as the experience of belonging was seen as being unique to all children (Baumeister & Leary, 1998). It was considered that there might be children who would experience barriers to taking part in the individual interviews, such as through special educational needs, speaking English as a second language, or simply being shy. To account for this, familiarisation groups were carried out which involved a drawing activity as an inclusive and accessible way of allowing children to express their thoughts and ideas as well as reduce anxiety about trying something new (see Familiarisation Groups section of this thesis).

Choosing participants who were members of the club meant the sampling process was purposive. The benefits of this type of sampling were that participants knew each other and would already have developed some shared feelings of belonging within the group. It also meant that participants would most likely provide rich data as they had shown a strong and continued interest in the club (Tongco, 2007).  A criticism of using purposive sampling is that

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children may have been more positively biased towards the club as they already had a vested interest. Or they may have felt obligated to be positive about the club, wanting to please their peers and the adult leading the session (Tongco, 2007). The purpose of the research was therefore made very clear from the start so that children knew they could express themselves freely without consequences (see Ethics section of this thesis). There was also a risk that participants from the familiarisation group who went on to be interviewed might express ideas which were not their own, having been influenced by other participants. To address this, questions in the individual interview were designed to collect much more detail to encourage participants to expand upon their answers and explain their thinking.

### 3.2.4  School population.

The following Table 3.1 provides a summary of the key information about the populations of both participating schools.

*Table 3.1*

*Summary of school populations*

| Attributes | School A | School B |
|---|---|---|
| **Size** | 3 - form entry primary school | 2 - form entry primary school |
| **Population** | Local authority school. Roman Catholic school. Diverse range of backgrounds and ethnicities. | Local authority school. Diverse range of backgrounds and ethnicities. |
| **No. of participants in familiarisation group** | 11 total (girls = 7 & boys = 4) | 9 total (girls = 7 & boys = 2) |
| **No. of participants interviewed** | As above | As above |
| **Age range** | Year 3 = 1 Year 4 = 5 Year 5 = 5 | Year 3 = 4 Year 4 = 4 Year 5 = 2 |
| **Animals in the club** | 2 guinea pigs | 4 guinea pigs, 2 rabbits, 1 hedgehog |
| **Name of the club** | The Guinea Pig Club | The Farm Club |

## 3.3 Data collection

### 3.3.1 Timescale.

The following Table 3.2 provides a timescale of activities carried out by the researcher.

*Table 3.2*

*Activities carried out by the researcher*

| Activity | Date |
|---|---|
| Received approval from School of Psychology Research Ethics Committee | February 2017 |
| Met with SENCos to discuss what would be involved | March 2017 |
| Met with head teachers & SENCos to confirm schools' participation in the research | May 2017 |
| Information sheets & consent forms sent out to members of the pet clubs (Appendices G, H & I) | June 2017 |
| All parental consent forms signed and received | September 2017 |
| Familiarisation groups carried out | September 2017 |
| Interviews carried out: (Interview schedule Appendix J) (Transcriptions Appendix K) | October 2017 |
| First debriefing (with participants) | July 2018 |
| Second debriefing (Key Stage 2 assembly) | July 2018 |

### 3.3.2 Familiarisation Groups.

In order to collect the richest data, it was crucial to think about the characteristics of the participants and how best to engage them (Richie, 2013). A variety of methods were found for eliciting children's views in the Literature Review, by far the most commonly used method being group and individual interviews. To maximise children's comfort and confidence during the interviews, it was decided that familiarisation groups would be carried out beforehand, the purpose being to introduce participants to the topic and allow them to explore their thoughts and feelings in a low-pressure environment. Additionally, discussion which took place during the familiarisation groups helped to establish themes and inform the creation of the interview schedule. The group session was facilitated through an art activity where the children were asked to draw what they thought about different aspects of the club and what it felt like to be a member. The children were then asked to bring their pictures with them to the interview to provide a prompt and support their thinking. The familiarisation groups were not audio recorded, however the pictures produced were used to support the exploration of themes during the analysis stage.

### 3.3.3      Interview schedule.

Once the children had said everything they wanted to say about their drawing, an interview schedule was used to prompt them for more information about their experiences of being in the pet club (Appendix J). Being an exploratory piece of research, the questions needed to be open and related to general themes within emotional wellbeing to allow for the children to speak freely. The PERMA model provides a simple and flexible framework for conceptualising wellbeing (Park, Peterson & Seligman, 2004) and was used as a reference when creating the interview schedule.

3.3.3.1 *The PERMA Model of Wellbeing Framework*

Positive emotion

The ability to focus on positive feelings, in particular by having a positive outlook on the past, present and future

Engagement

Being able to engage in an activity which is totally absorbing where there is a feeling of 'flow' which negates the passing of time

Relationships

Strong emotional and physical interaction with others representing love, intimacy and connection

<u>Meaning</u>

Having a sense of fulfilment with the knowledge that our life has purpose and meaning

<u>Achievement</u>

Having ambition and setting realistic goals towards achievement

Seligman's model sits underneath the umbrella of Positive Psychology which aims to identify and build upon the strengths of an individual, as well as seeing multiple factors as contributing to an overall feeling of happiness and wellbeing (Sheldon & Kasser, 2001). The core elements of PERMA have links with the theories underpinning both AAA and sense of belonging including: Attachment Theory, Personal Construct Theory, Social Construct Theory, Social & Emotional Development Theory and Community Psychology (Seligman & Csikszentmihalyi, 2014). Within Seligman's model, sense of belonging is placed within "relationships" defined as an individual's connection and intimacy with others.

### 3.3.4  Interviews.

Once the familiarisation groups had been carried out, the next stage was to invite participants to take part in individual interviews. These would be audio recorded and transcribed for analysis, comprising the data for this research.

The children were given the option of having the SENCo present at the interview depending on what helped them feel more comfortable (discussed in Ethics section of this thesis*).* All participants chose to be interviewed without an assisting adult.

Interviews used in qualitative research can take many different forms, however the contemporary literature generally talks in terms of unstructured, semi-structured and structured interviews (Vaughn et al. 1996). Out of the three, the latter has the weakest association with qualitative research as the questions tend to be closed and outcome-orientated which does not typically yield rich data. Rather than a superficial categorization of what is essentially the same method, these different types of interview are representative of distinctive traditions and disciplines within psychology (DiCicco-Bloom & Crabtree, 2006). Bronislaw Malinowski and Margaret Mead were known for being the first pioneers of ethnography, the scientific study of people's cultures and customs. They used unstructured interviews with their informants so that data could be collected in its most naturalistic form, and as such had no interest in "artificial" interview settings such as focus groups or in-depth interviews (Malinowski, 1994). This development came from phenomenologists such as Edmund Husserl, who studied the "structures of consciousness as experienced from the first-person point of view" (Husserl, 1970). Along with his sociologist colleagues, Husserl's work required a methodology which would tap into people's unique and personal experiences. This required the specific and careful questioning made possible through in-depth interviews.

For the current study, participants were interviewed about their experience of being a member of the school pet club through semi-structured interviews. One benefit of using this approach with children is that it provides a degree of

flexibility where questions can be dropped or added in response to their needs.

This may be due to a child finding a particular question challenging, or that a

new avenue of conversation opens up and captures their interest (Longhurst,

2003). One potential downside of using semi-structured interviews is the impact

this approach can have on building rapport, as there is a degree of formality

when working through the schedule, as well as the added time pressure to get

through the questions. Establishing good rapport is extremely important as it

builds trust and respect between the participant and researcher, enabling

information to be shared more freely (King & Horrocks, 2010). In the current

study, it was hoped that the initial familiarisation groups would lay the

foundations for good rapport, rapport was built through sharing a creative

drawing activity. From their experience of meeting the researcher in the

familiarisation group, the children could then make an informed decision about

whether they would like to participate in the second part of the study through

individual interviews.

## 3.4   Data analysis.

There are a number of ways to analyse qualitative data, the main challenge

being that interviews produce large amounts of complex data. The central aim

therefore is to reduce data through several stages including examining,

categorising and interpreting (Robson, 2016). In order to do this successfully,

the original aims and purpose of the research must remain the guiding force,

something which is also true for ensuring a robust and trustworthy analysis

process (Kreuger & Casey, 2014). In this way, qualitative analysis does not seek to find the truth, but find the meaning people have attributed to their experiences. Analysing complex data can be a daunting task, and is helped by a process which is systematic, verifiable, sequential and continuous (Krueger & Casey, 2014). This provides a trail of evidence to ensure that conclusions have the maximum amount of dependability, conformity and consistency (Lincoln & Guba, 1994). From the Literature Review, the most common analysis used in qualitative research studies about school belonging were Thematic Analysis (TA) and Interpretive Phenomenological Analysis (IPA). These two approaches will be evaluated based upon which would provide the most comprehensive answers to the research question.

### 3.4.1 Interpretive Phenomenological Analysis

Interpretive Phenomenological Analysis (IPA) is often associated with an individual's story, their narrative around a specific event or experience in their life. IPA originates from Husserl's theory of the philosophical science of consciousness (Smith, 2004) and aims to understand the participant's personal world view. An important aspect of this analysis is the assumption that the data cannot be understood directly without interference from the researcher's interpretative activity and therefore relates to another theory of hermeneutics, the theory of interpretation (Smith et al, 2011). For example, a study from the Literature Review explored children's experiences of starting secondary school with a specific focus on how this transition might affect their wellbeing and

sense of belonging (Sancho and Cline, 2012). The researchers were interested in the pupil's story, (namely the event of starting a new school) and used IPA to understand how the individual made sense of this experience.

The purpose of the current research was to understand children's experience of being a member of the pet club. The children were not being asked about specific events in time or to provide a personal narrative. Instead they were asked to express their thoughts and feelings about being a current and active member of their school community. In order to answer the research question about how children experience sense of belonging in school, the chosen analysis needed to organise and categorise the data in a way which made sense within the theoretical frameworks. For these reasons, Thematic Analysis was considered.

### 3.4.2  Thematic Analysis

Thematic analysis is fundamentally rooted in Content Analysis which dates back to the early 20th Century within the social sciences, and even further back within the field of humanities (Smith, 2000). Content Analysis involves creating categories from the data and counting the number of times these categories appear in text or images. This type of analysis has been very popular, as it offers a systematic method for managing large amounts of data which is both naturally occurring and elicited by the researcher. However, a common criticism of this type of analysis is that it becomes a somewhat superficial exercise where codes are taken out of their context and measured purely on frequency

(Edmunson et al. 1993). TA was later developed as a way of adding depth and scope to Content Analysis where it moves from observable to implicit meaning. The founder of TA, Gerard Horton, termed this type of material as 'themata' in reference to shared concepts within a group which may not be recognised or acknowledged on a conscious level (Braun & Clarke, 2006). In this way, TA offers the systematic process of Content Analysis while allowing the researcher to combine both frequency of codes with the understanding of their more tacit meanings and so capturing the complexity of the data (Aronson, 1995).

Sense of belonging involves both personal and social constructs in that as well as being a unique experience it is also dependent upon the individual's perception that this feeling is mutual or shared with the group (Baumeister & Leary, 1995). To understand how individual and shared experiences may differ, TA was seen as the most appropriate analysis as it offered a way of categorising the information so that this comparison could be made. TA would provide a structure for sorting through this complex data, while allowing the degree of flexibility needed to handle the children's views sensitively and keep their meaning intact (Boyatzis, 1998).

### 3.4.3  Trustworthiness

In all qualitative research, ensuring that the true meaning gained from raw data is protected throughout the process is a challenge, the success of which is demonstrated through having a good level of trustworthiness. One highly debated issue in qualitative research is how to ensure the trustworthiness of

data collected. Lincoln and Guba (1994) believed that the trustworthiness of a research study is important in evaluating its worth. They broke this down into four components as summarised below:

Credibility

Confidence in the 'truth' of the findings

Transferability

Showing that the findings have applicability in other contexts

Dependability

Showing that the findings are consistent and could be repeated

Confirmability

A degree of neutrality or the extent to which the findings of the study are shaped by the respondents and not researcher bias, motivation or interest

All qualitative research will vary enormously in terms of design methodology however these four areas can be used and adapted for any study to offer a comprehensive guide to ensuring the best possible trustworthiness in data collection (Shenton, 2004). The intention is that rather than being a prescriptive set of rules for evaluating qualitative research, these four areas would provide a guide for how to create an approach to data collection which is as robust and transparent as possible. Several decisions were made for the current research in light of these principles: 1) multiple visits to the school before interviews took

place for the researcher to become familiarised with the school culture and environment 2) having transparent confidentiality rules, ensuring participants felt they could be honest without fear of being exposed 3) frequent liaison with supervisor and peer supervision to pre-empt potential issues 4) checking with participants to validate that their meaning had been taken correctly. To address this last point, at the end of each interview the researcher summarised what the participants had said to check whether they felt the researcher's interpretations accurately reflected their experiences. This helped the researcher to feel more confident in how the data should be coded during the analysis stage and contributed to making the research more trustworthy.

Arguably the biggest challenge to trustworthiness is the point at which raw data is analysed and new meaning is created. Using a Critical Realist approach meant that although the data was collected through an open and flexible epistemology, the 'sense-making' came from applying social constructs in the form of a theoretical framework for belonging. Therefore, it was important to follow a robust and systematic process for analysis.

## 3.5  Ethical issues

### 3.5.1  Consent.

Once ethical approval was received from the School of Psychology Research Ethics Committee, all parents/carers of participants were sent an information

sheet and consent form about the research project. Included were child-friendly versions of the forms to so that the child felt that their voice was an important part of the process (Appendix G, H & I). The supporting adult in school was asked to read through the information sheet with the children to check their understanding and answer any questions. On the day of the familiarisation group and interviews, a copy of the information sheet was shown and explained again by the researcher. This was to ensure that every opportunity was given for the children to ask questions and consolidate their understanding of what their involvement would be. All familiarisation groups were led by the researcher and accompanied by a trusted adult in the school. In both cases this was the SENCo. It was made clear that at any time the children could choose to take a break, speak privately with the SENCo, or withdraw from the study if necessary. The researcher's details were supplied on the information forms sent home so that parents could make direct contact before or after the research if they had any questions or concerns.

### 3.5.2  Confidentiality

When introducing the activity in the familiarisation groups, the researcher talked to the children about confidentiality. The children were reminded that in order for them to take part in the research, they had already submitted a consent form signed by a parent or carer at home. Therefore, they were permitted to talk about their experiences of taking part in the research with their family. The researcher explained to the children that although they could chose to share

their own thoughts and ideas about the research with other people, confidentiality meant not sharing what somebody else has said without their permission. The participants were told that for this reason, when the research was written up at the end, the real names of children would not be used. To make this point clear, labels were given to all children at the start and they were asked to provide a pretend name for the duration of the research. This proved to not only be a fun activity, but also enabled the children to feel more confident in talking about their feelings in the safety of anonymity.

Drawings from the familiarisation groups were photographed and then the original pictures given back to the children to keep. A Dictaphone was used to record the interviews and the researcher used the children's self-given pseudonyms at all times. All photographs and interview recordings were saved on an encrypted data stick and deleted once the research was completed.

### 3.5.3  Welfare of participants

Interviews and familiarisation groups were held at the school in the place where the pet club took place as long as this was a private and quiet area. The reason was so that the participants not only had natural prompts in their environment to support their comments, but they would also benefit from being in a comfortable and familiar place. It was hoped that having the SENCo from the club attending the familiarisation groups would help to build rapport and confidence between the participants and researcher. For the individual interviews, the children were given the choice as to whether they would like the SENCo or another trusted

adult present. Disadvantages of having another adult in the room at this stage could be that the adult inadvertently prompted the children in what to say, or became too active in the process rather than allowing the children to take control of the discussion. Additionally, the children may feel pressure to be positive about the club to please the adult. To ensure the best possible support was gained from the additional adult, it was the researcher's responsibility to be clear about expectations before the process began and also remain pro-active in managing any situation of this kind which arose during the familiarisation groups or interviews.

It was hoped that the children would find the experience of talking to a new person about the club an enjoyable one. However, it was important to remember that any question about personal thoughts and feelings has the potential to cause discomfort. During all interviews the researcher remained sensitive to any sign of reluctance or discomfort in the participant and was prepared to give the child the option of taking a break or finishing the interview. If the researcher felt that a child was showing signs of discomfort at any point in the interview, the delegated trusted adult in the school would be informed straight away. Teachers and supporting adults were also asked to observe the children before and after the interviews so that any concerns could be flagged up immediately.

### 3.5.4 Working with animals

As was made clear in the information forms sent to parents and children, the animals were not handled at any point during the interviews. This was partly to ensure children's attention was not divided between the animals and answering questions, but more importantly for health and safety reasons. Concern over the safety and morality of using animals with children in educational settings is a common barrier to establishing AAA practice in schools (Trajano, 2013). A useful reference is the American Society for the Prevention of Cruelty to Animals, an organisation which carried out a comprehensive review of how animals are used in education as well as ethical implications and ways to ensure best practice (Trajano, 2013). The conclusion from this review was that although there are relative risks involved with keeping animals in schools, these are comparably no different from the risks involved in contact sports or taking children on trips. The two key points highlighted for successful practice were: 1) choosing the appropriate type of animal, for example based upon how much space they need or their amenability to handling 2) ensuring that there will be consistency in care such as having designated adults who will take responsibility for the animals including during school holidays. Before data collection took place, the researcher requested to see the school risk assessment for keeping animals and made sure that the key adults responsible for their care were spoken with and kept involved at every stage of the process.

### 3.5.5  Debriefing

Once the research process is completed (to include the Viva process and any recommended changes) the researcher will return to the schools and present findings to the participants to gain their feedback. The researcher will then invite club members to contribute to an assembly presented to their key stage to share outcomes of the research with their peers. There will also be a letter sent home with a summary of the findings and thanking the parents for allowing the children to take part.

### 3.5.6  Reflexivity

School A was a Roman Catholic school and was known to the researcher through working for the EPS. One benefit of this was that there was already an established rapport with the SENCo and a familiarity with the school meaning that getting consent from the Head teacher as well as practicalities around organising was made easier. One of the challenges however, was that the researcher was already known as an EP and so it needed to be made clear that the study would be carried out in the capacity of a different role; that of a researcher. To do this, various boundaries were put in place. It was ensured that none of the participants from the familiarisation groups or interviews had had previous EP input or were likely to receive input in the future. This was to avoid putting the child in an uncomfortable situation where they either felt pressure to participate because of the researcher's EP status, or that they

would worry about confidentiality being compromised.  School B was not a school previously known to the researcher. For this reason, it was more difficult initially to establish a relationship with the school and organise practicalities around data collection. However, the advantage was that on first meeting with the SENCo and Head teacher in school there were no pre-conceptions or complications of the researcher playing a dual role.

Considering the vital importance of carrying out ethical research, impartial advice was sought from colleagues and peers during the planning and implementation of data collection. Issues were also carefully explored with the researcher's Director of Studies to ensure that every aspect of the process adhered to the highest ethical standards. In using robust and accountable methods of data collection, assurance was given that whatever conclusions might be drawn from the analysis stage, findings could not be traced back to individuals. This was essential in providing a safe platform for future discussion of the issues and themes which emerged from the research.

# 4  Results and Findings

## 4.1  Process of Analysis

The process of analysis is not linear. This can be explained by the concept of 'framework analysis', based upon the principle that the researcher moves through various stages of analysis which are both distinct and interconnected (Spencer, Ritchie, J., & O'Connor, 2003). The six stages of framework analysis are summarised below with a description of how this was applied to data gathered in the current research.

<u>Familiarisation</u>

'To immerse oneself in the data by listening to tapes, reading transcripts multiple times until there is a sense of the data as a whole'. This was achieved through the researcher listening to audio recordings of the interviews multiple times, followed by transcribing the interviews which allowed for further familiarisation with the data.

<u>Identifying a thematic framework</u>

'Annotating transcripts with thoughts and ideas for potential categories'. The researcher annotated interview transcripts, summarising what was being said in each paragraph of speech (Appendix K).

<u>Indexing</u>

'Sorting through the data and making comparisons both within and between categories'. The researcher used the annotated transcripts to explore how data content might fit within the two theoretical frameworks for belonging (Appendix L).

<u>Charting</u>

'Lifting quotes from their original context and arranging them within the new categories'. The researcher used the qualitative data analysis software Nvivo to code the data within categories for belonging (Appendix M).

<u>Mapping</u>

'Making connections between categories to generate a large picture of how the data might fit together'. Nvivo was used to create themes and subthemes within the data according to the theoretical frameworks for belonging. (Appendix N).

<u>Interpretation</u>

'Making sense of the data both as a whole and through individual examples. (A framework for this stage includes words; context; internal consistency; frequency and extensiveness of comments; specificity of comments; intensity of comments; big ideas)'. Various visualisation & analysis tools provided in Nvivo (Table 4.1) were used to create a broader picture of what the data might be showing.

In reviewing the psychological mechanisms driving human-animal relationships (see "Theoretical underpinnings of the human-animal relationship" in this thesis), it was decided that the most relevant theoretical framework for analysis was the Belongingness Hypothesis (Baumeister & Leary, 1995). However, in practice, the familiarisation groups generated such rich and varied discussion that it was predicted the data collected from the interviews might be more complex and wide-ranging than previously anticipated. It was therefore decided that a second framework for belonging, Sense of Membership (McMillan & Chavis, 1985) would be added to ensure the full breadth of the data was captured. In order to show how these frameworks might overlap within the data, a cluster analysis was used to discover how different elements of belonging clustered together based upon similarities in coding references.

Exploring the relationship between AAA and sense of belonging is a new area for educational research. Another outcome of the familiarisation groups was that a number of unexpected themes emerged from the children's discussions, meaning that in order to gain a deeper understanding of this research area, miscellaneous themes from the interviews were also captured using an inductive analytical approach. These developments within the data analysis process will be considered further in the Discussion chapter of this thesis in relation to critiquing the research design as well as implications for future research. Transcripts of the interviews were analysed using the qualitative research software Nvivo 11. Results were then visualised using a number of different tools as described in Table 4.1. The tools are listed in sequential order as presented in the findings.

***Table 4.1***

*List of visualisation tools used to present data in Results & Findings*

| Tool | Purpose |
|---|---|
| Themes for Belonging Pie Chart *(fig. 1)* | To give an overview of belonging themes gathered deductively and their prevalence in the data |
| Belonging Hypothesis Theme Map *(fig. 2 & Appendix L)*<br><br>Sense of Membership Theme Map *(fig. 7 & Appendix M)* | To show connections of how themes from the deductive analysis fit within the two frameworks for belonging |
| Girls Sense of Belonging Theme Hierarchy *(fig. 13 & Appendix N)*<br><br>Boys Sense of Belonging Theme Hierarchy *(fig. 14 & Appendix O)* | To compare the similarities and differences in how boys and girls spoke about themes of belonging |
| Age Difference Bar Graph for Sense of Belonging *(fig. 15)* | To compare how children from different age groups talked about belonging. As this involved 3 groups, a bar chart was more accessible than a theme hierarchy |
| Cluster Analysis for Coding Similarities in Sense of Belonging *(fig. 16)* | To show how different elements of belonging from the two theoretical frameworks overlapped or 'clustered' together based upon similarities in coding references |
| Miscellaneous Theme Map *(fig. 17 & Appendix P)* | To give an overview of miscellaneous themes gathered inductively from the data |
| Word Frequency Cloud *(fig. 24)* | To give an impression of children's overall shared experience of being a member of a school pet club |

## 4.2  Findings.

Figure 1 below shows the themes which emerged from using a deductive approach and two frameworks of belonging: the Belongingness Hypothesis (Baumeister & Leary, 1995) and Sense of Membership (McMillan & Chavis, 1986). The five largest themes talked about from the interviews were: *Positive Emotion, Family, Nurture and Morality.* The prominence of these themes was calculated by the number of coding references from the interview transcriptions. The themes will now be looked at in more detail in relation to the theoretical frameworks for belonging.
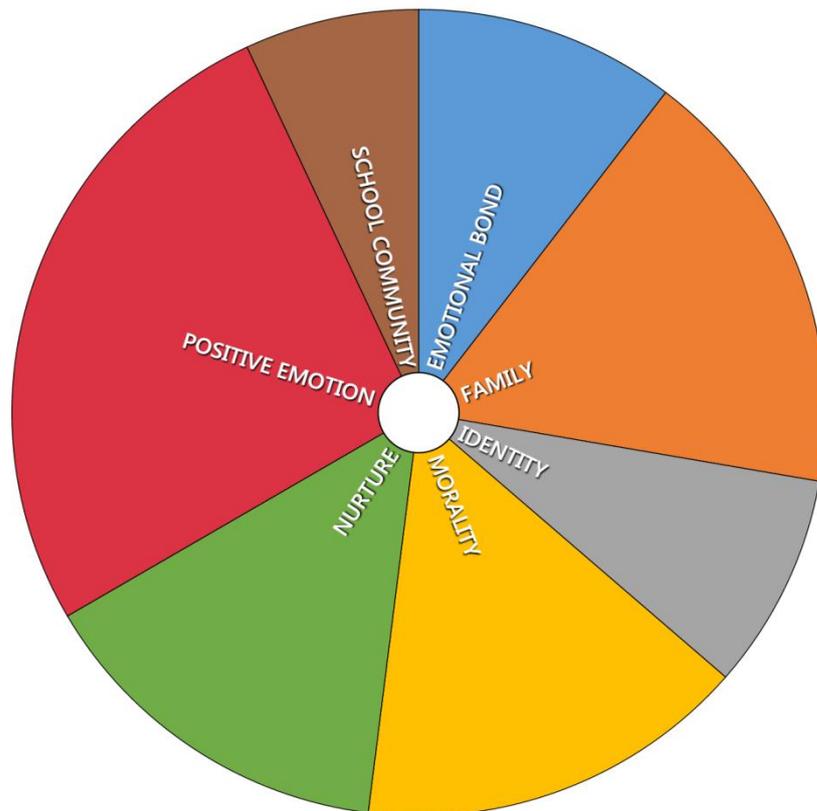


*Figure 1*
*Themes for belonging pie chart*

### 4.2.1  Belonging Hypothesis

The first framework of belonging is the Belonging Hypothesis which is defined as "the frequent experience of affectionate and pleasant interaction, and that these interactions take place within a stable and enduring relationship" (Baumeister and Leary, 1995).

Figure 2 is a theme map which shows how themes fit together within the Belongingness Hypothesis framework (enlarged image provided in Appendix O). Each theme will be looked at individually with examples of how the data met this criterion.
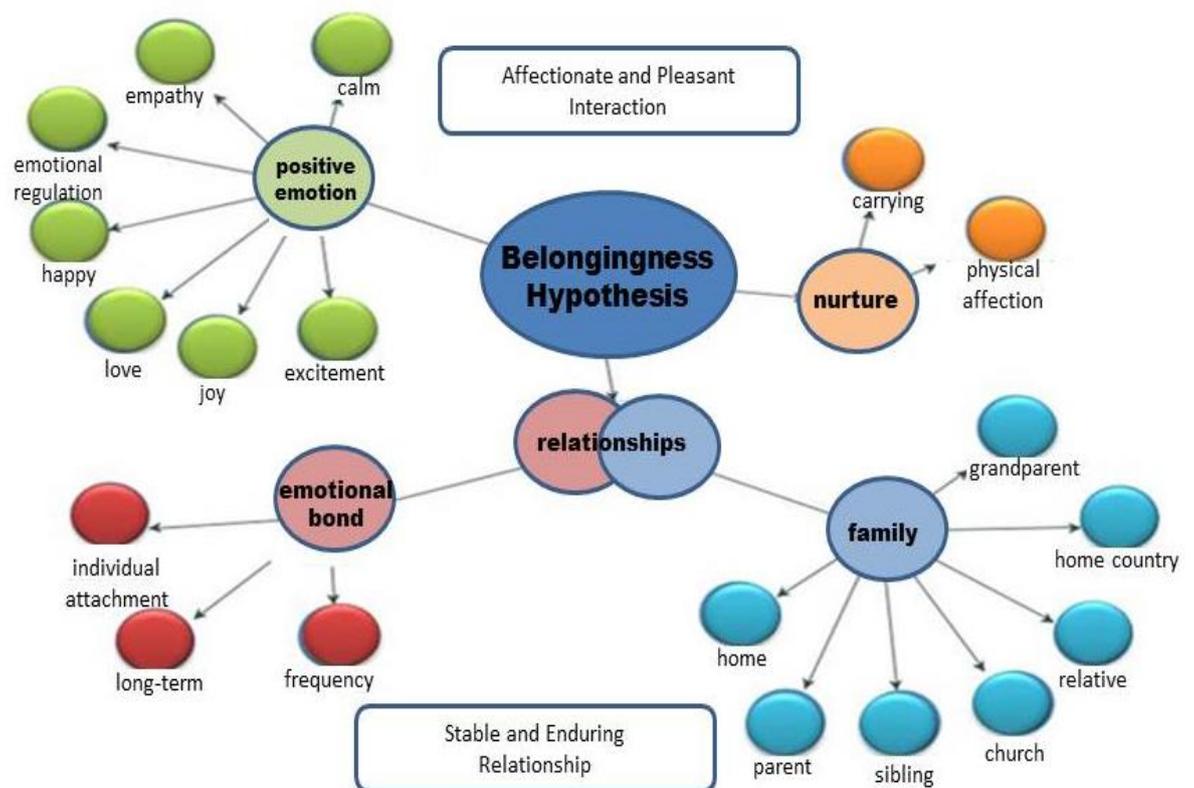


*Figure 2*
*Belonging Hypothesis theme map*

4.2.1.1 *Positive Emotion*

This theme was considered to fall within "affectionate and pleasant interaction" as the children described a range of positive emotions when speaking about their relationship and interaction with the animals. The following quotations were taken from interview transcriptions which can be found in Appendix P.

"I come to the Guinea Pig Club and I hold the guinea pigs, it makes me feel happy" - *page 215*

"They're calm and when I hold them... they give me a spring of happiness" - *page 202*

"The Farm Club it helps children... have care with pets and be … feel more gentle and calm" - *page 203*

"I feel happy that I'm with them. And I also kinda feel excited as well, it's because when they're with us we feel more happier" - *page 211*

"I drawn Whiskers and Nibbles. And I wrote Nibbles' name. And I wrote, laugh out loud all over it." … "Because I always laugh" - *page 220*

The following drawing in Figure 3 is an example of how this theme was represented in the familiarisation group.

**Figure 3**
*A description of how the participant sometimes feels sad from the playground and then becomes calm and happy after holding guinea pigs*

4.2.1.2  **Emotional Bond**

The theme Emotional Bond was broken down into three elements: individual attachment, long-term and frequency. These were seen as fitting within the Belonging Hypothesis as they describe the nature of the children's relationships with the guinea pigs as enjoying regular contact with the animals (frequency), their perception that these relationships will last over time (long-term), and that their relationship is special or unique (individual attachment).

"Coz once, a long time ago... in the old Farm Club I had that same animal, and then it was with me and I tried to give it to someone else but it wouldn't let go" – *page 213*

"We go to the Guinea Pig Club because they're (*the guinea pigs*) *always* there to make us happy. To make us smile." – *page 223*

"I like the club because... I went to this club since I was in year 1 or maybe 2, but I still... but I don't want to give this up" – *page 227*

"That they're *(the guinea pigs)* really playful with us. They'll always take care of us, they always try and... make us have the best time ever. We miss them very much." – *page 225*

"So we went up and I saw a list and I said "what's that?" so she *(SENCo)* told me and I said, can I come? And so it started the next week and I went on Wednesday and then I've been going ever since and I love it!" – *page 232*

"The guinea pigs probably got used to us and know us a lot better. So they're frightened to go to someone else" – *page 213*

The following drawing in Figure 4 is an example of how this theme was represented in the familiarisation group.
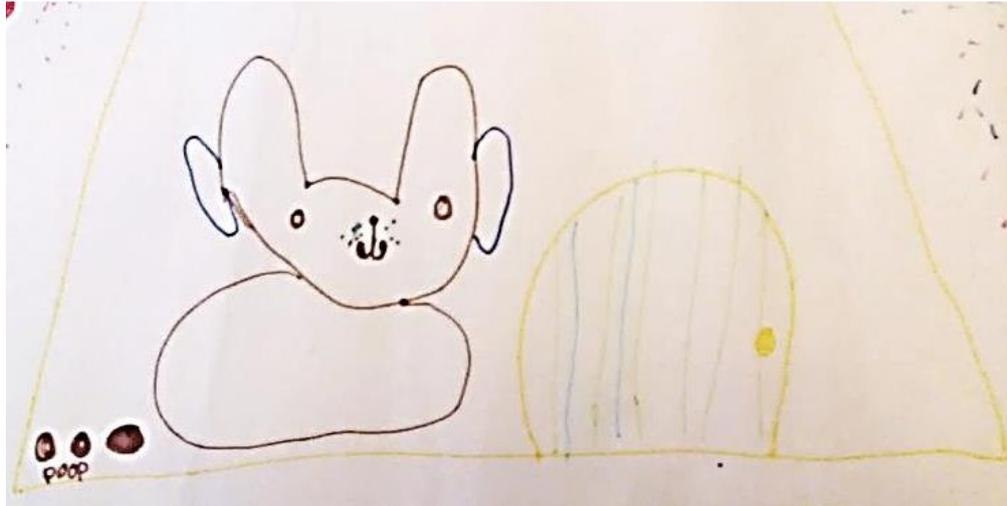
*Figure 4*
*A participant's favourite guinea pig from the club feeling happy sitting inside its home*

### 4.2.1.3 *Family*

Children spoke about relationships within their family as being consistent and secure. Therefore, references to animals within the context of family were seen as falling within *stable and enduring relationships*.

> "I would always dream about them in my dreams, going around helping people out, even though they were guinea pigs. And then nobody ever noticed but I did and then I came and one day picked them up and then we became a family." – *page 206*

> "When I take the guinea pigs home... my dad... coz my dad loves the guinea pigs, he loves to play with them, and then he loves to stroke them as well. And then he said that he likes them" – *page 208*

"It feels nice to take the animals home, coz then you can show your parents what they're like, and you have someone to be with" – *page 212*

"Because... I live in a faraway place and they *(guinea pigs)* live right in the school... and it's like they're my cousins and I have to come to school to come and visit them" – *page 238*

The following drawing in Figure 5 is an example of how this theme was represented in the familiarisation group.



*Figure 5*

*A picture of a guinea pig's house with a sign reading "only guinea pigs allowed"*

### 4.2.1.4 *Nurture*

References to physical interaction such as carrying, stroking and cuddling were seen as representative of *pleasant and affectionate interaction.*

> "That's what I usually do. When I'm feeling sad, holding the guinea pigs and stroking them." – *page 208*

> "I came to the Farm Club because I like animals, and I love... to feel animals, and I like animals' fur, it's so cuddly! But not hedgehogs. But I like hedgehogs… still a bit spikey". – *page 217*

> "They're soft and they're like a pillow." – *page 220*

> "I like coming to see the guinea pigs because they keep me from like... from getting upset. And I like to hold them." – *page 209*

The following drawing in Figure 6 is an example of how this theme was represented in the familiarisation group.
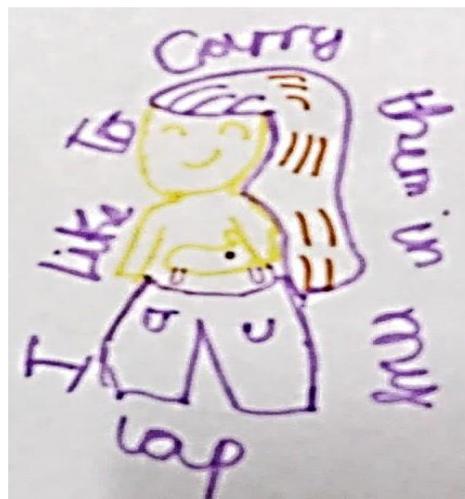


*Figure 6*
*Picture of a participant having "cuddles" with a guinea pig*

### 4.2.2 Sense of Membership

The second theoretical framework for belonging is Sense of Membership which is taken from the wider framework; Sense of Community (McMillan & Chavis 1986). Membership is seen as most closely linked to belonging and is defined by the following terms: identity, common symbol, boundaries, personal investment and emotional safety (see Introduction section of this thesis). Figure  shows themes from the data which fit within Sense of Membership (enlarged image provided in Appendix Q). Each theme will be looked at individually with examples of how the data met this criterion.
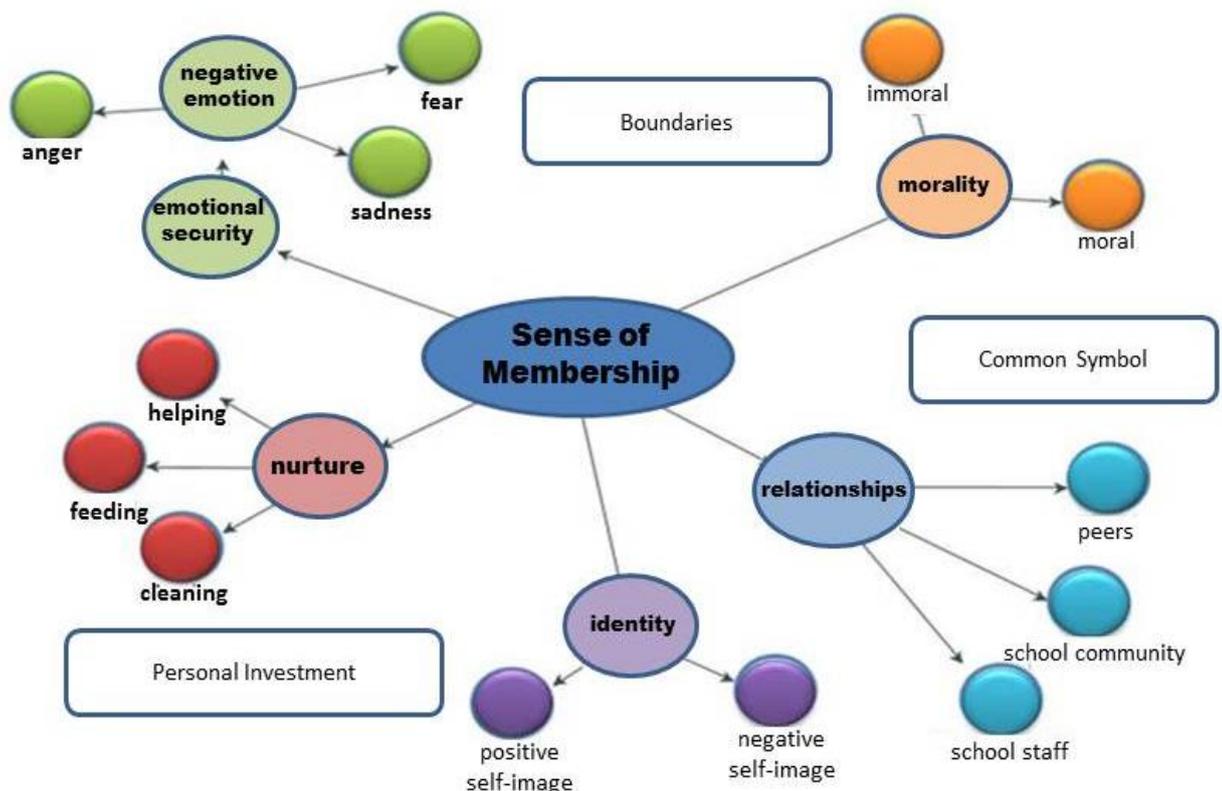


*Figure 7*

*Sense of membership theme map*

4.2.2.1 *Nurture*

This theme was broken down into several elements with 'physical interaction' and 'comfort' being referred to within the Belongingness Hypothesis. Within Sense of Membership, references made to looking after the guinea pigs such as feeding them and cleaning cages was seen as personal investment. This was defined as children in the group making voluntary effort to contribute to the sustainability of the club. The following quotations were taken from interview transcriptions which can be found in Appendix P.

"My favourite part is when...  they're on the table, because we get to feed them, we get to brush their fur. And we also get to... I can't remember... And oh yeh, and then we also get to see them wash and it's so cute." – *page 224*

"I like that they get to be with us and they get to have fun, instead of being lonely and bored. And then clean them up so they're hygiene" – *page 211*

"My favourite is where... we get to put them back in the cages and give them the food" – *page 235*

"My gran says it's good, that I'm looking after pets and giving them food and making them comfortable. I like giving them food and making them comfortable" – *page 219*

The following drawing in Figure 8 is an example of how this theme was represented in the familiarisation group.
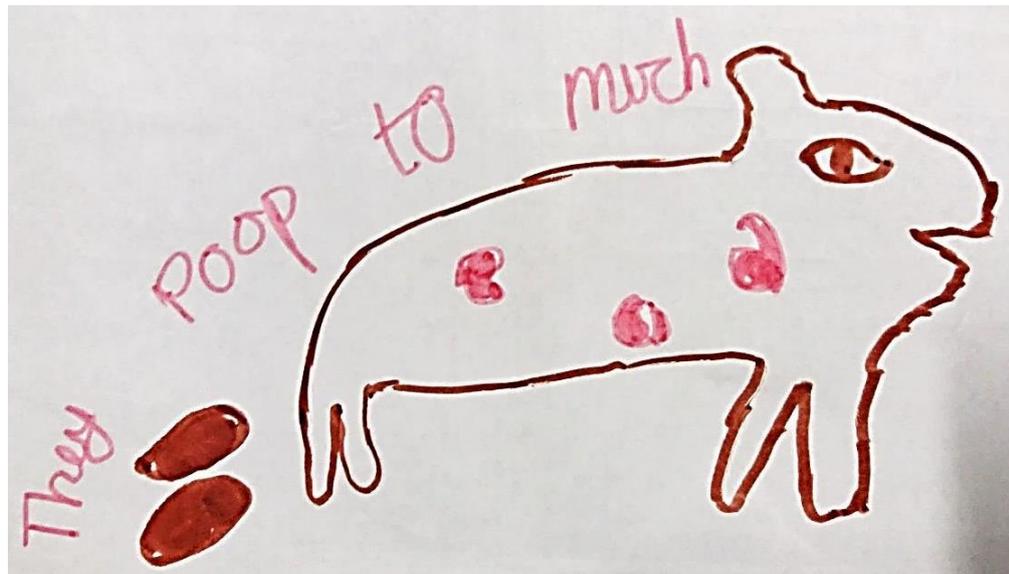
**Figure 8**

*This is a picture a participant drew to show that the guinea pigs need cleaning out often because they "poop too much"*

4.2.2.2 *Emotional Safety*

This theme is defined as the pet club providing a safe environment where children feel able to explore uncomfortable emotions or experiences. Many children chose to create stories involving conflict such as guinea pigs as cowboys or superheroes. Some chose to reveal feelings about real life situations. Whiskers and Nibbles are the names of guinea pigs from the club.

"Then afterwards, Whiskers would be like, haha I don't care. And then that says... nibbles is again like anyway, I will still eat and Whiskers will never get to eat anything!" – *page 219*

"So first he speaks, that's my celery. Then he says, get out of town. Get out of town before I deal with you." – *page 235*

"Yeh, it's really upsetting when we lost the animal and it had to go away. I kinda felt really really upset" – *page 213*

"I mean that even though the animals don't know my name, they still... might remember me…more than the humans. Because once somebody passes away, they're forgotten forever. Well not forever, but most people won't remember me". – *page 204*

The following drawing in Figure 9 is an example of how this theme was represented in the familiarisation group.
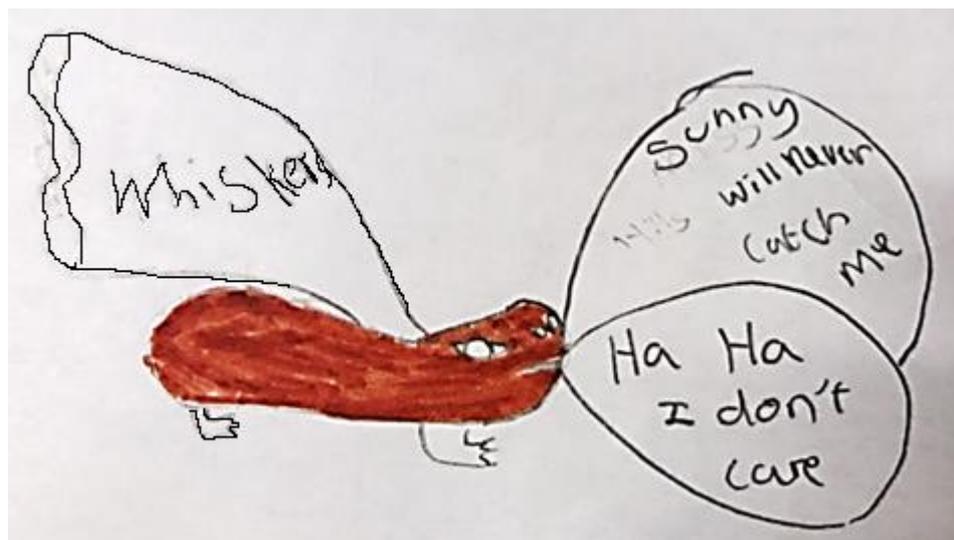


*Figure 9*

*This is an evil super villain guinea pig who has stolen food from "Sunny" the school teacher.*

### 4.2.2.3 *Identity*

This theme was described as references children made to themselves, such as qualities, attributes or personality traits. Children often talked about themselves in a positive light when thinking about how the guinea pigs might perceive them.

> "I think the guinea pigs would say that I'm somebody emotional for the creation and animals around as well as guinea pigs, and they think I like to have fun" – *page 206*

> "They would say that I'm smart. Confident... and active brain" – *page 206*

> "I think the guinea pigs would tell you how... how nice we've been to them. And how calm we've been to them". – *page 217*

> "And if they *(the guinea pigs)* could do anything, they would sing"… "Because I love singing" – *page 208*

The following drawing in Figure 10 is an example of how this theme was represented in the familiarisation groups.
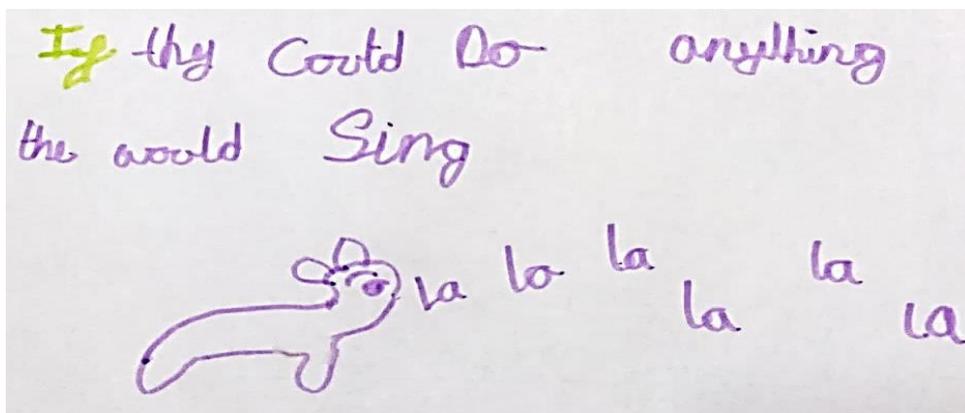


*Figure 10*
*This participant described how the guinea pigs would sing like her*

4.2.2.4 *School Community*

This theme was defined as participants making reference to people in their school community such as teachers and peers. This was seen as representing "boundaries" within the sense of membership framework, where children made a distinction between those who were members and those who were not members of the club. The majority of relationships mentioned were with other club members with only minimal references to school staff or other children.

> "When... I go to lunch and then I say to my friends, I'll see you when I come back" – *page 221*

> "We talk about the guinea pigs most of all. We talk sometimes about the guinea pigs, and then sometimes we talk about other stuff. Like birthdays… or food" – *page 224*

> "But the good things about it is... so we share and we let other people have stuff, and we just... we just really like it" – *page 224*

> "This is D's drawing of a cow rollercoaster. He was helping me be a little more creative. So we were doing one together" – *page 235*

> "We couldn't have them in our class. So now they're just living in Miss M's house…. in the school, in her room. " – *page 232*

The following drawing in Figure 11 is an example of how this theme was represented in the familiarisation group.

**Figure 11**

*This picture was co-constructed by two participants. They have created a "cow rollercoaster" with guinea pigs sliding down.*

4.2.2.5  *Morality*

This theme was also seen as representing *boundaries,* as the children were speaking about behavioural expectations for being in the club and that membership was dependent upon doing the right thing. This often involved talking about club rules and what happens if they are broken. Ideas about morality were also explored through creative stories about how animals manage conflict.

"Then there's this one *(points to picture)* where I said what you can't do to them, like you can't throw them up in the air or else they'll like fall."
– *page 208*

"Like, whenever you're gonna carry the guinea pigs, you should never squeeze them in the middle" … "Because like... if you squeeze them, you might... get to their heart and they won't like be able to breathe properly"
– *page 215*

"But there's one rule in my house. Nothing should pee in my bed."
…"Coz they pooped on my pillow. And on my jumper". - *page 239*

"Maybe like... Whiskers is the bad guy and Nibbles is the superhero trying to defeat his side-kick" – *page 237*

"And the pigs and guinea pigs are enemies so they're gonna go and knock out the pig and once they've done that they're gonna take the guineas and then take them back to the mayor and then the mayor is just gonna be like oh you saved us!" –*page 230*

The following drawing in Figure 12 is an example of how this theme was represented in the familiarisation group.

*Figure 12*

*This is an extract from a comic book created by a participant. It tells the story of a bank robbery adventure involving guinea pig superheroes and an evil pig*

### 4.2.3 Gender Differences

Figure 13 and Figure 14 below show the different elements of belonging experienced by boys and girls (enlarged images provided in Appendix R and Appendix S). The data is presented in a hierarchy where the larger boxes represent a higher number of coding references in the data. As there was an uneven number or boys and girls (girls = 12, boys = 4) the number of coding references were calculated by percentage coverage, not frequency.
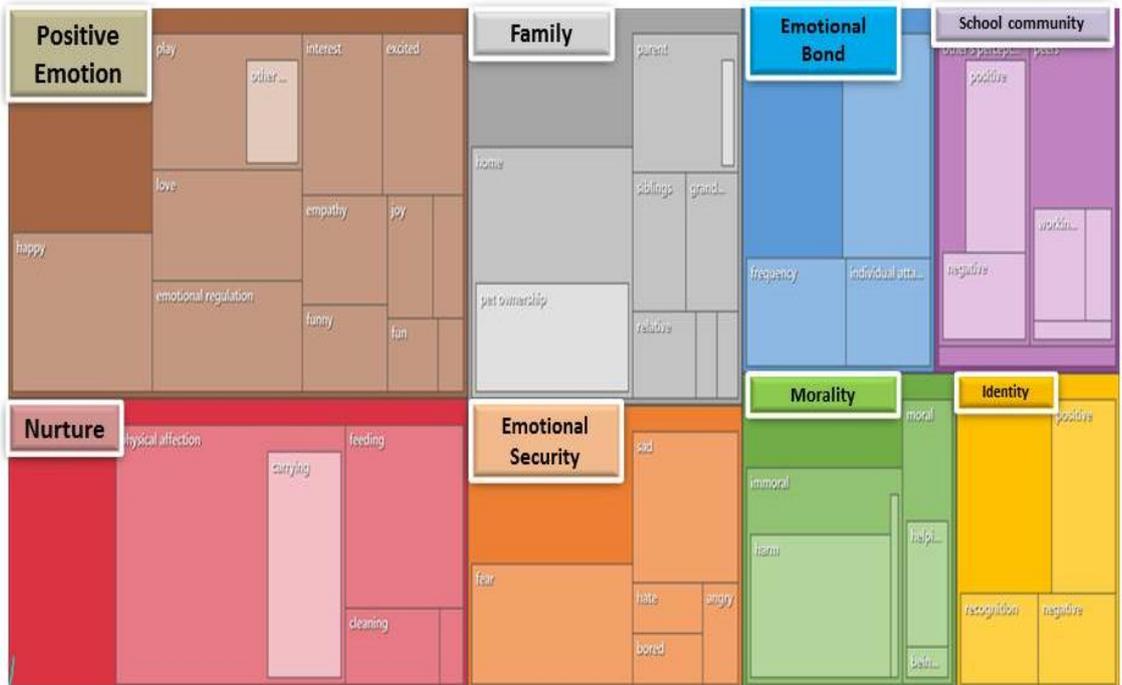
*Figure 13*

*Girls sense of belonging theme hierarchy*
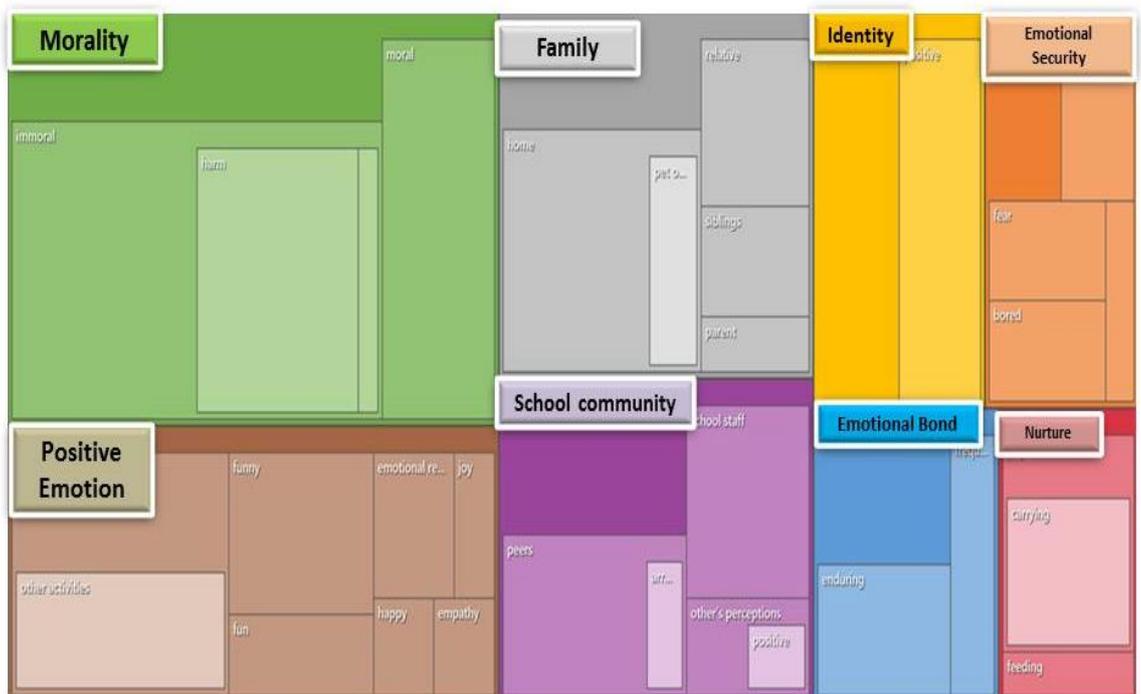


*Figure 14*

*Boys sense of belonging theme hierarchy*

### 4.2.3.1 *Similarities*

- o Girls and boys talked about the same aspects of belonging, however, the amount of time spent talking about the different themes within belonging varied.
- o The content of each theme was similar for both girls and boys with only slight variations.
- o Girls and boys shared two themes in their top five most commonly spoken about: "positive emotion" and "family".

### 4.2.3.2 *Differences*

- o Morality was the largest theme for boys and yet was sixth largest theme for girls
- o Girls talked more about emotional security and emotional bonds than boys
- o Nurture was more commonly talked about by girls than boys, and their experience was also different. For example, girls focussed on the physical aspects such as cuddling and stroking, whereas boys focussed more on carrying and playing
- o Boys focussed more on their school community than girls

### 4.2.4 Age Differences

Figure 15 shows how many references were made by each year group to different aspects of belonging (enlarged image provided in Appendix T). The youngest interviewees were 7 years old (Year 3) and the oldest were 10 years old (Year 5). As there was an uneven number of ages (Year 3 = 4; Year 4 = 6; Year 5 = 7) the number of coding references were calculated by percentage coverage, not frequency.
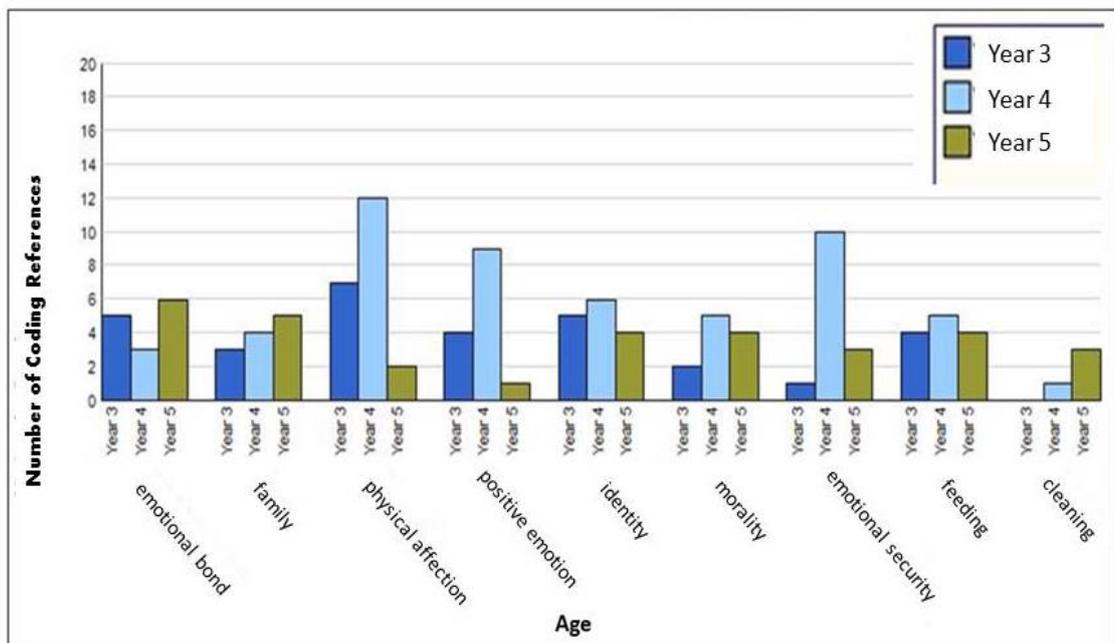


***Figure 15***
*Age difference bar chart for sense of belonging*

- The younger children focussed more on physical interactions with the animals such as cuddling and stroking, whereas older children tended to focus more on their emotional bond with the animals and links with family
- Year 5 data was more evenly distributed across themes, showing that older children experienced belonging in a number of different ways
- Year 3 and Year 4 data was unevenly distributed showing that younger children experienced belonging in some ways more than others
- Overall, year 4 seemed to make the biggest contribution during interviews, particularly in relation to complex ideas such as identity and emotional security

## 4.2.5  Linking the two frameworks for belonging

Figure 16 below shows how different elements of belonging from the two theoretical frameworks clustered together based upon similarities in coding references. When themes are close together on the tree, this indicates that the themes often appeared together in the text, or were coded in a similar way.

- Often when children were talking about family they would make reference to positive emotions
- Morality and identity are closely linked together showing that beliefs about right and wrong were spoken about in a similar way to sense of self

- Emotional security is linked to morality and identity, showing that children who talked about difficult emotions did so within the context of right and wrong or sense of self
- When speaking within the theme of emotional bond, children made references to physical affection and feeding the animals
- References made to school community were correlated with talk about responsibilities for looking after the animals



**Nodes clustered by coding similarity**

- FAMILY
- POSITIVE EMOTION
- IDENTITY
- EMOTIONAL SAFETY
- MORALITY
- feeding
- EMOTIONAL BOND
- physical affection
- SCHOOL COMMUNITY
- cleaning
- helping
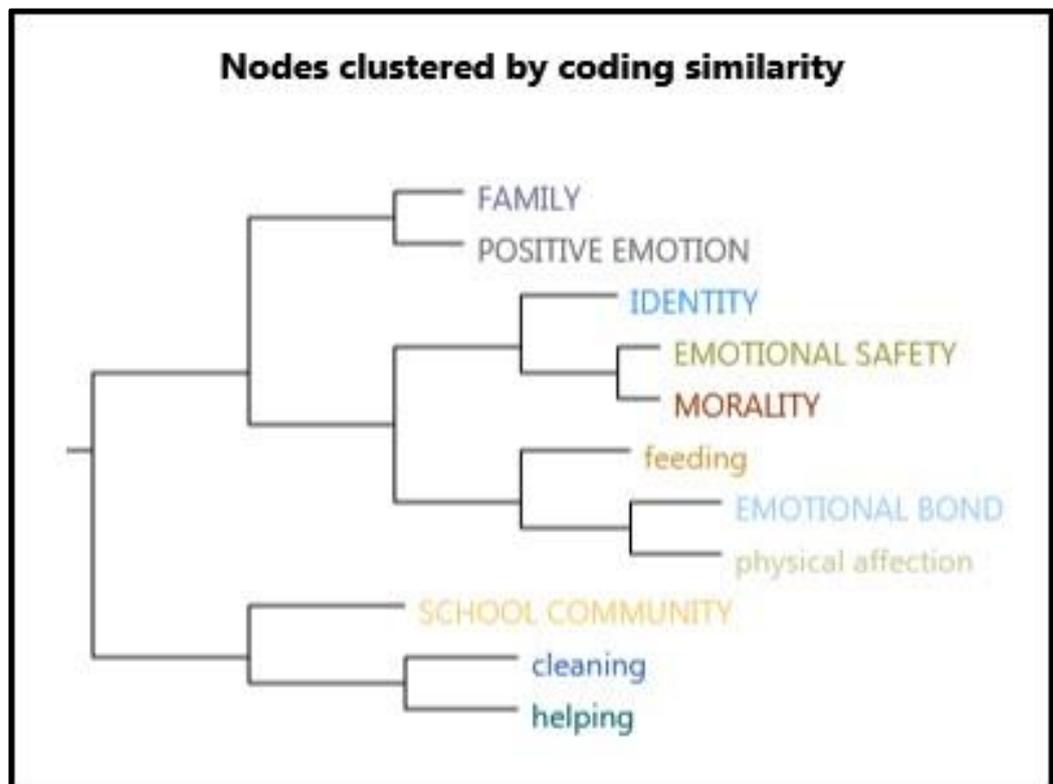
*Figure 16*

*Cluster Analysis linking two frameworks of belonging using coding similarities in data*

### 4.2.6 Miscellaneous themes

Using an inductive approach, there were themes which emerged from the data which were unexpected and did not fit exactly within the belonging framework. Although not directly answering the research question, results will be considered in the Discussion chapter in relation to implications for future research. In hierarchical order, the most prominent miscellaneous themes from the inductive analysis were: Creativity, Animals as Human, Animal Behaviour, the Natural World, Learning, and Animal Appearance. The Figure 17 below gives an overview of all the miscellaneous themes and how they are connected together (enlarged image provided in Appendix U).
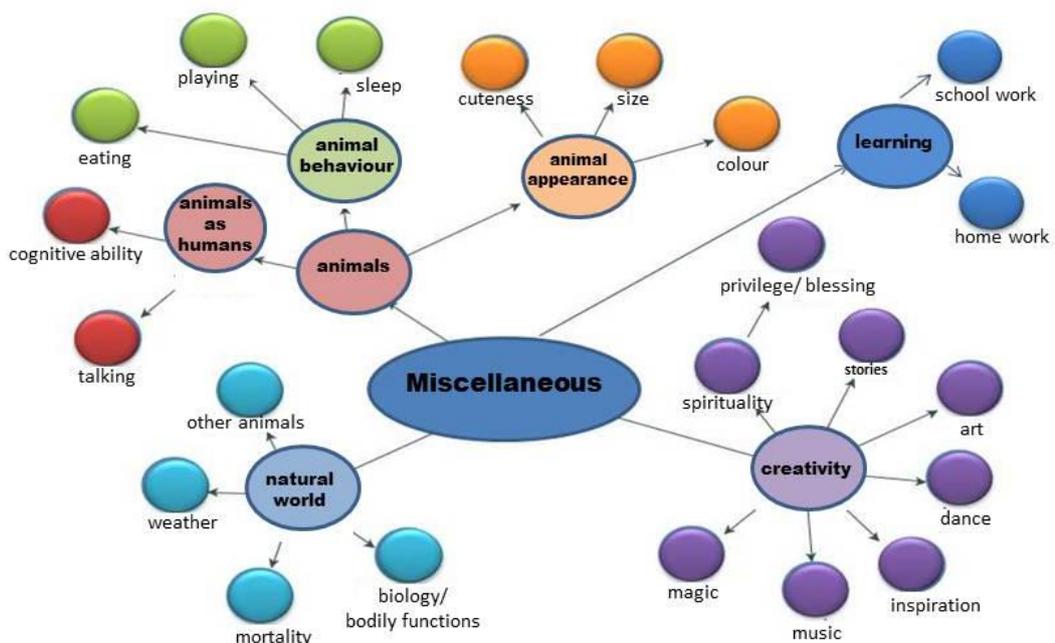


*Figure 17*

*Miscellaneous themes map*

Each theme will be looked at individually with examples of criteria by which the data was coded. The following quotations were taken from interview transcriptions which can be found as Appendix P.

4.2.6.1 *Creativity*

This was the largest theme from the emerging data and also had the most variation in content, the most references being for: music, inspiration, adventure, flying and dance.

> "Coz they also give me ideas for reports, newspapers and also for extraordinary drawings. As well as optimistic illusions" – *page 205*

> "And then, it's like you're riding on a rainbow when you find out your new skill" – *page 225*

> "We talk about lots of other things like, if the guinea pigs are superheroes, could they turn into giants? or laser people?"
> – *page 238*

> "I would take them *(the guinea pigs)* out to places, then I have this secret garden outside my back yard, I would take them out... then pretend we would teleport to another magical world" – *page 206*

> "I made this song about guinea pigs that I wanted to sing to you. (*Singing*) Guinea pigs wondrous, guinea pigs good, oh I love guinea

pigs. Guinea pigs make me feel so good, oh that's why I love guinea pigs!" – *page 210*

The following drawing in Figure 18 is an example of how this theme was represented in the familiarisation group.



***Figure 18***

*This is a picture of "candy land on a cloud" which is the home of Isabelle the guinea pig.*

4.2.6.2 ***Animals as Humans***

This is the second largest theme which emerged from the data. Children attributed many human characteristics to animals including emotions, behaviour and language. This was sometimes done through creating stories with their imagination, and sometimes spoken about in realistic terms.

"They *(guinea pigs)* shouldn't be treated in a bad way. They should be treated in a way that... they should feel good about themselves"
*– page 209*

"There's a little place where you can tickle him and he laughs".
*– page 224*

"I was watching the Goblet of Fire and when Harry got into the Triwizard tournament, they *(the guinea pigs)* were just like, squeak squeak squeak! (*excited guinea pig*) But when... it stopped they were like, wooo wooo wooo" (*sad guinea pig*). *– page 233*

"Animals... you have to be nice to them to get them to love you. Because if you're not nice, they will run away and they won't like what you're doing to them." *– page 234*

"I drew a bunny which is a ballerina, and it's got a dandelion in its hand. It's holding a dandelion" *– page 216*

The following drawing in Figure 19 is an example of how this theme was represented in the familiarisation group.

*Figure 19*

*This is a picture of a guinea pig who is listening to music through headphones and "jumping up and down in puddles partying". Another caption reads "guinea pigs can be a bit like humans".*

### 4.2.6.3 *Animal Behaviour*

This theme was defined as any observations made about the animals including how they moved around, ate, slept and interacted with the other animals.

"They make this sound like bubbles, it's inside them, you can hear it sometimes" – *page 202*

"Because anytime they're either messing about, or playing, or either having fun with themselves or jumping on each other" – *page 203*

"Coz the guinea pig... when we made a tunnel, the guinea pigs they went... they went through" – *page 220*

"Then there was like this ball he got inside and then he rolls around under the tables and chairs" – *page 213*

"Because, so when we give them some food, they're always nibbling, and sometimes they accidentally scratch us. And sometimes you can see them grinning, or shaking, while they're eating" – *page 235*

The following drawing in Figure 20 is an example of how this theme was represented in the familiarisation group.



*Figure 20*
*This participant talked about how what the guinea pigs liked to do all day, including eating lots of dandelions*

## 4.2.6.4 *The Natural World*

This theme is described as any reference to things in nature including other living creatures, plants, the environment, biology and the life cycle.

> "We can talk about them *(guinea pigs)* if they're amphibians or...invertebrates, vertebrates…" – *page 225*

> "I drew a rabbit listening to music... and pooing" – *page 218*

> "It helps you really understand that animals are like humans but then we have to take more care of them if we're gonna have them coz we might endanger them" – *page 205*

> "Whenever I go near an animal they just like, squeak squeak, run to me. Not wild ones... but zoos and birds and puppies and cats, they all love me". – *page 232*

The following drawing in Figure 21 is an example of how this theme was represented in the familiarisation group.

*Figure 21*

*This participant talked about the bodily functions of a guinea pig, describing how their food passes through their digestive system*

4.2.6.5  *Animal Appearance*

This theme was defined by any comment made about the appearance of the animals including physical attributes such as colour, size or perceived attractiveness.

> "And I especially like... this one, the white one, because she's more like... she's more like calm, and he's not too much to scuffle around. And I also like him because he is a bit like multi-coloured, he's a unique colour"
> – *page 209*

> "My favourite animal is the ginger guinea pig which is ginger all over it"
> …"Because I like orange" – *page 226*

"I drew it with cute eyes and a mouth and I said here, guinea pigs make me happy and they're very cute". – *page 223*

"I remember that I drew lines… and I drew lines because I wanted like a different design to represent the guinea pigs. That they're different"
– *page 223*

"I like playing with them because they're tiny, teeny" *(mimes 'very small')*

– *page 231*

The following drawing in Figure 22 is an example of how this theme was represented in the familiarisation group.



**Figure 22**

*This participant wanted to show how cute she thought the guinea pigs looked giving them long eye lashes*

### 4.2.6.6 *Learning*

This theme was defined by a curiosity and interest in finding out more about the animals, as well as direct references to school work or the curriculum.

> "With their every second of movement, that each of them do, I learn something new from them that I didn't know" – *page 204*

> "When I have any homework about the animals, it's better to look at the animals so then you get to know more about them as well" – *page 207*

> "I don't know why, but when I'm doing a sum or a question, I look at the guinea pig's face or something, and then I somehow... looking at them makes me find the answer and work it out in my head. So, I don't know why, but it's weird, but then it kinda helps" – *page 212*

> "In the Victorian times they took guinea pigs for money. For... like guinea means money and the pig means like... coz they're kinda like from the family of guinea pigs" – *page 239*

The following drawing in Figure 23 is an example of how this theme was represented in the familiarisation group.

**Figure 23**

*This participant talked about animal's habitat and wanted to draw a guinea pig in his natural environment eating grass*

### 4.2.7  Summary

In summary, the findings suggest that when asked about their experiences of being in their school pet club, children touched upon a wide variety of themes within the umbrella of emotional wellbeing. Evidence was found for all aspects of belonging as defined by the theoretical frameworks, with the data showing particular emphasis on positive emotion, nurture, family, morality and identity. Data showed that there was a difference in children's experiences of belonging depending upon age and gender. Older children tended to focus more on the emotional bond with animals, whereas younger children talked more about physical affection. Girls focussed more on nurture in terms of physical touch whereas boys talked mostly about nurture in terms of morality, such as providing protection and preventing harm.

To give a final overview of the shared experience of children in the pet clubs, Figure 24 below shows the most frequently used words as collated from across all interviews.



**Figure 24**
*Word frequency cloud*

# 5  Discussion

In the next section, these results will be discussed with a view to answering the research question. Themes will be explored in turn, with some being looked at together due to overlaps in how they were represented in the data. School belonging has been defined by two theoretical frameworks (Table 5.1) and will be considered when positioning the findings within the wider educational context as outlined in the Introduction and Literature Review. The theoretical and practical implications of using AAA as an intervention for developing sense of belonging in schools will be discussed, as well as implications for future research and role of the EP.

**Table 5.1**
*Applied theoretical frameworks for belonging*

| Belongingness Hypothesis | |
| --- | --- |
| Frequent experience of affectionate and pleasant Interaction | Interactions take place within a stable and enduring relationship |

*(Baumeister & Leary, 1995)*

| Sense of Membership | | | | |
|---|---|---|---|---|
| Boundaries | Emotional Safety | Identification | Personal Investment | Common Symbol System |

*(McMillan and Chavis, 1986)*

## 5.1   Research Question

How might children experience sense of school belonging through animal-assisted activities? What are the individual differences?

### 5.1.1   Belongingness Hypothesis (frequent affection)

#### 5.1.1.1   *Themes of Positive Emotion & Nurture*

*Positive Emotion* was the largest theme to emerge from the data, not only in terms of happiness and joy, but also how animals supported children's emotional regulation, such as calming them down or cheering them up when they felt sad. There is evidence to show that rather than just providing comfort, there might be underlining physiological mechanisms explaining the effect

interaction with animals can have on mood. For example, many participants spoke about how it made them laugh when the animals did something unusual or surprising, with one participant writing "LOL" on his picture which he explained stood for "laugh out loud, because I'm always laughing" (page 220). The physical effect of laughter on the body has been measured in scientific studies with results suggesting that laughter was a modifier of neuroendocrine hormones, meaning that stress hormone production is supressed (Berk et al. 2001). Many participants also talked about positive emotions in relation to physical interaction with the animals such as cuddles or stroking. Studies which looked at the psychophysiological effects of human-animal interaction, have found that oxytocin (also known as the "bonding hormone"), is released into the brain in response to a variety of sensory stimuli (Ross & Young, 2009). Warm touch and stroking in the context of trusting relationships (such as a therapy dog) has the effect of producing oxytocin in the body and generating feelings of comfort, safety and relaxation (Beetz, Uvnäs-Moberg, Julius, & Kotrschal, 2012). These findings are also supported by research about the effect of therapy dogs on child hospital patients in that they reduced fear, anxiety and even lessened the effect of physical pain in those who interacted with them (Barker, Pandurangi, & Best, 2003).

The concept of 'frequent affection' within the Belonging Hypothesis was also represented by the theme of *Nurture*, defined by the researcher during the coding stage of data analysis as: "physical interaction such as stroking, cuddling and holding the animals". Differences were found in age, with the younger children speaking mostly about nurture in this way, for example describing the physical attributes of the animals they were cuddling as being "warm" or "soft like a pillow" (page 220). Cluster analysis of data relating to belonging (Figure

16) showed that physical affection was correlated with emotional bond. From what is known about attachment theory, it could be suggested that younger children are typically more likely to seek physical touch as a consolidation of emotional attachment, whereas older children are more able to see the complexities of a loving relationship in that attachment can be demonstrated in a number of different ways, such as providing food and shelter (Bowlby, 2005). There is evidence to support the connection between positive emotion and feelings of belonging as seen in studies from the Literature Review. For example, Sancho & Cline (2012) found that when asked about sense of belonging in school, children mostly talked about the positive emotions they felt when finding their place within a strong friendship group.

Despite the research showing no gender difference in the psychophysiological effects of human-animal interaction, data from this study showed that girls were much more inclined to talk about positive emotion experienced from physical contact with the animals, whereas boys were much more likely to talk about the excitement and enjoyment of playing with the guinea pigs and observing their behaviour. There is currently a debate around the effects of different factors on gender identity such as parental, biological and societal influences (Rose & Rudolf, 2011). For example, there is research to say that cultural stereotypes significantly influence the toys children are encouraged to play with, and where girls are often given dolls, they have greater opportunity to role play and develop care-giving skills (Melson & Fogel, 1989). As will be discussed in the next section, *Family* was a significant theme from the data, with boys making as many references as girls. This suggests that both genders had established emotional bonds with the animals, even though this may have been demonstrated differently through their interactions with them. If boys from

the club were sensitive to gender stereotyping, it could be that they felt less comfortable being seen cuddling the animals, despite having equal desire to do so.  A study by Hergovich et al. (2002), shows that when a dog was introduced to a classroom, boys spent more time with the animal than girls, and overall had better outcomes from the intervention in terms of increased empathy, cooperation and prosocial behaviour (Kotrschal & Ortbauer, 2003). As children assign different roles to different animals based upon their physical attributes (McNicholas & Collis, 2000) it could be that playing with a large boisterous dog is seen as more socially acceptable for boys than cuddling a small guinea pig. Data from the current study shows that for some children, the positive emotions experienced during the pet club were sustained throughout the day. One participant described how the guinea pigs had a lasting influence on her attitude towards learning in school, "when we're doing some really hard work in the afternoon, they keep me in a good mood. They keep me in a good mood when I'm going back to class" (page 202). These findings are supported by evidence from the R.E.A.D programme, an intervention where children build confidence by reading to dogs. The success of this programme is attributed to the positive effect the animal has on the child's emotional wellbeing by providing a non-judgemental learning companion, which in turn increases academic progress (R.E.A.D 2017; Hall et al. 2017).

### 5.1.2  Belongingness Hypothesis (stable & enduring relationship)

#### 5.1.2.1  *Themes of Emotional Bond & Family*

The theme of *Emotional Bond* was divided into three parts as reflective of the different ways in which children talked about their relationships with the animals. These included: individual attachment (relationship with a specific animal), frequency (how often they interacted with the animal) and longevity (the perceived permanence of the relationship). Attachment Theory suggests that emotional bonding does not only take place with a caregiver, and that children will also form strong attachments to peers, siblings and pets (Ainsworth, 1989). From the Literature Review, one study found that when asked to rate their top 10 special relationships, the majority of children included at least one pet (McNicholas & Collis 2000). In terms of the role they assigned to their pets, children ranked them as best for providing comfort when feeling unwell, or lifting their self-esteem after an embarrassing situation (McNicholas & Collis, 2000). From these findings, the researchers concluded that children see pets as being a valued member of the family, and therefore the relationships can be seen as stable and enduring within the Belongingness Hypothesis (Baumeister & Leary, 1995).

*Family* was the type of relationship most talked about during the interviews. One of the strongest examples of children positioning pets as part of the family was a participant who described the guinea pigs as being his cousins, "I live in a faraway place and the guinea pigs live right in the school, and it's like they're my cousins and I have to come to school to come and visit them"

(page 238). Other participants talked more indirectly about family, for example how they enjoyed taking the guinea pigs home to share their special relationship with a parent, or how they liked telling their family what had happened in the pet club that day. It could be said that the animals increased children's sense of belonging by creating an emotional bridge between home and school, described in theoretical terms as the transference of attachment (Anderson, 2000). Although teachers were talked about very little during the interviews, there was evidence that the positive experiences of being in the club had influenced their relationship with the SENCo (the supervising adult). For example, many participants throughout the interview mentioned the SENCo in relation to looking after and taking care of the animals, positioning them in the role of care-giver. One participant even referred to the SENCo's office where she keeps the guinea pigs as her "house" (page 237). Again, this highlights the theory that adults can easily be perceived as care-givers by younger children from the perspective of attachment theory (Birch, 1997). This positioning however may have been enhanced through children observing the SENCo as being the main care-giver for the pets in school.

Another aspect of *Emotional Bond* was children talking about their relationships with the animals being permanent and enduring, for example how the guinea pigs provided unconditional love and affection regardless of the child's behaviour. An example of this comes from a participant who was describing what the guinea pigs would say about her if they could talk "they'd say, she kind of tortures us but we still love her because she feeds us" (page 232). By "torture" the girl was referring to how she liked lifting the guinea pigs and making them dance to salsa music. Although this did not harm them, she believed they did not enjoy the dancing as much as she did. Participants

often used words like "always" when describing their relationships with the guinea pigs such as, "the guinea pigs they're always there to look after us" (page 223), implying that there was a sense of longevity in their relationship as well as reciprocity and mutual affection. During one of the interviews, there was a poignant moment when a participant said, "Even though the animals don't know my name, they still might remember me. More than the humans" (page 203). This suggested that the girl felt the emotional bond she had with the animals to be stronger than the bond she had with people in school. This seemed a significant statement and one which sadly could not be explored further within the limitations of the interview.

Research around socio-emotional development in children highlights the pressures children face on a daily basis to fit into social groups or compete for popularity online (O'Keeffe & Clarke Pearson, 2011). The human-animal relationship seemed to offer a rare opportunity for children to experience an unconditional emotional bond which was not dependent upon how they looked, the choices they made, or where they were in the social hierarchy. From the Literature Review it was found that children experienced sense of belonging as being contingent on the negotiation of boundaries, power and social status (Child, 2014). Although children are more likely to create stronger bonds with peers in their immediate circle, they will often reject these friends in search of popularity when confronted by a new crowd (Child, 2014). From the current study, *Peers* were the second most talked about relationship, specifically involving positive statements about other members of the club. The close friendships created within the pet clubs can be explained by several studies in the Literature Review which found that interaction with animals increased the children's levels of empathy towards each other as well as their self-control and

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care-giving behaviours (Kotrschal & Ortbauer, 2003; O'Haire, McKenzie, McCune & Slaughter, 2013; Daly & Suggs, 2010). However, with very little reference to peers outside of the pet club, it is unclear to what extent these skills could be generalised to helping children create friendships within the wider school community.

### 5.1.2.2 *Theme of Animals as Humans*

Although the theme of *Animals as Humans* did not fit directly within the theoretical frameworks for belonging, some tentative connections can be explored. This theme was represented in the familiarisation groups by drawings of animals wearing clothes and accessories, and doing human activities such as ballet, shopping or listening to music. During the interviews, a popular notion was the attribution of human emotions and characteristics to the guinea pigs. This extended to comments about how the animals might think or feel, for example by describing them as "bored" and "lonely" in their cages (page 216). The possible underlining psychological mechanisms for conceptualising animals as humans are broad and complex. It could be hypothesised that the children genuinely believed that animals have empathy and can understand human experience, as supported by research in the Literature Review which looks at the roles children assign to animals within their social networks (McNicholas & Collis, 2000). It could also be argued that projecting human traits onto pets is underpinned by the desire to establish an emotional bond as suggested by the theory of *infantile parentalism.* This is where the child enacts the role of care-

giver to mirror the parent-child relationship and therefore experiences both being the carer and being cared for in return (Robin & Bensel, 1985). Cluster analysis shows there was a correlation between identity, emotional safety and emotional bond which could provide evidence for this hypothesis (Figure 16).

It could also be the case that there is a more simplistic reason for participants depicting animals this way. Childhood literature is full of animals that wear clothes, talk to each other and go on adventures, meaning the theme of *Animals as Humans* could have been inspired by cultural and learning experiences (Power, 2000). There is also evidence to show that projecting human characteristics onto pets is not restricted to childhood. Even into adulthood, animals continue to represent strong attachment figures, and people have a tendency to perceive them as human-like to consolidate this emotional bond (Kurdek, 2009). From the interviews, it seemed that anthropomorphism was a concept which appealed not only to younger children. In fact, the data suggests that as children's thinking becomes more mature with age, the attributes they give to animals are more complex and sophisticated. For example, older children tended to project an intellect onto the animals which matched their own, such as one participant describing how the guinea pigs enjoyed watching Harry Potter films and made different noises to show their appreciation (page 233). Younger children however, were more likely to talk about how the guinea pigs enjoyed cuddles and stroking which created a mutual feeling of happiness. Therefore, it can be argued that age-related cognitive development plays an important role in human-animal relationships, in that these relationships become increasingly mature and complex with age.

### 5.1.3 Sense of Membership (boundaries & emotional security)

#### 5.1.3.1 *Themes of Morality and Negative Emotions*

*Boundaries* as defined within Sense of Membership, refers to how social groups instinctively establish expectations around behaviour and ways of thinking in order to protect themselves from outside threat of harm (Perrucci & Pilisuk 1970). From the data, the theme of *Morality* appeared to fit well within this definition as it involved participants voicing their views about right and wrong and their expectations of how members should behave in the club. Most commonly, participants demonstrated their sense of morality through talking about the importance of taking care of the animals, specifically what you must and must not do in order to keep them safe and healthy. The children's responses around club rules were very consistent, not just in description of what the rules were, but also in the seriousness of not breaking them and the subsequent consequences. For example, many talked about how neglecting or harming the animals could cause the guinea pigs to "get sick and die" and that the children responsible would be banned from coming to the club (page 225). There was also evidence of participants equating level of membership to how long the child had attended the club and to what extent their behaviour conformed to the rules. For example, one participant explained that, "some people are not good. And some people are always nice. People who haven't been coming lots and now they're coming, now all the time, they're the ones who are the nice ones" (page 241). When asked why the others were not nice, he responded "because they don't listen, the other ones. Like some people

squeeze the guinea pigs" (page 241). The rule that people's behaviour impacted on membership was popular among the participants and represented a shared construct of what true belonging meant and the importance of earning your place.

Most of the research exploring moral development focuses on two domains: *interpersonal moral reasoning* which involves conceptualisations of friendship and personal interactions and *distributive justice*, which refers to a person's general belief in equality and fairness (Eisenberg 2000). These aspects of morality were both evident in the data. For example, one participant described her personal experiences of bullying, making links between how the animals deserved to be treated kindly and that this should be applied to human relationships. She spoke about how the guinea pig club provided a safe space for her to go at lunchtimes where she could play with the animals and also take shelter from the cold playground (page 230). In this way, the club provided not only physical boundaries between her and the outside world, but also emotional boundaries in that she could establish positive relationships with children who shared her love of guinea pigs and in addition shared her own interpersonal moral reasoning (Smetana, Killen & Turiel, 1991). Another participant described how he came to the guinea pig club because, "it's really fun and you can entertain yourself if you have nobody to play with, even if your friendships stopped for a long time" (page 237). This concept of seeking emotional bond through finding a small inner circle resonates with findings from the Literature Review where young people talked about their experiences of being in a choral ensemble and how they felt closest to the people from their own section. This was defined as "sectional bonding" and was described by participants as having

a safe space and a personal relatedness through shared beliefs and values (Parker, 2010).

From the current research, there were also insights into the participants' sense of *distributive justice* in the creative stories they wrote about animals encountering conflict and fighting. Something explored by many participants was the dynamic of good and evil, such as scenarios involving superheroes and cowboys. Several of the children chose to draw guinea pigs as these characters, some telling elaborate adventures of the guinea pigs saving the day. For example, one participant created a comic strip involving two super guinea pigs wearing capes and stopping a bank robbery orchestrated by an evil pig. The 'super guinea pigs' were then rewarded for their efforts by the mayor who offered them a cash prize in guineas which made them billionaires (page 235). Other stories involved 'cowboy guinea pigs' using script such as "get out of town before I deal with you" (page 235). The narratives of these stories all ended with the reassuring message that goodness will always prevail over evil, which could be evidence of children consolidating their beliefs about right and wrong.

As well as relating to concepts of morality and justice, the above examples also have connections with *Emotional Safety* which is defined as feeling able to express vulnerabilities without fear of rejection or recrimination (McMillan & Chavis, 1986). As well as the fictional conflict described in their stories, throughout the interviews participants also talked about real life experiences which were uncomfortable, such as bullying, loneliness and death. Children described how holding and stroking the guinea pigs had often helped to lift their mood and provide comfort when they were sad or angry. It could be said that the strong emotional bonds they felt with the animals, as well as the nurturing environment of the pet club, had provided children with the confidence

to explore problem situations and uncomfortable feelings. The role of animals offering emotional safety is widely documented in the literature (Furman 2006), with studies showing that regular interaction with animals can improve children's sensitivity to the moods and feelings of others (Kotrschal & Ortbauer, 2003; Daly & Suggs, 2010). The experience of spending time with the guinea pigs may have helped to establish a mutual trust and respect between club members and the supporting adult, creating a safe space where worries can be shared without fear of negative consequences.

A significant gender difference was noted from the data for the theme of *Morality,* being the most talked about theme for boys and only the sixth most talked about theme for girls. There are a number of reasons for why this might be, the most simplistic suggestion being that boys are stereotypically more attracted to superheroes and action stories than girls (Paley, 2014). However, on closer investigation, much of the content on this subject for boys was explaining how it was important to protect the guinea pigs and keep them safe. As seen from the earlier findings on *Nurture*, boys might feel it is socially less acceptable to show physical affection towards the animals, and yet experience a similar level of emotional bond in their relationships with them. Having a strong sense of responsibility around the animals' safety could be another way of boys fulfilling their care-giving role. It could also be said that boys' interest in action stories is linked to their tendency to respond to challenging situations through externalising behaviour such as physical fights. Some research has suggested that boys have a greater vulnerability to self-criticism than girls, meaning that they are more likely to blame themselves when problems arise and will hit out at those around them rather than seek comfort (Leadbeater et al.

1999). Exploring stories of strong fighting heroes, (especially involving characters they have an emotional bond with; such as the guinea pigs) might be one way of boys making sense of these complex feelings.

## 5.1.4  Sense of Membership (identification & personal investment)

### 5.1.4.1  *Themes of Identity and Nurture*

Identity was one of the top 5 themes which emerged from the data around belonging (Appendix J). This theme was defined as having personal relatedness to those people around you, as well as having an awareness of how your own characteristics are perceived by the group (McMillan & Chavis, 1986). Self-concept is a theory which was described by Baumeister (1999) as: "The individual's belief about himself or herself, including the person's attributes and who and what the self is". Therefore, to experience a sense of belonging, there needs to be a degree of self-knowledge in order for the individual to recognise whether or not they 'fit in' with others. A useful psychological framework for thinking about the self is provided by Carl Rogers (1959) who believed that there were three different components: self-image (the view you have of yourself), self-esteem or self-worth (how much value you place on yourself), and the ideal self (what you wish you were really like). Although given separate definitions, these aspects of the self are all fluid and interconnected,

continually influenced by experiences and changes within the environment, particularly social relationships (Lewis, 2013). From the data, it was found that the theme of identity was explored by children in many different ways. Self-image was revealed in how the children described the animals in a similar way to how they viewed themselves, many using the same vocabulary. This suggests a strong identification with the animals where they see their own self-image is reflected back at them. Ideal-self was apparent through children's answers to the question of what the guinea pigs might say about them, participants often painting themselves in a very positive or idealised light. Self-worth became apparent in more subtle ways through the data, for example in how participants believed the guinea pigs to have unconditional love and affection for them. With the animals being passive and without language, the children also enjoyed the freedom of projecting any opinions of themselves they liked into the minds of the animals, which could explain why pets are known to boost self-esteem in children (McNicholas & Collis, 2000).

Having positive self-image and self-worth is known to increase prosocial behaviour (Donnellan, 2005), meaning that if animals help to generate these feelings, children would be more likely to prove their membership by making a valuable contribution to the club and consolidating their sense of belonging. This has connections with the theme of *Nurture* as sharing care-giving responsibilities for the guinea pigs would provide opportunities for all children to demonstrate their value and contribution to the club which enhances social bonding. This is supported by research discussed in the Literature Review showing that when children were given the responsibility of looking after classroom guinea pigs, over a period of time their cooperation with peers

improved as well as their self-control, observed in how they interacted more positively and resolved difficulties more quickly (O'Haire et al. 2013).

A contingent on *Personal Investment* within Sense of Membership (Chavis & McMillan, 1986) in that the individual must see the group itself as having value and worthy of their contribution. Research from the literature showed that an intervention to increase children's sense of gratitude in school was correlated to an increased sense of belonging (Diebel et al. 2017). In the current research, many participants gave the impression of gratitude in how they spoke about the club, reporting that not everybody is allowed to be a member and that the experience is "special" and "a privilege" (page 205). One of the drawings from the familiarisation group even depicted a rabbit floating down from the sky, the participant commenting that it was "God's gift" (page 218). It could be suggested that if the children have a strong belief that the club is something special and important, this will increase their commitment and personal investment to the group.

## 5.2  Summary

Research question

How might children experience sense of school belonging through animal-assisted activities? What are the individual differences?

Findings were explored within two theoretical frameworks for belonging. One of the largest themes to fit within the Belongingness Hypothesis was *Positive*

*Emotion* and this was often talked about with reference to physical interaction. An explanation is provided by research studies showing positive psychophysiological effects of human-animal interaction through the release of bonding hormones (Beetz et al. 2012). *Nurture* and *Emotional Bond* were strong themes and often talked about with reference to family, which can be linked with Attachment Theory (Birch, 1997) and emotional development theories. For example, younger children tended to talk about feelings of love through cuddles and stroking animals, whereas older children talked about deeper emotional bonds through a relationship built on care-giving and respect. Children in year 4 (8-9 year olds) talked most about complex themes such as identity and emotional safety which could represent a crucial shift in their stage of emotional development as they start to use more abstract and creative thinking according to Piaget's Formal Operational Stage (Sutherland, 1992).

The largest theme which fit within the Sense of Membership framework was *Morality* with children talking about rules of the club and the importance of keeping the animals safe and well. This theme was also explored by children within the concept of good Vs evil, such as stories about guinea pigs as cowboys and superheroes. Data showed that *Morality* was the largest theme for boys but only sixth for girls with several hypotheses given for why this might be. The two most prominent suggestions were 1) showing nurture through physical affection does not fit with the socialised gender stereotypes for boys who instead might express these feelings through presenting themselves as a strong protector 2) boys are more likely to respond to challenging situations with externalised behaviour than girls. It was also hypothesised that the club provided a nurturing space for children to express and make sense of complex feelings and experiences, something which contributed to emotional safety.

Evidence from the data showed that children's relationships with their school pets were profound. Although some individual differences were suggested for age and gender, there were strong indicators that for all participants the experience impacted positively on their sense of belonging in school.

## 5.3 Critique of research

### 5.3.1 Research design

Although there have been studies looking at the social and emotional benefits of animal therapy for individuals with specific difficulties (Peters, 2017), very little is known about the effect of AAA on sense of belonging. Difficulties were encountered when carrying out the Literature Review after a singular search using the combined terms "school belonging" and "animal-assisted activities" did not yield any relevant results. It was decided that two separate Literature Reviews were needed, creating the challenge of finding psychological theory which would provide evidence to justify why these two concepts were being looked at together, aside from the researcher's personal experience of seeing the benefits AAA can have on groups of children. With any exploratory piece of research, there is always a risk that the scope of what is discovered expands outside of the original research aims (Robson & McCartan, 2016). It was clear from the familiarisation groups that children's rich experiences of being with the

animals would not be explained by the Belongingness Hypothesis alone. A second theoretical framework, Sense of Membership, was therefore introduced so that there would be a clear structure to focus the direction of the research, while also allowing the researcher flexibility to explore this complex new area fully. As a result, the data analysis was extended to include a cluster analysis to understand how these two frameworks might be linked or overlap within the data. It was also discovered from the familiarisation groups that a number of other themes had emerged which could not be clearly defined by the sense of belonging frameworks. As an exploratory study into a new area of research, it was decided that the data analysis needed to have both a deductive and inductive approach in order to first answer the research question, and then be able to make sense of the miscellaneous themes which emerged unexpectedly from the data.

A difficulty which arose in designing the data collection methods was whether or not to talk with children directly about sense of belonging. Although theoretical links had been found between AAA and belonging, there was no literature which specifically provided evidence for this assumption. Therefore, it was necessary to avoid asking participants about belonging so as not to influence their direction of thinking. One consequence of this was that children's conceptual understanding of belonging was not explored. This would have been useful in making sense of the data, for example when accounting for the potential impact of culture, background and personal beliefs on school belonging. In connection with this, it is interesting to note that School A was a faith school. The debate over whether faith schools are more likely to have a greater sense of belonging based upon their shared values and belief system has been widely debated in the literature (Short, 2003). Some theorists promote

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the benefits of a positive religious philosophy in education, whereas others warn against the risk of division and cultural exclusivity (Halstead & McLaughlin, (2005). What is generally agreed upon is that faith schools tend to have a stronger sense of school culture and identity and therefore foster a greater sense of school belonging for their pupils (Short, 2003). Without asking children directly about what belonging meant to them, it is not clear what impact their beliefs and school culture may have had on their experiences of being in the club.

Due to the small sample size, in the early planning stages, focus groups were considered as another step before the interviews to gain a richer understanding of the children's shared experience of being in the pet club and to maximise the contribution made by the participants. One of the most important aims for the researcher was that children's views were kept at the heart of the research, which is why a drawing activity was introduced to help participants prepare for the interview by collecting their ideas and expressing their thoughts visually. This would help to make the interviews as accessible as possible for all children including those with special educational needs. With the purpose and intended outcome of this stage having changed, it was necessary to redesign the research to replace focus groups with familiarisation groups.

In terms of practical obstacles to carrying out the research, the researcher had to find schools within the South London borough which used pet clubs or classroom pets to promote emotional wellbeing. Only 4 schools were found which met this criterion, with only 2 of those being able to participate at the time. As a result, the sample size was relatively small with 20 participants in total. It was also a purposive sample in that the children had to be members of

the pet club and attending for at least 6 weeks. Considering that these children all had a personal interest in the club, as well as having volunteered to participate in the study, it is likely that they would be naturally enthusiastic about their experiences which could lend a positive bias to the results. For these reasons, the researcher acknowledges the difficulty in generalising the findings from this study. Qualitative research has long been critiqued, if not disparaged, due to a perceived lack of quality and robustness, as well as the difficulty of generalising findings (Leung, 2015). A particular challenge for the current research was the gender bias with only 6 boys participating in the interviews compared with 14 girls. During the analysis, this was accounted for by reporting the percentage coverage of themes for each gender rather than the number of references made. However, this would still mean that girls' views were better represented overall. During discussion about the individual differences in how boys and girls experienced belonging as shown in the data, several theories have been considered including social stereotyping and cultural expectations (see themes of Nurture and Morality in this chapter). However, after the interviews were completed, the SENCo from School A made a surprising comment that it always seemed to be the boys, rather than the girls, holding the guinea pigs during the pet club (something which was not represented in the data). This raises the question of epistemological approaches and how to best gain views from boys about emotional wellbeing if it is known that cultural stereotypes might be influencing how they think they should present themselves to others.

### 5.3.2  Stake holders and participants

Once the research process is completed and any amendments from the Viva have been carried out, the participants and SENCos will be visited again by the researcher to feedback on findings from the study as agreed at the start of the research project. This will be done by using a visual map to represent the different themes as well as giving anonymous examples of quotes from the interviews which fit within each theme. The children will be given the opportunity to ask questions and make comments about what the researcher had found out, including things which they thought were surprising or unexpected. The final activity will be for the children to create another picture like they did in the familiarisation groups, but this time to represent their experiences of taking part in the research. They will be encouraged to think about their favourite part, what they will remember most, and how they might feel differently about their pet club after being involved in the research project. The purpose of this group activity will be to keep the children at the centre of the research by involving them at every stage, as well as allowing consolidation of their experiences and closure.

At the end of the data collection stage, SENCos gave their informal feedback from their experience of participating in the research. They talked about how much the children had enjoyed being interviewed and that it made them feel their ideas were important and valuable. There also seemed to be a fresh enthusiasm for the club, with children gaining a deeper appreciation of all the things they had gained and learned from the animals. The SENCos also noticed that as children spent more time in the club, they seemed increasingly

comfortable in each other's company with fewer disagreements and more empathy and willingness to share, especially when it came to looking after the guinea pigs and making sure they were well kept. The SENCo from School B also talked about the impact their Farm Club had on the parent-school relationship. As their farm enclosure was situated outside in the playground, parents with smaller children would often let them play with the animals while dropping off their older child at school. This encouraged parents to stay and speak with staff on an informal level which built rapport. The SENCo also reported that, "there is no stigma with animals, and there are no language barriers", mentioning how the farm had been particularly successful in engaging families with English as a second language who had been previously hard to reach. Both SENCos talked about how allowing children to take animals home on weekends and holidays created a channel of communication with the parents. For those children who expressed an interest, their parents would be invited into the school to speak with the SENCo about how to care for the animals which created another informal opportunity to build rapport and good home-school links.

As well as providing feedback for the participants and SENCo, the researcher will also carry out an assembly for Key Stage 2 to share the findings from the research with the wider school community. As part of the presentation, it will be highlighted how valuable the children's contributions had been and that their thoughts and ideas had been vital to the research. It will also be a chance to promote the benefits of the pet club and recognise the excellent work being done by staff in school to keep it running. There will also be the opportunity to show how the findings fitted within the whole school development plan as

discussed initially with the Head teachers at the beginning of the research. Particular focus will be given to how the pet club provided an opportunity to support children in their "spiritual, moral, social and cultural development", defined as one of the four areas in the Ofsted inspection guidelines for 2018. The research findings fit within these areas as follows (Ofsted, 2018):

Cultural: Theme of *Family* with references to home and children's desire to involve their family members in the experience.

Spiritual: Theme of *Creativity* with references to the many creative ways children chose to expressive their experiences and positive feelings towards the club.

Morality: Theme of *Morality,* with children exploring their beliefs about right and wrong including how to treat both animals and humans fairly.

Social: Theme of *Nurture & Relationships,* with evidence of increased empathy and social cohesion in the group through shared interests and joint care-giving responsibility.

### 5.3.3 Reflexivity

Reflexivity can be defined as attending to the context of knowledge construction with particular attention paid to the effect of the researcher at every stage in the process (Flanagan, 1981). In the Introduction to this thesis it was stated that the researcher was a primary school teacher before embarking on the Doctorate in Educational and Child Psychology. Having spent years observing children interacting with animals and seeing the benefits first-hand, the researcher already had a core belief that using AAA was a positive and powerful intervention for supporting children's emotional wellbeing in a number of different ways. It was necessary to understand that these personal biases were a complex product of personality and life experience which would be inextricable from decisions made by the researcher in the process of design (Kelly, 2008). This did not mean that a robust scientific piece of research was not possible, just that reflexivity had to be observed at every turn to ensure that any potential effect of bias could be accounted for. This was particularly important during the analysis stage and the interpretation of data, which can easily become a subjective pursuit (Smith, 2015). In order to address this, transcripts of the interviews were looked at by the researcher's colleagues and supervisor to gain a consensus on how themes might be coded.

Arguably, the most revealing evidence of the researcher's positionality was the chosen ontology as it represents an individual's personal view of the world. The researcher's Critical Realist perspective has been further developed and consolidated over time through working for a psychology service which adopts a consultation model. The role of the EP within this model is to support adults in

exploring the 'problem situation' and put in place interventions which will aid the child in making progress (Robson, 2016). To do this, it is necessary to not only understand the personal views of the stake holders, but also help create a shared understanding (or social construct) of the issues, so that targets and strategies can be agreed. Having a consensus on what everybody's responsibilities are within a team is necessary for any intervention to be consistently and effectively carried out. The fact of knowing that professional experiences of the researcher may impact on the approach to research design means that precautions can be taken to ensure that additional thinking takes place around the suitability of other approaches. This is why during the Literature Review close attention was paid to the ontological perspectives adopted in other studies so that a more objective and informed decision could be made as to which viewpoint would best suit the research question.

Being on a professional doctoral training course brings a number of other challenges such as managing workload, time limitations and dividing attention towards multiple tasks. Unavoidably, decisions had to be made which would not only fit with the aims of the research, but would also ensure the feasibility of a piece of research taking place in the real world. For example, in the planning stages of the research, the researcher was particularly interested in farm schools, which are educational provisions which use animals on site to support emotional wellbeing and adopt a nature-led curriculum. Although such a school existed in the borough, due to timings and staff illness, it had not been possible to engage with them. Therefore, the research area had to be narrowed down and refocused towards classroom pets and pet clubs to ensure that participants could be found. Despite an initial feeling of deflation at having to deviate from the original plan, the essence of the research in fact remained the same, as

school belonging was still being explored in relation to child-animal interactions. Even after adapting the recruitment criterion there were still difficulties in finding schools to participate in the research, which is testament to the lack of AAA being used in education today. Although this meant having fewer numbers to absorb the risk of potential participant drop-out, it only confirmed the researcher's commitment to pursuing this unrecognised intervention which may prove valuable in supporting emotional wellbeing in schools.

## 5.4   Benefits of animal-assisted activities in schools

### 5.4.1   Miscellaneous themes

Although this research focusses on belonging, sense of school connectedness and sense of school engagement are also relevant, being inextricably linked with school belonging (see Introduction section in this thesis). The two largest miscellaneous themes to emerge from the inductive data analysis were *Creativity* and *The Natural World.* Although these two themes do not fit neatly within theoretical frameworks for belonging, they could be seen as representing school engagement, which refers to a child's enthusiasm, motivation and curiosity for learning in school (Jimerson, 2003). Throughout the interviews, children talked about poems, songs, dances and stories which had all been inspired by the guinea pigs. For some children, it seemed as if the guinea pigs

represented little muses, referring to the surge of joy and creativity they felt when playing with them or thinking about them. One participant said "I'm really good at drawing, and once I feel the guinea pigs are there and they've given me a boost of ideas, I just go into play" (page 154), while another participant said, "They also give me ideas for reports, newspapers and also for extraordinary drawings - as well as optimistic illusions" (page 152). The most elaborate example was how the unique sound a guinea pig makes when happy (referred to as "bubbles") had inspired a dance routine which the participant chose to perform during the interview (page 156). Children appeared to be excited and energised by their experiences with the animals and it was surprising how motivated they were to express this creatively. There are several hypotheses to be considered in relation to this. During the familiarisation groups, participants were encouraged to draw pictures about their experiences of being in the pet club, something which had engaged their imaginations. The interviews started by asking children to talk about their drawings, which could have set their creative thinking in motion and influenced how they answered the following questions. It could also be suggested that the children's excitement in the interview was due to the novelty of the situation and attention they were receiving from the researcher, making them more likely to behave in an out-going or overly-expressive way. It is also worth noting again that animals have been a popular theme in children's literature for generations, meaning that the participant's stories about guinea pigs could be in part a product of their cultural and learning experiences (Power, 2000).

While these are all possible explanations, there is research to support the notion that a deeper psychological connection may exist between animals and creativity. Child development theory suggests that infants are little scientists

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motivated to explore their environment to gain new knowledge and understanding of their world (Piaget, 1969). Learning is therefore enhanced by experiences which are surprising, exciting and those which provoke a positive emotional response in the child (Gibson, 1988). The engagement and enjoyment of observing animals at play is explained by the term Biophilia, used to describe children's natural affinity for animals and nature (Kellert & Wilson, 1995). Fascination with living things has also been described by some theorists as another mechanism for learning (Woodward, 2003). The Robinson Report found that students wanted learning experiences which were meaningful, hands on and related to topics which were of personal interest to them (Robinson, 2014). The *Natural World* was a very popular theme to emerge from the participants' artwork, with children producing drawings of guinea pigs playing outdoors beneath sunshine and rainbows, accompanied by captions such as "happiness" and "joy" (page 153). The way in which *The Natural World* was represented in the data suggests that children's affinity with nature and animals could relate to a deeper emotional and psychological level, such as cultural and spiritual development. One explanation for this is the many different examples of animals featuring in religious stories and traditions including: animals as sentient beings in Buddhism, cats as revered in Islam and loved by the prophet Mohamed, Jesus as being born in a stable with cattle, and animals as representing the months on the Chinese calendar (Sax, 1994; Aftandilian 2011). This identification with animals on a spiritual level was evident in the data, although not a dominant theme. One participant drew a rabbit coming down from the sky, describing it as "a gift from God" (page 155), while another described their experience of being with the guinea pigs as, "peace flows through me and there's a part inside of me that always jumps around when I

see them" (page 168). The theme of creativity as represented in the data relates to children's curiosity and engagement with the natural world. This is not only in terms of their motivation to learn, but also in terms of their spiritual development and sense of identity. It is suggested that these concepts are both crucial to developing a holistic concept of self, the stability of which is necessary for finding a secure sense of belonging.

## 5.5  Implications for future research

Something which remains unknown is how educational provisions in the south London borough might be currently using AAA, including the type, purpose and effectiveness of this intervention. It is therefore not possible to ascertain whether the school pet clubs chosen for this study were representative of how AAA might be used to support emotional wellbeing in other settings. This additional information could be sought by using a quantitative approach such as questionnaires to gather statistical data on how AAA is being used in schools across the South London borough, or even by schools more widely within the city of London.

Additionally, it must be taken into account that the experiences of belonging for all participants would have been directly or indirectly influenced by the level of inclusion within their school community. If AAA can help foster sense of belonging in schools, one direction for future research could be to look at whether these positive outcomes are generalizable to children finding their place within the wider school community. When school community was

mentioned by participants, there was a correlation with cleaning and helping (seen in theme of *Nurture)*, which may indicate that as well as having a personal motivation to look after the guinea pigs, wider school expectations and responsibilities were influencing the children's behaviour within the club. However, there was greater evidence to show that the wider school community was underrepresented in the data. For example, children almost exclusively referred to friends who were also members of the club (seen in theme of *Relationships),* something which was also seen in the theme of *Morality* where children formed their group identity through the rules and behavioural expectations of the club, rather than referring to ethical codes of the school. Undoubtedly, these pet clubs have provided positive and safe spaces for children to develop confidence and build friendships with particular benefit for those who require a more nurturing and intimate social situation. From the results, an argument could be made that children within the club were experiencing exclusive belonging in that boundaries existed between those who were members (the in-group) and those in the rest of the school (the out-group). In order to test this hypothesis, additional research would need to be carried out, for example to explore how children's experiences of belonging may be felt in other school contexts throughout the day, or how children's sense of belonging might be felt differently in other types of extra-curricular activities such as a chess club or football club. In thinking about the generalisability of using AAA as an intervention to increase school belonging on a larger scale, it would also be useful to gather the views of staff members and parents. Anecdotal evidence from the SENCos (see *Stakeholders and Participants)* described how introducing pet clubs had the effect of strengthening home-school relationships and it would be interesting to understand what mechanisms

might have existed to make this happen. There could also be other parents or staff members who are wary of having animals in the school for personal or practical reasons, and these concerns would need to be addressed fully if the intervention were to be expanded upon successfully in future.

## 5.6   School belonging & role of the EP

The researcher's interest in school belonging was inspired through working closely with schools in a South London borough which were encountering an increasing number of young people experiencing difficulties with mental health and emotional wellbeing. Reasons for this increase are numerous and complex as discussed in the Introduction, including: pressure on academic achievement (Bart et al. 2017), rising income inequality and poverty (Psychologists for Social Change, 2018) and social media (O'Keeffe & Clarke-Pearson, 2011). With a number of programmes and resources available to support children's emotional wellbeing, the EP is well positioned to critically evaluate interventions and promote evidence-based practice in schools. EPs can also help schools to identify protective factors which already exist within the system, such as understanding what drives pupil's sense of belonging within their own school (Baumeister et al. 1990). By helping schools to investigate what they do well and present psychological theory and evidence to support their practice, EPs can empower staff to continue their good work and build upon their own knowledge and skills to meet the needs of their pupils. One of the reasons both schools gave in wanting to take part in the research was to improve their

practice and make their use of AAA more effective by understanding how it was having an impact on emotional wellbeing. In answer to this, the current research found that AAA can foster school belonging for children through engaging a number of different psychological mechanisms including: stable emotional bonds with peers and teaching staff, increased self-esteem and sense of identity, as well engagement and enthusiasm for learning. One of the strongest themes was *Family*, evidenced in the data by how participants made strong connections between the animals at school and their own pets or family relationships. Transference of secure attachment means that children are more likely to find a sense of belonging in a new environment if it has been established somewhere else first (Anderson, 2000). EPs can help schools maximise the impact of their interventions for supporting wellbeing by highlighting the importance of developing the home-school relationship. Evidence shows that schools which invest in the home-school relationship foster better sense of belonging for their pupils (Mackay, 2006). Since being part of the research, the SENCo from School B commented that they had been allowing families to access the animals during drop off and pick up times which had the effect of increasing communication with parents and building stronger relationships. School A are also considering introducing a 'show and tell day' where families can come into school to spend time in the guinea pig club and become part of their child's experience.

As well as using psychological theory to promote good practice, EPs can also help schools to navigate around pitfalls when implementing a new approach or intervention. Although school clubs can foster positive relationships amongst pupils through establishing a strong sense of membership, schools may need advice on how to avoid creating exclusive belonging. For example,

this can be done by offering children more opportunity to share their experiences of being in a club with the wider school community such as allowing the children to apply their unique knowledge and interests to their curriculum work, or encouraging a group of children to put together an assembly for their key stage or create a school paper or magazine with updates and information about the club which could go home to pupils and parents.

While the practical strategies and approaches above are all relevant for schools which already have a pet club established, it is important to consider what support schools might need if they were interested in adopting a new approach to supporting school belonging. As with any intervention for promoting belonging, positive outcomes for the individual will not necessarily be generalised into the wider school community without having an inclusive school culture (Roffey, 2013). There are currently various school improvement awards in the UK such as Forest Schools (Maynard, 2007) and Growing Schools (DFE, 2003), which provide an opportunity for schools to be acknowledged for their commitment to an educational philosophy which promotes learning through nature. For those who have the passion and motivation to try AAA, there are several published guidelines which give step by step advice, all of which promote the benefits of working with animals as far out-weighing the risks (Balcombe, 2003). Whatever the level of intervention, when it comes to using animals in education, the practical and ethical implications must be paramount to decision-making. The use of AAA to promote school belonging is a new and exciting area for educational research, however the current lack of empirical evidence can present a barrier for schools in setting up an intervention within their own provision. The role of the EP brings with it access to the latest research in psychological theory, as well as experience of practical application,

which can help guide schools in trying new approaches and personalising their interventions to meet the needs of their pupils. For this reason, whether a school is considering setting up a pet club, or pursuing a nature-led school improvement award, EPs could provide an invaluable contribution by using their expertise in people and systems to help schools to safely navigate their journey ahead.

## 5.7 Conclusion

The researcher's proudest achievement from this research has been keeping the child's voice at the very centre of discussion around school belonging. All too often adults have their own ideas about what will help motivate and engage children in their education, when quite often the children have a completely different view about what is most important to them. Proof of this statement was found very simply by asking children about pets. What a surprise to find a whole world of colour, adventure and creativity could be inspired by the humble guinea pig! In concluding this research, it seems fitting to return back to where it all began, reflecting upon the personal experience of one child and his school pet. Adam's ability to form a strong emotional bond with an animal in school allowed him to open a door into his school community which had been previously closed to him. Children's desire to connect with living things in their environment is a powerful asset and must be cherished and nurtured for as long as childhood will allow. If you do so, and you are very lucky, you just might be rewarded with an exciting glimpse into the unique world of guinea pigs and superheroes.

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# 7  Appendices

Appendix A

*Combined search terms for school belonging & AAA (Boolean search)*

| Search Terms | Databases | | | | | |
|---|---|---|---|---|---|---|
| | **Education Research Complete** | **British Index** | **Child Dev & Adolescent Studies** | **Eric** | **Psyc-Articles** | **Psyc-info** |
| **Belonging and Animal-Assisted Activities** | 0 | 0 | 0 | 0 | 0 | 0 |
| *Relevant/ Key papers* | N/A | N/A | N/A | N/A | N/A | N/A |
| **Belonging and Animal Therapy** | 0 | 0 | 0 | 0 | 0 | 5 |
| *Relevant/ Key papers* | N/A | N/A | N/A | N/A | N/A | 1 |
| **Belonging and Animals** | 53 | 4 | 12 | 19 | 28 | 931 |
| *Relevant/ Key papers* | 2 | 0 | 0 | 1 | 0 | 1 |
| **Belonging and Pets** | 9 | 0 | 2 | 2 | 0 | 43 |
| *Relevant/ Key papers* | 1 | N/A | 0 | 1 | N/A | 2 |

## Appendix B

*Inclusion/ exclusion search criteria for school belonging*

| Inclusion Criteria | Exclusion Criteria |
|---|---|
| Children in Key Stage 2 or above:<br><br>*To express thoughts and ideas with enough detail to answer the research questions, a high level of language and emotional maturity was required.* | Children in year groups below Key Stage 2. |
| Children from any minority group (including ethnicity and special educational need):<br><br>*This will more accurately reflect the population of a South London borough.* | Participants exclusively from the same minority group. |
| Children's views:<br><br>*Using children's voice to shape the way in which we support emotional wellbeing in schools.* | Children's views not included |
| 2008 – 2018:<br><br>*To better understand how young people's wellbeing has been impacted by issues within today's world.* | Pre- 2008 |
| Western educational system:<br><br>*Participants attended UK schools* | Children not in Western educational system |
| Peer reviewed:<br><br>*To produce more robust and reliable sources.* | Unreliable sources |

## Appendix C

*Search results for school belonging (Boolean search)*

Applied criteria: publication Date 2000 – 2018 (**PUB**), subject "Belonging" (**SUB**), age of participants 6-17 yrs old (**AGE**)

| | Databases | | | | | | |
|---|---|---|---|---|---|---|---|
| | **Education Research Complete** | **British Education Index** | **Child Dev & Adolescent Studies** | **Eric** | **Psyc-**ARTICLES | **Psyc-**INFO | **EthOS** |
| **Applied Criteria** | *PUB SUB* | *PUB* | *PUB SUB* | *PUB* | *PUB SUB* | *PUB SUB AGE* | *N/A* |
| **Results** | 45 | 54 | 11 | 348 | 7 | 34 | 340 |
| **Relevant/ Key reference** | 10 Key ref (b) | 8 Key ref (a) | 4 | 24 | 1 | 9 Key ref (c) | 7 Key ref (d) |

Appendix D
*Literature Review table for school belonging*

| Title | Participants | Ontology & Epistemology | Methodology | Analysis & Findings |
|---|---|---|---|---|
| **A.** Establishing the effectiveness of a gratitude diary intervention on children's sense of school belonging<br><br>*(Tara Diebel, Colin Woodcock, Claire Cooper & Catherine Brignell, 2017).* | 100 children aged 7-11 years old. Control group = 20 boys & 3 girls. Experimental group = 31 boys & 18 girls. | Critical Realism | Experimental design. Control group completed event diaries and experimental group completed gratitude diaries. Questionnaires for belonging and gratitude given pre & post intervention. | Gratitude and belonging increased for experimental group in comparison to control group. Benefits were more clearly seen in boys than girls. |
| **B.** Exploring student experiences of belonging within an urban high school choral ensemble: an action research study<br><br>*(Elizabeth Cassidy Parker, 2010)* | High School in USA. 10 young people aged 15-18 years old. Gender unknown. | Social Constructionism | Individual and group interviews | Five themes: uncompetitive, sectional bonding as social bonding (e.g. greater belonging within their section of the choir), singing as a shared experience, the chorus as a safe space and choir trips as pivotal bonding experiences. |
| **C.** Fostering a sense of belonging and community as children start a new school<br><br>*(Michelle Sancho & Tony Cline, 2012)* | 10 children aged 11-12 years old. 6 boys and 2 girls from both white & mixed heritage background. | Critical Realism | Focus groups and interviews | Four themes: positive emotions, teacher relationships, school environment and relationships with peers/siblings. 'Peer acceptance' the most prominent theme. |
| **D.** Social Experiences and Belonging: an Ethnography of children in two primary schools supporting children with social, emotional and behavioural difficulties<br>*(Samantha Child, 2014)* | 7 primary boys aged 8-10 years old. 2 with ASD diagnosis and 1 with ASD & ADHD diagnosis. | Social Constructionism | Ethnographic approach gathering data using: field notes, social concept mapping technique and children 'recall watching' video footage. | Main theme was peer relationships in relation to belonging and that sense of belonging was changeable dependent on time and context. |

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# Appendix E

*Search results for animal-assisted activities (Boolean search)*

| | Databases | | | | | | |
|---|---|---|---|---|---|---|---|
| | **Education Research Complete** | **British Index** | **Child Dev & Adolescent Studies** | **ERIC** | **Psyc-ARTICLES** | **Psyc-INFO** | **EthOS** |
| **Results** | 11 | 20 | 3 | 11 | 70 | 102 | 44 |
| **Relevant/ Key reference** | 2<br><br>Key ref (g)<br><br>Key ref (h) | 3 | 1 | 3 | 1 | 15<br><br>Key ref (e)<br><br>Key ref (f) | 0 |

## Appendix F
*Literature Review table for AAA*

| Title | Participants | Ontology & Epistemology | Methodology | Analysis & Findings |
|---|---|---|---|---|
| **E.** Behavioural effects of the presence of a dog in the classroom <br><br> *(Kotrschal & Ortbauer, 2003).* | Primary school in Vienna. 10 girls and 14 boys with mean age of 6.7 years old from multi-ethnic background. | Post-positivism | Video footage coded using two methods: focal sampling (individual children identified and behaviours categorised) and scan sampling (the behaviour of all children categorised at specific time points). | Increase in children's sensitivity to other people's moods and feelings, better social integration and a reduction in aggressive or maladapted behaviour. Benefits were seen more clearly in boys. |
| **F.** Effects of AAA with Guinea Pigs in the Primary School Classroom <br><br> *(O'Haire, McKenzie, McCune & Slaughter, 2013)* | Primary schools in Australia. 128 children aged 5-12 years old. Girls = 57 & boys = 71. Children with an educational need = 64. | Critical Realism | Children and teachers completed a questionnaire identifying social skills & problem behaviours. Teachers also completed academic competence scale. | Significant increases in cooperation, assertion and self-control, and significantly decreased problem behaviours. No change in academic achievement. |
| **G.** Children's representations of pets in their social network <br><br> *(McNicholas & Collis, 2000)* | 22 children aged 7-8 years old. Boys = 13 & girls = 9. | Critical Realism | First stage = children asked to rate top 10 special relationships. Second stage = individual interviews where children were asked which relationship they would choose to help them in hypothetical scenarios. | 17/18 participants put their pets in top 10 of special relationships. High level of consistency found across the participants in the kinds of relationships they selected for different stories. |
| **H.** Teachers' experiences with humane education and animals in the elementary classroom: implications for empathy development <br><br> **(***Daly and Suggs 2010).* | Primary schools in Canada. 75 elementary school teachers. | Critical Realism | Mixed methods: online questionnaire with closed and open questions. | Increase in children's empathy and noticeable decrease in challenging behaviours. Positive impact on 2 areas of development: socio-emotional and academic (if work related to animals). |

*Information sheet for parents, children & schools*

# TALKING ABOUT SCHOOL PETS

**Researcher Louise Miller**

<u>Information about taking part in a research project</u>

A research project is a big investigation where you explore an interesting topic. It often involves talking to people, sharing ideas and me writing a long report afterwards! The purpose of this letter is to give information to help you decide if you would like to be involved with the research project. I am doing this project as part of my training to become an Educational Psychologist, a job where you help children with their learning.

<u>What will happen?</u>

I would like to talk to you about what it's like to have

pets and what difference you think it makes to your school. We will sit together in a small group of your classmates and draw a big picture to record our ideas. If you enjoy this activity and want to do more, you can choose to speak with me afterwards for an interview by yourself. What we talk about will be recorded so that I can listen back to it later when I write my report.

## Who will hear about my ideas and the things I say?

What you share in the project will be confidential. This means that nobody outside of the group or interview will know what you have said.

## When and where will this happen?

Both the group activity and the interviews will take place in Ms. X office.  I would like to start this project in September. If you would like to be involved, your parent or carer needs to complete the consent form and return it to school before the summer holiday. I would also like your consent form too!

## Remember…

You do not have to take part in this project. Talk about it at home with your parent or carer and decide if this is something you would like to do. At any time you can decide you no longer want to be part of the project. That is absolutely fine and you will not be asked to explain why.



I hope this will be a fun and exciting project. It will be very interesting for me to hear all about the guinea pigs at your school!

There are 2 consent forms, one for you and one for your parent or carer. If you decide to take part in this project, both copies must be **signed and returned to Ms X before the summer holiday.**

I hope to hear from you very soon ☺



Louise Miller

*Child's consent form*

# TALKING ABOUT SCHOOL PETS

<u>Consent to taking part in a research project</u>

I have read the information sheet about the research project and have been given my own copy to keep. I understand what will happen in the project and why I am taking part. This has been explained to me by my parent/ carer and an adult at school. I have been given time to ask questions.

I understand that the interview will be recorded so that Louise can listen back and write about it later. I understand that anything during the project will stay confidential, which means nobody will know it was me who said this. The only person who will know it was me will be the researcher, Louise. It has been explained to me what will happen to the information once the project is completed.

I agree to take part in the project which has been fully explained to me. I understand that I can change my mind at any time without having to explain why. I also understand that if I decide I no longer want to be in the project, Louise may still use my comments when she writes up the final report.

Your name (BLOCK CAPITALS)

…………………………………………………………………………………….

Your signature

…………………………………………………………………………………….

Date:  ………………….……….

*Parental consent form*

# Talking About School Pets

<u>Parental consent for your child to participate in a research project</u>

I have read the information sheet relating to the above research project and have been given a copy to keep. The nature and purposes of the research have been explained to me, and I have had the opportunity to discuss the details and ask questions about this information. I understand what is involved and what my child will be asked to do.

I understand that the interview will be audio recorded so that Louise (the researcher) can analyse it later. I understand that my child's involvement in this project, and particular data from this research, will remain strictly confidential. Only the researcher involved in the project will have access to identifying data. It has been explained to me what will happen once the research project has been completed.

I consent for my child to participate in the project which has been fully explained to me. Having given this consent I understand that I have the right to withdraw my child from the project at any time without disadvantage to myself and without being obliged to give any reason. I also understand that if I withdraw my child, Louise (the researcher) reserves the right to use the anonymous data in the write-up of the project and in any further analysis that may be conducted.

Parent/carer's name (BLOCK CAPITALS)


……………………………………………………………………………………………….

Parent/ carer's signature


……………………………………………………………………………………………..


Date:  …………………….




You are welcome to contact Louise at any time to ask questions or discuss concerns. Alternatively, you can contact her research supervisor. Please keep this part of the form for future reference.



**Louise Miller**

*Researcher*            email: xxxxxxxxxxxxxxxxxxx


**Dr Mary Robinson**

*Research Supervisor*        email: xxxxxxxxxxxxxxxxxx

# Interview schedule

Enjoyment:

Why do you come to the Pet Club?

What's your favourite thing about the club?

How does it feel to be with the guinea pigs?

Engagement:

What do you think about/ talk about when you're in the club?

What has been interesting or surprising about the club?

Relationships:

How do you treat each other in the club?

What do other people in the school think about the club?

How do you think your school would be different if it didn't have the club?

Meaning:

Do you have any club rules?

Do you learn things in the club that could help you in other situations?

What responsibilities do you have in the club?

Achievement:

How would the guinea pigs describe you?

Who else might describe you this way?

# Appendix K

*Identifying a thematic framework: Annotations of interview transcripts*

**1: Tell me about what you've drawn**

Um.. it explains like how the guinea pigs make you feel. And what... they mean to us. So like if you were sad or something, you can come to the guinea pig club and it makes you like really happy when you're holding the guinea pigs and stroking them. **Physical affection with the guinea pigs gives positive emotion**

*So what did you draw?*

I drew um... this sign which says like "cool" and then I drew a guinea pig and then... I said how they make me feel. And I also drew these two faces. **Guinea pigs influencing feelings/ emotions**

*What about these, why have you got these two faces here?*

So like, if I'm sad from the playground and then um... it's like a timeline if I'm sad from the playground and I go... to the guinea pig club and I hold the guinea pigs, it makes me feel happy. **Guinea pigs helping child to regulate their emotions from feeling sad to happy**

Guinea Pig TA.nvp - NVivo Pro

FILE · HOME · CREATE · DATA · ANALYZE · QUERY · EXPLORE · LAYOUT · VIEW

Workspace · Item · Clipboard · Format · Paragraph · Styles · Editing · Proofing

Arial · 12 · B I U · Normal · Reset Settings · PDF Selection · Text · Region · Select · Find · Replace · Delete · Spelling

Go · Refresh · Open · Properties · Edit · Paste · Cut · Copy · Merge

**Sources**

- Internals
  - Focus Groups
  - Interviews
    - School A
    - School B
    - Transcriptions
  - Literature Review
  - Externals
  - Memos
  - Framework Matrices

**Sources**
- Nodes
- Classifications
- Collections
- Queries
- Reports
- Maps
- Folders

Look for · Search In · Transcriptions · Find Now · Clear · Advanced Find

**Transcriptions**

| Name | Nodes | References |
|------|-------|-----------|
| Interview | 68 | 95 |
| Interview | 76 | 223 |
| Interview | 76 | 120 |
| Interview | 76 | 102 |
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Interview 1 · Interview with KOALA BEAR · Interview with ARIANNA · Interview with KILLER CROC

**How do people treat each other in the club?**

Some people are not good. And some people are always nice. People who haven't been coming lots and now they're coming, now all the time, they're the ones who are the nice ones. **Members who have been coming to the club for longer are nicer.**

*So the ones who haven't come a lot, they're not the nice ones?*

\*nods\*

*Why do you think they're nicer if they're been there for longer?*

Because they don't listen... the other ones. Like some people squeeze them like that \*demonstrates with hands\* **New members are not good (a threat?). They don't listen and can hurt the guinea pigs.**

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Appendix L

*Indexing: mind map showing how categories/themes in the data might fit within the theoretical frameworks for belonging*

Appendix M

*Charting: Examples of how "positive emotion" was coded within one
participant's interview transcript*

*Charting: Example of coding stripes as displayed within the Nvivo analysis software*

Appendix N

*Mapping: Making connections between categories to generate a large picture of how the data might fit together*

*Interview Transcripts*

# Interview Transcripts

The term 'excluded data' has been used to indicate when data which was not directly referenced in the main body of the thesis was excluded to reduce content size. Real names have not been used to ensure anonymity of the participants. Key quotations used in the Results & Findings and Discussion sections of the thesis have been underlined.

## Interview with Arianna

*Tell me about what you've drawn*

Um.. it explains like how the guinea pigs make you feel. And what... they mean to us. So like if you were sad or something, you can come to the guinea pig club and it makes you like really happy when you're holding the guinea pigs and stroking them.

*So what did you draw?*

I drew um... this sign which says like "cool" and then I drew a guinea pig and then... I said how they make me feel. And I also drew these two faces.

*What about these, why have you got these two faces here?*

So like, if I'm sad from the playground and then um... it's like a timeline if I'm sad from the playground and I go... <u>I come to the Guinea Pig Club and I hold the guinea pigs, it makes me feel happy.</u>

*Lovely. And what else have you drawn?*

I drew like, this um... this tiny photo of a guinea pig's face and it says "they're sunshine lovers" coz they are, they like sunshine so much.
Why do they like sunshine?
I'm not sure.

*Tell me why you come to the guinea pig club*

Erm.. I like coming to the club because... Whiskers and Nibbles... <u>like they're calm and like when I hold them... they give me a spring of happiness.</u>

*Why else?*

<u>Yeh. And like when they... when... sometimes they make this sound like bubbles like, it's inside them, you can hear it sometimes.</u> And when we're doing some stuff in the afternoon, when we're like doing some really hard work in the afternoon... that I'm not looking forward to... they gave me some ideas that I'm going to write with. Like when... in class like, sometimes I don't look forward to history or like, coz it... sometimes you have to write like a page long or something like that and they gave me ideas of what to write. <u>They give me in a good mood, they keep me in a good mood when I'm going back to class.</u>

*And how do they give you ideas for things in history?*

Like if... I remember stuff like, since I'm doing one simple thing like looking after the guinea pigs, they help me remember stuff. When... if I'm in a good mood I can remember stuff.

*Ah, I see! Okay. What do other people think about the guinea pig club?*

My mum and my brothers think it's a really good idea as like <u>The Farm Club it helps children... have care with pets and be… feel more gentle and calm...</u>

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*If the guinea pigs could talk... how would it describe you?*

Erm, I think they would say like I'm a really caring person coz like... I pick them up and take them to different places, and I can like talk in a... comforting voice to them like... they would say maybe that erm... that I would like, maybe they would say I want to travel to different places with you, yep. And so I can like carry them to different places around the world.

*EXCLUDED CONTENT*

## Interview with Betty

*Tell me about what you've drawn*

I don't know

*That's okay, you don't have to talk about it straight away. You can have a think.*

Erm... the guinea pigs make me feel as bright as a sunshine because anytime they're either messing about, or playing, or either having fun with themselves, or jumping on each other, they make me feel as if I'm more known to the animals than to the humans.

*So, you're more known to the animals than the humans. What do you mean?*

Erm... I mean that even though the animals don't know my name, they still... might remember me. More than the humans. Because once somebody passes away, they're forgotten forever. Well not forever, but most people won't remember me.

*So what did you draw on here?*

I drew a "Super B" because I'm really good at drawing and once I feel the guinea pigs are there and they've given me a boost of ideas I just go into play. And I drew some horses and fireworks to show that they're really nice and they shine brightly like a firework.

And I also drew a starry night, but I drew it in a love heart shape because um... I thought that the guinea pigs maybe when they are older they might... bring sunshine every day. They might bring melodious notes and they like to have fun. <u>"I am the pet of B". That's what the guinea pig is saying.</u>

*Tell me why you come to the guinea pig club*

*shakes head*

*You don't have to say, that's okay.*

I'm just going to think for a while.

*That's fine, you can think.*

I think erm... what was the question again?

*About why you come to the guinea pig club*

<u>Oh, I like to come to the guinea pig club because not just to play with the guinea pigs, but... with their every second of movement, that each of them do, I learn something new from them that I didn't know. And like A said... they give me a spring of happiness. Peace flows through me and there's a part inside of me that always jumps around when I see them.</u>

*What was that last bit? A part inside me that...*

Jumps around when I see them.

*Ah. That's wonderful.*

The guinea pigs also help me to "STAND ON MY FEET FOR WHAT'S RIGHT!" *stands up in power stance with fist in the air* ... <u>Coz they also give me ideas for reports, newspapers and also for extraordinary drawings. As well as optimistic illusions.</u>

*Optimistic illusions? Wow!*

And they also help me come up with ideas of stories because my team won. I re-transformed them into two worlds erm... and kinda the same names but different. And they went into this world where there's a strange voice that says, "would you like to go to adventure island in the sea? or something extra-ordinary?" and then they both said , "both". And so they enter this world and they were just thinking about Shopkins and then Shopkins reappeared. And they also help me come up with dance routines for ballet, and more. Because of their bubbles.

*What do other people think about the guinea pig club?*

<u>My parents and my sister think that erm... going to the guinea pig club is a privilege and it helps you really understand that animals are like humans but then we have to take more care of them if we're gonna have them coz we might endanger them.</u> And my sister says she would help me with my routines of ballet because she really likes it as well coz we would... <u>for example, use the beat of the bubbles that Whiskers and Nibbles use, and then we'll come up with a dance like this.... *dances making guinea pig sounds* Like this... *(stands up and dances)*</u>

*Wow, that's a nice dance.*

But then... it's really fun.

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*If the guinea pigs could talk... how would it describe you?*

I think the guinea pigs would say that I'm somebody emotional for the creation and animals around as well as guinea pigs, and they think I like to have fun, imagine and as... if they could feel how I felt they would be able to sympathise erm... that I would always dream about them in my dreams, going around helping people out, even though they were guinea pigs. And then nobody ever noticed but I did and then I came and one day picked them up and then we became a family.

*That's lovely*

*Is there anything else you want to tell me about your picture or the guinea pig club?*

Oh yeh... erm.. I would take them out to places, then I have this secret garden outside my back yard, I would take them out... then pretend we would teleport to another magical world, where we all were... where I was a fairy and they were flying guinea pigs, which they could also be mermaids some of the time when water erm... touches them. Yeh, will actually be a mermaid.

*EXCLUDED CONTENT*

# Interview with Butterfly

*EXCLUDED CONTENT*

*Tell me why you come to the Farm Club*

I like it when they play with us and we get to carry them as well.

*What's your favourite thing to do in the club?*

That we get to play with the animals and we get to play in the mud kitchen too.

*And how does it make you feel when you're playing with the animals?*

I feel happy and I feel... I feel excited.

*What do other people think about the guinea pig club?*

When I take the guinea pigs home, erm... my dad... coz my dad loves the guinea pigs, he loves to play with them, and then he loves to stroke them as well. And then he said that he likes them.

*Lovely! Is it just the guinea pigs you take home sometimes?*

Yeh, but I've took a rabbit home before as well.

*How does that feel taking the animal home? What's that like?*

I feel... When I have any homework about the animals, it's better to look at the animals so then you get to know more about them as well.

*If the guinea pigs could talk... how would it describe you?*

Maybe they could be excited to meet new people

*Okay. Is there anything else you want to tell me about your picture or the Farm Club?*

When I think I took that guinea pig home and another guinea pig home, and when I was holding it, it wouldn't like... if I tried to give it to my sister, coz my sister used to come to this school, and she done the farm club... but, um she still wouldn't go to my sister.

*Thank you very much for speaking with me.*

# Interview with Cathy

*Tell me about what you've drawn*

<u>That's what I usually do. When I'm feeling sad, holding the guinea pigs and stroking them.</u> I know why they like sunshine, it's because usually they're like trapped inside all day so it's good for... like animals to be around and around.

*Okay. And what does that say? "When something bad happens they make me happy"*

So over here, erm... <u>I did like what I love to do, they love to jump, that's me giving them lettuce and things. I like to carry them in my lap</u>... erm... what I think is really cute is that they like talk, like "peeew peeew peeew" <u>and then there's this one *points to picture* where I said what you can't do to them, like you can't throw them up in the air or else they'll like fall. And if they could do anything, they would sing. Because I love singing...</u>

*What else did you draw on here?*

This is erm... them doing... the salsa. Then this is "guinea pigs are like humans", because they eat the same food. So it's like a transformation. And this is like, them being set free... and it says "I remember these days I finally escaped". Erm... and I really like the guinea pigs coz they make me feel happy and if I'm sad, they're always there for me to go and carry or something like that. <u>And I especially like the... this one, the white one, because she's more like... she's more like calm, and he's not too much to scuffle around. And I also</u>

like him because he is a bit like multi-coloured, he's a unique colour. And erm... and I like the brown one as well, but the brown one sleeps too much.

*Tell me why you come to the guinea pig club*

*whispering* We haven't talked about this one

*Oh sorry, did you want to talk about this one first? Go on then, what have we go here?*

Here, I wrote that Nibbles and Whiskers are the super heroes.

*Why are they super heroes?*

Because they always save the day when people are feeling sad. And then after, under here I put "I love guinea pigs", coz I really love guinea pigs. I like coming to the guinea pigs because they keep me from like... from like getting upset. And I like to hold them. And the thing I especially like about them most is how they like to scuffle around coz they're really adventurous and I think that... they're really cute as well. And that... they shouldn't be treated in a bad way. They should be treated in a way that erm... they should feel good about themselves. Coz if they were humans, I'm sure they would feel like they're also the superheroes of the world, of the school.

I've got one more thing to say.

*Okay.*

And when I come to the guinea pigs, the guinea pigs also help me overcome my fears, like when I first started I was scared of them, but then I kept doing it more often, now I'm not so scared of them anymore. And before I used to be scared of like.... what is it called again?... This thing, like the way they would chew, coz when I wanted to pick it up to clean it out... that circle thing ... the wood. Usually when I wanted to go get it they would bite me, but now that they

done my trust... they don't do that anymore. And one thing I find that is really funny is that to recognise you they smell your hand.

*EXCLUDED CONTENT*

*If the guinea pigs could talk... how would it describe you?*

Me. Hmm... they'd say I am a really kind person. That... I like to comfort them. If I were a guinea pig... and they were humans, I would think the same about them.

*Oh, that's nice. Is there anything else you want to tell me about your picture or the guinea pig club?*

I made this song about guinea pigs that I wanted to sing to you.

*You can if you like.*

<u>*Singing* Guinea pigs wondrous, guinea pigs good, oh I love guinea pigs. Guinea pigs make me feel so good, oh that's why I love guinea pigs.</u>

## Interview with Froggy

*Tell me why you come to the Farm Club*

We like animals

*Which animals do you like?*

The guinea pigs and rabbits, and we like hedgehogs as well.

*What do you like about these animals?*

Erm... <u>I like that they get to be with us and they get to have fun, instead of being lonely and bored. And then clean them up so they're hygiene.</u>

*What do you think they like about you coming to see them?*

They're probably kind of happy, kinda frightened.

*Why would they be frightened?*

Erm... they probably think we're gonna do something or something, maybe.

*What's your favourite thing to do in the club?*

Play in the mud kitchen. It's just there... it's a mess!

*Well that's the point of mud kitchen isn't it, that's alright! What do you do when you play?*

Once when we were in our own farm club, we tried to make recipes like mud cake and stuff, and then us three we work as a team and then we try to make a cake, so for example I make the actual vanilla cake or chocolate cake, or mud cake, and then she does the icing...

*How does it make you feel when you're playing with the animals?*

<u>I feel happy that I'm with them. And I also kinda feel excited as well, it's because when they're with us we feel more happier...</u> and then we get to be with something, and then you get to know more about them, explore about them, how they feel, what they do and stuff.

*Sounds very interesting. What do other people think about the guinea pig club?*

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They sometimes think it's nice to be with the animals, but sometimes they get grossed out with the poop and the mud and...

*So what sort of things do they say about the club?*

They think... my mum and my family they think it's a good club, so I don't really think they're grossed out or anything, they're happy and stuff. But then, people at school, they're... happy but then they're disgusted about the poop and the mud.

*How does that feel taking the animal home? What's that like?*

It feels nice to take the animals home, coz then you can show your parents what they're like, and you have someone to be with. Like... so for example, you're doing your homework and stuff, you can look at the animals as well and see what they're doing.

*Ah. So does it help you do your homework having them there?*

Sometimes, yeh.

*How do they help you do your homework?*

Erm... it's just for me. I don't know why, but when I'm doing a sum or a question, I look at someone's face or something, and then I somehow... looking at them make me find the answer and work it out in my head. So, I don't know why, but it's weird, but then it kinda helps.

*If the guinea pigs could talk... how would it describe you?*

They're probably happy. Maybe a little frightened

*And what would they tell me about you? If I said, "what's she like?"... What would they say?*

Maybe nice... polite... coz we clean them up and pick them up. Cuddly.

*That's nice! Is there anything else you want to tell me about your picture or the Farm Club?*

Yeh, it's really upsetting when we lost the animal and it had to go away. I kinda felt really really upset coz once, a long time ago... well not a long time ago, in the old farm club... I had that same animal, and then it was with me and I tried to give it to someone else but it wouldn't let go. So it's really upsetting when it went away.

*Yes, it's very sad.*

They probably got used to us and know us a lot better. So they're frightened to go to someone else.

*Okay, yes that's an interesting idea.*

And then when we had the hamster "Tiddles" in school. Me and S took him home as well and then... once he bit my finger but... it got better. And then, it was really fun. He was feeding erm... I fed him. And then there was like this ball he got inside and then he rolls around under the tables and chairs.

**Interview with Ghost Hunter**

*Tell me about what you've drawn*

Well I drew this.

*Tell me about that*

Erm.. I drew him with Whiskers... well Whiskers he doesn't eat that much. But Nibbles he eats a lot, so Whiskers flies and Nibbles is inside there coz he won't be able to fly because he's too puffed.

*He's too...?*

Like… puffed.

*Oh too puffed, okay.*

And then after, Nibbles just wakes up and sees that Whiskers is flying around the place, then he says, "ahhh... I wish I could do that, but I eat too much". <u>Then afterwards, Whiskers would be like "HAHA I DON'T CARE". And then that says... Nibbles is again like "anyway, I will still eat and Whiskers will never get to eat anything". Then that says, Whiskers will just fly off and say "Miss S will never catch me".</u>

*Lovely. So why did you decide to draw that?*

Erm.. I decided to draw that because I thought it was going to be funny. And it's kinda true because, Nibbles actually he eats a lot but Whiskers don't. He doesn't eat that much.

*Tell me why you come to the guinea pig club*

Well I come to the guinea pig club because the guinea pigs make me happy, and make... calm me down whenever like, I get angry. They cool me down.
*What are the club rules?*

<u>Like, whenever you're gonna carry the guinea pigs, you should never squeeze them in the middle.</u>

*Why is that?*

<u>Because like... if you squeeze them, you might... get to their heart and they won't like be able to breathe properly.</u>

*What about the people who've been coming for a long time?*

Yeh, actually they're the most nice

*Why do you think they're nicer if they're been there for longer?*

Because they know how to carry them and they know how to take care of them properly. Handle them.

*Okay. That's interesting. If your school didn't have a guinea pig club, how would it be different?*

The school would be different because there wouldn't be... people wouldn't be happy, they'd always be bored, some people would even sit down on the bench. Before… there were like chicks. So before the guinea pigs there were chicks that were in the nursery. I always used to visit them.
But without the guinea pigs...life would still be the same. Because sometimes the farmer comes over... the farm comes over with the other animals and we get to see them.

*EXCLUDED CONTENT*

## Interview with Kitty

*Tell me about what you've drawn*

<u>I drew a bunny which is a ballerina, and it's got a dandelion in its hand, it's holding a dandelion.</u>

*And why did you think of drawing a ballerina?*

Because I like ballerinas.

*Ah okay. Is this picture yours?*

Yeh.

*What's this? What's happening here?*

A guinea pig with purple spots is saying, "I love dandelions". And it's eating a dandelion.

*And how about this bit here?*

It's a bunny having a tea party

*Why did you think about doing a tea part?*

I don't know. I just did.

*And how do you think they're feeling having their tea party?*

Happy!

*Why are they happy?*
Because it's nice having a tea party.

*Yes, it is nice having a tea party, you're right. Tell me why you come to the guinea pig club*

I came to farm club because I like animals, and I love... to feel animals, and I like animals' fur, it's so cuddly! But not hedgehogs. But I like hedgehogs still.... a bit spikey.

*EXCLUDED CONTENT*

*What do other people think about the Farm Club?*

I told my mum and my friends. I told my friends that we went to farm club and we got to erm... stroke the animals... and I told my mum that it's so much fun I want to stay there but I can't.

*What does your mum think about the farm club?*

She thinks, she's a little bit scared of animals sometimes.

*So what does she think about you going to the farm club?*

She's impressed of me.

*If the animals could talk... how would it describe you?*

I think they'd tell you how... how nice we've been to them. And how calm we've been to them.

*Is there anything else you want to tell me about your picture or the guinea pig club?*

I think it's fun being with the animals all the time.

## Interview with Koala Bear

*Tell me about what you've drawn*

It's a gift sent down from the sky... of the guinea pig.

*Wow. What does it say here?*

It just says, "sent down from the sky"

*And why did you think about it being sent from the sky?*

Um... God's gift.

*That's lovely. What's this?*

It's got an umbrella.

*Why does it have an umbrella?*

Because the sun is come from rain.

*I see. And what else have you drawn here?*

I drew a guinea pig listening to music... and pooing.

*Okay... and why did you think about the rabbit listening to music and pooing?*

I don't know.

*Okay. So is there anything else about your picture you'd like to tell me?*

*points to the picture*

*What would you like to tell me about that?*

It's a hedgehog walking to his home.

*Tell me why you come to the Farm Club*

Coz I wanna help pets become more better and feel well. And I want every pet to feel well. And that's it.

*What's your favourite thing to do in the club?*

I like giving them food and make them comfortable.

*And do they enjoy that? How would you know they're enjoying it?*

When they're like lying down

And they're jumping.

*What do other people think about the guinea pig club?*

<u>My gran says it's good, that I'm looking after pets and giving them food and making them comfortable. I like giving them food and making them comfortable.</u>

*Okay, lovely. And what do you talk about or think about when you're in the club?*

Like, how to help the animals, and how to like... carry them and stroke them.

*Is there anything else you want to tell me about your picture or the guinea pig club?*

<u>They're soft and they're like a pillow.</u>

## Interview with Lionel Messi

*Tell me about what you've drawn*

Erm... I drawn Whiskers and Nibbles. And I wrote Nibbles' name. And I wrote, "laugh out loud" all... over it.

*Why did you write "laugh out loud" all over it?*

Because I always laugh.

*Ah. What do you laugh about?*

Coz the guinea pig... when we made a tunnel, the guinea pigs they went... they went through.

*What else have you drawn?*

I've drawn the guinea pig house and err... I drawed the sun.

*Tell me about the guinea pig house.*

Erm... the guinea pig house only wants guinea pigs in and if any animal comes in, they will get thrown out.

*I see. Why is it important that only guinea pigs go into the house?*

Because we only have guinea pigs.

*EXCLUDED CONTENT*

*How does it make you feel when you're playing with the guinea pigs?*
Confident.

*That's a good word. What else? Any other words?*
Active. That's it.

*Great. What do you talk about or think about when you're in the club?*

<u>When... I go to lunch and then I say to my friends "I'll see you when I come back".</u>

*Ah. So you'll see your friends in the club?*

Uh uh.

*Is there anything surprising about the guinea pig club?*

We get to play with the Lego.

*What do other people think about the guinea pig club?*

They want to go to it. Coz I had a sheet and I wrote about all the things that... what happens and I showed the class.

*Okay. What did they think?*

They think it was fun and they want to go.

*If your school didn't have a guinea pig club, how would it be different?*

Because if you didn't have a guinea pig club it would not be fun.

*EXCLUDED CONTENT*

*If the guinea pigs could talk... how would it describe you?*

Erm... smart.

*Smart. What else would he say about you?*

They'd say that I'm smart. Confident... erm... and active brain.

*And are you always like that?*

Sometimes.

*Who else would describe you in the same way?*

Miss H. And Mr. P and Miss M.


*EXCLUDED CONTENT*


## Interview with Lucy


*Tell me about what you've drawn*

Well, here I wrote "when something bad happens, they make me happy". The guinea pigs make me happy when something bad happens. And, like when I'm sad, when I'm sad, when I just go to guinea pig club, then they just make me happy. And they're so cute.

*Oh, that's why you've written "cute!"*

Yeh. And then I also did a really big happy face, with cute eyes and a mouth and I said here, "guinea pigs make me happy and they're very cute".

*That's nice. Anything else about your picture?*

No. Oh yeh, I remember that I drew lines and I drew lines because I wanted like a different design to represent the guinea pigs. That they're different.

*Oh I see. So the lines are because they're different.*

Yeh. Different from any other guinea pig. Also I drew lipstick. And really big lips.

*Why is that?*

Because, because you know how they make me really happy, it's a BIG smile, because they make me really happy.

*Lovely. Tell me why you come to the guinea pig club*

Coz the guineas they're always there to look after us. We go to the guinea pig club because they're always there to make us happy. To make us smile. To make us... and they are really playful. And they actually remind you of having your own pet. And it's just really fun.

*Do you have pets at home?*

No, I want one.

*What's your favourite thing to do in the club?*

My favourite part is when... my favourite part is when they're on the table, because we get to feed them, we get to brush their um... fur. And we also get

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to... I can't remember... And oh yeh, and then we also get to see them wash and it's so cute. And then... Whiskers... I mean, Nibbles, I mean on Whiskers... on Whiskers there's a little place where you can tickle him and he laughs.

*He laughs! What does that sound like?*

It's like "hee hee hee hee" *makes high pitched guinea pig sound*

That means, it's like they're pigs, but I don't know what happens.

*What do you talk about or think about when you're in the club?*
We talk about the guinea pigs most of all. We talk sometimes about the guinea pigs, and then sometimes we talk about other stuff. Like, how... like... like birthdays, or... or food. Or funny stuff. Like candy floss with bananas inside

*And how do people treat each other in the club?*

Sometimes, they're just like, "oh I want that"... and then... they say that "I just had this one". And then they like... and then they fight and I don't really like it. But the good things about it is... so we share and we let other people have stuff, and we just... we just really like it.

*What do other people think about the guinea pig club?*

Hmm.. okay. My mum thinks that it's really good to go to guinea pig club coz we're going to have our own pet, and I can train there and start learning. Some people in school do know about it.

*What are the club rules?*

Oh yeh, and one other rule is that you can't squeeze the guinea pigs or hurt them otherwise, they might get sick and die or something like that
And you're not allowed to feed them iceberg lettuce so don't bring them iceberg lettuce from home.

*Okay. And are there things you learn about in guinea pig club that help you in different situations?*

<u>Yeh, so because like, we can talk about them if they're amphibians or amphibians or...invertebrates, vertebrates</u>

*If the guinea pigs could talk... how would it describe you?*

<u>That they're really playful with us. They'll always take care of us, they always try and um... make us have the best time ever. We miss them very much.</u>

*Is there anything else you want to tell me about your picture or the guinea pig club?*

Also you can draw and do colouring. <u>And then, it's like you're riding on a rainbow when you find out your new skill</u>

*Anything else girls before I let you go back?*

Nope.

*Thank you very much!*

## Interview with Pony

*Tell me about what you've drawn*

I drew a purple hedgehog and a bunny that is a human, and I drew a rabbit that is in a candy land... next to a candy land castle.

*And why is the guinea pig purple?*

It's a hedgehog.

*Oh sorry. Why is the hedgehog purple?*

Because I used my imagination to pretend it was a purple gummy bear hedgehog.

*Oh, lovely! And how about this bit here?*

It's a bunny having a tea party

*And how do you think they're feeling having their tea party?*

Happy!

*EXCLUDED CONTENT*

*What's your favourite thing to do in the club?*

<u>My favourite animal is the ginger guinea pig which is ginger all over it.</u>

*Why do you like the ginger guinea pig?*

<u>Because I like orange.</u>

*And how does it make you feel when you're playing with the guinea pigs?*

Excited. Because it's fun.

*What do you do with them?*

You can cuddle them... and stroke them.

*What do other people think about the Farm Club?*

My nanny and my mummy and my daddy. They think that... that it's a bit dirty *giggles*

*Really? Why do they think that?*

Because in farms it's dirty.

*If the animals could talk... how would it describe you?*

How helpful we've been getting dandelions to eat.

*Oh lovely.*

And dandelions.

*Is there anything else you want to tell me about your picture or the guinea pig club?*

I like the club because... I went to this club since I was in year 1 or maybe 2, but I still... but I don't want to give this up. But I guess I'll have to soon.

*Why would you have to give it up?*

Wait... I'm in year 3 and it's gonna go on until year 6... Oh! I'm excited!

*Well that's a long time still to go.*

I have nothing else

*How was that, being interviewed?*

It was really exciting for this interview, I really liked it SO much!

*That's good, good to hear. Thank you very much!*

## Interview with Roxy

*Tell me about what you've drawn*

*EXCLUDED CONTENT*

Erm.. this is super whiskers and he's looking down at that. So the picture... so it's like a photo on the iPad. So he's looking down at the iPad and he sees the photo and he says "I remember those days when I finally escaped". So now he's flying.

*I see. So did he used to be one of these guinea pigs dancing?*

Yeh, yes.

*And now he's off, flying up into the sky.*

Yes.

*Why did he go off and fly into the sky?*

Because he wants to run away. Because we sometimes pick them up and take them over to the window so he jumped out and ... *mimes jumping and flying away*

*How did he feel when he was flying away?*

Good. And that's his logo *points to the picture*

*Okay. Anything else you want to tell me about...*

I don't know. It's just something I normally think about.

*Okay. Do you want to tell me about your cartoon?*

Yeh.

*Go on then, let's read your cartoon.*

It's... it's not finished.

*That's alright.*

I've only got one page. It's the "Epic Adventures of Nibbles and Whiskers".  And then the first page is like Nibbles says "I'm bored" and Whiskers says "me too". And now on the TV it's like "breaking news"... "Robbers break into guinea bank and take 1 billion guineas". And then Whiskers is just like "what?" But they're both super heroes.

*Ah, super heroes! And what do you think is going to happen next in their story?*

So then this page... um... they say "cool let's go" and so on. The rest of this they're gonna put on... so Whiskers is gonna get his purple cape and Nibbles he has a green cape. And they're gonna fly over to it... they're gonna fly over to the bank and then um... they're going to go... and like knock out the robber but it's a pig. And not a guinea pig. And the pigs and guinea pigs are enemies so they're gonna go and knock out the pig and once they've done that they're gonna take the guineas and then take them back to the mayor and then the mayor is just

gonna be like "oh you saved us!" "take the guineas all of them" and then they're rich billionaires.

*Wow that's a good adventure. So do you think you'd like to finish it?*
*One day?*

Yep. But what they're gonna do in the next comic of this is they're just gonna go on a shopping spree and they're favourite shop is celery shop. So they're gonna go buy a million sticks of celery and then they're gonna eat them all in one day. But then they're just going to *lies down miming a big belly* like that coz they ate too much! Oh they're going to lie down on their backs with a big full belly! Lovely, I love that you acted that out. Then they're gonna get scared coz they're lying on their back. Coz whenever I put them on their back they're like *mimes scared* Oh, they don't like it. Then they'll be screaming like "who put us on our backs?" But then they turn around like, where is it? So then they're gonna go on a quest to find who put them on their back.

*Is that for your next story?*

So they are security cameras and they look and there was no one there.

*Tell me why you come to the guinea pig club*

That I can actually escape from outside when it's cold. But only one day a week though.

*Okay, only one day a week. So you're escaping from the cold. Why else is it nice being in there?*

Because then... I don't get tired after doing... after playing "It" all the time. And then... it's fun.

*What's your favourite thing to do in the club?*

Play with the guinea pigs.

*Why do you like playing with them?*

<u>Erm... because they're tiny, teeny *mimes "very small" with hands*</u>

*And how do you feel when you're playing with them?*

It just reminds me of cats for some reason. Because I have two cats at home. So then... yay!

*Does it feel similar to having your cats?*

*EXCLUDED CONTENT*

*So who's allowed in the club?*

Only people who ask and then there's a space. I asked two years ago. I got in trouble one day, so I went in... No actually, it was someone else in the club... I'm not gonna say who it was... coz I'm not gonna embarrass them. <u>So someone else in the club was kinda like bullying me</u> coming up behind me and *mimes strangling* grabbing behind me, or using a skipping rope or tie... I wish I still had like the tie all tied up. On a string like this... so they would tighten it. And so I went up to Miss M and she sorted that out. Then I saw the guinea pigs which were meant to be our class pets... but erm... since everyone would probably kill them because they're all "waaaah" all the time *guinea pig sounds*. <u>We couldn't have them in our class. So now they're just living in Miss M's house. Erm.. and in the school in her room. So we went up and I saw a list and I said "what's that?" so she told me and I said "can I come?" and so it started the next week and I went on Wednesday and then I've been going ever since and I love it!</u>

*So how did you know after the first time that you wanted to come back?*

Animals.

*Yeh? What do you like about the animals?*

<u>I don't know. But whenever I go near an animal they just like... *squeak squeak* run to me. Not wild ones... but zoos and birds and puppies and cats, they all love me.</u>

*Why do you think they love you?*

I don't know. I think it's because I'm quiet. I'm more quiet than other people.

*If the guinea pigs could talk... how would it describe you?*

Erm... <u>they'd probably say "she kind of tortures us but we still like her because she feeds us" and "she doesn't pick us up wrong".</u> Because some people think they pick them up like that *mimes picking them up* but you're meant to pick them up like that *mimes a different way*. So they hurt them.

*Ah okay. What else would the guinea pigs say about you?*

Erm... kind of hate me. Because *mimes dancing*

*Because of the dancing? because you make them dance?*

Yep.

*What do other people think about the guinea pig club?*

I haven't asked really. So, I don't know.

*Does anybody else at home or at school know about the club?*

Oh yeh, my mum knows about it. My nan does because she likes it when we're allowed to take them home. So sometimes in the holidays when we're not going anywhere, like for a holiday thing in a hotel or anything, we're allowed to take them home. But we are allowed to go somewhere but we need someone to take care of them every day. So someone can't come with us to the holiday coz they need to take care of the guinea pigs. So that's either my uncle or my grandad but they still like the guinea pigs.

*So, what's it like having the guinea pigs at home?*

Oh good because then I have someone to watch Harry Potter with. First time I had them, I took them out of their cage, both of them, and just watched Harry Potter. I was just like *mimes cuddling them in the crook of her arms*. Then the guinea pigs were squeaking.

*Do they like Harry Potter do you think?*

Yeh! When they were... I was watching the Goblet of Fire and when Harry got into the Triwizard tournament, they were just like "SQUEAK SQUEAK SQUEAK!" *mimes excited guinea pig*. But when he... it stopped they were like "Wooo wooo wooo" *mimes sad guinea pig*.

*So what do those noises mean?*

They're talking.

*Ah, what are they saying?*

I dunno. I don't speak guinea pig!

*So is it because of certain things that were happening in the film?*

Yeh. So I think they like it.

*Is there anything else you want to tell me about your picture or the guinea pig club?*

Erm... animals... you have to be nice to them to get them to love you. Because if you're not nice, they will run away and they won't like what you're doing to them. So if you have... if you go to the zoo and it says "don't tap on cage", don't go like... *mimes banging on a cage*. One... because you could break the glass, and two... you could hurt the animal... you could kill the animal by scaring them. And that... you'd get a really big fine for that.

*Okay, lovely. How did you find the interview?*

Good.

## Interview with Sparkle

*Tell me about what you've drawn*

I drew Whiskers and Nibbles as cow boys. Because they kind of remind me of cowboys, coz how um... Whiskers likes to steal Nibble's food and all of that. So I did them as cowboys... because they remind me of cowboys. And they really make me laugh, and whenever Nibbles steals... I mean Whiskers steals Nibble's food, you can... it always says, "hey, that's not right". They're so funny.
*And what does this say in these speech bubbles here?*

So first he speaks, "that's my celery". Then he says, "get out of town. Get out of town before I deal with you."

*What does this say here?*

<u>This is D's cow rollercoaster, he was helping me be a little more creative. So we were doing one together.</u> "I am going to squash you guinea pigs". But he only squashes Whiskers and takes the celery and then Nibbles is left with nothing.

*Tell me why you come to the guinea pig club*

Firstly, I come to the guinea pig club because they make me happy, and I really like pets and their fur because they make me warm. And secondly, because I'm going to get guinea pigs when I move house. When I move house

*What's your favourite thing to do in the club?*

<u>My favourite is where um... we get to put them back in the cages and give them the food.</u>

*Why do you like that bit?*

<u>Because, so when we give them some food, they're always nibbling, and sometimes they accidentally scratch us. And sometimes you can see them grinning, or shaking, while they're eating.</u>

Whiskers… you can tickle him and he laughs.

*What happens when they make that sound?*

Oh... I think they wee or something. Not sure.

*And what do you talk about or think about when you're in the club?*
How I would like my own pet.

*And how do people treat each other in the club?*

Very nice.

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# Interview with The Flash

*Tell me about what you've drawn*

I've drawn this as an illusion. I wrote in Nibbles and Whiskers. This one I wrote "superhero pet" ... flash kid, like the flash. Then when you reveal it *lifts a paper flap* this is Nibbles coz he likes to ride around with Whiskers.

*Sorry... he...?*

He is kid Flash's pet because he likes to run and he's really fit. And then this is his side- kick, Whiskers.

*Ah, what else?*

I put Whiskers and Nibbles, revealing the secret, so when you take it off you can see that it says "Nibbles & Whiskers" *lifting paper flap*

*Why did you decide to do it like that?*
Because the pets are kinda like superheroes to me. And they like to run around and just like say that "Miss can't catch me" and when Miss is looking for them, they will try to hide in any corner.

*So why are they like superheroes?*

Because they like... they like to eat a lot and they like to run a lot. So that made me think of super heroes because like... if they could... sometimes they like to fight in the cage.

*Why do they fight do you think?*

Maybe like... Whiskers is the bad guy and Nibbles is the superhero trying to defeat his side-kick.

*Tell me why you come to the guinea pig club*

Because it's really fun and you can entertain yourself if you have nobody to play with, even if your friendships stopped for a long time.

*What's your favourite thing to do in the club?*

Playing with the guinea pigs.

*Yeh? How does it feel when you're playing with the guinea pigs?*

It feels like... it feels like they're my family.

*That's nice. Do you have pets at home?*

No. But, erm... my cousin has a dog. And his name is... Shadow. And it's a girl.

*Oh okay! So why do they feel like family?*

Because it's like... I live in a faraway place and they live right in the school... and it's like they're my cousins and I have to come to school to come and visit them.

*They live at school... so it's like a little family that live at school?*

*nods*

*What do you talk about or think about when you're in the club?*

I like to think... what would it be like if I was a guinea pig. And err... and if I could be like a radioactive guinea pig.

*Wow! And do you talk about that with other children in the club?*

<u>We talk about lots of other things like, "if the guinea pigs are superheroes, could they turn into giants?... or laser people?"</u>

*What do you think?*

That it could happen over the night.

*You just come in the next day... and there are these big superheroes?*

*nods*

*Maybe it could happen!*

*What are the club rules?*

Erm... there's only one rule. Everybody should have fun. And there's also one serious rule... don't scream. Coz they can get scared sometimes.

*Scared, the guinea pigs?*

Coz when you're the first time there, you don't know how scared they are but you're actually the one who's scaring them more when you ...when they're more scarder than you are.

*Why do you think they're more scared than you?*

Because they don't like... they come out to take them... in the Victorian times they took guinea pigs for money. For... like guinea means money and the pig means like... coz they're kinda like from the family of guinea pigs.

*EXCLUDED CONTENT*

*If the guinea pigs could talk... how would it describe you?*

They would say that I'm pretty good and that they would just like to stay at my house.

*Ah, they'd say they'd want to like to come stay with you?*

*nods*

*Why would they like to come and stay with you do you think?*

Because I have a lot of water at my house. I have... pet food from... my cousin's pet Shadow and... they could just be playing around with anything they like. But there's one rule in my house. Nothing should PEE in my bed.

*That's a good rule, that's a very good rule.*

Coz they pooped on my pillow. And on my jumper.

*Oh no! So that would be the rule, that's a very good rule. How do you make sure they don't pee on your bed?*

I would get like this thing um... a window over there so that if... only humans can go past it so except for animals so if they go onto it they just bounce back.

*Is there anything else you want to tell me about your picture or the guinea pig club?*

Everybody should be able to enjoy playing with the guinea pig club <u>because not everybody is allowed to go... like a few people erm.. go because they're good. A few people go even if they're bad. And some people have to wait until the next half term.</u>

## Interview with Killer Croc

*Tell  me about what you've drawn*

A killer cow.

*A killer cow? This one here?*

A killer cow rollercoaster

*Sorry...?*

A killer cow rollercoaster.

*Wow, that's interesting. Why did you think of drawing that?*

I don't know. Nibbles is walking up, and then that makes it squash stuff.

*And what else, what's happening over here?*

There's a guinea pig there. It's gonna like... get squashed.

*And what does it say here? What does the bubble say?*

 "I like to squash you guinea pigs".

*I like to squash you guinea pigs! Oh, so that's the killer cow that's going to squash them? *pointing to picture**

*EXCLUDED CONTENT*

*How do people treat each other in the club?*

Some people are not good…because they don't listen, the other ones. Like some people squeeze the guinea pigs.

And some people are always nice. People who haven't been coming lots and now they're coming, now all the time, they're the ones who are the nice ones.

because they don't listen, the other ones. Like some people squeeze the guinea pigs

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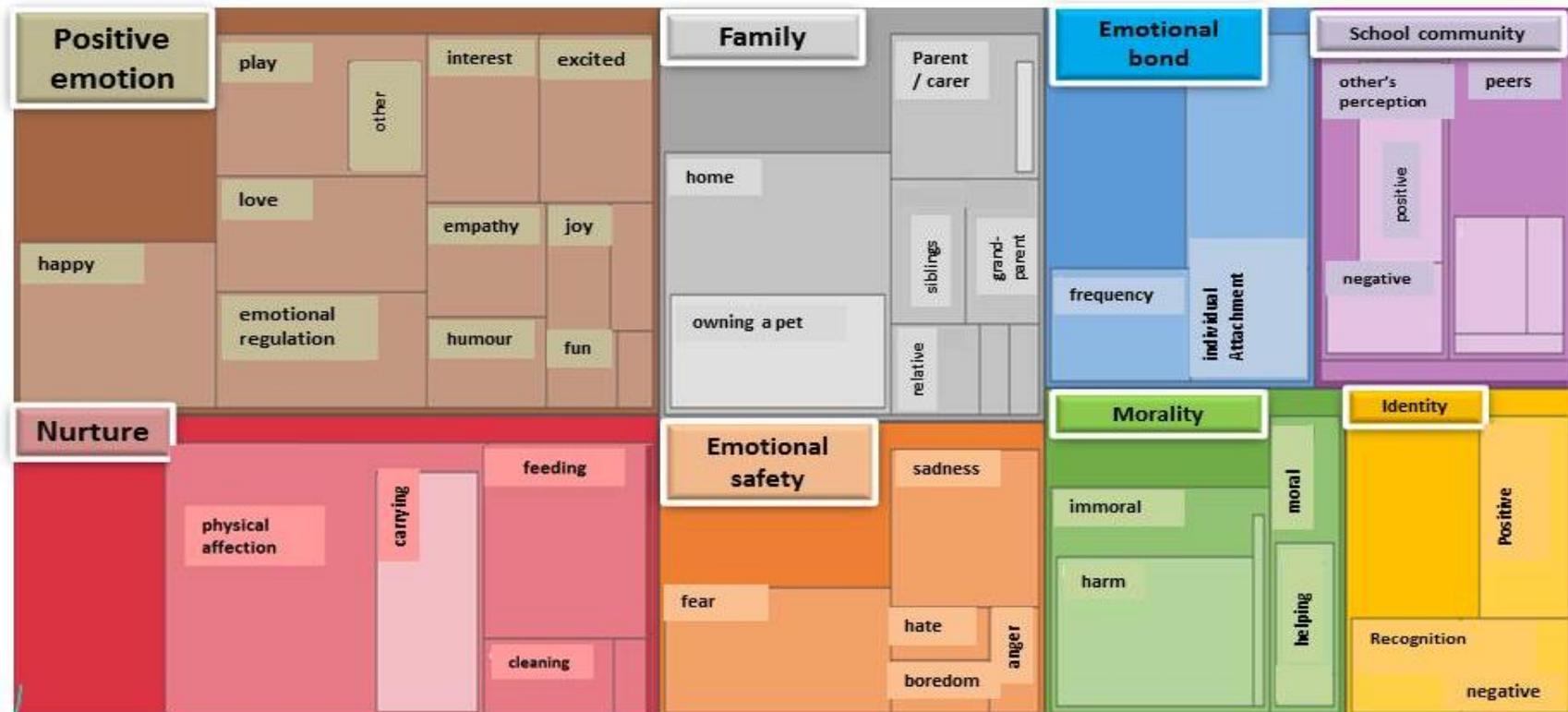
Appendix P

*Belongingness Hypothesis theme map (Figure 2)*
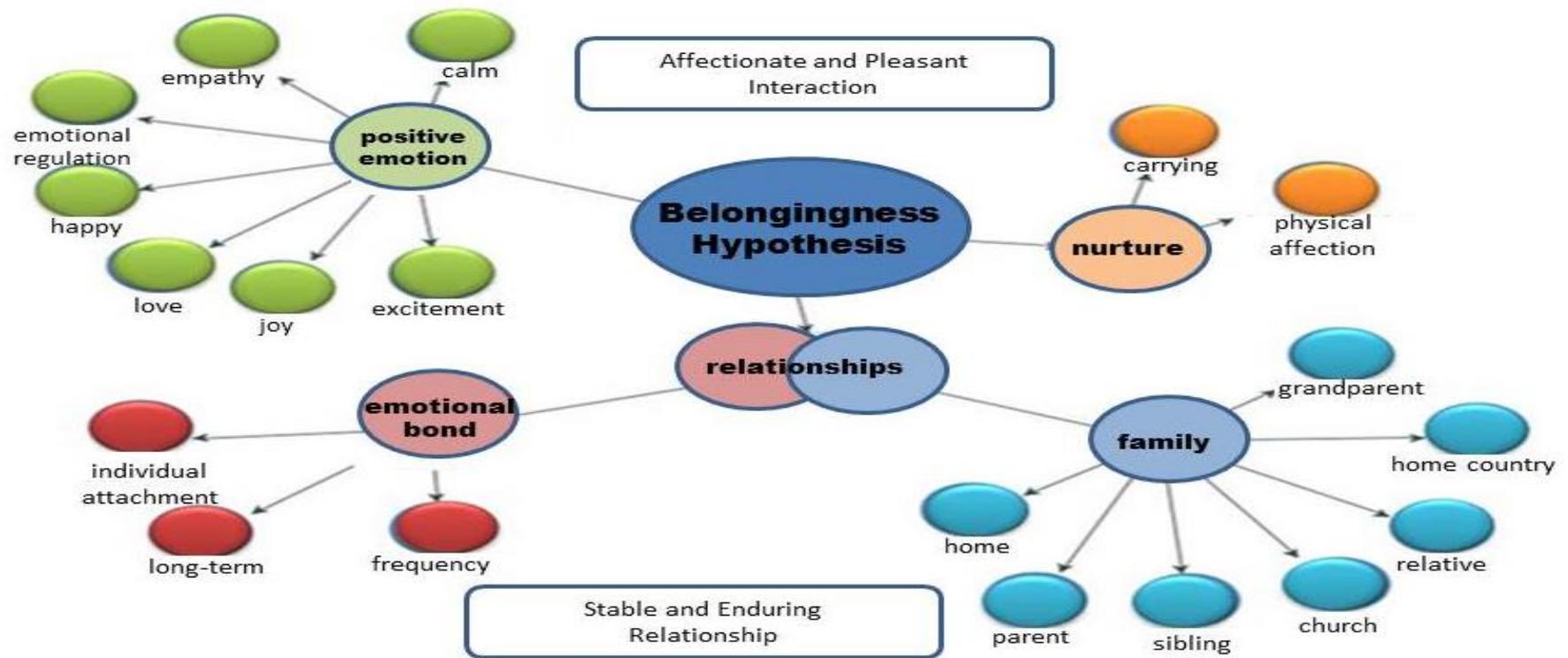
Appendix Q
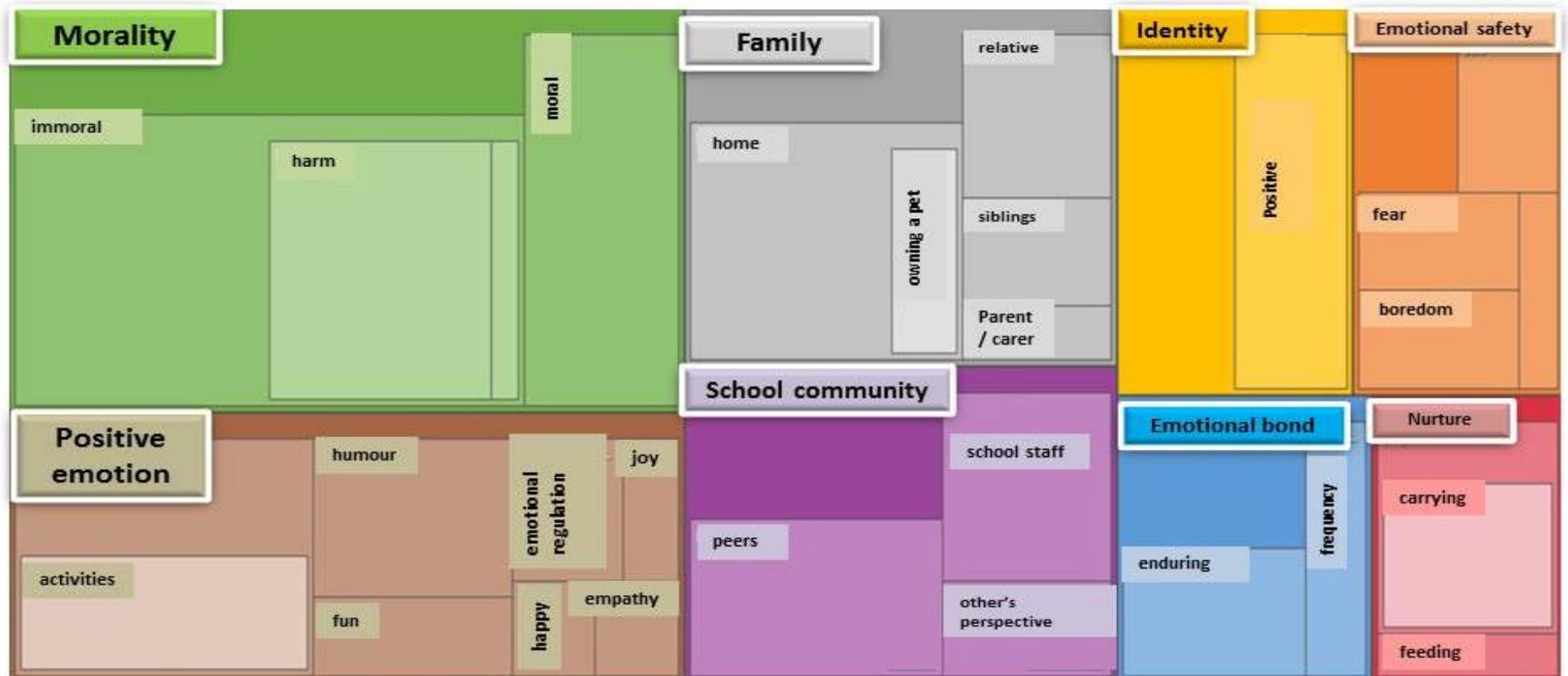
*Sense of membership theme map (Figure 7)*
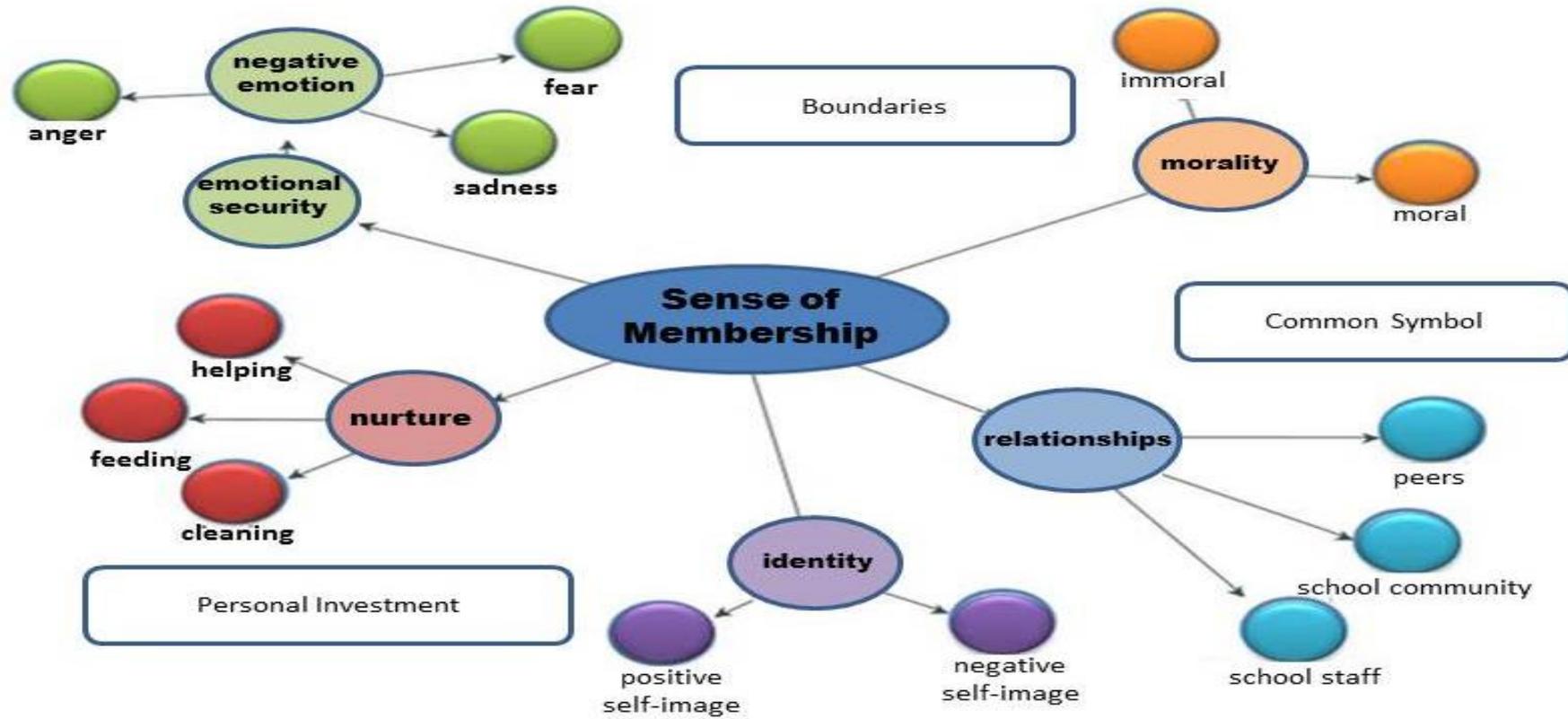
## Appendix R

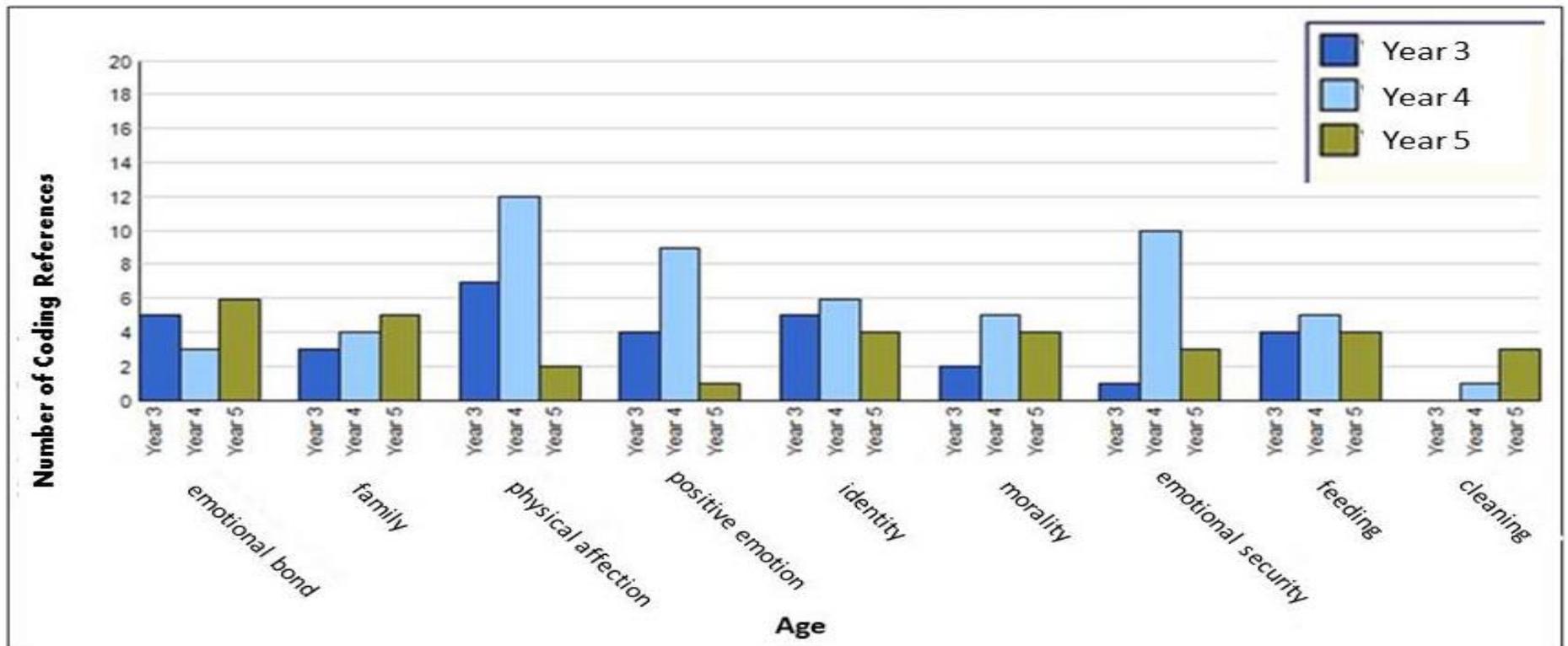*Girls sense of belonging theme hierarchy (Figure 13)*

## Appendix S

*Boys sense of belonging theme hierarchy (Figure14)*

Appendix T

*Age difference bar chart for belonging (Figure 15)*

Appendix U

*Miscellaneous theme map (Figure 17)*