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The challenges & future development of animal welfare education in the UK

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Abstract

At present, UK schools are not required to teach children about animal welfare. This undoubtedly contributes to widespread deficiencies in knowledge, and misconceptions about animals' needs, likes, and dislikes. Aware of the issues at hand, animal welfare organisations create their own materials for teachers to use and/or deliver educational programmes directly to children and young people. As the design, content, processes and outcomes associated with these interventions are rarely documented publicly or systematically evaluated, there is little evidence to guide the development of animal welfare education. A three-stage online Delphi study was used to identify who current interventions target, what delivery methods are being used, and how expert practitioners describe priorities and challenges in the field. 31 experts participated in Round 1, with 84% of the sample (n=26) also taking part in Round 2. Qualitative analysis revealed passionate accounts about the far-reaching potential of educating children about animals. However, we also identified ambiguities and tensions that could thwart the future development of effective animal welfare education. Alongside the production of a web-based framework and evidence-based toolkit to support practitioners, findings will be used to encourage animal welfare professionals to work towards producing shared terminology, definitions, and outcomes frameworks; focusing on positive education and the idea of harm as opposed to cruelty. This should facilitate collaboration with school teachers and education policy makers to assess the ways in which animal welfare might be successfully incorporated within formal education in the future. The data suggest many potential avenues for inclusion, although a holistic approach emphasising the links between humans, animals and the environment, within the context of young people's recent activism and contemporary health, societal and environmental issues, may be most successful.

Keywords: animal welfare education, children, cruelty prevention, Delphi, evaluation, intervention

Introduction

Education and prevention are significant parts of the work undertaken by animal welfare organisations. Many charities are operating with tight funding constraints, so intervention work is channelled into reaching as many children as possible through visits to schools or provision of resources that schools can access. Recently, the Royal Society for the Prevention of Cruelty to Animals (RSPCA) has instigated a campaign calling on governments in England and Wales to include animal welfare in formal school education. There are similar calls to incorporate humane education (that incorporates understanding of, and empathy towards, animals) into school curricula in other countries (Chun Fung & Zhou 2020). At present, animal welfare is not a curricular requirement in the UK, and it is not clear if it is considered sufficiently important by teachers or educational policy makers to warrant inclusion. Teachers may also feel ill equipped to teach in this area, especially in what may be perceived to be an already overloaded curriculum, with the added pressure to cover areas relevant to current societal, cultural and environmental crises (Borg *et al* 2012; Lasen *et al* 2017; Monroe *et al* 2019). They undoubtedly welcome expert visits to schools.

It is possible though that to those outside the animal welfare profession, animal welfare education (AWE) might be to some extent misunderstood. Often inherent in the providers' name (society for the prevention of *cruelty* to animals), animal welfare organisations are inextricably linked with animal rescue/rehoming, prosecutions, and the more extreme forms

of cruelty/abuse. Educators within the formal education system may not view animal welfare as a priority, especially if they feel it is irrelevant for the majority of school children or, more importantly, a sensitive topic. AWE may be viewed only in terms of the benefits for animals (not for people), and may not always be interpreted as having a positive focus. The idea of ‘Educating a kinder generation’ (RSPCA 2018) may well be interpreted through a negative lens.

There may be some work to do initially in terms of heightening awareness of the bigger picture and the links between animal welfare and human wellbeing. Drawing on internationally recognised concepts such as ‘One Health’ (One Health Initiative Task Force 2008), ‘One Welfare’ (García Pinillos *et al* 2016), and the ‘Link’ between animal and human harm (Longobardi & Badenes-Ribera 2019; Monsalve *et al* 2017), or the ‘positive education’ focus of humane education (Chun Fung & Zhou 2020) is likely to prove useful. Associated approaches are based on the understanding that people, animals, plants, and their shared environment are intimately interconnected. Identifying where in the specific curriculum of different countries AWE might fit well is also imperative. In the UK, the recent emphasis on the significance of mental health and relationships may provide the perfect backdrop. The emotional and mental wellbeing of every child is a responsibility of all those working in schools, and there are many resources available to support teachers (see for example ‘The Compassionate and Connected Classroom’ Education Scotland 2020). It is easy to see how AWE could be linked with these, helping children to identify and respond to the needs of others.

As well as maintaining and adapting existing educational programmes, ensuring resources are up-to-date, animal welfare organisations undoubtedly feel the pressure to demonstrate what

they have achieved to promote their work and secure funding, public support, and a continued presence in schools. While some evaluations of educational programmes delivered in schools exist (e.g., Coleman *et al* 2008; Fonseca *et al* 2011; Hawkins *et al* 2017; 2019; Mariti *et al* 2011; Nicoll *et al* 2008; Samuels 2018; Samuels *et al* 2016), they are in short supply. Hence, although there are promising results, particularly in terms of enhancing children's knowledge of animal needs and beliefs about animal sentience, it is difficult to conclude that programmes are effective in the long-term, lead to behavioural change, or have wider impact on children's thinking or skills. We also know little about the content and pedagogy used within interventions. Consequently, it is impossible to pinpoint which elements make an intervention successful. Similar criticisms have been levied at humane education in the US (eg Arkow 2006; Ascione 1997) and animal-assisted interventions (AAI), where animals are specifically used to support people who are experiencing difficulties (eg Ratschen & Sheldon 2019). There is, at least, a code of practice for AAI in the UK (SCAS 2019) and Europe (IAHAIO 2014), and for canine-assisted interventions the US (Binfet & Kjellstrand Hartwig 2020). However, this does not yet exist for animal welfare education. Building guidance and an evidence base are critical to sustainability. Consulting those most familiar with associated content, processes and impact should help to lay solid foundations to progress the field.

This paper partners Muldoon and Williams (under review), drawing on data from the same study, an online Delphi of animal welfare education professionals. The aims were to unearth the expertise of professionals working in this field, identifying the extent to which they agree on priorities for practice and key components of successful interventions. It also sought to explore any tensions relating to their work. The challenges facing practitioners are the main focus of this paper.

Materials and methods

Online Delphi

The Delphi Technique is a multi-staged approach that focuses specifically on achieving expert consensus on an important issue (Keeney *et al* 2011). Each stage is designed to build on the results of the previous one (Sumsion 1998). Hence, our Delphi consisted of three 'Rounds':

- (1) Round 1 on-line survey using Online Surveys, gauging initial views and identifying key themes (areas to assess consensus).
- (2) Round 2 on-line survey, using the same platform, presenting collated statements and requiring ratings of agreement and importance, or selection of phrases that resonated most with the participant.
- (3) Round 3 report, sent via email, gathering reflections on findings from participants.

The process of developing the survey, ethical procedures, data handling, and organisation of statements to incorporate into Round 2, are detailed in Muldoon and Williams (under review). The survey included questions on demographics, and participants' work roles and experience (both organisational and personal) in animal welfare education/cruelty prevention. A series of open-ended questions were asked in relation to five core themes to gauge initial thoughts on priorities:

- (1) The need for animal welfare education/cruelty prevention interventions
- (2) Priorities and ideal target groups
- (3) Components of successful interventions
- (4) Anticipated outcomes

(5) Evaluation of animal welfare education/cruelty prevention interventions

Participants were also asked how many animal welfare/cruelty prevention intervention programmes (aimed at children/young people) they were directly involved with at present (June-September 2019). If they were happy to share information about their own programmes/interventions, they were asked the following questions about each one at the end of the survey:

- (1) What is the name of the intervention/programme?
- (2) Does the intervention target any of the groups below? (Select from a list)
- (3) Which age group/s does the intervention target? (Select from a list)
- (4) How is the intervention delivered? (Select from a list)

Round 2 (administered January/February 2020) comprised close-ended multiple choice questions. Most of these used 5-point Likert scales to assess extent of agreement with a statement or the degree to which they felt the identified issue was important. Others asked participants to prioritise/order key considerations. At the end, a series of open-ended questions relating to issues of terminology highlighted in Round 1 or anything they felt had not been covered in Round 2, afforded participants the opportunity to provide their own definitions or raise any issues they considered important, to ensure no views were inadvertently missed. Following Round 2 data analysis, a report detailing the degree of consensus across all items of the survey was circulated to participants, with an invitation to respond with their final reflections. Both content and thematic analyses were used to examine Round 1 data. A variable-centred analysis was used, whereby responses to each question were considered in turn. We also thematically analysed the responses to open-ended questions concerning the use of specific terminology in Round 2.

Participants

After obtaining ethical approval, all members of two key umbrella organisations were invited to participate: the Scottish Animal Welfare Education Forum (SAWEF), and the UK Animal Welfare Education Alliance (AWEA). In total, 22 representatives from the 36 UK organisations took part (61%). 85% of the SAWEF group (n=13) participated. Only two members did not take part as they felt on the periphery of animal welfare education/cruelty prevention and had limited experience of interventions, so we achieved 100% of valid participants. 48% (n=11) of the 23 organisations involved in the wider AWEA participated. We advertised the study through our contact list, social media and our website. Seven further organisations contributed as a result, including four outside the UK.

Participants were from 25 different animal welfare organisations in total, 87% were based in the UK (n=27), with 52% (n=14) of those situated in Scotland (45% of the whole sample). Four participants were based in either the United States (n=2) or Canada (n=2). The majority (87%) were female (Female=27, Male=4), with their ages ranging from 21-29 (7%) to 60+ (8%); the majority (45%) falling into the age 30-39 category. The roles they currently occupied are outlined in Muldoon and Williams (under review). The majority of participants were Heads of Animal Welfare Education (29%), and Education Officers (26%), while some held multiple roles.

There was clearly a great deal of expertise in our sample; together, over 240 years of experience working in animal welfare education/cruelty prevention. Half (n=15) of the professionals had worked in the field for more than 10 years, seven for between 6 and 10 years, and six for between 3 and 5 years. Only three people had worked in this area for fewer

than 2 years. Almost all participants (n=29) had worked with vulnerable children and/or young people, either in previous work roles or as a result of their current programmes. Seven had previously been teachers either in primary schools or further education. Six had worked specifically with young offenders, five with looked after children, and nine with children with special educational needs.

In terms of the organisations they currently worked for, 65% of participants (n=20) described them as having a long history of designing and delivering educational interventions. 32% (n=10) were currently delivering an educational intervention, and 10% (n=3) were just starting to think about developing one. Nearly all participants had been personally involved in the design and delivery of interventions for children and/or young people and the development of materials. Almost a third had been involved in policy development, just over three quarters had evaluated intervention, and a similar proportion (n=24) was currently involved with an intervention. 29% were working on one intervention (n=9), 3% on two (n=1), 23% on four or five (n=7), and 23% on more than seven (n=7). 25 participants (80.6%) said they were happy to provide information on their current interventions. 6 (19.4%) were not. Of the 31 professionals who took part in Round 1, 26 also completed Round 2 (84% response rate).

Findings

This section begins with a summary of the data relating to interventions organisations were currently involved with, covering key target groups and how they were being delivered. We then move on to look at the qualitative data under the following sub-headings: (a) The promise of animal welfare education, (b) Short-term and long-term intervention goals, (c) Challenges associated with AWE, and (d) Tensions relating to the terms ‘cruelty’ and ‘cruelty

prevention'. To forefront participants' voices, there are direct quotations immediately under each sub-heading. These effectively highlight/summarise the main issues requiring attention in order to develop AWE. Further quotations linked to each theme are provided in the Appendix and indicated below. Quotations are taken from the Round 1 dataset unless otherwise indicated, and pseudonyms are used throughout. The tables presenting consensus data list the questions/areas in the same order as they appeared within the survey.

Current interventions

"A description of what is classed as an intervention would be useful" (Lorna)

Participants provided details of 46 interventions in total. However, as the quotation above indicates, relayed information suggested that many viewed all of the work undertaken to be 'intervention'. Indeed, 'intervening with the intent to modify the outcome' could be described as the *raison d'être* of animal welfare organisations. It was clear that some participants were describing a generic approach where the same provision is delivered to everyone, whereas others detailed specific educational programme sessions, included 'workshops' or open days/visits. Accordingly, it was difficult to establish which of the programmes listed were clearly defined interventions with a specific set of goals/outcomes, and which were being evaluated. However, 19 participants (61%) reported that they were currently involved in evaluating an intervention, representing 14 organisations.

As Figure 1 indicates, the majority of interventions described by participants had no special target groups (ie groups of children/young people considered vulnerable or in need of specialised input), although around a quarter were targeting looked after children and those considered to be at 'high risk' of causing harm to animals.

<Insert Figure 1 here>

In terms of age groups targeted, there is a clear focus on children of primary school age (Figure 2), although half of the interventions involved working with secondary school age groups.

<Insert Figure 2 here>

The main mode of delivery was through schools (Figure 3). Half of the interventions that were delivered this way were not targeting a specific group. Other modes of delivery not represented in the graph included training for teachers, those working with vulnerable young people, vets/veterinary students, or those who would potentially work with animals in the future (n=8).

<Insert Figure 3 here>

The promise of animal welfare education

“Fundamental to creating a caring and compassionate world” (Richard)

When providing a justification for their view that it was ‘vitaly important/utterly essential’ to teach children about animal welfare, practitioners explained that it was necessary to equip children with knowledge they may not have, and correct misinformation or myths that are widespread. Half the practitioners emphasised the importance in terms of ensuring treatment of animals improves. References were made to children being the pet owners, consumers and decision makers of the future, so it is essential to work with them as they are beginning to form their own opinions and before attitudes/belief systems become entrenched:

“As they [children] develop and get older, they will be faced with making decisions about how they would like to see animals being treated, whether in the wild, at home, in captive collections, or on the farm. They will start to think about how their choices as consumers can impact on animals, and we need to give them the knowledge and the feeling that each individual is empowered to make positive decisions for animals.” (Suzanne)

However, just over a third of the sample (n=11) conveyed a strong sense of animal welfare education moving way beyond simply improving life for animals; capable of far greater accomplishments in terms of child development/wellbeing and the creation of a kinder, more compassionate society:

“As an academic objective [AWE is]- not particularly important. As a vehicle for promoting a child's development as a kind, compassionate, thoughtful, engaged and fulfilled member of society I can think of no more important topic.” (Jonathan)

“Extremely important, for their individual sake and the sake of creating a morally well-adjusted society. It also has the ability to work in a therapeutic manner - children can learn to understand themselves and their own emotions by learning about those of animals and interacting with animals.” (Lorna)

Animals were viewed as the means by which children learn about empathy and compassion towards others. In terms of working with more vulnerable children/young people, three participants explicitly made reference to ways in which animals can also be used to help children understand themselves. Two practitioners emphasised the significance of skills and

this was reiterated by others in response to different questions. The wider ramifications for the way people interact with, and view, the world was also highlighted (n=5), drawing attention to both the inter-relationship of people, animals, and the environment, and the importance of lifelong learning:

“It's not just about teaching animal welfare, it's about drawing those comparisons between empathy and prosocial behaviour and the environment as a whole.” (Katy)

“In my view, 'animal welfare education' is something that we should all undertake throughout our lives. Science is revealing more about animal cognition, behaviour and sentience all the time. With this new information should come new reflection on how this should impact on the way we treat animals, so animal welfare education should be a lifelong activity.” (Suzanne Round 2).

Whilst the majority of professionals focused on the positives, Emma, who held a monitoring/evaluation role highlighted the fact that animal welfare education in its current form would not achieve these goals unless there were significant changes, an issue we return to later:

“It COULD be the most impactful and sustainable type of animal welfare intervention that there is, however it is often delivered and designed without the necessary strategic planning and outcome mapping. It's also a highly under evaluated field with evaluation on the impact of an intervention on human behaviour change virtually non-existent. Therefore we can assume that with programmes not utilising monitoring and evaluation processes, that required strengthening adjustments to output are not frequently applied.” (Emma)

Importantly, while AWE was broadly conceived in highly positive terms (Table 1 Appendix), ‘cruelty prevention’ appeared to engender thoughts about intentional or severe forms of suffering caused to animals. As Table 2 (Appendix) shows, when asked if and why it was important to intervene to prevent cruelty, there was a focus on the escalation of cruelty behaviours and the need to understand the individual and the motives/root causes in order to determine a specific and ‘tailored’ course of action.

“Very [important]. If cruel behaviours are already being exhibited by a child there needs to be an intervention - to change their understanding of their behaviour towards animals but also to try to understand what is behind their behaviour and help them to express their feelings. If cruelty to animals is not addressed, it will escalate and may lead to cruelty towards humans and criminal behaviour.” (Catherine)

“Specifically designed human behaviour change interventions tailored to address identified welfare issues I feel are the most successful method that can be applied in improving animal welfare. However for interventions to be successful we must fully understand what the barriers are to this for each individual concerned to allow us to then tailor specific interventions based on their circumstances.” (Holly)

This suggests that although when asked directly if ‘cruelty prevention is only for those who have harmed animals or at risk of doing so’, the majority (81%) disagree (Muldoon & Williams under review), the term ‘cruelty prevention’ is frequently associated with harm that has been caused or is likely. It calls into mind the question of whether there is a difference between education and prevention, and highlights the significance of the language we use (discussed further below).

Short-term and long-term intervention goals

“Awareness of the actions that they can take to improve the lives of animals” (Richard)

There was strong recognition throughout the survey of the deficiencies in people’s knowledge generally of animals’ needs, but also their likes and dislikes. Several practitioners highlighted the tendency of humans to overcrowd or intrude upon an animal’s space, as well as the proliferation of images or videos of animals on social media that are often viewed as ‘cute’ or ‘funny’ when the animal is in fact distressed or their need to express natural behaviour is being constrained. One participant, Amanda, felt there were *“big disconnects between the ways that humans behave around animals and what animals like or dislike. Humans tend to be very intrusive, and probably by nature like to hug and squeeze animals (a primate thing), when the animals find this entrapping to be unpleasant and threatening.”* Because *“there are just so many who simply do not see when they are intruding or being unkind”*, it may prove difficult for AW educators to narrow their focus. Whilst there was strong agreement on all of the issues that AWE/cruelty prevention interventions should address (Table 3), and the desired outcomes of interventions (Table 4 below & Table 5 Appendix), there was no agreement on which of these should be priorities.

Table 3: Identified issues that AWE/cruelty prevention interventions should address

Issues	Consensus[#]
Lack of knowledge/understanding of animal needs, unintentional cruelty & neglect, including cruelty through kindness (eg obesity) & the proliferation of misinformation & myths	100%
Taking responsibility for the animals in our care. This includes both self-awareness (understanding our own impact on animals) & awareness of animal-related issues in society. Stimulating a desire to improve the lives of animals & the conditions we create for them	100%
Skills with animals, ensuring appropriate & safe behaviour and handling, enhancing understanding of animal communication & behaviour, & the ability to identify when a need is not being met	100%
Understanding animal sentience & the psychological welfare of animals	96%
Prevention of, & appropriate responses to, intentional cruelty	96%

Recognising conflicts/ contradictions in the ways humans treat/use different types of animal, challenging animal stereotypes & the ways animals are often (mis)used for our entertainment or pleasure	88%
Enhancing empathy & respect for animals	96%
Understanding the bigger picture = the inter-relationships between humans, animals & the natural world	92%

Percentage of participants who agreed/strongly agreed with the statement (derived through analysis of open-ended questions in Round 1)

Table 4: The main changes participants would like to see in children/young people as a result of participating in an intervention

Anticipated outcomes	Consensus#
Improved knowledge/understanding of animal welfare needs & issues	100%
Greater recognition of animal sentience	92%
Improved skills in relation to interpreting animal behavioural signals & responding appropriately, handling animals correctly (fewer intrusive/forceful/rough handling behaviours), recognising poor welfare & cruelty, & knowing how to behave safely around animals	96%
Improved empathy & compassion towards animals	96%
Improved empathy towards others generally (improvement in pro-social behaviours)	92%
Greater recognition of responsibility & an appreciation of their own impact on animals – increased self-awareness & self-reflection, & feeling more empowered to take action	100%
Being more respectful of, & improved attitudes towards, animals	96%
Sustained behavioural change & reduced incidence of children harming animals or being harmed by animals	100%

Percentage of participants who agreed/strongly agreed with the statement (derived through analysis of open-ended questions in Round 1)

However, the qualitative data from Round 1 suggest that professionals would like to see children taking responsibility and applying their knowledge, reflecting on their own values and behaviours and those of others; learning skills that empower them to make positive decisions and actions with respect to the ways animals are treated:

“I would like children to be able to list ways to improve a situation.” (Heather)

“Children know what to do/say when witnessing cruelty.” (Tara)

“Knowledge of how to take action if something is wrong.” (Pamela)

“Children recognise where they can get help for an animal or pet in need.” (Chloe)

Moving on to consider the recipients of interventions, there was strong consensus on all the groups who should be targeted; all pupils of school age and those ‘at risk’ were considered most important. In other words, there is a strong sense in which everyone needs to be educated in this domain, hence the significant emphasis on ‘reach’, universal approaches and knowledge. As previously indicated, the majority of the interventions taking place at the time of the study involved children of primary school age (80%). There was a strong rationale for a focus on the young that centred on the importance of intervening early, setting the scene for a lifetime of treating animals (and others) properly. There was also recognition that it was easier to reach and engage this age group than any other:

“I think that teaching children about animal welfare is the most effective way at impacting animal welfare. Children are open, curious, and still developing their values and morals. By teaching young people the physical and emotional needs of animals, the importance of respect and understanding our responsibility to provide care, in my view will have the greatest impact improving animal welfare.” (Stephanie)

Many emphasised the importance of extending this work into secondary schools, to reach young people *“on the verge of becoming decision makers in their own lives and helping inform how those decisions can make positive impacts on the lives of animals in all forms of human-animal interaction”* (Suzanne). Teenagers/work in secondary schools was identified as a gap in provision by 85% of the participants, suggesting that the work already being undertaken in secondary schools is far from comprehensive. The same proportion felt there was not enough work being done with at risk/vulnerable children and young people. This is where the language of ‘cruelty prevention’ often comes into play, but it is not clear how the content and delivery differs with more specialist or targeted interventions. The strongest

consensus though with respect to gaps in current provision (Table 6 Appendix) was found in relation to the notion that AWE should be embedded within the school curriculum (96%). 73% of participants felt this gap should be prioritised. There was no consensus on whether the others should be a priority.

“Animal Welfare Education and Cruelty fit really easily into the current National Curriculum [of England and Wales] and it would be easy to make a few amends to the curriculum so teachers teach children about it without the need for so many interventions.” (Jenny)

“Problems are often only recognised when they manifest as something serious - harm or abuse of an animal or another child, then people work backwards and discover certain behaviours or attitudes. Lack of recognition and action around potentially serious 'red flags' is a concern. We also know that despite the significant work of animal welfare charities, we simply aren't reaching every child, even within the primary sector, when ideally, animal welfare education should run as a thread throughout a child's years at school, starting with the basic welfare framework and running through different subjects through the years, such as science and geography, culminating in the more advanced legal, moral and ethical discussions around the place and treatment of animals in our society.” (Alison)

Knowledge of welfare needs appears to be the predominant focus of interventions in primary schools. However, the ultimate goals expressed by practitioners throughout the study are to influence different types of behaviour and have AWE as part of school curricula, suggesting that these are the areas that should be prioritised. In particular, the precursors to behaving in ways that promote positive animal welfare seem important (ie how to take responsibility, identify animals' signals and potential problems, as well as act and speak out safely). It is not

clear currently if the pathway from inputs to outputs is being mapped out, guiding delivery and the development of educational materials, or whether steps towards goals are being adequately assessed and re-evaluated to continue making improvements to programmes. The focus of animal welfare organisations on teaching children about animals' needs was described by a minority as sometimes narrow or 'superficial'. While the five freedoms (Farm Animal Welfare Council 1990) was referred to as a useful framework to work within, there was also recognition that it is insufficient for transfer of learning, particularly by those who emphasised the lack of skills-based education and highlighted this as a major gap in provision:

"Lack of hands-on education and skills for interacting with animals. Too much "teaching" or "preaching" and not enough playfulness or use of expressive intervention and education approaches. Lack of appropriate involvement of live animals at the right time in the process. It's just not geared for transfer of skills, at least what I have seen." (Amanda)

Amanda reiterated this view in Round 2, but also drew attention to the significance of targeting parents and teachers as well as the children: *"I would say MOST interventions I've seen are rather superficial or else cognitive in nature. They try to change attitudes but not teach actual behaviours. The most effective I've seen teach actual skills, practice, and provide environmental supports that are ongoing (parents, teachers)."*

It should be noted that it was only those working in a more therapeutic way with individual children who described the involvement of live animals as essential. The majority of practitioners were opposed to using live animals due to welfare concerns, but recognised the significance of using materials such as videos and toys to help children better understand, and

emotionally connect to, the animal. The emphasis alluded to earlier with respect to developing empathy and compassion appears to afford greater opportunities to introduce animal welfare to children in schools, as another practitioner highlighted with respect to the way AWE has traditionally been viewed: *“There is a lack of proper consideration for the importance of affective learning. Animal welfare is too often perceived as a science subject.”* (Jonathan)

Challenges associated with AWE

“The burden of uniform evaluation” (Louise)

The most significant challenge facing animal welfare education professionals is how to demonstrate the effectiveness of the work they are undertaking. Inherent in this is the possibility that interventions are not successful in achieving intended outcomes. There was strong agreement that it is difficult to ascertain how successful interventions have been, and for whom, due to the lack of evidence. In order to demonstrate effectiveness, some professionals are clear on the need for structure, a detailed outcomes framework and continual re-appraisal as to whether goals are being met. One of the professionals, Anne, argued that this is critical if governments are to be persuaded of the significance of AWE. To meet the longer term goal of incorporating into school curricula, she highlights the importance of structure from the perspective of the ‘fit’ with other subject areas:

“To be able to ‘compete’ with other subjects and gain credibility for the subject in its own right, interventions need to be structured in line with other academic subjects. Flexibility, if required, can always be built into structure by well-trained, competent teachers, depending on the needs of the students. Effective monitoring and evaluation of the course is dependent on structure. Animal Welfare Education needs to be a recognised subject with curriculum

appropriate to the relevant age group(s). It can be argued that to date, 'ad hoc lessons' in schools given by well-meaning NGOs, have been useful, although perhaps largely ineffective, - although certainly better than nothing! However, it is a government's duty to ensure that children develop into responsible citizens respecting all forms of life. It is our duty to persuade them!" (Anne Round 2)

However, having a formal structure was perceived to be problematic by the majority of participants. There was strong rejection of a 'one size fits all' approach and an emphasis on being flexible and adapting to the needs of those participating. In many cases, the evaluation of the intervention was viewed as troublesome because it required a standardised, and not an individualised, approach:

"The desirable outcomes can vary quite significantly from child to child and therefore having a standard set of measures can dilute positive outcomes, as you may be focused on one or two outcomes only for that child but are measuring against 10. Additionally I feel standard measures can end up driving the education so that on paper it looks great but the heart of the work is lost. There needs to be flexibility in the evaluation goals and the measures used to allow for the education to be tailored and increase its efficacy. I appreciate that this really does not fit with the traditional principles of quantitative research, but educators should focus on achieving meaningful evaluations for individuals' needs, using a range of tools which are most appropriate for that child or young person. I would say this burden of uniform evaluation can be one imposed by funders too though thankfully some are now coming to value 'stories' over statistics." (Louise Round 2)

There was recognition of positive outcomes for children/young people where the work was undertaken on an individual basis, but also awareness that knowing how to measure impact is a significant challenge for most animal welfare organisations. Time constraints (for them and schools/teachers), concerns about the responses of schools, teachers, parents or children to a request to participate in an evaluation, difficulties children have completing a questionnaire, and the absence of, or ‘rusty’, skills in relation to evaluation and statistics were all identified as problems. There was also a great deal of emphasis on the difficulty of being able to measure behaviour and long-term change – clearly the ultimate goals.

“Do we measure what's valuable or value what's measurable!” (Richard)

“This is probably the most difficult, but also the most important challenge we face.

There is no point developing programmes and engaging materials that get great initial feedback from participants, and self-reported intention to make better choices, that then do not translate to a change in their behaviour when they get back into their 'real lives'. This is what we should actually be measuring, but finding a surrogate or proxy of this behavioural change is no straightforward task, or we would all be doing it!” (Suzanne)

The full range of challenges facing those responsible for animal welfare education is best summarised with reference to the consensus data for certain questions. The summary is provided in the supplementary materials.

Tensions relating to the terms ‘cruel’ and ‘cruelty’

“Are children cruel?” (Jonathan)

It became clear in Round 1 that there was a great deal of ambiguity around the use of the terms ‘cruelty’ and ‘cruelty prevention’ (Table 7 Appendix). Accordingly, an additional question was asked in Round 2 to establish consensus on the language typically used in the field (Muldoon & Williams under review). In response to the question asking professionals to define ‘cruelty’, some viewed any kind of harm as cruelty regardless of intent, underlying cause, or cultural norms. Others (especially those working more internationally) emphasised differences in the ways animals are viewed in various parts of the world or sub-groups of society. Some described discomfort using the label ‘cruel’ or ‘cruelty’, particularly if harm is caused through lack of knowledge, awareness or capacity. Concern was expressed about the implications; how it might reflect underlying assumptions about the people an intervention is targeting, translating into practice with detrimental effects. Several participants felt deliberate cruelty was actually rare; that harm caused unintentionally was far more common and the reasons behind it complex and nuanced, as Amanda explained:

“I worked with many children with facial bites from dogs. Some had endured multiple surgeries, and most were now fearful of dogs. In a few cases, these children had become more forceful with dogs, likely because of their fears. These were not children who were deliberately harmful to animals, nor were their parents aware of the miscommunication with the animals or with animal body language. They were everyday kids who crowded, hugged, trapped, or otherwise intruded on an animal to the point where the animal felt the need to defend him/herself.” (Amanda)

Other practitioners felt the word cruelty would be viewed by the public in a narrow sense, to refer to the worst kinds of malicious treatment, and, as Louise highlighted, might fail to draw attention to the wide and varied nature of different forms of harm caused to animals:

“The word cruelty is in some ways a loaded word.. think Cruella de Vil for example. In the same way that the language of "Domestic Violence" was detrimental to the wider public understanding and identification of the range of domestic abuse, I feel the term cruelty could have a tendency to close people's minds to deliberate acts/malicious acts of physical or emotional distress, such as forceful behaviour that doesn't involve physical violence. Yet there are a wide range of ways that we may intentionally or accidentally cause our animals distress or harm, which is avoidable” (Louise Round 2)

Concern was expressed about children who have caused severe harm to animals, and recognition that this needs to be understood as a risk factor and the child not stigmatised but instead supported:

“We need to raise awareness across the professions, and with the public, about the significance of cruelty behaviour towards animals. Such behaviour needs to be understood and addressed. A child exhibiting such behaviours is a child in need.” (Alexandra Round 2)

In Round 2, 85% of the practitioners agreed that there were differing views on both (a) what is meant by cruelty prevention and (b) the constituents of AWE. Although no consensus was reached on whether AWE and cruelty prevention are synonymous, 65% of participants disagreed. Only five participants believed they were the same thing. This suggests that most draw a strong distinction, as the following quotations vividly illustrate:

“The term animal welfare education projects a positive education process. The term cruelty prevention suggests negative/judgemental connotations.” (Anne Round 2).

“I’m having a problem with animal welfare education and cruelty prevention being rolled together as if they are one thing. They are not and my answers would be different for the 2 different categories. Animal welfare education [should target] all children - staged education from pre-school onwards to build an understanding about the relevance of animal lives and how animals should be treated. Cruelty prevention [should be] more targeted at vulnerable groups.” (Paula)

It was interesting to note that while the majority of participants engaged with the questions that asked them to reflect on definitions and causes of cruelty and explain if and why ‘cruelty prevention’ is important, two of the participants who were working internationally rejected the use of these terms outright. Their arguments are compelling.

“I accept that any form of deliberate abuse or neglect, whether deliberate or through ignorance is cruelty, but am not comfortable in certain situations using the term cruelty. This relates to my working experience in developing countries. The terms cruelty and cruelty prevention tend to be regarded as offensive and judgemental. When developing our education programme in Asia, careful consideration was given to terminology, which is why we decided to use Caring for Life Education, using an holistic approach based on the UNESCO Four Pillars of Education - one of these pillars being Learning to Live Together (relevant to the well-being of humans, animals and the environment).” (Anne Round 2)

“Perhaps we need a whole different vocabulary that reflects the modern perspective on animal welfare that places an emphasis on promoting positive welfare, not preventing negative welfare.” (Jonathan Round 2)

It may well be those who have worked with more vulnerable groups or people who have harmed animals as a result of their own distress or lack of awareness, knowledge or respect for animals that is evident in their own cultural environment, who recognise both the significance of ‘labelling’ and question whether children in these circumstances could ever be described as ‘cruel’. However, almost half of the sample was uncomfortable with the term ‘cruelty prevention’ even if their discomfort was not articulated in the free response boxes. There was also wider recognition among those working internationally that adopting a broader framework and focusing on ‘positive education’ would help to garner support from others: *“I prefer the term humane education which embraces human and animal welfare and environment protection. It is a One Health One Welfare approach which I think will get more support and engagement”* (Alexandra Round 2). This is particularly pertinent when considering how to engage with teachers and educationalists.

Discussion

Our study has drawn attention to the highly nuanced and complex nature of animal welfare education and cruelty prevention. It has also highlighted the passion of those working in this field and the considerable potential they ascribe to AWE in terms of enhancing children’s and animals’ lives. However, the current lack of evidence relating to the impact of interventions and tensions around the terminology used in the field pose a significant challenge to progression of the field. If policy makers and education professionals are to be persuaded of the value of including animal welfare education or human-animal interaction in their curricula, a sound rationale and evidence base are essential. There are various issues to address to ensure that AW educators’ assets, and the very essence of what they do, are not lost as we move into an era of economic instability.

First, it is essential that AW educators are able to communicate clearly and in detail the purpose and goals of their interventions, and demonstrate how they work in order to achieve them. It may be that the activities being undertaken are out of sync with the ultimate goals. An obvious first step is to scrutinise existing practice in light of the findings from the study, especially with regard to identifying (a) what has not worked and (b) how the activities children participate in are expected to result in the changes practitioners want to see. Thus far, the predominant emphasis of AWE has been the enhancement of knowledge, but our study has shown that practitioners are more interested in seeing behavioural change and children taking responsibility; understanding what to do and taking action. Accordingly, there needs to be a stronger focus in interventions on equipping children with these mindsets and behavioural skills.

It is important to establish a strong outcomes framework, recognising that some types of knowledge and behaviour are more likely than others to be amenable to change (Boyes & Stanisstreet 2012; Jensen 2002). How to handle an animal appropriately, accurately read their behavioural signals, intervene safely when an animal appears to be suffering, and recognise when to leave an animal alone, are all important for children to take action in different situations. Furthermore, if we want children to make decisions in the future that positively impact animals in the food industry, farming, and science, we need to be educating young people about how this looks at present, how they might understand and evaluate best practice, and how they might exert an influence and make informed choices. New measurement tools may be required to reflect this emphasis on behaviours, skills, responsibility, and empowerment. The literature relating to environmental education in schools and the concept of ‘action competence’ (Jensen 2002 p 329) may prove useful here.

Curriculum-blended humane education programmes have started to be developed in the United States, and this had led to the suggestion that for these to be successful and the mainstay of AWE in the future, humane educators should redirect their focus away from intervening with school children to engaging with pre-service teachers (Chun Zung & Zhou 2020). Working in partnership with school teachers seems an important next step. Whether or not animal welfare is formally incorporated into school curricula, teachers' knowledge of curriculum development, classroom behaviour, effective teaching methods, and how to create materials for different age groups would be invaluable to animal welfare organisations. It would also open up discussion about where in the curriculum AW might be successfully introduced, and how the expertise of AW professionals could be drawn upon for best effect. In UK primary schools especially, while teachers are recognised experts in pedagogy and teaching, they are not necessarily 'experts' in any of the subjects they teach. They rely on good quality sources of information, resources, and training, adapting content or methods to the specific needs of members of their class. Animal welfare professionals have a strong sense of the bigger picture, the variety of roles that animals play in people's lives, and the wider implications of not helping others to understand animals better. As evidence is accumulating (Longobardi & Badenes-Ribera 2019), many are also acutely aware of the link between animal abuse and human-directed aggression. It is imperative that this understanding is shared with school teachers, ensuring they are prepared for the possibility of children disclosing information about harm caused to animals in their homes (Faver 2010).

Much of UK formal education is moving towards recognition of the significance of skills and acknowledging diversity, so children are increasingly being taught how to recognise/name their own emotions or those of others, and to appreciate different perspectives, life

experiences, religious and cultural backgrounds (Education Scotland 2020; Lavis & Robson 2015). An approach to animal welfare education that is broad and links to these emphases in schools, perhaps through the lens of ‘compassion’ initially, seems important. To engage educational policy makers and teachers, a strong framework/model is required to demonstrate exactly how each aspect of an educational programme links to specific changes, and how these are reinforced and assessed (Hernandez 2000; Kekahio *et al* 2014; Morgan-Trimmer *et al* 2018; WK Kellogg Foundation 2004). With young children, a focus on care and compassion may be optimal: ‘caring for life’ and being ‘guardians of the earth’ (Rule & Zhbanova 2014). Later on, AWE and human-animal interaction might be usefully incorporated within environmental science and ‘learning for sustainability’, exploring values and beliefs within moral education, or recognising protective and harmful effects in the context of health and wellbeing. Building on recent widespread involvement in youth environmental activism (Walker 2017), it is also worthwhile exploring how to engage children and young people in the process of co-developing future animal welfare interventions and school-based content.

One Health and *One Welfare* are international frameworks devised to improve both animal welfare and human wellbeing, “recognising that animal welfare, biodiversity, & the environment are connected to human wellbeing” (One Welfare 2020). In this sense, Covid-19 provides us with an opportunity that should not be missed – a prime example of this interconnection and the far-reaching consequences that can result from the inhumane treatment of animals. If an approach is embedded within a broader humanistic, environmental or social justice framework, it will be easier to make the case that AWE is important (Arbour, Signal & Taylor 2009; Chun Fung & Zhou 2020) and see the wealth of opportunities to introduce it within education. Some new terminology to reflect the fact that this form of

education is not simply to educate children about basic welfare needs may well prove to be highly beneficial. The data strongly suggest that now is the time to move away from the language of ‘cruelty’; replacing all references with ‘harm’. Adopting an educational focus that is positive, holistic, and action-oriented is likely to be the most successful way of ensuring optimal reciprocal relationships between humans, animals and the environment.

Limitations

The Delphi technique proved to be highly successful in identifying consensus among AWE professionals. However, the limited evidence base undoubtedly made it difficult to answer certain questions with confidence. This was also noted by Rioja-Lang *et al* (2020) in their Delphi study identifying top priority welfare issues of managed animals in the UK. However, areas where consensus was not achieved are not just due to lack of empirical evidence. They can indicate tensions within the field. The qualitative nature of our first Round enabled in-depth exploration of issues that invoked different responses and highlighted problems with terminology/definitions, so we were able to add further questions to shed light on this.

Although ideally we would have distinguished between AWE and cruelty prevention throughout, this would have relied on us making possibly false distinctions based on our perceptions rather than those of experts in the field. We would also have asked further questions with respect to interventions currently underway (ie whether specific programmes were being evaluated and how, and questions concerning content and pedagogy). The survey was already lengthy and we prioritised accessing views across all elements, rather than details associated with specific programmes or organisational goals. The findings highlight the types of support that are likely to prove most beneficial. Hence, rather than mapping current provision, the Delphi technique has equipped us with the information required to produce a

guide and toolkit geared specifically to the needs of those working in the field (this can be found in the supplementary materials). Finally, although some of our participants were based outside the UK and three had worked in Asia and Africa, our findings reflect a mainly UK based perspective. Accordingly, they may not generalise to animal welfare education in other countries.

Conclusion & animal welfare implications

It is essential that AWE professionals identify, air and resolve tensions in the field in order to enhance collaboration and maximise effectiveness. This process is critical if they are to achieve the important shared goal of persuading educationalists to include this topic in school curricula. We have identified key areas that should be the foci of initial discussion and resolution and recommend working in partnership with teachers. Researchers can provide guidance on the process of evaluation and analysis, but may also support the future development of AWE through examination of teachers' views, and the development of measures that capture the type of behaviours and skills AWE professionals want to promote. At the heart of this work is the need for animal welfare educators to develop a common language and a strong outcomes framework to ensure the work being undertaken passionately to protect animals and children from harm is successful. It is vital that their significant expertise and knowledge is harnessed to inspire and equip the young to care for the world around them.

References

Arbour R, Signal T & Taylor N 2009 Teaching kindness: The promise of humane education. *Society & Animals*, 17: 136-148. <https://doi.org/10.1163/156853009X418073>

Arkow P 2006 “Old wine in a new bottle”: New strategies for humane education. In Fine AH (ed) *Handbook on Animal-Assisted Therapy*, 2nd Edition pp 425–451. Elsevier/Academic Press: London, UK.

Ascione FR 1997 Humane education research: Evaluating efforts to encourage children’s kindness and caring toward animals. *Genetic, Social, and General Psychology Monographs*, 123: 59-77. <https://www.researchgate.net/publication/289452372> Accessed 16/10/20.

Binfet JT and Kjellstrand Hartwig E 2020 *Canine-Assisted Interventions: A Comprehensive Guide to Credentialing Therapy Dog Teams*. Routledge: New York, US.

Borg C, Gericke N, Höglund HO & Bergman E 2012 The barriers encountered by teachers implementing education for sustainable development: Discipline bound differences and teaching traditions. *Research in Science and Technological Education* 30(2): 185-207. <https://doi.org/10.1080/02635143.2012.699891>

Boyes E and Stanisstreet M 2012 Environmental Education for behaviour change: Which actions should be targeted? *International Journal of Science Education* 34(10): 1591-1614. <https://doi.org/10.1080/09500693.2011.584079>

Chun Zung S and Zhou S 2020 An investigation of pre-service teachers’ attitudes toward animals and empathy toward humans: Implications for Humane Education development. *Anthrozoös* 33(3): 415-426. <https://doi.org/10.1080/08927936.2020.1746531>

Coleman GJ, Hall MJ & Hay M 2008 An evaluation of a pet ownership education program for school children *Anthrozoös*, 21: 271-284. <https://doi.org/10.2752/175303708X332071>

Education Scotland 2020 *The Compassionate and Connected Classroom Curricula Resource* (A National Improvement Hub resource). <https://education.gov.scot/improvement/learning-resources/compassionate-and-connected-classroom> Accessed 16/10/20.

- Farm Animal Welfare Council** 1990 *Farm Animal Welfare in Great Britain: Past, Present and Future*. Farm Animal Welfare Council: London, UK. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/319292/Farm_Animal_Welfare_in_Great_Britain_-_Past_Present_and_Future.pdf Accessed 16/10/20.
- Faver C A** 2010 School-based humane education as a strategy to prevent violence: Review and recommendations. *Children and Youth Services Review*, 32: 365-370.
<https://doi.org/10.1016/j.chidyouth.2009.10.006>
- Fonseca MJ, Franco NH, Brosseron F, Tavares F, Olsson IAS & Borlido-Santos J** 2011. Children's attitudes towards animals: Evidence from the RODENTIA project. *Journal of Biological Education*, 45(3), 121–128. <https://doi.org/10.1080/00219266.2011.576259>
- García Pinillos R, Appleby M, Manteca X, Scott-Park F, Smith C & Velarde A** 2016 One Welfare – a platform for improving human and animal welfare. *Veterinary Record* (October): 412-413 <https://www.onewelfareworld.org/> Accessed 16/10/20.
- Hawkins RD, Mendes Ferreira GAR & Williams JM** 2019 The development and evaluation of 'farm animal welfare': An educational computer game for children. *Animals*, 9(3). <https://doi.org/10.3390/ani9030091>
- Hawkins R, Williams J & Scottish Society for the Prevention of Cruelty to Animals (SSPCA)** 2017 Assessing effectiveness of a nonhuman animal welfare education program for primary school children. *Journal of Applied Animal Welfare Science* 20(3): 240-256. <https://doi.org/10.1080/10888705.2017.1305272>
- Hernandez M** 2000 Using logic models and Program Theory to build outcome accountability. *Education and Treatment of Children* 23(1): 24-40.
www.jstor.org/stable/42899601.
- International Association of Human-Animal Interaction Organizations (IAHAIO)** 2014 Definitions for Animal-Assisted Intervention and Guidelines for Wellness of Animals

Involved in AAI. <https://iahaio.org/best-practice/white-paper-on-animal-assisted-interventions/>

Jensen BB 2002 Knowledge, action and pro-environmental behaviour. *Environmental Education Research*, 8(3): 325-334. <https://doi.org/10.1080/13504620220145474>

Keeney S, Hasson F & McKenna H 2011 *The Delphi Technique in Nursing and Health Research*. Wiley-Blackwell Publishing: Chichester, UK

Kekahio W, Cicchinelli L, Lawton B & Brandon PR 2014 Logic models: A tool for effective program planning, collaboration, and monitoring (REL 2014–025). Washington DC: US Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Pacific. <http://ies.ed.gov/ncee/edlabs>. Accessed 16/10/20.

Lasen M, Skamp K & Simoncini K 2017 Teacher perceptions and self-reported practices of education for sustainability in the early years of primary school: An Australian case study. *International Journal of Early Childhood* 49(3): 391-410. <https://doi.org/10.1007/s13158-017-0200-x>

Lavis P and Robson C 2015 *Promoting children and young people's emotional health and wellbeing: A whole school and college approach*. PHE publications gateway number: 2014825. Public Health England. London, UK. <https://www.gov.uk/government/publications/promoting-children-and-young-peoples-emotional-health-and-wellbeing>
Accessed 16/10/20.

Longobardi L and Badenes-Ribera L 2019 The relationship between animal cruelty in children and adolescent and interpersonal violence: A systematic review. *Aggression and Violent Behavior* 46: 201-211. <https://doi.org/10.1016/j.avb.2018.09.001>

Mariti C, Papi F, Mengoli M, Moretti G, Martelli F & Gazzano A 2011 Improvement in children's humaneness toward nonhuman animals through a project of educational

- anthrozoology. *Journal of Veterinary Behavior: Clinical Applications and Research*, 6, 12-20. <https://doi.org/10.1016/j.jveb.2010.07.003>
- Monroe MC, Plate RR, Oxarart A, Bowers A & Chaves WA** 2019 Identifying effective climate change education strategies: a systematic review of the research. *Environmental Education Research*, 25(6): 791-812. <https://doi.org/10.1080/13504622.2017.1360842>
- Monsalve S, Ferreira F & Garcia R** 2017 The connection between animal abuse and interpersonal violence: A review from the veterinary perspective. *Research in Veterinary Science* 114:18-26. <https://doi.org/10.1016/j.rvsc.2017.02.025>
- Morgan-Trimmer S, Smith J, Warmoth K & Abraham C** 2018 *Introduction to Logic Models*. Public Health England Guidance on Evaluation in Health and Wellbeing. PHE publication gateway reference 2017649. <https://www.gov.uk/government/publications/evaluation-in-health-and-well-being-overview/introduction-to-logic-models> Accessed 16/10/20.
- Muldoon JC and Williams JM** under review Establishing consensus on the best ways to educate children about animal welfare and prevent harm: an online Delphi study. *Animal Welfare*.
- Nicoll K, Trifone C & Samuels WE** 2008 An in-class, humane education program can improve young students' attitudes toward animals. *Society & Animals* 16(1), 45–60. <https://doi.org/10.1163/156853008X269881>
- One Health Initiative Task Force** 2008 *One Health: A New Professional Imperative*. American Veterinary Medical Association. https://www.avma.org/sites/default/files/resources/onehealth_final.pdf Accessed 16/10/20.
- One Welfare** 2020 <https://www.onewelfareworld.org/> Accessed 16/10/20.
- Ratschen E and Sheldon TA** 2019 Elephant in the room: animal-assisted interventions. *BMJ* 367: 16260. <https://doi.org/10.1136/bmj.16260>

Rioja-Lang F, Bacon H, Connor M & Dwyer CM 2020 Prioritisation of animal welfare issues in the UK using expert consensus. *Veterinary Record* Published Online

First 05/7/20. <http://dx.doi.org/10.1136/vr.105964>

RSPCA 2018 *Building a kinder generation: How the RSPCA will educate the adults of tomorrow to tackle the animal welfare crisis of today*. RSPCA: Horsham, West Sussex,

UK. <https://www.rspca.org.uk/documents/1494939/7712578/Prevention+report.pdf/eae6c8c9-758a-ccdc-f69c-66c0bc6ffb1a?t=1555596722243> Accessed 16/10/20.

Rule AC and Zhbanova KS 2014 Guardians of the earth: Teaching children to care for all

living things. In Renck Jalongo M (ed) *Teaching Compassion: Humane Education in Early Childhood. Educating the Young Child (Advances in Theory and Research, Implications for Practice)* Volume 8. Springer: Dordrecht, Holland.

<https://doi.org/10.1007/978-94-007-6922-9>

Samuels WE 2018. Nurturing kindness naturally: A humane education program's effect on the prosocial behavior of first and second graders across China. *International Journal of Educational Research*, 91: 49-64. <https://doi.org/10.1016/j.ijer.2018.08.001>

<https://doi.org/10.1016/j.ijer.2018.08.001>

Samuels WE, Meers LL & Normando S 2016 Improving upper elementary students' humane attitudes and prosocial behaviors through an in-class humane education program. *Anthrozoos* 29(4): 597-610. <https://doi.org/10.1080/08927936.2016.1228751>

<https://doi.org/10.1080/08927936.2016.1228751>

Society for Companion Animal Studies 2019 Animal-Assisted Interventions: SCAS Code of Practice for the UK [http://www.scas.org.uk/wp-content/uploads/2019/08/SCAS-AAI-](http://www.scas.org.uk/wp-content/uploads/2019/08/SCAS-AAI-Code-of-Practice-August-2019.pdf)

[Code-of-Practice-August-2019.pdf](http://www.scas.org.uk/wp-content/uploads/2019/08/SCAS-AAI-Code-of-Practice-August-2019.pdf) Accessed 16/10/20.

Sumsion T 1998 The Delphi Technique: An adaptive research tool. *British Journal of Occupational Therapy* 61(4): 153-156. <https://doi.org/10.1177/030802269806100403>

<https://doi.org/10.1177/030802269806100403>

Walker C 2017 Embodying ‘the Next Generation’: children’s everyday environmental activism in India and England. *Contemporary Social Science* 12(1-2): 13-26.

<https://doi.org/10.1080/21582041.2017.1325922>

WK Kellogg Foundation 2004 *Logic Model Development Guide: Using Logic Models to Bring Together Planning, Evaluation, and Action*. WK Kellogg Foundation: Michigan,

US. [https://www.wkkf.org/resource-directory/resources/2004/01/logic-model-](https://www.wkkf.org/resource-directory/resources/2004/01/logic-model-development-guide)

[development-guide](https://www.wkkf.org/resource-directory/resources/2004/01/logic-model-development-guide) Accessed 16/10/20.

Appendix

Table 1: The significance of animal welfare education for children and young people (example responses to Round 1 question concerning why AWE is important)

Theme	Quotation	Anonymised ID
Focus on benefits for animals/animal welfare	It is the most important thing that we can do in society today - this is why our charity set up and it is something I feel has been swept under the carpet for far too long as it is a subject that people are worried about bringing up or discussing. Changing how we treat animals starts with our children	22
	It's extremely important if they can learn from a young age to care for and respect animals. It's also easier if they understand this whilst growing up as that way it becomes their social norm and so they hopefully know it's just the right thing to do	7
	Teaching children animal welfare is extremely important if we wish the next generation to treat animals in their homes and communities with kindness, compassion and to provide animals in their care with the five welfare needs	20
Developing compassion/empathy	I think it's an essential part of learning to be a 'compassionate, responsible citizen'	15
	Very. I feel if they can show compassion and empathy to animals, they will be able to show more compassion in general. It also teaches respect and understanding for other living, sentient beings and consideration of their needs	6
	It would contribute to the development of vital life skills, including empathy and compassion for other sentient beings, which naturally extends to how they should interact with members of their own species!	4
Interrelationships between people, animals & environment	There is an increasing awareness that animal welfare, public health human wellbeing and the environment are intrinsically linked, so all children should be taught empathy and compassion through animal welfare as part of their education	2
	Working in China, we find that animal welfare is largely an unknown concept and the term 'animal welfare' has no comparative translation, therefore it is either misinterpreted or viewed as a 'luxury' of western cultures. Teaching animal welfare in China (as in many other Asian countries) it is best approached from a holistic angle i.e. the well-being of human, animals and the environment	9
	Teaching animal welfare gives children an understanding of how to care for and respect animals, improving their knowledge of the species that share our world and giving them greater concern for the environmental crisis that we all are facing.	4
Focus on skills	Skills in meeting and greeting (and subsequently interacting with) an animal properly, by using consent or willingness testing, allowing animal to approach, no tugging on ropes or leashes, no force-oriented equipment, etc.	8
	In my direct clinical work with children (and adults) where animals are involved, I always teach about body language, appropriate handling, etc. It does not take long to do so, and it is exceedingly important in my opinion. I believe that animal welfare education is important to remove the unintentional cruelty that may occur with young children but in many cases the root cause is not a lack of understanding but a redirecting of their own feelings / experiences and this also needs to be treated	23

Table 2: The significance of cruelty prevention for children and young people (example responses to Round 1 question concerning why it is important to intervene to prevent cruelty)

Theme	Quotation	Anonymised ID
Focus on preventing escalation of cruelty and understanding the individual	This is essential. Such behaviour can escalate and can lead to an abusive adult and criminality if not addressed	12
	Cruelty can occur in many contexts and for many reasons, and the intervention must be tailored to the individual context in order for it to be effective and prevent future incidents. It may simply be a question of ignorance and 'myth busting' or it may be a much more in depth approach to addressing the situation of the individual, and how the incident arose. Intervention is put in place only when an incident has occurred, or the risk of an incident has been detected. In these cases, intervention should really include (but not be limited to) the re-education of the young person, and the re-connection of them with compassion for other sentient beings. In our experience, empathy is not necessarily absent from a young person who has been involved in an animal cruelty incident. Their own empathy can be used to enable them to understand the consequences of their actions, and to appreciate what the animal experienced as a result	2
	Vitally important, without intervention and understanding how will it stop	19
Prevention/early intervention should be the priority	Prevention is always better than cure, to create interventions to teach children the consequences of their actions to animals and others will help in the long term. This is vital	24
	Prevention should be our priority - the focus and available resources are still too heavily weighted toward the alleviation of suffering and the prosecution of cruelty	1
	Very important. The [AW organisation] launched its First Strike Campaign back in 1997 which focused on the parallels between child abuse and animal abuse. This subsequently involved a Pilot Project ... that had a core aim to promote improved reporting of animal welfare cases, to the right people. Since this campaign was launched the Links Group continued its work in particular focusing on vets recognition of non-accidental injuries in animals as a first indicator that something may be wrong in a household and may need further investigation. A lot of work both in the US and in the UK is going on when it comes to the links between animal cruelty and human violence Many of the cases we see could be prevented if intervention had occurred at an early stage both through preventative education programmes in schools but also an awareness of positive animal welfare amongst the general public	25
Focus on knowledge/ challenging myths	Extremely important, even if it's just being able to challenge those myths such as 'cats have 9 lives'. I feel a large part of animal cruelty takes place due to lack of understanding of their needs	4
	The intervention must be tailored to the individual context in order for it to be effective and prevent future incidents. It may simply be a question of ignorance and 'myth busting'	2
	I think the intervention is hugely important. If we can address any misconceptions and make children aware that animals are sentient beings from an early age then the number of animal cruelty cases should decrease over time	14
Important to end suffering	If unnecessary suffering is being caused to any sentient being then it is of course important to intervene to address that immediate need. Let's be clear though, such an intervention is for the benefit of that who is suffering, and does not necessarily have any educational value for the one causing the suffering. There are problems with any intervention that is delivered in anticipation of a future negative behaviour. I believe that interventions intended to promote prosocial behaviours (rather than prevent antisocial behaviours) can be hugely valuable	3
	Extremely so. Animals are sentient beings who deserve kind treatment. This is for the animals' sake, of course, but also for the sake of children (and adults/parents) to learn how to be kind to others, to pay attention to others' reactions, and to thereby develop their empathy better (to see things from the other's perspective and then to act accordingly to respect it). So, this has multiple advantages - for the animals, of course, but also for the humans who can develop more satisfying relationships with their animals and prevent dangerous situations from occurring to either the animals or the family members. It also has advantage in the general public, as there are just so many who simply do not see when they are intruding or being unkind	8
	Extremely important because it helps communities to discover not only where animals are suffering but also where families and children are suffering. Helping animals helps communities identify problems and may prevent other forms of violence and abuse	17
Advantages for humans & morality	Our charity's mission statement is to 'connect people with nature', with the goal of getting the public to care about the future of animals as individuals and as species. Appreciation of animal welfare is an important aspect of this mission	26
	While this depends on the type of cruelty, I think intervention is key - whether it's part of active learning as part of early years development to understand a simple moral position around how we treat animals, or a more complex moral or ethical intervention later on	15
	Helps children to understand right from wrong and to intervene when they see cruelty by someone else	27

Table 5: The main changes practitioners would like to see in children/young people as a result of participating in an intervention (example responses from Round 1)

Theme	Quotation	Anonymised ID
Improved knowledge/ of animal welfare needs/issues	Learners can give examples of how to care for specific animals and explain. Children provide their pets with the five welfare needs	20
	A greater awareness and understanding of an animal's needs, and recognition of when they may be suffering and how to prevent suffering	6
	The recognition that 'loving animals' isn't enough to be able to give them a positive life. You need to know more about what they need and how they behave	2
Greater recognition of animal sentience	An understanding that animals are sentient and feel pain	4
	Understanding that animals have feelings just as we do	14
	An appreciation of animals as sentient beings	13
Improved skills to identify animal signals/poor welfare	I would like to see children able to identify poor welfare and cruelty	17
	Recognise when an animal is suffering and react accordingly	23
	To understand how to help an animal when it is not happy. How can they change their behaviour to help the animal?	10
Improved empathy/compassion towards animals	Being more empathic towards animals	22
	Increased motivation for compassionate behaviour and to learn more	3
	Children treat their own pets and other animals they encounter with compassion and empathy	20
Improved empathy towards others	Become kinder and more considerate to their classmates, through interactive lessons and role play help to bring senses and emotions in focus	9
	Improved pro social skills, reduction in aggressive or violent behaviour	12
	Increase in empathy towards others (i.e. in the school, reduction in bullying etc)	15
Greater recognition of responsibility & own impact	Children should be able to identify where they can go for help and know that the help will not fail them and there will be protection for them	17
	Increased power to exhibit compassionate behaviour	3
	The recognition that animal welfare is everyone's responsibility, including themselves, and that they do have the power to make better choices for animals	2
More respectful attitudes	A respect for all living things even if they are not perceived as positive in human terms	1
	Children will understand that humans, animals and the environment are all interlinked, all with specific needs relating to care and respect for all	9
	Change in attitudes as children see animals as "people" and not objects	18
Sustained behavioural change/action	Actual behaviour change that is sustained	5
	Adoption of a sustainable lifestyle that reduces the impact on global biodiversity	26
	The knowledge that they can themselves challenge the behaviour of others, to encourage them to make more positive choices for animals	2

Table 6: Gaps in provision identified by participants (example responses from Round 1) (Relevant to long-term goals, current state of AWE and challenges for the future)

Theme	Quotation	Anonymised ID
Animal welfare/cruelty prevention not recognised as important	It is not "in your face enough". There needs to be adverts, posters and education talks everywhere and available to everyone in every school and every community centre	24
	Pets need to be regarded more realistically and respectfully. Wildlife needs to be protected from inhumane capture and killing. Emphasizing correct and humane killing on farms and when hunting should be done for older children. Emphasizing that animals do feel pain and just because they are not vocalizing out loud does not mean that they do not need veterinary care	17
	I think there is a lack of consistency regarding who is receiving education (only students with teachers keen on animal welfare), which stems from lack of animal welfare education in the curriculum, lack of program or intervention assessment to determine if program is meeting goals it has identified, lack of understanding about animal cruelty and the importance of interventions	16
Should be embedded within national curricula	It should be part of the national curricula of a nation to demonstrate it is considered valuable and important by all of society	1
	I believe animal welfare education should be covered as part of the wider curriculum, so that children in schools who don't receive workshops or intervention (for whatever reason) are given the opportunity to learn	28
	We also know that despite the significant work of animal welfare charities, we simply aren't reaching every child, even within the primary sector, when ideally, animal welfare education should run as a thread throughout a child's years at school	15
Teenagers/secondary school age	Personally, I think that there should be more work with teenagers, but it is hard to target these groups with constraints of GDPR and with the lack of time teachers have. I also think focussing on impact rather than just numbers reached should be most effective	4
	It would be great to do more targeted work with older children/younger adults. PARENTS! I really feel that this is a huge gap. Whilst all the good work may be happening with the child who has been referred to the programme, the parent, who is ultimately responsible may still not understand what is required to keep an animal happy and healthy. In several incidences the parent has allowed the suffering to happen, although this is not always the case	21
	Work experience and apprenticeships for young people to trigger their interest and understanding of animal care	29
At risk/vulnerable groups	We need to target the vulnerable groups as previously stated. There is a great unmet need for this within YOIs and prisons. It is also clear to me that this should be a core topic for children of all ages	12
	Dog fighting rings who are deliberately cruel - how can we tackle the young people who are at risk of being influenced	27
	We know that there are gaps such as prison inmates	26
Lack of skills based education	Understanding animal communication in a meaningful way and understanding things like hugging a dog can be unpleasant and sometimes frightening for the dog. Particularly in young children statistic shows they are most at risk of being bitten ... therefore this type of accidental 'cruelty' can lead to dog bites. Understanding animal communication and what is mutually enjoyable to the animal is imperative for the animal's welfare and child's safety.	10
	There is a lack of proper consideration for the importance of affective learning. Animal welfare is too often perceived as a science subject	3
	Lack of hands-on education and skills for interacting with animals. Too much "teaching" or "preaching" and not enough playfulness or use of expressive intervention and education approaches. Lack of appropriate involvement of live animals at the right time in the process. It's just not geared for transfer of skills, at least what I have seen	8

Table 7: Participants definitions of cruelty & reflections (example responses from Round 1)

Theme	Quotation	Anonymised ID
Unnecessary harm/ suffering, intentional or unintentional	Cruelty to animals is intentionally, or unintentionally, causing suffering to an animal	20
	Cruelty to animals can take many forms from deliberately inflicted pain, suffering and torture to neglect and failure to meet their basic needs and the Five Freedoms. People may inadvertently be cruel to animals by 'killing them with kindness' i.e. feeding them too much to the detriment of their health. They may also leave them alone and unattended for long periods of time and not seek veterinary treatment when required. Cruelty can also involve not allowing an animal to express it's natural behaviour e.g. captive animals, animals exploited for entertainment and not allowed to exhibit natural behaviours	6
	Causing an animal to suffer pain and distress, mental or physical through acts that are intentional or unintentional	19
Deliberate/ intentional harm	An act, or a failure to act, that knowingly results in an animal experiencing 'unjustifiable suffering'?	2
	To me, cruelty is intentional harm of another sentient creature, with no regard for their wellbeing, either by direct, or indirect action	15
	Causing pain, suffering, distress or lasting harm through deliberate direct actions or deliberately failing to take action	11
Cruelty is different to neglect	Cruelty can occur because of ignorance and/or malice. Neglect can occur because of ignorance, lack of resources. Neglect can be less aggressive than cruelty and is not necessarily malicious. Intentional harm, neglect or mistreatment of an animal	28
	Cruelty is separate from neglect. Cruelty is the threat or action of causing physical and mental harm and abuse. Cruelty is causing intentional suffering through withholding of food, water, shelter and social interaction	17
	I would align my definition with that of Frank Ascione's (1993): A socially unacceptable behaviour that intentionally causes unnecessary pain or suffering to an animal. I recognize that other common definitions of cruelty include both intentional and unintentional actions. Although unintentional actions (neglect) may cause suffering, I believe that neglect is different from cruelty even though both scenarios can cause suffering to an animal	16
Defining cruelty is difficult/undesirable	The term 'cruelty' is used in many different ways and is interpreted and defined differently by different individuals, depending upon their background and upbringing, experience, culture, religious beliefs (if any), education and whether they align themselves with any particular moral philosophy... the term 'unnecessary suffering' will be open to interpretation. It will depend on the context of the incident and the species (& possibly breed) of the animal. To some, there would be many interpretations of 'unnecessary suffering'. Take the example of chicken farming - some would argue that the 'battery' system causes unnecessary suffering, but would be OK with other intensive rearing practices. Others may consider ALL chicken farming to cause 'unnecessary suffering' as humans can obtain their dietary protein without using animals at all. It's hugely frustrating to pinpoint the issue to a distinct 'black or white' answer	2
	Any negative impact on the wellbeing of animals caused by a human behaviour. However this is an extremely nuanced subject in which the term could be applied to differing contexts and result in differing meanings	5
	I have an immediate problem with this question. [Our] education programmes are founded on the principles of humane pedagogy which seeks to promote prosocial behaviours, not prevent cruelty. Approaching this subject from a 'prevent cruelty' perspective has an inherent judgement at its heart which is against the basic principles of humane pedagogy. It potentially has a wide variety of negative consequences	3