

Document downloaded from:

<http://hdl.handle.net/10251/166964>

This paper must be cited as:

Teruel Serrano, MD.; Viñals Blasco, MJ. (2020). Teaching environmental sustainability and responsibility in the Anthropocene: Overview of Tourism Studies in Spain. *Journal of Teaching in Travel & Tourism (Online)*. 20(3):216-231.
<https://doi.org/10.1080/15313220.2020.1797610>



The final publication is available at

<https://doi.org/10.1080/15313220.2020.1797610>

Copyright Taylor & Francis

Additional Information

"This is an Accepted Manuscript of an article published by Taylor & Francis in *Journal of Teaching in Travel & Tourism* on 2020, available online:
<https://www.tandfonline.com/doi/full/10.1080/15313220.2020.1797610>."

Versión autor:

Teaching environmental sustainability and responsibility in the Anthropocene: Overview of Tourism Studies in Spain

Autoras: María Dolores Teruel-Serrano & M.J. Viñals

Este artículo ha sido publicado en la revista Journal of Teaching in Travel & Tourism, 20:3, 216-231, DOI: [10.1080/15313220.2020.1797610](https://doi.org/10.1080/15313220.2020.1797610)

Abstract

Tourism studies are showing an increasing interest in the analysis of environmental sustainability and responsibility in the Anthropocene epoch. In the Higher Education (HE) Tourism studies, new concepts and skills are incorporated helping students to develop environmental knowledge and responsible attitudes and behaviours grounded in closer associations between the Earth systems and Humanity. The aim of this study is to examine the extent to which environmental education is incorporated in the curricula of Tourism studies at 55 Spanish universities throughout a syllabus content analysis.

The results evidence that HE Tourism studies in Spain has a generalist orientation because of the holistic vision inherent to that courses, whereas matters regarding environmental issues would be necessary to organise in a more coherent way in the form of specialised training tracks devoted to environmental education including both sustainability and responsibility issues.

Keywords: Higher Education, Tourism Education, Environmental Sustainability and environmental Responsibility, Anthropocentric, Spain

Subject classification codes: Education and University studies

1. Introduction

According to Lewis and Maslin (2015), Anthropocene is the geologic epoch dominated by the recent global environmental changes due to the relationship between humans and the Earth system. The study of territorial impacts in this epoch has been the subject of attention in various academic disciplines, devoted to Earth and Social Sciences, especially in the framework of the “environmental sustainability.” According to Leinfelder (2013 p.9), the Anthropocene, as a conceptual framework, “*could hence provide a solid basis for envisioning a sustainable human presence on Earth in which humans would no longer be ‘invaders’ but rather participants in shaping the natural environment.*” In this regard,

the same author comments that the concept of Anthropocene is directly related to the study of the impact caused by human beings on the Earth.

Regarding tourism, the issue of environmental sustainability is crucial at this Anthropocene epoch, because tourism is a global phenomenon based on the use of the territory and its resources, which are in turn its greatest business asset (Boyle et al., 2015). Negative consequences related to the tourism sector derived from the current neoliberal discourse are made apparent in overexploitation of resources (Higgins-Desbiolles et al., 2019), the neglecting of local communities (Boissevain, 1999), social aspects such as tourismophobia (Doxey, 1975; Guitart et al., 2018; Blanco-Romero et al., 2019), gentrification (Lees, 2000), and decline of the quality tourist experience when certain limits are exceeded and overtourism occurs (García-Hernández et al., 2019; Milano et al., 2019). As Mihalic (2016) stated, environmental education remains difficult because the dominant tourism discourse on sustainability (theory, seen as a concept) and responsibility (practice, understood as appropriate action). The same author called for a solid understanding of the process of how a responsible destination actually implements a sustainability agenda. Moreover, the tourism sector has shifted from a passive-oriented visitor's experience towards an active-oriented trend which requires not only a creative and active design that takes into account social and economic aspects, but also good environmental management of resources in order to avoid undesirable consequences. Hence, environmental issues can no longer be ignored. Therefore, all the above-mentioned facts invite us to go a step beyond issues related to the environmental impacts on natural and cultural resources (Inskeep, 1991; Hall et al., 2015), to reflect upon the social and economic sustainability of tourism, and definitively to lead us assuming ethical responsibilities with our planet.

In the last few years, there has been increasing interest in considering matters related to the Anthropocene in Higher Education (Jickling et al., 2018). Thus, the aforementioned scenario forces universities to be concerned not only about how to address the issue of solving territorial and environmental problems, but also about identifying new opportunities for the tourism sector, and re-addressing and incorporating new concepts, ideas, and perspectives to appropriately approach Nature and its resources.

From the perspective of Higher Education (HE) Tourism studies, territorial resources are studied as fundamental elements to be enhanced in the development of a tourist destination. The impacts of tourism on atmospheric, geological, geomorphological, hydrologic and other Earth systems, as well as ecosystems and geo-hydrodynamic processes are also analysed in many HE tourism subjects. In addition, other environment-related issues focused on Nature itself are considered as the basis and setting for developing certain modes of tourism, as is the case of Ecotourism. Besides the cognitive contents related to the acquisition of knowledge about environmental sustainability, there are also environmental skills that must be attained by university students as well as the pedagogical aspects with which to approach these issues. This latter issue is fundamental because, on the one hand, as a consequence of the context of the European Higher Education Area, we are currently in a situation of change as regards teaching methodologies and, on the other, because we need to ask ourselves how to go about accomplishing these objectives (Goodwin, 2011).

Hence, this study explores how environmental sustainability and responsibility are considered in the Higher Education Tourism studies in Spain in the Anthropocene epoch. These questions are highly relevant in the Spanish context, since the tourism sector is one

of the pillars of the Spanish economy, and it is necessary to know whether the academic programmes on offer respond to the needs of the sector and to the needs of nature preservation. The remainder of this article is organised as follows. After the introduction, it presents the conceptual framework on “environmental education” (sustainability and responsibility) connected to environmental education in tourism academic programmes. The results section provides the findings from the analysis of the contents of the courses currently available at the 55 Spanish universities that offer Tourism studies in the form of bachelor’s, master’s and doctoral degrees and how the issue of environmental sustainability and responsibility are addressed in their curricula.

2. Conceptual framework

Environmental sustainability and responsibility are concepts that fall within the scope of “Environmental Education”. This expression can be defined as a social instrument that institutions employ to impress on their students understanding of environmental sensibility, responsibility and knowledge of environmental issues (Postma, 2006). According to Talero (2004), it involves a structured and planned process that seeks the implementation of environmental cross-cutting curriculum at educational institutions at different levels (elementary school, high school, university, graduate and post-graduate levels). At university level, the attention is focused on obtaining environment based-professional knowledge and skills within the different disciplines.

Regarding Higher Education (HE), the soundest and immediate approach to environmental sustainability is based on the acquisition of knowledge introduced in the curricula. The contributions made by the academia in relation to this issue have been tackled from different points of view. Particularly noteworthy are the numerous research works from the disciplines of the Earth Sciences (Ellis et al., 2009; Brown et al., 2013; Previdi et al., 2013; Corlett, 2015). In university studies related to this scientific field, it is common to find subjects that deal with the topic of environmental sustainability in the curricula; but in HE studies in Economics, Humanities and Social Science, it is not so common. It is interesting to bear in mind that the interrelationships between ecological thinking, systemic change, and learning at the individual and institutional scales accelerate the educational response to the sustainability agenda (Lambrechst et al., 2013). This is why it is important to incorporate this knowledge into these other disciplines as authors like Gren and Huijbens (2014) suggested.

Environmental responsibility is another important component of the students’ environmental education. This is a broad concept based on behavioural traits (Chettiparamb and Kokkranikal, 2012; Leslie, 2012) which includes numerous aspects focused on the basic principles of respect for others and for the environment. This concept is usually based on the development of the environmental awareness skills, and ethical attitudes and behaviours.

The aim of incorporating these concepts in the university academic curricula is to help students to be able to interact with their environment in an ethical, responsible and wise way as well as to solve problems, communicate with stakeholders and inspire and motivate their peers, as Willard et al. (2010) pointed out, and also to awake a critical spirit. Thus, we can say that environmental responsibility is based on the acquisition of competences. UNESCO foundational documents (2004) and in the UN Decade of Education for Sustainable Development (UNESCO, 2014) highlights these key learning

competences as life skills. The European Union's CEDEFOP project¹ calls this kind of competences "green skills". Likewise, since the signing of the Bologna Agreement, universities have been concerned with defining competences that are recognisable at all levels across Europe. In this regard, the TUNING² project is aimed at unifying the core competences included in the different university curricula so as to make them comparable and compatible throughout Europe.

Therefore, many curricula and faculties, aware of the need to address these student's abilities, have included environmental responsibility as skills among the basic competences in their educational programmes for graduate and undergraduate students. The reasons for including those environmental responsibility competences, as we see it, are: i) this incorporation is well grounded in its pedagogical effectiveness (Clark et al., 2011); ii) due to the need to think about the current environmental situation everywhere; and iii) because they are a good starting point from which to develop other relevant key competences (Kennedy et al., 2007). Without a doubt, the integration of those competences in HE programmes can be seen as an important step towards achieving sustainability (Lambrecht et al., 2013).

In the framework of the Tourism studies, environmental education is related, at first, to the concept of "sustainable tourism", considering the definition given by World Tourism Organization (UNEP and UNWTO, 2005) that states: "*Sustainable tourism takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities.*" This concept became the focus of mainstream academic tourism literature and academic programmes and it is the input of many tourism strategies and policies, resulting in a recognised global trend towards sustainable tourism development.

Despite the diverse nature of the HE Tourism studies, it is possible to identify a common interest on approaching environmental education in the university programmes, confirming, in this way, the versatile and cross-cutting character of these studies (Vera and Ivars, 2007). According the curricula, the environmental sustainability knowledge, is addressed by each discipline in a different way; but the general trend in all the disciplines is to face this topic from an anthropocentric learning pedagogical perspective of "knowing about nature" rather than the "knowing with nature" approach based on an ecocentric perspective that encourages students to reflect on their ethical relationships with nature so they might consider how they are part of nature (Mortari, 2004).

From a geographical perspective, close to the Earth Sciences and strongly linked to the territory, the planning of tourist destinations and the use of tourism-related resources is associated with environmental sustainability issues. Authors like Sheldon and Hsu (2015) consider natural resources as a pillar of HE Tourism studies, but they think it is a topic addressed the least in the curricula and state that tourism education programs at all levels should be designed to create responsible leaders for the future of tourism. In addition, Nature is considered as a physical scenario for the visitors' enjoyment (Postma, 2006). Thus, themes studied include aspects like wise use of the natural resources, the

¹<https://skillspanorama.cedefop.europa.eu/en/glossary/e> (Retrieved: March 2020)

²https://www.unideusto.org/tuningeu/images/stories/documents/General_Brochure_Spanish_version.pdf (Retrieved: March 2020)

consequences of inappropriate planning, resources overexploitation, uncontrolled tourism, overtourism (Milano et al., 2019), limits on use of resources (Gren and Huijbens, 2014), or problems derived from passenger transport due to its relationship with the acceleration of phenomena associated with climate change and pollution. Natural resources enhancement is also studied from its attractiveness perspective in order to be included in ecotourism offers. Regarding tourism marketing studies, it is common the use of environmental labels such as “ecotourism”, “sustainable tourism”, “tourism in natural areas”, among others. These approaches might be an excellent context for learning about natural environment and develop respectful attitudes and behaviours but, sometimes, create a contradictory perception, because its contribution to the mitigation of environmental impacts in the Anthropocene epoch is rather questionable (Fletcher, 2019). Linked to dissemination, another aspect to consider is the communication of sustainability as an emerging research topic that remains to be addressed in the higher studies in Tourism in the sense used by Tölkes (2018).

Regarding environmental responsibility in the Tourism context, Mihalic (2016) points out that this concept assumes three aspects: accountability, capacity to act, and the capacity to respond. This last aspect directly addresses tourism behaviour and involves creating solutions and acting to make tourism more sustainable (Leslie, 2012). The appreciation and care of the natural environment in the everyday behaviour of people (Holden, 2008; Holden and Fennell, 2013) should be considered the core matter of the environmental responsibility conception, and it must therefore be integrated into the curricula of the HE Tourism studies, because properly trained professionals will encourage a sense of responsibility and environmental awareness in tourists and visitors which, in turn, will lead to a longer-term and more sustainable tourism performance (Kilipirisa and Zardava, 2012).

The challenge to achieve this goal is to underpinning them through appropriate learning methodologies based on an ecocentric approach that values the environment for its own sake and not only because its usefulness for humans (Wattchow et al., 2014). In this respect, the “learning with nature” approach suggested by Taylor (2017) seems very suitable. On the other hand, authors as Postma (2006) pointed out that environmental education requires initiation into practices through involvement in collective deliberation and action, not by practicing skills of personal choice. Consequently, the situation invites to know firstly how environmental education appears at the HE Tourism Studies considering the large number of programmes on offer by universities in tourism, and, secondly, it is noteworthy that the way how student learn about environmental related competences have not been seriously addressed by academic institutions.

3. Methodology

The present work has been undertaken from an applied research approach, as Bunge (1983) defines it, that is to say, looking for the connection between theoretical and practical knowledge, in order to obtain in-depth knowledge and thus be able to approach the proposed objective. Regarding the analysis of the curricular design of HE Tourism studies in Spanish universities, previous research that includes a content analysis of the syllabi in Higher Education Tourism studies has been identified (Spanish Agency for Quality Assessment and Accreditation – ANECA, 2005; Cervera-Taulet and Ruiz-Molina, 2008; Ceballos et al., 2010; Majó, 2010; Díaz Fernández and Quirós, 2013; Torres-Rojas and García-Delgado, 2015; Porcal, 2019). This is a type of research on

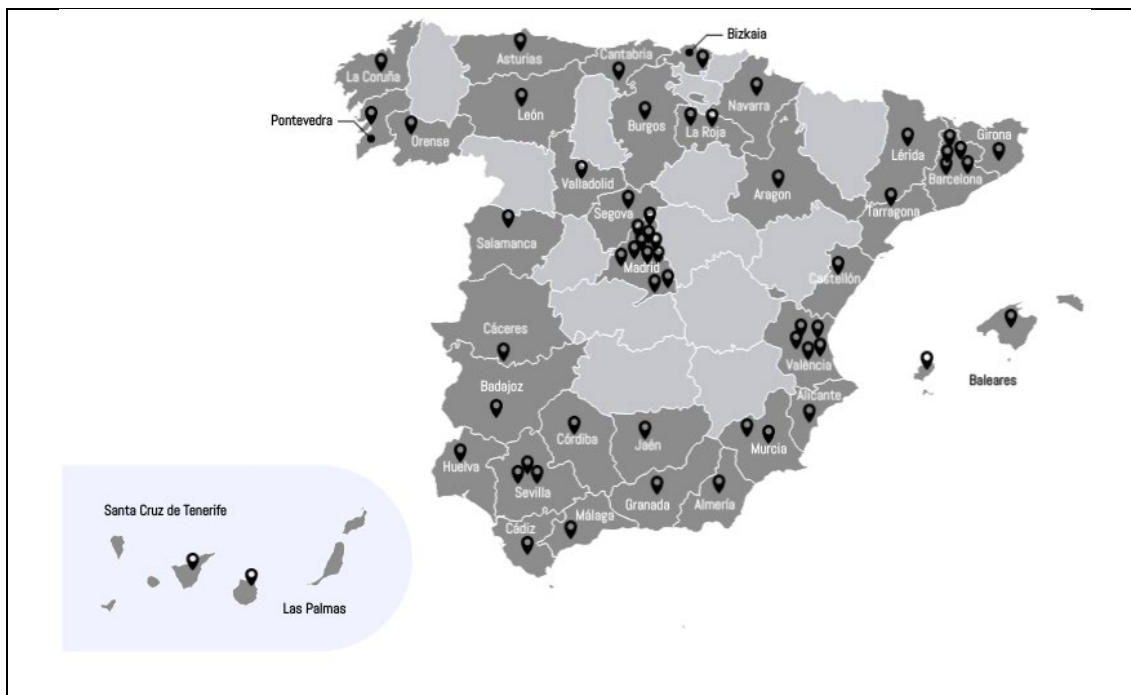
Tourism studies that has also been carried out in other countries following a similar methodology (Reichel, 2005; Okumus and Wong, 2007; Batra, 2016). There are also several studies that analyse the incorporation of environmental education in HE Tourism studies, such as the one by Telfer and Hashimoto (2001).

Accordingly, an analysis has been carried out of the 55 Spanish universities that teach Tourism during the academic year 2019-20. The related subjects were chosen among the Tourism studies on offer, including bachelor's, master's and doctoral degrees (Fig. 1). The selection was performed from those subjects in the different undergraduate and postgraduate programmes whose courses contain keywords related to environmental issues: "sustainability", "natural", "Nature" "ecotourism", Anthropocene", "transport", "climate change", "tourism resources", "territory" or "territorial".

The main source for collecting information has been the National Official Register of Universities, Centers and Degrees, official reports from the Ministry of Education, Culture and Sports of Spain, and those drawn up by the Spanish Agency for Quality Assessment and Accreditation (ANECA, 2019). In addition, the official websites of the Spanish universities and the tourism studies webpage have also been analysed in order to get information about the syllabi contents.

Apart from the syllabi content analysis about environmental knowledge provided in HE Tourism studies, environmental responsibility issues has been approached through a qualitative analysis. This was carried out with the aim of determining the specific and the general core competences of each subject in order to identify the environmental skills and behaviours that HE Tourism studies try to transmit to the students.

Thus, in addition to the competences and cognitive contents of the subjects, this research has focused on exploring the pedagogical aspects that facilitate the development of the concept of environmental sustainability. In this sense, the learning methodologies identified in the syllabi of the selected subjects of the Spanish HE Tourism studies include field trips, real projects seminars, final projects and inviting professionals.



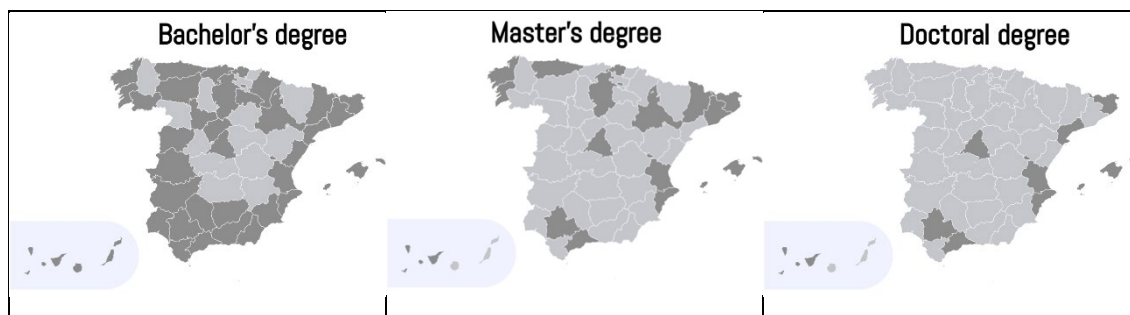


Figure 1. Regional distribution of the academic offer of Tourism studies in Spain in 2019

4. Results

This part shows the findings organized as follow: firstly, general aspects of the curricular design of the Tourism studies in Spain, including starting year of studies, distribution of credits, the existence of training tracks made up of elective subjects, the production and defense of doctoral thesis, among others. Secondly, syllabi content analysis of the programmes shows how the concept of environmental education has been developed. Finally, the third part includes the pedagogic approach of how environmental education is addressed by the universities.

4.1 General aspects of the curricular design of Tourism studies

University Tourism studies in Spain are relatively recent (they go back only to 1996). The rise of tourism as a global phenomenon and academic interest in this topic has grown dramatically and Tourism studies have become very popular in the university offer. As a consequence, the number of master's and doctoral degrees in this field has increased steadily in recent years. Initially, curricular design was oriented more towards professional training and the syllabi have progressively become more research oriented over the years.

Tourism studies in Spain include bachelor's, master's and doctoral degrees. The broadest range of studies is at undergraduate level (52), where programmes are offered at the majority of Spanish universities (55). Furthermore, 29 universities offer master's degrees including 2 Erasmus Mundus master's degree, and there are 5 doctoral degree programmes offered by 10 universities.

In relation to the general aspects of the curricular design of Tourism studies and academic organisational issues, it should be noted that the degrees in tourism of Spanish universities base their curricula on the indications dictated by the Spanish Ministry of Education and Science (2007), in accordance with Royal Decree 1393/2007 (Ministerio de Educación y Ciencia, 2007), which makes it mandatory to offer bachelor's, master's degrees and doctoral programmes that are adapted to the new European scenario. The curricula were renewed at the beginning of 2010 following the adaptation to the Bologna process (1999). Since then, there have been no substantial changes in the configuration of the compulsory subjects.

Spanish bachelor's degrees in Tourism require a student to obtain 240 ECTS distributed over four years, where 60 of them are common to all the degree courses. The current

Tourism studies (Tourism Degree) were first implemented in Spain during the 2008-2009 academic year in the cities of Madrid and Barcelona, and during the years 2010 and 2012 they became generalised in most of the universities.

It is observed that all the degrees build their curricula in a multidisciplinary way based on the contributions of various academic disciplines related mainly to Economics, Hotel Management and Business Administration. All of them also coincide in the areas of Law and Economics. Likewise, the subjects of Market Structure, Marketing, Geography, History, Mathematics/Statistics and English appear in the definition of all the degrees.

The training tracks are based on the existence of a broad and varied list of elective subjects. The number of credits devoted to elective subjects is around 34 on average. This type of training is important because of the flexibility it allows when it comes to developing the training tracks and distinctions. Likewise, these subjects are basically aimed at providing students with a general training, geared towards preparing them to carry out activities of a professional nature. The analysis shows that many universities have chosen to develop this offer by grouping the studies according to the conceptualisation, above all, of the faculty or school promoting them. In this way, two clear lines of specialisation can be observed: one towards business management (administration and management of tourist companies), based on subjects related to Economics, and the other towards tourism planning, based on Geography.

Postgraduate Tourism studies (official master's degrees and doctoral programmes) are an excellent opportunity to improve training in the tourism sector, and allow high levels of specialisation to be achieved that can later be applied to research in Tourism. According to the Spanish Ministry of Science, Education and Universities, there are currently 29 official master's degrees and 5 doctoral degrees on offer.

In Spain, official master's degrees are regulated by Royal Decree 56/2005 of 21 January, governing official postgraduate university studies (Ministerio de Educación y Ciencia, 2005), which distinguishes between second cycle studies (official master's degrees) and third cycle studies (doctoral degrees). Official master's degree courses usually last one or two years.

In relation to the preparation and defence of doctoral theses, several academic works have focused on analysing this issue, such as those of the Servei d'Estudis i Planificació of the Agència Valenciana del Turisme (2006), which provides information about the increasing number of theses dealing with Tourism issues after 2002. Most of the theses are related to Schools of Economics, and also to the discipline of Geography. Ortega et al. (2013) stated that for the period 2000-2012, there was an almost four-fold increase in the number of theses compared to the average over the period 1990-1999 and they comment that they are highly concentrated in just a few universities, mainly in those located in the tourist provinces of Spain and in the Universidad Complutense de Madrid. These same authors state that Schools of Economics continue to lead the field in terms of the number of theses defended, followed by those in the discipline of Geography. More recently, Torres-Rojas and García-Delgado (2015) confirmed this fact, since most of the theses belong to the field of Economics and Business Organisation (44.8 %), followed by those related to Geography (16.6 %). Sepúlveda and Plumed (2018) highlighted the pronounced growth in the production of doctoral theses in Tourism in Spain for the period 2013-2016, which they attribute to the approval and expansion of official doctoral programmes in Tourism in different Spanish universities within the framework of the European Higher Education Area.

4.2. HE Tourism studies and related Environmental Education

Firstly, in the case of the bachelor's degrees in Tourism, environmental sustainability is developed by basic courses under the name of "Territorial Tourist Resources", and "Geography and Environment" as one of the most notable basic training subjects identified in the bachelor's degree programmes of all the Spanish universities.

Over 30 of the elective subjects are related to topics concerning environmental sustainability and tourism-related resources. It could be said that all the universities offer at least one subject with these characteristics. These subjects are called "Tourism and the Environment", "Sustainable Tourism", "Tourism and Sustainable Development", "Sustainability and Accessibility" or "Spaces and society in a global world". It should be noted that few universities address "Tourism and Transport", which deals with some environmental issues that are explored in order to establish the relationship between the sector and the sustainability of tourism activity.

More specifically, we find other subjects such as "Territory, Sustainable Tourism and Development" which stands out for having included aspects related to awareness of the impacts (overtourism) or in the subject "Regulation of Territory and Sustainable Tourism" within the bachelor's degree in Tourism. In any case, it should be noted that the study and application of sustainable management tools such as recreational carrying capacity, inventory and evaluation of tourism potential, and visitor flow management are included in some way or another in the development of the programmes.

In addition, some universities have included elective subjects that deal with aspects related to new forms of tourism consumption more in line with the principles of environmental and social responsibility. The denomination they are given is usually "Ecotourism", as in the case of the bachelor's degree, or "Environmental Sustainability and Ecotourism". It is observed in any case, the offer of thematic blocks of five or more courses clearly oriented towards topics linked to the tourism management of natural and cultural heritage, and to Nature.

In the case of master's degree studies, as this is more specific training, the title of the master's programme itself already indicates the vocation of these studies. In Spain, the educational system offers master's degrees in environmental and tourism subjects, such as "Ecological and Sustainable Tourism Management", "Tourism, Archaeology and Nature" and also the "Sustainable Tourism and ICT", the curriculum of which includes a wide range of subjects linked to destination management from a sustainable perspective, to governance, to aspects of corporate social responsibility, to gender issues and to the environment.

The offer of doctoral studies in Tourism in the Spanish educational system is still limited. The clearest approach to the aspects of environmental sustainability at this educational level may be associated with the research area of specialisation in "Analysis and Planning of tourist areas and destinations: Tourism, Development and Local Society", which is shared by the wide doctoral programme called "Tourism" that is delivered at several universities. Likewise, there is a doctoral programme in "Tourism, Economics and Management" that includes a research area of specialisation in "Tourism and Sustainable Development", which has been based on the concepts of economics, environment, sustainability and tourism.

In relation to the issues of inclusive politics and cooperation for development, this topic has so far been little explored by universities. Only a few elective undergraduate subjects such as "Cooperation and Solidarity Tourism", "Social Inequality and Cooperation" or

“Ethic Tourism and International Cooperation” or “Social and Accessible Tourism” are dealing with this topic.

The other component of the environmental education is in relation with responsibility values and skills to be acquired by the students whom, as future professionals, are a very important vector of transmission of ethical and social responsibility to the public. It is therefore timely to discuss the ways in which tourism education might help to develop these skills and behaviours in order to reconnect nature and human beings in search of mutual benefit, and to think about avenues leading to collaborative ways of transmitting environmental responsibility.

Thus, the aspects related to "environmental responsibility" have been identified by analysing the core and specific competences included in the curricula. This allows us to verify that these aspects are evident in both the basic and the compulsory and elective subjects in the undergraduate degree courses in Tourism. Specifically, it is developed through the following competences:

- *Analysing the impacts generated by tourism.* This competence is worked on in elective or compulsory subjects such as "Tourism in natural and rural areas", which includes the analysis of the impacts caused by tourism, and also "Tourism Territorial Impacts", which refers explicitly to the study of the impacts of tourism.
Likewise, we are beginning to see a growing stream of elective subjects linked to sustainable tourism and the environment shared by different universities in Spain.
- *Evaluating and analysing the potential of tourism resources.* This competence is associated with the development of contents dealing with the application of tools for evaluating tourism resources from a sustainable point of view.
- *Managing tourism territory in keeping with the principles of sustainability.* With regard to this competence, a number of universities have been identified that include it in the design of the curriculum in subjects such as “Sustainability and Accessibility”, “Local Development and Sustainable Tourism” “Territorial Planning and Sustainable Tourism” and “Tourist Areas and the Environment” or “Tourism and Sustainable Development”.
- *Analysing the interrelationships between tourism and the environment.* This competence is developed in subjects like “The Environment and Sustainability” and “Spaces and Society in a global world”.

Regarding learning methodologies for teaching environmental sustainability, in general, the most widely are seminars in the form of workshops and activities that seek to go deeper into some specific knowledge. Similarly, a novel pedagogical resource is to invite professionals and social agents to come and deliver their testimonies in person, followed by a discussion with students. Another teaching methodology that has been identified in this analysis is the implementation of projects for solving real problems. Through this type of work, students learn a significant amount as they become aware of the problem, explore its possible causes and propose solutions from their own point of view (Ausubel, 1983). This type of activity, in addition to providing practical knowledge, kindles within students the ability to act in a socially responsible way and makes them more aware of certain issues related to the conservation and protection of territorial resources.

In the hand of teaching environmental responsibility, as Rodríguez et al. (2015) note, field trips stand out for their great usefulness both on an academic level and, above all, due to the possibility of getting to know different natural spaces, case studies and because of the capacity they allow to "learn by discovering" but it is not clear how to apply it for "knowing with Nature". Otherwise, field trips entail an important effort for lecturers because it is necessary to make appointments with the sites to be visited and with the authorities in charge of managing the resources and destinations; they do, however, offer students the chance to learn *in situ* about the problems faced by tourist sites. In addition, field trips provide an opportunity to develop other skills and abilities such as promoting harmonious coexistence among students and with the lecturer.

5. Discussion and conclusion

As has been observed, HE Tourism studies are configured in a multidisciplinary way based on the contributions of several academic disciplines, especially those traditionally related mainly with Economics and Business Organisation. This research reveals that despite the existence of a wide range of subjects that deal in one way or another with environmental sustainability, especially in the field of Geography, it would be necessary to organise the offer in a more coherent way in the form of specialised training tracks devoted to environmental education including both sustainability and responsibility issues.

Regarding the content analysis of the syllabi, "environmental sustainability" aspects are only present to a rather discrete extent, although judging by the number of compulsory and elective subjects currently dealing with those matters there certainly seems to be a growing interest in developing them.

In this regard, trends point towards the inclusion of concepts such as the study of overtourism, gentrification and local community involvement, as major aspects for territorial planning. Yet, subjects that look at recreational carrying capacity or resources assessment are a very small part of the offer currently available in terms of bachelor's degree courses. Because they are specialised courses, master's degrees address the topic of environmental sustainability the most. Somewhat surprisingly, the doctoral programmes on offer are once again not very specialised, as is the case in undergraduate studies.

In general terms, it is concluded that undergraduate studies, except in just a few cases, have a generalist orientation because of the holistic vision inherent to such courses. These programmes need updating as Tourism studies began over 25 years ago, whereas matters regarding climate change and environmental issues have only recently started to be discussed, thereby resulting in a mismatch between them. Results show that, initially, curricular design was oriented more towards professional economical training. The syllabus has progressively considered more research oriented towards environmental sustainability but this scientific knowledge is not always clearly represented and framed in the teaching programmes and in learning methodologies. The reason for this is that, in most cases, it is framed within a pedagogical approach that some authors, such as Taylor (2017), have called "learning about Nature".

In this regard, adapting the teaching methodologies to syllabi linked to environmental education is a great challenge. As Shephard (2007) suggests, leaders in HE should not underestimate the difficulties involving students in achieving affective outcomes or in encouraging teachers to seek these outcomes.

The analysis carried out allows us to verify that efforts are being made to follow methods oriented towards environmental responsibility because these methods will allow acquisition of the core and specific competences needed to develop attitudes of environmental responsibility. One learning method that is commonly included in the syllabi at many Spanish universities to develop environmental responsibility attitudes is the field trip. This comprehensive tool stands out as a way to allow students to undertake a meaningful learning and emotional outdoor experience. Such trips are also an opportunity to initiate them in collective environmental practices by taking part in actions aimed at raising their awareness about nature and its resources. Field trips are also an instrument for promoting ecocentric sensibilities and biophilic dispositions (Edwards, 2014), which students would be able to communicate and transmit in their professional undertakings. Yet, there are no indications in the syllabi about how to carry out field trips or on how the competences associated with these activities can be evaluated. Nevertheless, it is known that the use of these methodologies is more widespread than what the courses really reflect.

At this point, it is necessary to highlight the contribution of networks such as TEFI or BEST EN (Canziani et al., 2012). These initiatives are playing an important role in disseminating and promoting this concept and philosophy with the aim of treating it from a holistic perspective and creating awareness among the academia and, above all, among the students as future tourism professionals.

Other methodologies proposed to develop environmental responsibility include the incorporation of storytelling techniques (Abrahamson, 1998; Paddison et al., 2019), heritage interpretation, role playing and dramatization (Teruel et al., 2014), among others. These types of techniques were initially associated with heritage visits, but it has been observed, from the professional experience of the authors of this work, that they can be very appropriate in the academic environment for learning and developing attitudes and behaviours

To sum up, there is still plenty of room for improvement in Tourism studies in Spain before they can address environmental sustainability and responsibility in the Anthropocene epoch in a holistic way, since there is considerable evidence that Tourism is less sustainable than it has ever been before. Hence, there is a clear need to incorporate a new vision regarding the topics of environment and tourism-related resources and social concerns that should link Tourism studies more closely to nature and humanity. Otherwise, it can be considered a missed opportunity for students as future tourism professionals, to emphasise the ecological and social perspectives, such as aspects of raising awareness about the importance of resources conservation and protection, and the lack of a comprehensive vision of Tourism.

Acknowledgments

The authors of this paper wish to thank José Carlos García-Rosell and Emily Höckert of Lapland University and the two anonymous reviewers for their critical comments of this study and their insightful advice and suggestions.

References

- Abrahamson, Craig Eilert. "Storytelling as a pedagogical tool in higher education." *Education*, vol. 118, no. 3, 1998, p. 440+. Gale Academic (Retrieved April. 2020).
- Agencia Nacional de Evaluación de la Calidad y Acreditación (ANECA) (2005). *Libro blanco del Título en Grado en Turismo*. http://www.aneca.es/var/media/359791/libroblanco_turismo_03.pdf (Retrieved: May 2019).
- Agencia Nacional de Evaluación de la Calidad y Acreditación (ANECA) (2019). *Registro de Universidades, Centros y Títulos (RUCT)*. <https://www.educacion.gob.es/ruct/consultaestudios.action?actual=estudios> (Retrieved: September 2019).
- Ausubel, D. (1983). Teoría del aprendizaje significativo. *Fascículos de CEIF*, 1: 1-10.
- Batra, A. (2016). Bridging the gap between tourism education, tourism industry and graduate employability: intricacies and emerging issues in Thailand. *Abac Journal*, 36(2): 78-89.
- Blanco-Romero, A., Blázquez-Salom, M., Morell, M. Fletcher, R. (2019). Not tourism-phobia but urban-philia: understanding stakeholders' perceptions of urban touristification. *Boletín de la Asociación de Geógrafos Españoles*, 83, 2834: 1-30.
- Boissevain, J. (1996). *Coping with Tourists: European Reactions to Mass Tourism*. Berghahn Books, 264 pp.
- Boyle, A., Wilson, E. and Dimmock, K. (2015). Transformative Education and Sustainable Tourism: The Influence of a Lecturer's Worldview. *Journal of Teaching in Travel & Tourism*, 15(3): 252-263.
- Brown, A.G., Tooth, S., Chiverrell, R.C., Rose, J., Thomas, D.S.G., Wainwright, J., Bullard, J.E., Thorndycraft, V.R., Aalto, R. and Downs, P. (2013). The Anthropocene: is there a geomorphological case? *Earth surface processes and landforms*, 38: 431-434
- Bunge, M. (1983). *Treatise on basic philosophy: Volume 6: Epistemology & methodology II: Understanding the world (Vol. 6)*. Springer Science & Business Media.
- Canziani, B.F., Sönmez, S., Hsieh, J. and Byrd, E.T. (2012). A Learning Theory Framework for Sustainability Education in Tourism. *Journal of Teaching in Travel and Tourism*, 12(1): 3-20.
- Ceballos, C., Arias, C. Ruiz Jiménez, A. Sanz, C. Vázquez, I. (2010). Tourism training in Spain: past, present and future in the new European Higher Education Area. *Cuadernos de Turismo*, 25: 257-261.
- Cervera-Taulet, A. and Ruiz-Molina, M.E. (2008). Tourism education: a strategic analysis model. *Journal of Hospitality, Leisure, Sports and Tourism Education*, 7(2): 59-70.
- Chettiparamb, A. and Kokkranikal, J. (2012). Responsible Tourism and Sustainability: The Case of Kumarakom in Kerala, India. *Journal of Policy Research in Tourism, Leisure and Events*, 4(3): 302-326.
- Clark, S.G., Rutherford, M.B., Auer, M.R., Cherney, D.N., Wallace, R.L., Mattson, D.J., Clark, D.A., Foote, L., Krogman, N., Wilshusen, P. and Steelman, T. (2011). College and University Environmental Programs as a Policy Problem (Part 2): Strategies for Improvement. *Environmental Management*, 47: 716-726.

- Corlett, R.T. (2015). The Anthropocene concept in ecology and conservation. *Trends in Ecology & Evolution*, 30 (1): 36-41.
- Díaz Fernández, M.C. and Quirós, F.J. (2013). El turismo en los nuevos planes de estudio universitarios. Una reflexión sobre la formación de los futuros profesionales del sector. *VI Jornadas de Investigación en Turismo, 3-4 de julio*. <https://idus.us.es/xmlui/bitstream/handle/11441/52960/diaz-fernandez.pdf?sequence=1&isAllowed=y> (Retrieved: August 2019).
- Doxey, G. (1975). A causation theory of visitor-resident irritants, methodology and research inferences. In: *The impact of tourism*. Sixth Annual. Conference of the Travel Research Association. San Diego, USA, 195-198.
- Edwards, S. (2014). Environmental Education and Pedagogical Play in Early Childhood Education. In A. Cutter-Mackenzie, S. Edwards, D. Moore, and W. Boyd,(eds.): *Young Children's Play and Environmental Education in Early Childhood Education*. Amsterdam: Springer, 25-37.
- Ellis, E.C. and Haff, P. (2009). Earth Science in the Anthropocene: New Epoch, New Paradigm, New Responsibilities. *Eos Transactions American Geophysical Union*, 90(49).
- European Commission (2012). *Charter for Sustainable and Responsible Tourism*. Enterprise and Industry Directorate General, European Commission, Brussels.
- Fletcher, R. (2019) Ecotourism after nature: Anthropocene tourism as a new capitalist "fix". *Journal of Sustainable Tourism*, 27(4): 522-535.
- García-Hernandez, M., Ivars, J., Mendoza de Miguel, S. (2019): Overtourism in urban destinations: the myth of smart solutions. *Boletín de la Asociación de Geógrafos Españoles*, 83, 2830: 1-38.
- Goodwin, H. (2011). *Taking Responsibility for Tourism*. Goodfellow Publishers Limited, Oxford.
- Gren, M. and Huijbens, E.H. (2014). Tourism and the Anthropocene. *Scandinavian Journal of Hospitality and Tourism*, 14(1): 6-22.
- Guitart, N., Alcalde, J., Pitarch, A. Vallvé, O. (2018). De la Turismofobia a la Convivencia Turística: El Caso de Barcelona. Análisis Comparativo con Ámsterdam y Berlín. *ARA: Revista de Investigación en Turismo*, 8(2).
- Hall, C.M., Amelung, B., Cohen, S., Eijgelaar, E., Gössling, S., Higham, J., Leemans, R., Peeters, P. Ram, Y. and Scott, D. (2015). On climate change skepticism and denial in tourism. *Journal of Sustainable Tourism*, 23(1): 4-25.
- Higgins-Desbiolles, F., Carnicelli, S., Krolikowski, Ch., Wijesinghe, G. and Boluk, K. (2019). Degrowing tourism: rethinking tourism. *Journal of Sustainable Tourism*, 27(12): 1926-1944.
- Holden, A. (2008). *Environment and Tourism*. Ed. Routledge, 273 pp.
- Holden, A. and Fennell, D. (eds.) (2013). *The Routledge Handbook of Tourism and the Environment*. Ed. Routledge, 601 pp.
- Inskeep, E. (1991). *Tourism Planning: An integrated and Sustainable Development Approach*. Van Nostrand Reinold. New York

- Jickling, B., Blenkinsop, S., Timmerman, N., De Danann Sitka-Sage, M. (eds.) (2018). *Wild Pedagogy. Touchstones for Re-Negotiating Education and the Environment in the Anthropocene*. Springer International Publishing.
- Kennedy, D, Hyland, A and Ryan N. (2007). Writing and using learning outcomes: A practical guide. In: Froment, E, Kohler J, Purser L and Wilson L (eds.): *EUA Bologna Handbook – Making Bologna Work*. Berlin: Raabe Verlag.
- Kilipirisa, F. and Zardava, S. (2012). Developing sustainable tourism in a changing environment: issues for the tourism enterprises (travel agencies and hospitality enterprises). *Procedia - Social and Behavioral Sciences*, 44: 44–52.
- Lambrechts, W., Mulà, I., Ceulemans, K., Molderez, I. and Gaeremynck, V. (2013). The integration of competences for sustainable development in higher education: an analysis of bachelor programs in management, *Journal of Cleaner Production*, 48: 65-73.
- Lees, L. (2000): A reappraisal of gentrification: towards a “geography of gentrification”. *Progress in Human Geography*, 24 (3): 389-408.
- Leinfelder, R. (2013). Assuming responsibility for the Anthropocene: challenges and opportunities in education. *RCC Perspectives*, 3 “*Anthropocene: Envisioning the Future of the Age of Humans*”: 9-28.
- Leslie, D. (2012). *Responsible Tourism. Concepts, Theory and Practice*. CABI, Wallingford.
- Lewis, S., Maslin, M. (2015). Defining the Anthropocene. *Nature*, 519: 171–180.
- Majó, J. (2010). Las propuestas de Grado en Turismo en el Espacio Europeo de Educación Superior (EEES). *Estudios Turísticos*, 184: 137-181.
- Mihalic, T. (2016). Sustainable-responsible tourism discourse – Towards ‘responsustable’ tourism. *Journal of Cleaner Production*, 111: 461-470.
- Milano, C., Cheer, J.M. and Novelli, M. (eds.) (2019). *Overtourism: Excesses, discontents and measures in travel and tourism*. CABI International.
- Ministerio de Educación y Ciencia de España (2005). *Real Decreto 56/2005 de 21 de enero, por el que se regulan los Estudios Universitarios Oficiales de Posgrado*. Boletín Oficial del Estado, 303, de 20 de diciembre de 2005. Referencia: BOE-A-2005-20881.
- Ministerio de Educación y Ciencia de España (2007). *Real Decreto 1393/2007 e 29 de octubre, por el que se establece la Ordenación de las Enseñanzas Universitarias Oficiales*. Boletín Oficial del Estado, 260, de 30 de octubre de 2007. Referencia: BOE-A-2007-18770.
- Okumus, F. and Wong, K.K.F. (2007). A Content Analysis of Strategic Management Syllabi in Tourism and Hospitality Schools. *Journal of Teaching in Travel & Tourism*, 7(1): 77-97.
- Ortega, E., Rodríguez, B. y Such, M. J. (2013) Las tesis doctorales de turismo en España 2000-2012, *Estudios Turísticos*, 195: 9-31.
- Paddison, B., Höckert, E. and Crossley, E. (2019). Editorial. *Journal of Teaching in Travel & Tourism*, 19:1, 1-7, DOI: 10.1080/15313220.2018.1560527

- Porcal, M.C. (2019). *La Geografía en las titulaciones de Grado y Máster en las Universidades de España*. Informe de la Vocalía de Enseñanzas universitarias de la Asociación de Geógrafos Españoles. https://www.age-geografia.es/site/wp-content/uploads/2019/03/INFORME-ENSEN%CC%83ANZAS-UNIV_V-1.1.pdf (Retrieved: October 2019).
- Postma, D.W. (2006). *Why care for Nature? In search of an ethical framework for environmental responsibility and education*. Springer, 220 pp.
- Previdi, M., Liepert, B.G., Peteet, D., Hansen, J., Beerling, D.J., Broccoli, A.J., Frolking, S., Galloway, J.N., Heimann, M., Le Queré, C., Levitus, S. and Ramaswamy, V. (2013). Climate sensitivity in the Anthropocene. *Quarterly Journal of the Royal Meteorological Society*, 139: 1121-1131.
- Reichel, A. (2005). Tourism and Hospitality Higher Education in Israel. *Journal of Teaching in Travel & Tourism*, 5 (1-2): 61-88.
- Rodríguez, A., Díaz, É. y Carreño, J. (2015). Turismo como agente educativo: un análisis desde las salidas de campo. *Turismo y Sociedad*, XVI: 117-130
- Sepúlveda, A. and Plumed, M. (2018). La investigación y la información estadística en turismo en España: hacia un sistema de conocimiento e inteligencia turística. *Estudios Turísticos*, 215: 101-120.
- Servei d'Estudis i Planificació de la Agència Valenciana del Turisme (2006). Análisis de las tesis doctorales de turismo realizadas en universidades españolas. *Papers de Turisme*, 40: 111-116.
- Sheldon, P.J. and Hsu, C.H.C. (eds.) (2015). *Tourism Education. Global issues and Trends*. Emerald Group Publishing. 224 pp.
- Shephard, K. (2007). Higher education for sustainability: seeking affective learning outcomes. *International Journal of Sustainability in Higher Education*, 9(1): 87-98.
- Talero, G. (2004). *Literature review. Environmental education and public awareness*. Canada: Victoria. https://worldfish.org/PPA/PDFs/Semi-Annual%20II%20English/2nd%20s.a.%20eng_F2.pdf (Retrieved: February 2020)
- Taylor, A. (2017). Beyond stewardship: common world pedagogies for the Anthropocene. *Environmental Education Research*, 23(109): 1448-1461.
- Telfer, D.J. and Hashimoto, A. (2001). Environmental Education in Tourism – A Comparison between Canada and Japan. *Journal of Hospitality & Tourism Education*, 13(1): 18-24
- Teruel, L., Morant, M. and Viñals, M.J. (2014). Dramatisation as a Teaching Method in University Programs for Tour Guides and Interpreters. *Journal of International Education Research*, 10(5): 313-322.
- Tölkes, Ch. (2018). Sustainability communication in tourism – A literature review. *Tourism Management Perspectives*, 27: 10-21.
- Torres-Rojas, A.Á. and García-Delgado, F.J. (2015). El Doctorado en Turismo en España: estado de la cuestión. *EDUSK. Revista Monográfica de Educación Skepsis.org*, 5, 1-49.
- UNEP and UNWTO (2005). *Making Tourism More Sustainable - A Guide for Policy Makers*, United Nations Environment Programme, Division of Technology, Industry and Economics, 210 pp.

- UNESCO (2004). *United Nations Decade of Education for Sustainable Development: Draft International Implementation Scheme (IIS)*. United Nations Educational, Scientific and Cultural Organization, Paris. <https://unesdoc.unesco.org/ark:/48223/pf0000246435> (Retrieved: November 2019).
- UNESCO (2014). *UN Decade of Education for Sustainable Development (Final Report 2005-2014)*. United Nations Educational, Scientific and Cultural Organization, Paris. <https://sustainabledevelopment.un.org/content/documents/1682Shaping%20the%20future%20we%20want.pdf> (Retrieved: March 2020).
- Vera, J. F. and Ivars, J (2007). La formación y la investigación turística en España. Una visión de síntesis. *Papers de Turisme*, 29: 7-27.
- Wattchow, B., Jeanes, Alfrey, L., Brown, T., Cutter-Mackenzie, A. and O'Conner, J. (eds.) (2014). *The Socioecological Educator: A 21st Century Renewal of Physical, Health, Environmental and Outdoor Education*. Amsterdam: Springer.
- Willard, M. Wiedmeyer, C., Warren Flint, R., Weedon, J.S., Woodward, R., Feldman, I. Edwards, M. (2010). The sustainability professional: 2010 competency survey report. *Environmental Quality Management*, 20(1): 49-83.