

## One World, One Health, One Global Education: Intercultural Competences in Veterinary Education

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### Abstract

Veterinary medicine plays an important role in tackling the global challenges of the 21st century, especially in the control of transmissible diseases and food security worldwide. Therefore, teaching veterinary medicine must reflect these challenges and equip veterinarians with the necessary skills to deal with the “One World, One Health” paradigm.

This research intends to find out how intercultural competence is looked at during the initial stage of the training in veterinary medicine and how it unfolds in the subsequent phases of the curriculum. Also, it aims to know the teacher’s and student’s perspectives on the importance and role of intercultural competence and what they expect from it.

A case study of a Portuguese higher education institution with a strong tradition in initial training for veterinarians was prepared. Documentary analysis of the curriculum unit plans and other documents were used, as well as interviews with teachers who are part of the training management body and final-year students.

The data analysis revealed that the interviewees are well aware of the need to prepare professionals who can perform their role in different cultural contexts. It was also noted that the curricular unit plans still do not include intercultural competence objectively and clearly, resulting in a limitation there in the official curriculum. However, concerning the curriculum in action, some curricular and extracurricular activities were identified that can be deemed as appropriate for the development of this skill among students. In the learned curriculum, students could identify some of them, albeit in a very discreet way and little directed at the development of this competence. In the assessed curriculum, intercultural competence is not considered.

This study concludes by seeking to contribute to the reflection on how intercultural competence may be included in the veterinary medicine training through teaching methodologies, student mobility, use of ICT, foreign language learning, and teacher training, among others.

**Keywords:** *Education; Initial Training; Curriculum; Intercultural Competence; “One World; One Health”*

### Abbreviations

CU: Curricular Units; HEI: Higher Education Institute

### Introduction

The veterinarian profession faces currently a new world paradigm. Nowadays, veterinarians are part of a culturally, economically, socially, and professionally interconnected world. Training institutions in veterinary medicine must undergo a transformation that reaffirms the social role of veterinarians and works on building a global community [1].

Students begin the veterinary medicine training with their knowledge, skills, abilities, and attitudes; it is the responsibility of the educational institution to transform these students into professionals involved in the “One World, One Health” paradigm, and to equip them with specific knowledge and appropriate skills [1].

With regard to training, students are expected to have a basic understanding of cultural diversity, the influence that cultural origin has on human behavior; and the implications this can have for animal health and welfare. The different roles and attitudes towards animals and veterinarians around the world also play an important role. Besides, students should develop global skills such as the ability to understand different perspectives from their own and effective communication with clients and colleagues from different cultures [2].

Both Bennett [3] and Deardorff [4] emphasize the need for internal changes to achieve effective intercultural interaction. Developing intercultural competence is a process that involves increasing cultural awareness and deepening the understanding of the experiences, values, perceptions, and behavior of people from different cultures. Moreover, it also involves increasing the ability to shift cultural perspectives and adapting one’s behavior to overcome cultural differences [5]. Therefore, cultural awareness is particularly important in healthcare [6].

Deardorff [7], in his most recent work published by UNESCO, states that intercultural competence can be developed in two ways: formal intercultural learning and informal intercultural learning. Formal intercultural learning can be integrated into curricula, through specific courses focusing on the various elements of intercultural competence and through experiential learning opportunities (for example, studying abroad). Informal or non-formal learning can be provided through school exchanges, cultural organizations, public spaces, the media, among others. This type of learning also occurs through the daily experience of interacting with people of different ages, gender, religion, ethnicity, socioeconomic level, political beliefs, physical abilities, among other differences.

Different elements that make up this type of competence are identified by various authors [8]. In this case, we consider the division in knowledge, skills, and attitudes, reflected in Deardorff’s [4] intercultural competence models and adopted by the Portuguese Ministry of Education [9] and the European Commission [10].

In this research, we consider the different phases of the curriculum taking into account Gimeno’s [11] model, in which the curriculum is seen as a process and can be read through its various features: the prescribed curriculum, the presented curriculum, the framed curriculum, the curriculum in action, the learned curriculum and the assessed curriculum. The official curriculum prescribes what is essential; the presented curriculum consists of prepared materials that are made available to teachers; the framed curriculum corresponds to the interpretation that each teacher makes of the curriculum; the curriculum in action derives from the teacher’s practices and work contexts; the learned curriculum arises from the student’s characteristics; the assessed curriculum represents what teachers assess in their evaluations.

### Materials and Methods

This investigation is based on the interpretive paradigm [12], in that, it intends to understand the meaning and the action of teachers and students regarding intercultural competencies in veterinary medicine training. A qualitative approach was adopted that aims at understanding facts without imposing any previous expectation of causality concerning the phenomenon under study [13]. The chosen

research model was a case study, since, in addition to the potential it offers in Education research, it allows knowing the people, the programs, and the interactions and interpretations that exist between them, as argued by Stake [14].

For Yin [15], the case study can be conducted for one of three basic purposes: to explore, describe or explain. In this research, the case study is exploratory and descriptive of how intercultural competence is considered in the different stages of the curriculum of initial training in veterinary medicine. It is exploratory once the situations to be assessed do not have a single and clear set of results [10] and also, as described by Merriam [16], because little is known about the subject under study. On the other hand, it also intends to be descriptive, since, according to Merriam [17], the final product will be a dense and encompassing description of the phenomenon being studied. In this case, we intend to describe what happens in the different stages of the curriculum and, for that, we will take into account different views, such as the institutional one, the teachers, and also the students. It is also assumed that this is an instrumental case study since it is used to provide information about a subject or phenomenon and not because of the interest in this particular case as such [18].

The case study was represented by two teachers and three interviewed students. The teachers were selected after the documentary analysis and were part of the scientific-pedagogical management bodies of the training in veterinary medicine, participating in its curriculum reformulation. Moreover, both are teachers in this training, with one being a teacher in a curricular unit (CU) where references to intercultural competence were found. The three students were final-year students of the veterinary medicine training with the following characteristics: a final-year student appointed by an interviewed professor; a student who developed his internship in the field of public health; and a student appointed by the veterinary medicine students union and a member thereof.

Data collection was carried out by using documentary analysis and interviews. In the documentary analysis, references to intercultural competence were sought for taking into account the following categories:

- Explicit direct reference to intercultural competence;
- Explicit indirect reference to intercultural competence;
- Implicit reference to intercultural competence;
- No reference to intercultural skills.

Concerning the interviewed teachers, we tried to understand their perspective on intercultural competence, the importance they attributed to it, and the way it was approached during classes or in extracurricular activities. In this way, it was intended to access the curriculum in action.

Interviews were also conducted with the three students to obtain their perspective regarding intercultural competence and the importance they attributed to it, but also to understand how it was developed during the training and if they were assessed on them. In this case, it was intended to obtain information on both the learned and assessed curricula.

In the category analysis, units of analysis were constituted as recommended by Stake [14] and Erickson [12]. The collected data was analyzed without ever forgetting the intersubjectivity to which Bruner [19] refers, assumed in the interpretive research paradigm. In this sense, at the end of the interview analysis, it was important to return the interpretations made to the interviewees, so that they could validate them.

## Results and Discussion

### Concept, importance, and role of intercultural competence

Both the interviewed teachers and the students showed different perspectives on what intercultural competence is. Nevertheless, when asked about the importance that it had in the veterinary profession, everyone was unanimous in recognizing the great importance that the development of this competence has for veterinary medical professionals.

Both teachers and students recognized it as important and admitted a greater need to develop this type of skill during the training. One of the interviewed teachers mentioned that the higher education institution (HEI) was concerned with training professionals prepared for the world, who were able to communicate with everyone clearly and effectively. Inserted in the paradigm "One World, One Health", this concern is constant and growing in the training coordination bodies of the HEI, which is in line with European recommendations.

### Intercultural competence in the official curriculum

Through the collected and analyzed data, it was noticed that no CU mentioned intercultural competence directly, neither in the objectives, nor in the contents, methodologies, or the assessment. In a minority of CUs (about 27%), this skill appears indirectly or implicitly.

However, it was found that in the program of some CUs, reference was made to other competencies or to certain contents, which could contribute to the development of intercultural competence. For example, in some programs teamwork, interpersonal relationships, and interdisciplinary work were present.

Some contents such as the animal population in other regions of the world were also mentioned in some CUs. This can encourage multicultural awareness and specific knowledge of other cultural realities, contributing to the development of intercultural competence in students, as indicated in Deardorff's [4] compositional model. This model refers to specific cultural knowledge as one of the necessary components for the development of intercultural competence.

Even in some CUs where it had the potential to be developed, intercultural competence was not seen as one of the learning goals; it was just a side effect of some activities or contents.

### Intercultural competence in initial training

The interviews revealed that some teachers could address these issues but not in a targeted manner.

The interviewed teachers mentioned the following CUs as ones where intercultural competence could be being developed: Hospital Activities, Small Animal Clinic, Large Animal Clinic, Animal Production, Epidemiology, Infectious Diseases, Public Health, Population Medicine and Animal Production in Tropical Regions.

The interviewed students also referred, rather vaguely, to the CUs of Small Animal Clinic and Large Animal Clinic as ones where they did some simulation exercises with different types of clients. In addition, they also referred to a seminar on communication they attended during the CU of Hospital Activities.

The students considered that some activities could contribute to the development of this skill, such as participation in the Erasmus program, group work, seminars on communication and also some lectures organized by the Students Union. They also referred to the resolution of clinical cases taking into account different types of customers, as well as the contact with the producers during field trips. Lastly, they also highlighted participation in academic groups such as Tuna<sup>1</sup>, the Students Union, and activities with Erasmus students.

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<sup>1</sup>Musical band typical from Portuguese HEIs.

The interviewees revealed that the development of intercultural competence, in that HEI, was done mainly in an informal context, outside the classroom; for example, through internships, the Erasmus program, group work, or living and interacting with others. However, no follow-up or guided reflection of these practices was mentioned, as Bennett and Bennett [20] advocate it should be done.

These students did not seem to be directly, objectively, and clearly aware of the teaching of intercultural competence during their initial training. The competencies that stood out during the interviews were those of communication and interpersonal relationships. Knowledge through specific content from other cultural realities was also sometimes referred to by students.

They also mentioned believing to be prepared for the job market, concerning the development of intercultural skills. However, they emphasize that perhaps it was just a personal matter, due to their experiences and personality, questioning whether it was the training they received that prepared them. They admit that the training could have helped them more therein and that it should prepare them better for these issues.

About the assessment of intercultural skills during training, students reported that they had never felt being specifically assessed for those skills.

### Good practices in initial training

Looking into the training in question from a holistic point of view, one can highlight a set of good concrete practices that it was possible to identify, regardless of the stage of the curriculum in which they were found, and which are backed by literature as promoters of the development of intercultural competence, namely:

- The importance that the HEI gives to participation in the Erasmus program [21,22] and the reception of foreign students;
- The communication seminar [23] held within the scope of the hospital activities CU;
- The possibility of contact with breeders during field trips [22], namely within the scope of the Large animal clinical and animal production CU;
- The Skills Registration Book provided to students by the HEIs;
- The resolution of clinical cases simulating [7] the presence of different types of clients and critical situations;
- Group work [24] carried out in some CUs;
- Communication lectures promoted by the students union;
- The existence of diverse academic groups [24] such as Tuna<sup>1</sup>, the Students Union, and the commission of finalists;
- The welcoming program for Erasmus students, in which students sponsor another newly arrived Erasmus student;
- The inclusion of communication skills as learning goals in some CUs;
- The teaching of other perspectives on animal production and consumption in other regions of the world [25,26];
- The concern of the HEI in preparing its students within the paradigm "One World, One Health";
- The Inclusion of teamwork in several CUs as one of the skills to be developed.

- Although these practices already exist in the HEI, they are not sufficient by themselves for the development of intercultural competence among students, as stated by Bennett and Bennett [20]. It is necessary that they are directed to it and that there is monitoring to confirm whether or not they contribute to the development of this competence in students.

### Conclusion

One of the purposes of this study, was to make some recommendations on how it will be possible to include intercultural competence in the initial training of veterinary medicine students.

First of all, considering some of the goals deemed as necessary to achieve intercultural competence [27], veterinary medicine training beneficiates in providing students with opportunities to develop pre-existent transversal competencies, which are listed below:

- Respect and appreciation for others;
- The ability to adopt other perspectives/points of view;
- Adaptation to different situations;
- Learning to listen;
- The relationship with others.

Furthermore, some strategies are suggested to enhance the development of intercultural skills among these students. These strategies involve several players and focus on the different contexts that make up a training program. Some of them are previous conditions that allow for its materialization; others focus on the curriculum, with consequences for the official curriculum, the curriculum in action, and the assessed curriculum. Together, they create conditions for a stronger learned curriculum to develop intercultural skills.

Regarding general strategies that can contribute to the development of intercultural competencies, the following are suggested:

- To encourage mobility programs for students [21] and teachers [26];
- To use ICT as a possibility of virtual mobility for those who cannot do it physically [28];
- To promote internships, projects, and mobility programs abroad [29,30];
- To teach foreign languages [26];
- To create international group projects, summer courses, cultural events, or excursions [24];
- To make it possible to accumulate ECTS in participation in activities that promote intercultural competencies [24];
- To train teachers to be able to develop intercultural skills in their students [31];
- To promote cultural meetings and cultural interactivity [32].

Regarding strategies that can contribute to a more appropriate official curriculum, the following are suggested:

- To enrich the curriculum with intercultural and international content [26];

- To teach how to manage cultural conflicts and combat discrimination [26];
- To include content related to professional communication in the curriculum [23].

As for strategies that can contribute to a more appropriate curriculum in action and learned curriculum, we suggest the ones below:

- To combine individual and cooperative teaching methods with experiential and reflective learning methods [7,22];
- To promote critical reflections on one's perspective and worldview [7];
- To connect teachers and classrooms as global communities through online information and communication technologies [7,26];
- To use the role-play method [7] and the critical incident method for the development of intercultural competencies [24];
- To provide concrete examples in the form of case studies, involving students in the search for solutions [7];
- To use simulations involving intercultural experiences [7];
- To use the strategy of story circles for the development of intercultural competencies [7].

When it comes to strategies that can contribute to a more appropriate assessed curriculum, intercultural competencies should be assessed among students through several strategies referred by authors such as Fantini [33]. The fact that intercultural competencies are assessed reveals the importance that is given to the development of these skills among students, and it also gives them greater relevance and visibility.

There is no infallible recipe for activities, methodologies, strategies, or techniques, much less a unique curriculum model that can be applied in the initial training of veterinarians.

Those responsible for the training of these professionals need to be sensitized and aware of the importance that the development of intercultural competencies has in the veterinarian profession, in line with the paradigm "One World, One Health".

Teachers, in particular, need to be aware of this issue and include this concern in the formulation of their curricular programs in all its components (objectives, content, methodology, and evaluation). The entire educational community must be aware of this issue when carrying out any curricular or extracurricular activity.

Students themselves should increasingly realize, throughout their academic career, the importance of being prepared for the world of global and intercultural work that this profession entails. Students must be given concrete examples in which these skills are needed for the good performance of their professional functions, valuing and recognizing them as necessary.

### Conflict of Interest

I declare that any financial interest or any conflict of interest exists.

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