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Canicross Pilot Programme: Basic Considerations for Its Implementation as an Extracurricular Sports Activity

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Abstract: Canicross is a sport that consists of running while being pulled by a dog in a natural environment. Due to the benefits to health and well-being that it brings to the people and dogs that practise it, this sport could be implemented as an animal-assisted intervention (AAI) in the educational field. Against this background, the present work describes a pilot experience carried out in an educational centre in the Basque Country for the implementation of canicross as an extracurricular sports activity. The main objective is to describe the educational potential of canicross as an extracurricular activity that fosters students' values of respect for animals and physical activity (PA) in natural environments. The results of this innovative experience provide the first evidence of the valuable role of animal activities in this educational context, where current academic research is practically non-existent. In conclusion, we highlight the novelty of the proposal and the motivating effect that the dogs in this case had among the students in encouraging them to practise PA and adhere to values of respect and animal welfare.

Keywords: canicross; physical activity; health; animal-assisted interventions; animal-assisted education; extracurricular sports activities; educational innovation

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1. Introduction

Canicross is a winter sport derived from mushing that consists of running while being pulled by a dog on a dirt surface or snow [1]. This sport began to develop in Europe through mushing events that were organised in Switzerland, arriving in Spain at the beginning of the 1990s and becoming even more popular after the year 2000 [2]. To practise canicross, it is necessary to have specific equipment, consisting of a belt and an elastic line, which connects the runner to the special harness worn by the dog [3].

In this sport, there is an interaction between humans and dogs (e.g., referred to as human–animal interaction, or HAI for short), which generates calming and healthy effects in both species as a result of oxytocin production [4]. In addition, dogs have the potential to increase people's motivation to carry out various activities, which positively affects the former's mental well-being and helps them manage negative emotions and other mental health problems, such as anxiety and depression [5]. Considering the exponential growth in animal ownership rates in our society, the influence of HAI in promoting people's health has now become an area of great interest for the scientific community [6], as well as education professionals, who have started to exhibit positive attitudes towards researching and implementing animal activities in education [7].

Currently, research related to canicross has focused on three fundamental issues. The first includes works regarding the health and welfare of dogs, where we can find most of the research. These studies address the stress and injuries that dogs may suffer in training and competitions [8], the characteristics of their canine physiology [9], and their physical

capabilities [3,10]. A second body of research is related to the adaptation of canicross for use with groups in vulnerable situations, such as people with intellectual disabilities [11] and young minors with attention deficit hyperactivity disorder (ADHD) [12]. Finally, there are two studies related to the profile of canicross practitioners and the conditioning factors to be considered in the practise of this sport [13,14].

In an attempt to approach this issue from another angle, a search for the scientific literature related to intervention programmes based on the practise of canicross in educational contexts has been carried out, but no research of this type has been found. Nevertheless, it should be noted that the use of dogs as a pedagogical resource is usually viewed positively by teachers, students, and their families because their presence helps improve the emotional environment in the classroom [15]. Canine interventions also bolster self-confidence and promote sensitivity and empathy towards animals and classmates [16]. In addition, interest in learning can also be stimulated in such environments, where group integration and cohesion are fostered and aggressive behaviour among students is reduced, which contributes significantly to improving learning conditions in the classroom [17]. Reports of recent experiences have shown that the introduction of companion dogs by teachers in the classroom improves the attention, motivation, mood, well-being, socio-emotional development, and cognitive development of students [18]. Improvements have also been achieved in students with behavioural and/or learning difficulties, such as students with autistic spectrum disorder [19]; behavioural problems [20,21]; or reading, language, and/or communication difficulties [22–25]. Benefits have also been observed in students with visual and/or auditory processing difficulties [26].

There are, therefore, numerous benefits to be achieved through animal-assisted interventions (AAIs) in educational settings, and it is, therefore, essential to ensure that the design, implementation, and development of these interventions are carried out by professional and qualified personnel [27,28]. In addition, the animal must be duly selected and remain under the supervision of a psychology or education professional who monitors the development of the intervention [29].

Based on this potential of AAI and considering that 81% of the current adolescent population worldwide is not physically active enough [30], it may be necessary to take advantage of the educational environment and launch initiatives that encourage the practise of physical activity (PA) through new sports modalities, both within educational centres and after class time is over [31]. In this sense, extracurricular sports activities can be understood as a very important educational tool to promote PA and sport as a means to achieve an active lifestyle, help prevent overweight [32], and improve student health [33,34], while simultaneously having positive effects on students' academic performance [35]. In other words, extracurricular activities can be viewed as an effective way to promote healthy sports habits [36] and improve the motor development [37] and social, emotional, and cognitive skills of schoolchildren [38], thereby opening up the possibility of integrating new proposals into the curriculum, such as the introduction of AAI.

In the Basque Country, current data on PA levels are in line with global trends, where a recent study shows significant differences ($p < 0.05$) in terms of the minutes of weekly sedentary behaviour presented by adolescents (613.59 ± 175.64) compared to children (498.84 ± 156.37) [39]. Such trends make it necessary to implement new strategies to motivate students [40]. In addition, policies that encourage the practise of PA, both recreationally and through sports and in natural open spaces and public parks, may be called for [41]. Indeed, it is currently one of the main priorities of the World Health Organization (WHO) to promote PA among adolescents and raise awareness about the benefits it has on their physical and mental health [42]. In line with this objective, one of the key strategic lines of the Basque Government is to achieve an active society through education, as reported in Decree 236/2015 of December 22 [43], through the 'Plan Heziberri 2020', which would allow educational centres to develop educational innovation projects to promote and facilitate the acquisition of healthy lifestyle habits among their students.

Likewise, and with the aim of improving their educational quality and increasing their autonomy, these centres have the opportunity to launch projects combining school hours with non-school educational periods through the innovation project entitled 'HEDATZE' [44]. However, in the existing proposals for extracurricular sports activities presented by the public educational centres of the Basque Country, canicross has not yet emerged.

For this reason, this study aims to contribute to illuminating the educational potential of canicross as a means of promoting the values of respect for animals and participation in PA in natural environments. In addition, and in view of the lack of previous such research, this work aims to present this sports modality with a view to its applicability in educational contexts as an extracurricular sports activity.

Due to the lack of previous research in this area, the experience that serves as the basis for this study was launched on a pilot basis. Consequently, this study represents one of the first steps in initiating further research into the educational potential of canicross, an area in which current academic research is virtually non-existent.

2. Materials and Methods

2.1. Context

Below, we present a pilot experience based on canicross, which was designed and implemented as an extracurricular sports activity in the education centre of Arrigorriaga, a municipality in Bizkaia belonging to the Basque Autonomous Community.

2.2. Participants and Networks of Collaborating Agents

In addition to the Arrigorriaga educational centre, where the proposal has been carried out, the main agents of this intervention were the University of Deusto (UD) and the School of Canine Education and its canicross club, Amarok Txakurkros (AMAROK). Other relevant agents included the Directorate of Physical Activity and Sport of the Basque Government through the Mugiment Initiative (MUGIMENT), the Sports Service of the Provincial Council of Bizkaia (DFB), the Bizkaia Federation of Winter Sports (FVDI), and the Arrigorriaga City Council and their sports association, AUSARTAK. In addition to these players, the shelters of APA SOS Bilbao and Weimaraner Rescue also collaborated on the initiative, as well as the Arkakuxo veterinary centre (ARKAKUXO) and two suppliers of sports equipment and canine food. The first of these was Non-Stop Dogwear (NON-STOP), the number one brand worldwide in sports equipment for practising mushing and canicross, and Muturtxu Osagarriak (MUTURTXU), a store specialising in natural food for dogs. All of these agents had no financial incentive to collaborate with the project.

As shown in Figure 1, the design and implementation of this educational intervention were conducted by a graduate from the Department of Physical Activity and Sports Sciences (CAFyD) from UD in coordination with the educational centre of Arrigorriaga and its city council. In addition, the participation of various agents was essential, such as AMAROK, an entity that collaborated through the participation of its canine educators and canicross sports teams (i.e., people and dogs). Thanks to a collaboration agreement between the DFB, NON-STOP, and the FVDI, 20 canicross kits were purchased to carry out the intervention. At the municipal level, in addition to the collaboration of the city council, the sports association AUSARTAK, with the aim of promoting the practise of canicross, provided sports equipment to the students who took part in the extracurricular activities, which specifically allowed them to participate in a popular canicross that was organised by the municipality for free. The participation of APA SOS Bilbao and Weimaraner Rescue was important for making the work of animal protectors visible and raising awareness among the participating students about animal abandonment and the responsibility that comes with having a dog. As a preventive measure to ensure the well-being of the participating dogs, ARKAKUXO carried out veterinary check-ups, and MUTURTXU provided their food. Lastly, through MUGIMENT's dissemination channels,

various actions were carried out to promote and disseminate the initiative through X (previously known as Twitter).

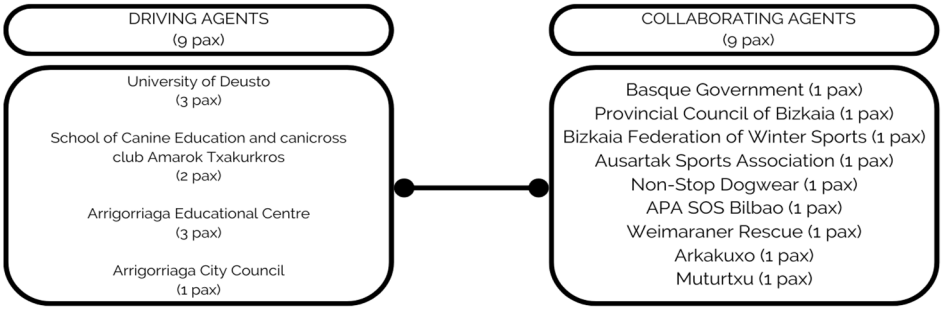

Figure 1. Network of main agents of the intervention and number of participants.

2.3. Programme Design

The proposal was implemented as a pilot experience in the academic year 2022–2023 thanks to the initiative of the Arrigorriaga educational centre to propose canicross as a new extracurricular sports activity and to include it within the HEDATZE project for non-school hours, as described above.

2.3.1. Goals

The main objective of this programme was to present canicross as a new sports modality with a view to its application in educational contexts as an extracurricular sports activity. The further intention was to contribute to a set of specific goals (EGs) among the participating students, which are detailed in Table 1.

Table 1. Specific goals.

Specific Goal No.	Description
EG1	Examine the benefits of physical sports activity when practised by students as a socialising and educational means of promoting their own active and healthy lifestyles.
EG2	Identify the technical sports characteristics of canicross and its determining factors through the active participation of students in a theoretical–practical proposal so that students can carry out a rigorous and responsible praxis.
EG3	Relate the different components of canine ethology with the benefits of practising canicross through the combination of audiovisual documentary support and direct participation of students with dogs so that they achieve critical awareness and respect for the canine world.
EG4	Practise canicross in the natural environment to encourage teamwork among students and ensure that they acquire an involvement and proactive attitude towards environmental conservation.
EG5	Raise awareness among students about animal abandonment and encourage adoption among them.
EG6	Promote students' initiation into canicross by providing the option of learning about this sport and its socialising and educational potential to promote their engagement in active and healthy lifestyles.

2.3.2. Contents

To guarantee compliance with the specific didactic objectives of the proposal, as presented above, the didactic contents were further specified, as detailed in Table 2.

Table 2. Didactic contents.

Contents	Specific Goal No. (EG)	Description
Conceptual	EG3	Canine ethology and benefits of canicross in dogs.
	EG3	Canine education and its relationship with canicross.
	EG2	Origin and technical sporting characteristics of canicross.
	EG1, EG6	Benefits of the physical sports practise of canicross on a physical, psychological, and social level.
	EG2	Sports regulations governing canicross.
	EG2, EG4	Canicross circuits.
Procedures	EG4	Teamwork.
	EG4	Cooperation.
	EG2, EG3	Collection and synthesis of information.
	EG4, EG6	Canicross practise.
		Canicross racing.
Attitude	EG3, EG5	Care and responsibility towards living beings.
	EG3, EG5	Empathy and respect towards animals.
	EG5	Awareness of animal abandonment and the adoption of dogs.
	EG4	Proactive and respectful attitude towards the environment.
	EG1, EG6	Awareness about self-care and personal well-being.
	EG4	Active, collaborative, and respectful participation.
	EG2, EG3	Responsibility towards the needs of the dog during sports practise.

2.3.3. Programme Development

Prior to the implementation of the theoretical–practical sessions of the programme, coordination meetings were held with the physical education teachers of the Arrigorriaga educational centre, with three teachers taking part, two of whom were male and one of whom was female. Given the need for their participation in this initiative, these individuals received prior training on the characteristics of the initiative and the determining factors to consider prior to its implementation. To carry out this training, and for later use with the participating students, specific didactic resources were created.

Between 13 and 15 December 2022, an informative pamphlet with relevant information about the dates and characteristics of these sessions was disseminated to promote the extracurricular canicross sessions. Once the registration period for the activity had ended, a total of eight students belonging to the third and fourth years of Secondary Education signed up. The participants were between 15 and 16 years old; five were boys and three were girls. Of the eight participants, four students did not have a dog, while another four expressed their desire to take part together with their respective dogs.

The programme was offered between the dates of 23 January and 7 February in the year 2023; in addition to the training aimed at the group of teachers, two sessions of two hours each were carried out with the students. The first session was theoretical and took place in a classroom. The second session was practical and was executed outside the educational centre.

Nuka, a 10-year-old mixed-breed dog trained in animal-assisted therapies (AATs) and a canicross practitioner, was present at both theoretical sessions. The second session was practical and took place in Mendikosolo Natural Park, which was located just 300 metres from the educational centre. In this session, the participating students were able to take part with their own dogs. In this case, their relatives brought the dogs to the park location and were also encouraged to participate in the session. With the aim of having the dogs become accustomed to the practise of canicross, a canine educator and two AMAROK canicross racers came with their three dogs. Furthermore, two bicycles were used to carry out the work of the 'guide' and facilitate the learning of the 'canicross run' among the students' dogs, who had never practised canicross.

Table 3 presents the information corresponding to the sessions carried out in the initial phases of the programme (registration and promotion) and in the development phase, which is detailed in chronological order.

Table 3. Developmental phases of the programme.

Phases	Description	Duration
Phase 1. Promotion	Teacher coordination meetings	Session 1—29 September 2022; 60 min Session 2—22 November 2022; 120 min
	Dissemination of the programme to students through an informative pamphlet	Session 3—13 December 2022; 30 min/class group Session 4—15 December 2022; 30 min/class group
Phase 2. Registration	Registration of interested students	Procedure carried out through the centre's official forms; 15 December 2022–9 January 2023
Phase 3. Development	Initial teacher training	Session 1—23 January 2023; 120 min
	Theoretical training with the students	Session 2—31 January 2023; 120 min
	Practise with students	Session 3—7 February 2023; 120 min
Phase 4. Evaluation	Evaluation sessions with physical education teachers, canine educators, and researchers	Session 1—7 February 2023; 30 min Session 2—7 February 2023; 30 min
	Contrast evaluation session with researchers	Session 3—8 February 2023; 120 min
	Evaluation sessions with physical education teachers, canine educators, and researchers	Session 4—14 February 2023; 30 min Session 5—14 February 2023; 30 min
	Contrast evaluation session with researchers	Session 6—15 February 2023; 120 min

Once the second practical session was over, all the participants received a courtesy gift from the AUSARTAK, as well as an invitation to take part in the popular and non-competitive race that is organised annually in the municipality. Likewise, the teaching staff of the educational centre received a technical dossier with the didactic resources created and used in the intervention. This https://www.youtube.com/watch?v=Tq6pIggTq_E&t=17s offers an audiovisual document showing these resources. (accessed on 7 February 2023)

Animal Welfare

In the intervention, seven dogs took part, five of which were males and two of which were females. Two dogs were purebred and five were mixed-breed dogs. As previously detailed, the students had the option of participating with their dogs, as long as they were in a state of physical health suitable for practising canicross and their characters did not conflict with those of the rest of the participating dogs.

To ensure that the intervention was carried out safely, in addition to the need for a canine educator, certain measures had to be carried out to protect the animal and guarantee its well-being at all times [45]. First, the participating dogs had to be properly trained, the intervention had to be carried out in a suitable and safe environment for the dogs, and the participants had to exhibit respectful attitudes towards the dogs [46]. In addition, it was important to select dogs with a sociable character that blended well with the characteristics of the participants and to enact a performance protocol to ensure their well-being [47]. To perform this, two tests were carried out the week prior to the implementation of the intervention. These tests were conducted during the week of 23 January 2023, the first of which was an exhaustive veterinary control at the ARKAKUXO veterinary centre. Once this test had been completed, the dogs had to pass an attitude test administered by an AMAROK canine educator. Of the seven dogs registered to take part, only one dog did not pass the tests due to not having an updated vaccination record and thus not passing the veterinary control.

The measures needed to guarantee animal welfare were outlined in a set of clauses created specifically for this occasion (Table 4).

Table 4. Specific measures to guarantee the animal welfare of the dogs.

Clause No.	Description
1	The well-being of the animal will take precedence in all activities, which is an inalienable objective in the development of the programme.
2	The participation of at least one professional related to the canine world (canine educator) will be necessary at all times to mitigate any signs of stress, anxiety, physical fatigue, and/or fear in the participating animal in the programme.
3	Based on the weather and environmental conditions present on the day of the intervention, the final duration of the sessions could be reduced if the canine educator so determines.
4	Mushing and canicross regulations must be followed, and dogs must undergo a veterinary check-up prior to participating in the sessions.
5	Both the teaching staff and the students of the educational centre must receive training prior to the implementation of the programme.
6	No physical or emotional punishment will be allowed towards the animals participating in the programme.
7	Any activity that could harm the animal will be removed from the programme.
8	To avoid possible stomach upset, participating dogs must be fasting 12 h before the start of the sessions and properly hydrated when taking part in the programme and must, in turn, have access to fresh water throughout the duration of the session.

Sequence of Activities of the Programme Development Phase

Table 5 shows the sequence of activities in the programme development phase. Complying with the proposed timing of the activities was essential to guarantee the fulfilment of the programme's objectives related to the welfare of the participating dogs. It was believed that this specific proposal of activities would contribute to raising the awareness of the participants about the importance of respecting animals.

Table 5. The sequence of activities carried out in the development phase of the canicross extracurricular sports activity programme.

Session	Activity No.	Description and Timing of Activities (mins = ′)
1. Initial teacher education	1	Presentation of the programme and the teaching team (10′).
	2	Teacher education (90′).
	3	Doubts and questions (15′).
	4	Class dismissed (5′).
2. Theoretical session with the students	1	Presentation of the programme and the teaching team (10′).
	2	Student training (60′).
	3	Practical workshop to learn how to put on sports equipment (30′).
	4	Doubts and questions (15′).
	5	Class dismissed (5′).
3. Practical session with the students	1	Presentation of the session plan and placement of sports equipment by the students (15′).
	2	Walk with the participating dogs (15′).
	3	Canicross harnesses are placed on the dogs and the initial warm-up is through short and controlled individual outings with a supplementary shooting line and auxiliary personnel (10′).
	4	The start and the first metre running with other dogs are controlled with an extra shooting line and auxiliary personnel (20′).
	5	Race drill with staggered starts of two dogs per start and a continuous 600 m run with/without a supplementary shooting line and auxiliary personnel according to the characteristics of the students (30′).
	6	Active recovery and return to calm by walking in a herd (10′).
	7	Group assessment of the session. Doubts and questions. (15′).
	8	Class dismissed (5′).

2.3.4. Evaluation

After the two sessions, one theoretical and one practical, six evaluation sessions were conducted. These sessions were attended by three physical education teachers, two canine educators, and two researchers as observers. For the evaluation sessions, a questionnaire with open questions that tried to obtain the perceptions of the teachers and canine educators who participated in the sessions as observers was sent. The questions were related to the benefits perceived by the observers. These evaluation sessions were recorded and transcribed for further processing using the MAXQDA software package version 22.0. In addition, two debriefing sessions were held by the UD research team, with the participation of the two researchers present in both sessions alongside a senior researcher and expert in qualitative methodology. Table 6 shows the development and characteristics of these post-assessment sessions. For the analysis phase of the evaluation process, a session identifier (ID) was used to identify the session and the type of participant and to preserve the anonymity of the participants.

Table 6. Development of evaluation sessions and list of participants.

POST Evaluation Theoretical Session	ID	Participants	POST Evaluation Practical Session	ID	Participants
Evaluation session: Physical education teachers and two researchers	SEV.1	AB: teacher, 57 years old, more than 25 years of experience AR: teacher, 38 years old, 10 years of experience JO: teacher, 57 years old, more than 25 years of experience MF: researcher, 23 years old, 2 years of experience XG: principal investigator, 36 years old, 4 years of experience	Evaluation session: Physical education teachers and two researchers	SEV.E4	AB: teacher, 57 years old, more than 25 years of experience AR: teacher, 38 years old, 10 years of experience JO: teacher, 57 years old, more than 25 years of experience MF: researcher 23 years old, 2 years of experience XG: principal investigator, 36 years old, 4 years of experience
Evaluation session: Canine educators and two researchers	SEV.2	JG: canine educator, 48 years old, 10 years of experience AG: canine educator, 26 years old, 5 years of experience MF: researcher 23 years old, 2 years of experience XG: principal investigator, 36 years old, 4 years of experience	Evaluation session: Canine educators and two researchers	SEV.5	JG: canine educator, 48 years old, 10 years of experience AG: canine educator, 26 years old, 5 years of experience MF: researcher 23 years old, 2 years of experience. XG: principal investigator, 36 years old, 4 years of experience
Contrast researcher session: Researchers participating in the theoretical session and practical session together with another researcher from the team	SEV.3	MF: researcher 23 years old, 2 years of experience XG: principal investigator, 36 years old, 4 years of experience MAC: senior investigator, 53 years old, more than 20 years of experience	Contrast researcher session: Researchers participating in the theoretical session and practical session together with another researcher from the team	SEV.6	MF: researcher 23 years old, 2 years of experience XG: principal investigator, 36 years old, 4 years of experience MAC: senior investigator, 53 years old, more than 20 years of experience

Once the sessions had been transcribed by researchers, the participants' testimonies were analysed using the approach of thematic analysis [48], which allowed us to identify and analyse patterns (themes) in the data inductively. The transcripts of both sessions were entered into MAXQDA version 22.0. The codes were entered as nodes, which generated Figure 2, a visual tool created to facilitate the process of discussing the results obtained. The evaluation team of three researchers with experience in the application of

qualitative methodology and the implementation of intervention programmes in educational settings limited the potential bias of a single researcher.

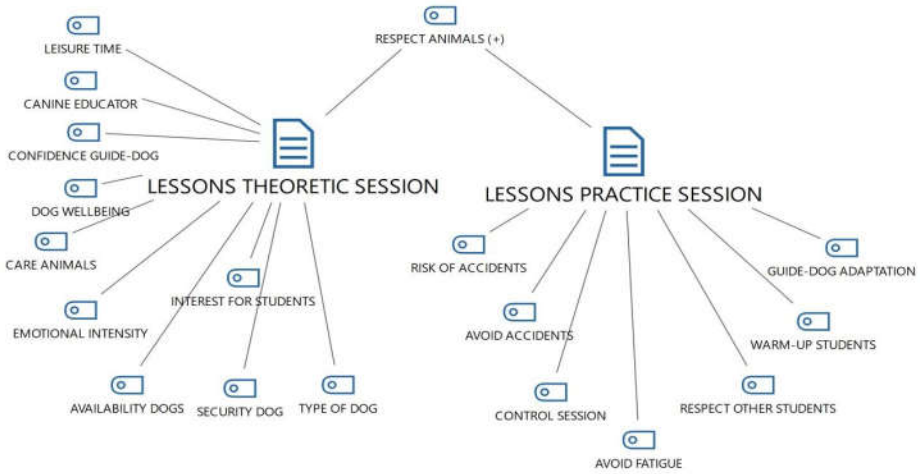

Figure 2. Graphical representation of the thematic analysis.

As a result of this inductive phase, a set of codes designed to identify the statements related to the benefits of the programme were generated based on teachers', canine educators', and researcher's responses. In turn, a concordance criterion of at least 85% was established between the researchers in relation to the transcripts of the two sessions. During coding, as much agreement as possible was sought between the researchers.

3. Results and Discussion

Following the evaluation process, the main results obtained regarding the benefits of the two sessions were presented in four thematic axes. The first axis corresponded to the values of respect towards animals, which the participants highlighted, thereby becoming the common link between both sessions. The second thematic axis reflected the importance that the teachers, canine educators, and researcher observers attached to the bond between the handler and the dog. A third axis was related to the dynamics of the session and the need to ensure both the animal's welfare and the handler's safety. Finally, aspects related to the implementation of the programme were then discussed.

3.1. Thematic Axis 1: VALUES of RESPECT for animals and Classmates

Instilling values of respect for animals is one of the main results that emerged from the analysis of the evaluations carried out by the canine educators and participating teachers. It was a recurring theme in both sessions (Figure 2) and represented innovative educational content that could be incorporated into the conventional academic environment. In this way, students could be made aware of the importance of responsible dog ownership and the need to prevent abandonment, as well as the care that dogs require to ensure their health and well-being.

In line with this result, Organic Law 3/2020 [49] emphasises the importance of instilling values of respect for living beings, animal rights, and the environment by integrating these principles into curriculum development. Therefore, the results of this first thematic axis are linked to the specific objectives of the EG3 and EG5 programmes due to the importance of promoting values of respect for animals, raising awareness about the abandonment of animals, and encouraging a responsible attitude towards animals. The relevant opportunity to innovatively incorporate these topics into the conventional educational environment as educational content of interest is also highlighted.

This aspect was especially evident in the following testimonies collected:

> Content that is not covered in the classroom is worked on, such as care, health, and respect (...) and awareness of dog abandonment. (SEV-1)
>
> I found it very interesting as new content for physical education sessions. (SEV-4)
>
> Putting the harness on and taking it off the dogs has served to raise awareness of the seriousness of doing this activity correctly, while taking into account the emotional state of the dog, as well as taking care to do it correctly so as not to cause harm to the dog. (SEV-2)

Given that canicross is a sport that is practised in the natural environment and 'in a team', this activity was also found to promote values related to respect for classmates [16], nature, and the environment [41]:

> The students had an outstanding attitude, both in terms of attention and respect towards the dogs and their classmates. (SEV-6)

3.2. Thematic Axis 2: Importance of Trust between Handler and Dog

> Conducting the sessions in an environment conducive to learning emerged as one of the key factors determining the success of the intervention. In addition, the canine educator played a crucial role in carrying out the technical control of the session and collaborating both in the creation of didactic content and the delivery of the training [28]. It was also essential to consider the attitude of the dogs, as 'the fact that the ani-mal is used to and prepared for contact has helped the pupil to gain confidence in the activity' (SEV-2).

Other characteristics were also taken into consideration, such as the size and weight of the dogs participating in the programme. In this case, such factors were adapted to the characteristics of the pupils. It is, therefore, advisable to choose smaller or larger dogs according to the characteristics of the participants.

> The choice of the size and weight of the dogs was a good one, and we should tend to choose dogs of a certain size according to the participants to achieve the correct spirit and results of these activities. (SEV-6)

Dogs with experience in canicross from the AMAROK Txakurkros club took part in the two sessions together with dogs from the pupils who had no previous experience in canicross. This combination proved to be a good way for the pupils' dogs to benefit from the experience of the other dogs. This fact, together with the use of a 'bicycle guide' that acted as a hare, meant that the practical session had a positive effect on the learning of both the inexperienced dogs and the pupils taking part.

From these results, the importance of trust between the handler and the dog stands out as a key contributor, as well as the adaptation of the size and characteristics of the dogs to the needs of the students, both of which are fundamental to the success of the programme and the achievement of its specific objectives, EG2 and EG4.

3.3. Thematic Axis 3: Need for Safe Practise

During the course of the intervention, the safety of the students was guaranteed at all times. Specifically, the theoretical sessions were carried out through the introduction of a low-energy dog accustomed to taking part in assisted therapy and intervention. This helped to maintain the students' interest and attention without becoming a significant distraction.

> It is important to raise awareness of the objective risks that can arise when the dog with which we are doing the activity gets too close to the legs of another runner. This can lead to tripping and, consequently, to classmates falling. This situation can also occur with the bicycles that we have used as guides, and that is why we have informed the students in this regard, so that they can control

> their dogs and avoid situations of excessive closeness between each other or between the dogs and the bicycle. (SEV-6)

A series of safety measures were also considered, such as the use of the 'bicycle guide', who acted as a reference point for the pupils during the course. At the same time, special emphasis was placed on the importance of having effective control over the dogs during the activity, with emphasis on the fact that canicross is not about letting the dog lead you but about controlling it and ensuring that the dog manages to adapt to the speed of the runner.

> Finally, to minimise the risk of injury to both the pupils and dogs, a warm-up was carried out beforehand for both. Its relevance was reflected in the evaluation of the researcher-observers: 'The pupil wants to go from 0 to 100. However, it is essential to walk at a good pace with the dog beforehand so that both can warm up before entering the running phase and avoid injuries. Then, if you notice that the dog wants to start running, we are ready for it' (SEV-6).

In this sense, the results of the third thematic axis focus on the importance of guaranteeing the safety of students during the canicross programme, highlighting its relationship with the specific objectives, EG3, EG4, and EG6. These results are based on the promotion of a proactive attitude towards environmental conservation, as well as the information provided to students to practise canicross safely, both for themselves and their dogs. Overall, this approach helped to promote critical awareness and respect for the canine world among participants.

3.4. Aspects Regarding the Implementation of Canicross as an After-School Sports Activity

This programme is presented as an ideal tool to promote educational projects related to responsible pet ownership, the integration of animals into society, and the prevention of abandonment, the significance of which has been established by the recently approved Law 7/2023 of 28 March 2023 [50] on the protection of the rights and welfare of animals. Proposals such as this one provide students with an unbeatable opportunity to learn how to interact appropriately with the dogs in their municipality and promote further, such contact with the animals.

At the same time, by combining interaction with animals and the practise of PA and sports, this practise promotes awareness of the importance of self-care and personal well-being. In addition, the relatives also had the opportunity to participate in the proposed activities; scientific evidence affirms that such participation can positively influence the effectiveness of programmes that promote the achievement of healthy habits and increased PA levels [33,34,36,51].

Regarding the possible limitations, we highlight the need to have an adequate natural space close to an educational centre and the requirement of specific materials and specialised personnel, with the latter comprising a canine educator and experienced canicross runners.

Furthermore, for the programme to be successfully implemented, it is necessary for a CAFyD graduate to be present since such a professional has the most training in designing and directing physical exercise programmes [52]. In addition to this figure, the collaboration of canine educators and athletes specialising in canicross is vital, as is the creation of a network of collaborating agents for the implementation and promotion of the proposal. Related to this, Article 82 of Law 2/2023 of March 30 [53] on PA and sport in the Basque Country specifically endorses the promotion, development, and execution of research and innovation in the field of PA and sports sciences, particularly through collaboration with other public administrations, universities, vocational training centres, professional associations, and sports federations. Thus, the proposal presented here is in line with the present and recently approved law.

4. Conclusions

The use of AAIs in education has experienced a boom in recent years. Based on this progression, there is now a legal framework that supports the need to develop educational initiatives aimed at promoting values pertaining to empathy and respect for animals and the environment. Against this background, canicross is presented as an interesting sporting activity through which to implement these educational requirements.

Compared to the rigidity of conventional educational spaces, canicross offers the opportunity to perform PA in contact with nature and animals. All of this, together with the interest that this sporting activity arouses among pupils and the motivation it gives them to practise PA, provides an exciting opportunity to implement this sport in the educational environment and thus raises pupils' awareness of the importance of leading an active lifestyle.

Generally, educational centres have the necessary competencies to deliver extracurricular activities of a sporting nature that promote the health of their pupils and encourage them to develop healthy habits. Moreover, considering the innovative nature of this proposal, the implementation of interventions of this type could offer CAFyD graduates a new professional alternative.

In any case, this proposal presents some challenges and limitations. For instance, there is a need to carry out a greater number of sessions to obtain more decisive evidence, to secure natural spaces close to the school, and to have staff and dogs specialised in the practise of canicross. Another possible limitation of this study is the number of participants, since only eight students participated. However, it should be noted that this proposal has been conducted as a pilot test, which is just a first step towards introducing canicross as an extracurricular sporting activity. Likewise, this type of proposal requires a greater combination of research methods to demonstrate the educational potential of this type of intervention, as well as a more exhaustive evaluation process in which the students would participate.

Finally, this proposal opens up future lines of research linked to the implementation of educational programmes carried out with animals as a means of promoting health and education in values. Specifically, quantitative data collection systems could be incorporated, such as heart rate monitors and accelerometers, to record the activity of schoolchildren and thus analyse the impact of these programmes on the health of students with greater precision, including a more exhaustive evaluation of their effects and benefits. In any case, it would still be necessary to initiate training plans with physical education teachers to ensure the appropriate ethical development of this type of intervention.

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