GREEN GAMES IN TOURISM & HOSPITALITY

LLP/LᴅV/TOI/2013/IRL - 508

NEEDS ANALYSIS REPORT

WP 2 – Research

Education and Culture DG

Lifelong Learning Programme

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1. Introduction

This report has been developed as part of the Leonardo da Vinci supported project "GGTH - Green Games in Tourism & Hospitality". The aim of the project is to innovate and support improvements in VET systems and practices by developing a digital "serious" game along with associated guidelines and training for students, vocational teachers and others receiving, providing or participating in vocational training in the tourism and hospitality sector.

The end product of the project will be an online digital game and game-based-learning-methodology for the understanding and implementation of knowledge, skills, strategies, tools and regulations related to food and water waste and energy management within the Tourism and Hospitality sector, in addition to advocating attitudinal change and endorsement of relevant environmental values.

This Needs Analysis report is a result of the compilation of the information gathered by the GGTH partnership on the different education systems, legal frameworks, training curricula and procedures as well as interviews and group meetings within four partner countries: Ireland, Germany, the UK and Spain.

2. Methodology

The methodology for the needs analysis has included two major components; a documentation analysis/ review of different education systems in Europe and non-formal interviews conducted with several training schools in order to identify the needs

Documentation review

The method applied for the documentation review was a desk research which included studying the education system regarding tourism and hospitality, followed up by a template that each partner was responsible for filling in.

The template used is the following:

	HIGHER LEVEL EDUCATION		INTERMEDIATE LEVEL EDUCATION	
JOB	JOB 1…	JOB N	JOB 1…	JOB N
RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THE DIPLOMA				
EDUCATIONAL REQUIREMENTS				
PERSONAL REQUIREMENTS				
DURATION				

GENERAL CONTENTS				
SPECIFIC CONTENT				
POSSIBLE CONTACT PERSON				
POSSIBLE CONTACT VOCATIONAL SCHOOL				
SOURCES				

Interviews

Some partners have organized meetings with different tourism and hospitality schools in order to have a good overview of the overall system in a certain country and identify what is taught. The meetings have been generally held with the Heads of Department of the school and/or institute.

The purpose of the meetings was not to overwhelm the school with information but rather to keep it simple so as to not put anyone off. The future engagement and participation of the schools is key for the project and to scare them with long surveys or questionnaires could end up with the schools not wishing to engage with the project.

The following template for interaction with the schools has been used:

1. Inform the school about the project and the game. We are producing a game based learning package including eLearning support materials to raise awareness of resource management and environmental protection in the tourism and hospitality sector. It will probably be mobile based. Besides the game, there will be a lot of support material to help the students.
2. Find out about the system of training for the Hospitality and Tourism sector in the region. Types and how many schools; types and how many courses, types and numbers of students. Etc.
3. Find out about the nature of the training that particular school provides. What are the types of courses: the topics (e.g. chef, hotel, waiter etc.); the level (diploma, degree, post degree etc.) and the types of student (age, type, level).
4. Find out if any environmental or resource efficiency elements are included in any curriculum. Whether they are embedded in the curriculum or are explicit/ separate. Is there anything on waste, food waste, water management, energy, infrastructure, other issues?

5. <u>Do they know of any other courses or curricula in this field that cover environmental/resource management issues</u>? Can you get contact details for these?

6. <u>Would these kinds of material be useful to them, now or in the future?</u> Would they agree to give us some feedback on the materials. Are they interested in putting this material into the formal curriculum? What kind of other information would they like to see included regarding resource efficiency and the environment?

7. <u>Would they agree to pilot the game and materials with some of their students? When could this take place?</u> Simple feedback process with questionnaire or some short electronic survey monkey system.

3. Education Systems in Tourism and Hospitality

Across Europe, education in tourism is undergoing a process of adaptation and change to the new demands of a global stage characterized by important changes in the labour market, an increasing global competition, continuous technological advances, changes in demand patterns - students want a high probability of employability and employers want employees with a high level of training — and by the requirements of the European higher education area[1].

There appears to be some diversity in the curriculum across the sector, from course to course and country to country, for a number of reasons:

- the lack of agreement on the content of the curricula of tourism, which is expressed in the debate over the value of general subjects versus specific ones
- the consequences of labour mobility in tourism;
- the informal links between tourism industry and academic research, which prevent the effective transfer of knowledge
- the importance and implementation of cooperative education in tourism studies and
- the need for a transnational debate when it comes to educational issues in tourism in the context of emerging international content of curriculum and the global distribution of graduates from tourism.

3.1.   Ireland

In Ireland almost all of the training in this sector is done at Further Education and Higher Education Levels[2].

Several Colleges of Further Education provide courses to levels FETAC 5 and 6 certificate levels[3]. The Higher Education Courses from levels 6 – 8 (Certificate, Diploma and Degree) are provided by the Institutes of Technology and cover 2 to 4 year courses. Very few courses are

[1] ibid.
[2] More information at: http://www.picktourism.ie/
[3] This awards system is explained here: http://www.nqai.ie/awardsframework.html

provided at University level. All but 2 of the Institutes of Technology in Ireland are offering a range of courses in this sector, up to and including degree level, including:

- Higher Certificates in Front Office, Bar Supervision, Tourism and Hospitality, Culinary Arts etc.
- Trainee Manager Development Programmes
- B.A. Degree in Culinary Arts
- Honours Business Degree in Tourism
- Restaurant Operations Management
- National Traineeship in Professional Cookery
- Total Immersion Cookery Programme

Most of the courses are supported by Failte Ireland, the Irish Tourism Body and many are given part-time, while the students also work in hotels, restaurants etc.

3.2. Germany

In Germany a range of courses are provided relating to the tourism sector[4].

Three year courses are given for:

- Chef
- Restaurant Specialist
- Hotel Specialist
- Hotel Manager

Two year courses are given for: Skilled Worker.

Usually these are at post-secondary school levels with higher level courses leading toward the hotel manager qualification.

A wide range of subjects and skills are taught at these courses varying from all aspects of food knowledge and preparation to day-to-day economic and hospitality skills for hotel related courses.

3.3. UK

In the UK many courses are available in the tourism sector. While some of these are given at secondary school level, most are offered in higher education and cover all levels, from Certificate to PhD levels. These can be both part time, for those already in the workplace or full-time. This is not including cooking and culinary arts courses. These are summarized in Figure 3.3 below[5].

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[4] http://berufe.hotel-intern.de/

[5] Fidgeon, Paul *Tourism education and curriculum design: a practitioner perspective* VISTAS Education, Economy and Community The University of West London Journal Volume 1 (2) October 2011, p 22-43

Across the UK, thousands of these courses are being offered full time (FT) part time (PT), sandwich (SW), apprenticeships (A) and through distance learning (DL) These are shown in Table 3.1 below.

Type of Course	Mode (FT/PT/SW/DL/A)	Subject	Number of Courses
NVQ (All Courses) Levels 1-3	FT/PT/SW/DL/A	Travel/tourism	1053/435
Foundation Degree	FT/PT/SW/DL	Travel/Tourism	92 *
Bachelor of Arts	FT/PT/SW	Tourism (Combined Studies)	803
Bachelor of Arts	PT/FT/SW	Tourism (Single Subject)	90
Bachelor of Arts	FT/FT/SW	Travel (Combined Studies)	128
Bachelor of Arts	FT/PT/SW	Travel (Single Subject)	6
Higher National Diploma/Higher National Certificate	FT/PT	Tourism	22
Higher National Diploma/Higher National Certificate	FT/PT	Travel	19
PG Diploma/MA	FT/PT	Travel/Tourism	111

Table 3.1: Types of University courses in Tourism/Travel in the UK (2010)

School Education (14-16 years)	Further Education (16 years plus)	Higher Education (18 years plus)	
		Undergraduate	**Postgraduate**

School Education (14-16 years)

14-16 Diploma in Travel & Tourism – Foundation (2 years)

Access to Travel & Tourism/Foundation in Travel & Tourism (2 years) (Scotland)

Further Education (16 years plus)

OCR A/S, A-level Travel & Tourism (A/S 1 year, A-level 2 years)

City & Guilds Diploma in Travel & Tourism

BTEC level 1 & 2 Introductory Certificate/ First Diploma in Hospitality Travel & Tourism (2 years)

16-19 Diploma in Travel & Tourism – Higher (2 years) Advanced (2 years)

Higher Education (18 years plus) — Undergraduate

Certificate of Higher Education (1 year)

Employer-led Foundation Degree (2 years)

Higher National Diploma (2 years full-time, 3 years with work experience)

Degree (3 years full-time, 4 years with work experience)

Higher Education (18 years plus) — Postgraduate

Postgraduate Diploma (1 year)

Master of Arts/Science (12-18 months)

Master of Philosophy (2 years by thesis or publications)

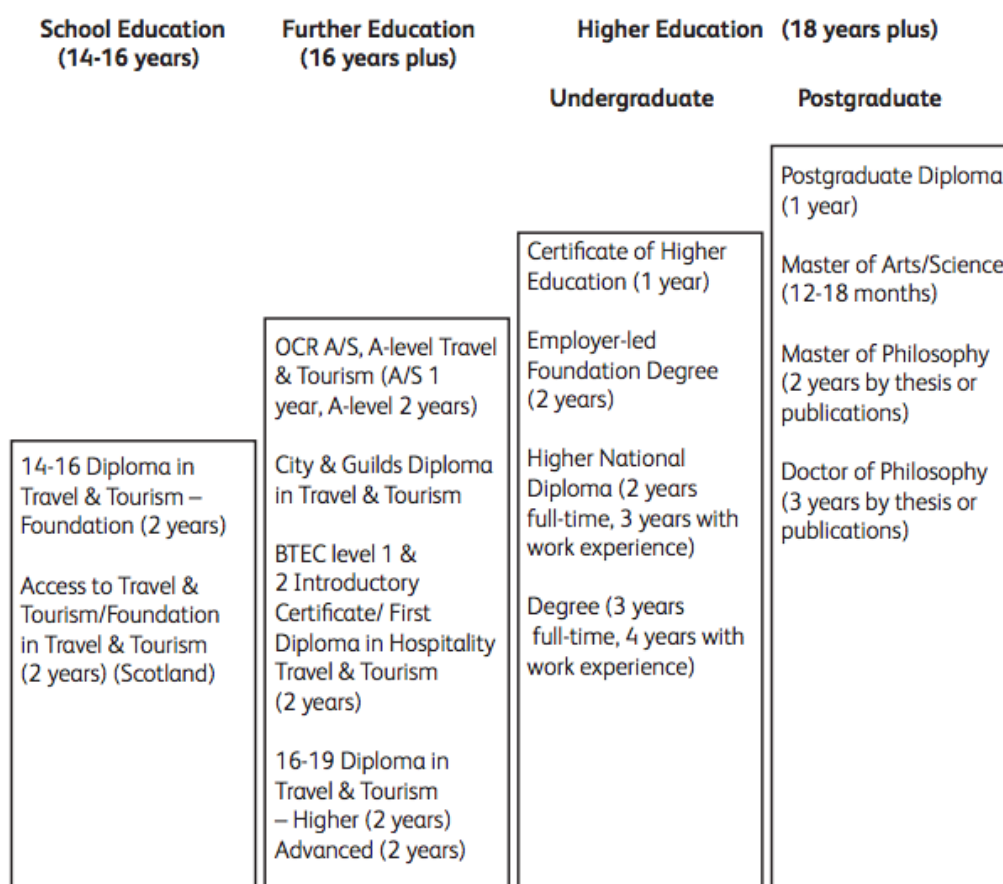Doctor of Philosophy (3 years by thesis or publications)

Figure 3.3: Tourism related courses in the UK

A range of subjects are being offered in these courses in the UK including:

- Theories of human resource management
- Written communication skills
- Marketing theory
- Hotel & restaurant operations
- Managerial accounting
- Introduction to the travel & tourism industry
- Microcomputer literacy
- Ethics and social responsibility
- Entrepreneurship & innovation
- Managing service quality
- Interpersonal relation skills
- Principles of tourism development
- Practical work experience

3.4. Spain

In Spain 80 universities are offering courses for the acquisition of a university degree in tourism. Several of these programmes are included in the top 100 ranked Hospitality and Tourism Programmes in the World[6].

Several of these are in the process of adapting their curricula to fit into the common European system of credits (ECTS - European Credits Transfer System) to promote the comparability of studies and the mobility of students a graduates, to promote European cooperation and to promote the European dimension of higher education.

A study of some of these tourism education programmes identified the 6 main skills being taught in the Spanish universities:

1. competence in assessing the tourism potentials and the prospective analysis of its operation
2. competence in leading and managing (management) the different kinds of tourism organizations
3. competence in identifying and managing tourist areas and destinations
4. competence in knowing the operating procedure of the field of housing and in restoration
5. acquiring knowledge in the field of operational procedures of brokerage firms and
6. the competence in planning and managing human resources of tourism organizations

These skills are mainly related to knowledge from the area of business administration and marketing - the area of knowledge that focuses a bigger amount of credits, not only for compulsory subjects but also for optional subjects in the degree of tourism. This also appears to show the lack of importance given to skills related to customer service orientation, to the value of cultural heritage, to the understanding of legal framework governing tourism activities or to the knowledge of political and administrative structures.

In Spain, like the UK, as well as the University level courses in Tourism and Travel, there are many other courses provided both at Higher Level Vocational Training Level and at Intermediate Level Vocational Training[7].

At Higher Level, the following courses are provided:

- Chef (Higher Technician in Kitchen Management)
- Restaurant Specialist (Higher Technician in Catering Services Management)
- Hotel Manager (Higher Technician in Tourist Accommodation Management)

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[6] Bustelo, Francisco Espasandín. Fernandez, Carmen Díaz. Quirós Tomás, Francisco Javier *Higher education of tourism in Spain and its adaptation to the European higher education area* rap — Rio de Janeiro 44(5):1259-266, Sept./Oct. 2010

[7] (*) Plan de Competitividad e Innovación del Turismo Vasco 2010-2013" (*) IV Plan Vasco de Formación Profesional (IV PVFP). (*) Catálogo Modular de Formación Profesional (*) Catálogo Nacional de Cualificaciones Profesionales (*) http://www.todofp.es/

At Intermediate Level the following courses are given:

- Skilled Worker in the hospitality industry (Technican in Cookery and Gastronomy)
- Skilled Worker in the hospitality industry (Technician in Catering Services)

4. Main Needs according to User groups / Stakeholders

The main objective of the interviews held with the different hospitality and tourism schools was to identify how sustainability is currently addressed in the curricula and how the training could be improved.

Sustainability is now widely accepted as a major element of tourism and is predicted to become one of the key elements of the sector by 2015[8]. Already 95% or business travelers surveyed believe that that hotel industry should be undertaking green initiatives.

But, while sustainability is increasingly seen as a prominent factor in hospitality decision making, it is still not embedded in business thinking and certainly is not a major element of education and training in the sector.

Although industry leaders are aware of the sustainability agenda, action is not yet being taken to recognize the enormity of the changes that will impact on the sector. Those who embed sustainability across their business from strategy to operations, from brand value to asset management will be prominently positioned and those who do not, will fall behind. And one of the key areas where the sector can prepare for the sustainability agenda in is training and human capital development[9].

Furthermore, while much has been written about sustainability education in general, very little has been published or taught regarding sustainability concepts and practices within courses in the hospitality curriculum10. Given the depth and breadth of this industry worldwide, the need for future leaders with core values toward sustainability is critical and the need to increase the sustainability element into curricula is acute.

An essential component of sustainability education centers on environmentally conscious behavior and therefore, it is paramount that more is learned about the relationship between human actions and the environment[11]. This is especially true of resource intensive sectors such as tourism. It is only by learning about the resources that are consumed in this sector that students will change their behavior towards more sustainable actions.

Improved awareness has been shown to influence individual lifestyle choice[12]. One function of

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[8] Deloitte *Hospitality 2015, Game Changers or Spectators?* Deloitte, London, 2010

[9] ibid.

[10] Deale, C., Nichols, J., & Jacques, P. *A Descriptive Study of Sustainability Education in the Hospitality Curriculum.* Journal of Hospitality & Tourism Education, 21 (4) 34-42. 2009

[11] Deale, Cynthia S. and Barber, Nelson *Sustainability: What Matters to Students, Educators, and Hospitality and Tourism Professionals?* BEST EN Think Tank X Networking for Sustainable Tourism, 2009

[12] GFK Research *Americans Reach Environmental Turning Point...Companies Need to Catch Up* 2007

knowledge is to help maintain strong attitudes. Incorporating sustainability into the hospitality management curriculum will increase knowledge of the environment and ultimately change attitudes and behaviour. This is essential to ensure sustainable tourism in the future.

By 'carrying out' sustainable activities in game based learning, for example, it is more likely that students will then make the right choices in their actual work in kitchens, restaurants, hotels, etc.

Initial research indicates that while there are pockets of sustainability based education around Europe, this topic is not widely taught to tourism and hospitality students. Nor does there appear to be any agreed or widely accepted environment-related curriculum to teach these students.

4.1. Ireland

In Ireland, for example, the interviews held with four Institutes of Technology Tourism and Hospitality Departments, have shown that there are three broad categories of inculcation of sustainability into the curricula[13]:

1. In one of the institutes, currently there is little or no formal training on sustainability and resource efficiency. In addition it was noted that changes to the curriculum tend to happen incrementally and at a slow pace. Costs, stock control, basic operational management are not included, either directly or indirectly in the teaching modules used in this Institute

2. In two of the Institutes there is currently a significant amount of teaching in relation to good resource management (water, waste, energy and food) but there is no formal training nor any complete modules relating to environmental/resource issues and the level of training provided is probably not detailed enough in parts.

3. In one Institute, environmental issues and resource management are taught as a full specific module to final year degree level tourism and hospitality students, called *Hospitality Resource Efficiency (Environmental Management)* This is a detailed module covering many different sustainability topics such as: Global Environmental Impacts of Tourism; Environmental Management Systems; Eco-Labelling – Green Certification; Utility Management – Cost Saving through EMS: Energy Management; Utility Management – Cost Saving through EMS: Waste Management; Utility Management – Cost Saving through EMS: Water Management; Food Waste Minimisation; Why Green your business?; Review of current Green marketing; Corporate Social Responsibility

4.2. Germany

In Germany some environmental related material is taught in some of the courses including:

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http://www.csrwire.com/press_releases/15416-Americans-Reach-Environmental-Turning-Point-Companies-Need-to-Catch-Up-According-to-Gfk-Roper-Green-Gauge-R-Study

[13] From discussions with Heads of Department in each Institute.

- An explanation of possible pollution sources
- The eco-credentials of the training company and case studies
- How to implement the relevant regulations on environment protection
- The economic and environmental benefits of green energy- and material usage
- How to avoid waste; environmentally friendly waste management of substances and materials

4.3. UK

In the UK environmental or sustainability issues do not appear to be prominent in the curricula. The subject is briefly touched when addressing the "Ethics and social responsibility" module.

4.4. Spain

In Spain according to the Escuela de Hosteleria de Leioa, the curricula for the courses are, as would be expected, mainly to do with the specific topics at hand and relevant to the various subjects studied. Some specific environmental subjects are covered within these subjects as follows:

- Monitoring of environmental management in catering establishments, recognising their benefits, as well as their implications at a health level:
- Consumption vs. reduction, how they are related and the environmental benefits of reduction.
- Concept of resource reuse and the environmental advantages of reuse.
- Identification of those energies and / or resources which are less harmful to the environment and those which are desirable from an economic point of view.
- Identification and classification of the different types of waste and their environmental effects.
- Possible effects caused by the food industry.

5. Conclusions and recommendations

In a time of great economic uncertainty, there is a need to promote tourism and hospitality and to ensure a high quality workforce through education etc. This sector continues to grow and expand year on year.

However, as the sector grows, it is also consuming more and more resources in relation to energy, waste, water and food. It is vital therefore to ensure that resources are not exploited unsustainably and in order to do that sustainable tourism must be embraced. This appears to be accepted in the industry as both customers (tourists) and providers (hotels, travel companies etc.) are becoming more and more conscious of the environment and the need to protect is and reduce excessive material consumption.

To ensure more sustainable practices in the industry, the students coming in to the sector nowadays must be educated as to the need for sustainable resource management and waste prevention to ensure a long term, sustainable and viable tourism sector.

It is felt that currently there is little or no formal training on sustainability and resource efficiency in tourism and hospitality education across Europe. While there are exceptions (individual Institutes providing detailed and specific environmental training, here are there), these are the exceptions rather than the rule. Fully integrated and compulsory modules relating to environmental protection and sustainability appear to be rare, at present.

It appears that while there are some moves towards sustainability in some training curricula, these are mostly ad hoc and often 'hidden' in more traditional topics and subjects. Environmental-related subjects and topics need to be highlighted, compulsory and transformed into more formal and high-profile curricula elements.

Sustainability needs to be inculcated into curricula and innovative methods of training, such as game based learning tools are very helpful to achieve this goal.

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