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Testing Delivery Systems in Transnational Virtual Learning: The Vocational Management Training for the European Tourism Industry (VocMat) Case Study

Cathy Guthrie and Lluís Prats-Planagumà

This article discusses the lessons learned from developing and delivering the Vocational Management Training for the European Tourism Industry (VocMat) online training programme, which was aimed at providing flexible, online distance learning for the European tourism industry. The programme was designed to address managers' need for flexible, senior management level training which they could access at a time and place which fitted in with their working and non work commitments. The authors present the two main approaches to using the Virtual Learning Environment, the feedback from the participants, and the implications for this application of online technology in extending tourism training opportunities.

Keywords: Delivery System, Management, Tourism, Virtual Learning, VocMat.

1 Introduction

Tourism jobs are considered in many forums as low skilled and open to anyone, requiring little *in situ* training particularly for the lowest level positions. Traditionally, management or decision maker positions have been occupied by tourism outsiders, often business economists or historians, among others. Fortunately in recent years this perception has begun to change, partly as a result of two factors:

1. Tourism forecasters are taking the lead in tourism organizations as the latter realize the need to be aware of latest trends in order to evolve their business in line with tourist demands; and
2. Managers entering tourism from other disciplines recognise that they need specialized tourism training to manage those aspects of their business which are specific to tourism.

This evolution, creating the need for training specifically developed for tourism managers, has been a primary driver in the growth of tourism based masters level courses seen since the latter years of the 20th century. However, the University of Girona has found that even where managers expressed interest in the training programme, in fact only 5% of students enrolling were tourism managers.

There are several reasons why it is difficult for tourism managers to participate in the normal academic timetable:

1. Working hours are extremely variable during the year, especially in peak seasons. The obvious example is summer time in a beach hotel, but consider also a city hotel, which is busy during the week and much less so at week-ends.
2. The physical distance between universities offering tourism studies and the main tourism resorts can very often mean that travel time is required in addition to actual training time.
3. There is a high level of job turnover in this sector

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due to low salaries and poor working conditions, including the lack of flexibility and the lack of economic support for training provided by companies to their employees

4. In Catalonia, the majority of undergraduate tourism students (67%) work at the same time as pursuing their studies and the rate of graduate employment is one of the highest. A research project undertaken by the University of Girona shows that 88% of students have a job within 4 weeks of finishing their degree course.

So every single one of these elements suggested the relevance and potential utility of virtual distance learning as a means of delivering vocational training for tourism managers, which in turn became the starting point for the VocMat projects on which this article is based. Moreover, [1] defined self-regulated learning as a proactive process that stu-

VocMat 1 (V1) Pilot Project	VocMat 2 (V2) Transfer of Innovation Project
<p>England (UK)</p> <ul style="list-style-type: none"> • Sheffield Hallam University • Tourism Management Institute <p>Estonia</p> <ul style="list-style-type: none"> • Parnu College, University of Tartu • Enterprise Estonia <p>Iceland</p> <ul style="list-style-type: none"> • Iceland School of Tourism • Icelandic Association of Tourist Officers <p>Scotland (UK)</p> <ul style="list-style-type: none"> • The Robert Gordon University • Tourist Board Training Ltd 	<p>Catalonia (Spain)</p> <ul style="list-style-type: none"> • Universitat de Girona • Catalanian Association of Tourist Professionals (APTALC) <p>Estonia</p> <ul style="list-style-type: none"> • Parnu College, University of Tartu • Enterprise Estonia <p>Italy</p> <ul style="list-style-type: none"> • University of Florence <p>Malta</p> <ul style="list-style-type: none"> • University of Malta • Malta Tourism Society <p>Turkey</p> <ul style="list-style-type: none"> • Sungurlu Vocational and Technology Development Association <p>United Kingdom</p> <ul style="list-style-type: none"> • Sheffield Hallam University • Tourism Management Institute • Tourist Board Training Ltd

Table 1: Partner Countries V1 and V2.

dents use to acquire academic skills, such as setting goals, selecting and deploying strategies and self-monitoring ones effectiveness. This idea helps to match management courses and virtual learning.

The two VocMat projects were supported by European Union funding, the VocMat pilot project (2005-2007) by the Leonardo da Vinci programme and VocMat 2 as a transfer of innovation project under the Lifelong Learning Programme. Both projects involved higher education institutions and tourism trade organisations in the partner countries (Table 1). The aim of each project was to develop, test and deliver postgraduate level modules to middle and senior level tourism managers in the public and private sectors via online distance learning. This was done in such a way as to allow the participants to benefit not only from the module materials but also from interaction with the other tourism managers taking part in the different partner countries.

Training needs analyses were carried out using focus groups and questionnaire surveys among tourism managers and representatives of tourism businesses and organisations in each partner country at the start of each project. Initially this identified the subject areas required, barriers to training and desired outcomes and, after VocMat 1, to reassess priority subject areas for re-testing and development in VocMat 2. Respondents in each of the surveys were asked to identify barriers to training, types of training readily available and, irrespective of availability, those which were most suitable for them, their business or organisation.

As suggested above, the most important barriers to training were reported as being lack of time, flexible training opportunities and support from employers, either in terms of time or money, whilst there was a marked difference between types of training most readily available (full or part time attendance at college, one or half day seminars/workshops) and those considered most suitable (online and other forms of distance learning e.g. printed materials and CD-ROM) [2][3].

The module subjects delivered through VocMat were selected following training needs analyses carried out using focus groups and questionnaire surveys among tourism managers and representatives of tourism organisations in each partner country. As reported elsewhere [2][3] the four subjects identified as priorities for the VocMat pilot project were: Strategic Management, Tourism Marketing, Human Resource Management for Tourism and Operations Management for Tourism. When the survey exercise was repeated at the start of the VocMat 2 transfer of innovation project, the existing Strategic Management (StratMan) module was prioritised for further testing with new pilot group participants and with Entrepreneurship and Innovation for Tourism (E&I) as the new subject for development and delivery. This article is based on the experience of developing and delivering these two modules in the VocMat 2 transfer of innovation project.

Each module was validated, by the lead university which developed it, as a standalone CPD module attracting 7.5 European Credit Transfer System credits. Therefore, pend-

Partner Country	Type of organisation		Organisation location		
	Public sector	Private/ SME	Urban	Rural	Both
Catalonia (Spain) *	12	10	13	6	
Estonia	7	18	12	9	4
Italy	4	7	10	1	
Malta	5	6	8	2	1
Turkey		11	9	1	1
United Kingdom	4	3	1	3	3
Totals	32	55			

* 3 participants declined to indicate location and withdrew very early on in module 1

Table 2: Composition of V2 Pilot Groups across the two Modules.

ing validation of a full VocMat postgraduate certificate, diploma and MSc, participants were able to achieve academic credits which would be recognised throughout Europe and could be used as Accreditation of Prior Learning (APL) towards other postgraduate qualifications. Thanks to EU funding, the programme was free and participants would not lose by taking part, giving rise to considerable interest and good take up across the partner countries.

Table 2 gives the characteristics of the pilot group participants. It should be noted that several pilot group participants took both modules, whilst there was some additional recruitment to replace those who had withdrawn at the end of or during StratMan, so the total group size across the two modules is 81 although there were 58 registrations for StratMan and 59 for E&I.

2 Testing the Delivery Systems

The use of technology is not in itself a guarantee of success. It must be borne in mind that inappropriate use of these technologies can generate the opposite effect to that originally intended [4]. Particularly where learners are first time users of e-learning, dropout rates can be high [5]. Furthermore, education is undergoing something of a major change at present, moving from the Transmission-Reception paradigm to an Interaction paradigm [6]. Interaction has become an essential element of any educational environment and is particularly relevant when students are developing learning in a virtual community where the educational interactions, whether student/professor or student/student, lead them into active knowledge sharing and creation [7].

VocMat developed a Virtual Learning Environment (VLE) using the Moodle platform to achieve this virtual interaction. Hamuy & Galaz [8] defined two broad categories of interaction in virtual environments such as the one used in the VocMat project:

1. Informational level, encompassing: Meaning Information Presence; Informative Interaction; Consultative Interaction
2. Communication level, encompassing: Communication interactivity; Transactional interaction through the VLE.

In these terms, a VLE falls into category 1 when it is a space in which to place and check various items of information, whereas it falls into category 2 when it is a place in which to communicate and to create and share knowledge.

With this in mind, one objective of the VocMat projects was to assess different styles of online delivery. Therefore the two modules were developed and delivered in quite different ways. Strategic Management (StratMan) was a traditional text based module more in line with category 1: topic content was uploaded as text and diagrams to the VocMat Virtual Learning Environment (VLE) and assessment was via a single piece of written work submitted through the VLE at the end of the module. None the less, international online chat sessions were planned at regular intervals throughout the module and the subject tutor would post discussion questions in advance of each chat session to stimulate discussion.

By contrast, the E&I module was specifically designed to encourage online interaction. Each of the four sections contained an assessment, which was in part a short written submission and in part interactive, in which participants had to upload a blog post on the topic and post comments on at least two other blogs. Again, international online chat sessions were planned at regular intervals through the module, in addition to country and working category discussions through blog posts and forums.

Each participant was given their own log-in and, once on the VLE, they could access the module content, assessment briefing, discussion boards in English and in their own language and chat rooms in English and their own language. The VLE also allowed them to contact subject and local tutors by e-mail and to post their own contact and biographical details.

The subject tutor and local tutors had different, but complementary roles, both intended to combat the concerns that it is easy for distance learning students to become discouraged by the lack of human contact and overwhelmed by the demands of work and family commitments in addition to their learning activities [5]. The local tutor had a pastoral role for the pilot group in their country, answering practical queries and providing local support, whereas the sub-

	Pilot Group		Tutors/ Project Team
	Int'l Chat	Country Chat	
<i>Module 1 (StratMan)</i>			
10 June 08	11		6
17 June 08	8		6
8 July 08	10		4
12 August 08	8		4
9 September 08	7		4
<i>Module 2 (E&I)</i>			
17 March 09	22	C:7	7
21 April 09	16	C:8 E: 6	6
19 May 09	7	C:5	3
16 June 09	11	C:5 T:2	5

C: Catalonia; E: Estonia; T: Turkey

Table 3: Participation in the Online Chat Sessions.

ject tutor dealt with module content related questions and moderated the online chat sessions and discussion boards. English was used as the common language in the international discussion boards and online chat sessions; however, recognising that not all participants would be comfortable expressing themselves in English, local tutors were given a pivotal role in passing comments and enquiries in their native language upwards to the subject tutor and then disseminating the response back down through their local group. This worked particularly well with the Catalan group, although it was a challenge for the local tutor to be in two chat rooms simultaneously.

Despite the adoption of strategies that generate interaction and communication between participants, such as the chat sessions, Table 3 shows that many students did not take part. This may be due to the students being ineffective in regulating their own study time [9]. There was also an external element which affected the online chats: the European students were distributed across three different time zones and their daily schedules varied from country to country, making it difficult to arrange a chat session at a time

which suited every participant. It should also be borne in mind that VLEs allow students to construct their own knowledge by selecting representations and elements they find helpful, thus giving them more control [10]. However, this control can also be a risk in view of the issues of self-regulation of study time mentioned above.

Despite these factors, nonetheless better participation in the E&I module was achieved by asking for four partial assignments instead of one; this encouraged the students to work steadily throughout the module, rather than focussing on one burst of activity for a final assignment as well as requiring a higher level of interaction.

3 Results

After each module, pilot group participants were asked for feedback on their experience of using the Virtual Learning Environment (VLE). The survey was posted online using SurveyMonkey or participants could complete and return a Word version of the questionnaire. After StratMan, 17 responses were received out of a potential total of 58; the survey following E&I was sent to the total pilot group,

How often?	A %	B %	Hours per week	A%	B %	Was this?	A %	B %
Twice a week	23.5	36.4	2-3	5.9	31.8			
Once a week	29.4	27.3	1-2	58.1	27.3	About right	52.9	59.1
Every other day		22.7	3-4	5.9	13.6			
Once every two weeks	23.5	9.1	Less than 1	23.0	13.6			
Once a day		4.5	4-5		4.5	Too little	41.2	36.4
Once a month	23.5		5-6	5.9	4.5	Too much		4.5
			More than 6		4.5			

A= Post StratMan survey; B=Post E&I survey

Table 4: Use of the VLE.

	Excellent		Good		Average		Fair		Poor		Did not Use	
	A	B	A	B	A	B	A	B	A	B	A	B
Online chat	4	1	7	2	3	5	1	5		6	2	2
Who's online	3	1	7	6	2	6	3	3			2	5
Email digests	3	2	7	6	4	7	1	3			2	3
Discussion boards	4	2	9	7	1	3	1	6		1	2	2
Submitting assignment	5	10	10	9	2	2						
Ease of getting around site	6	5	7	11	4	5						
Appearance	6	4	6	9	4	6	1	2				
Site layout	7	4	5	7	5	8		2				
Ease of finding materials	8	5	4	7	2	7			1	1		

A= Post StratMan survey; B=Post E&I survey

Table 5: Assessment of Various Aspects of the VLE.

generating 27 responses from a potential total of 78 (the total number registered across both modules minus those known to have withdrawn and who had already completed feedback requests). In this second survey, 7 respondents had completed both modules. In each case, e-mail addresses for several participants generated undeliverable return messages or automatic replies indicating the individual had moved on but giving no forwarding contact details. Those who responded, therefore, could well constitute a greater proportion of the active participants than at first appears. Moreover, in a project of this nature, the responses to qualitative open questions were of equal if not greater value in determining changes required and the reality of participants' experience of the online delivery.

3.1. Use of the VLE

Participants were asked how often they used the VLE, for how many hours per week and whether they felt this was too often, not often enough or about the right amount of time. Table 4 presents the results. Reasons given for not accessing the VLE were lack of time, preference for using the hard copy provided as back up and, in one case only, insufficient incentive or encouragement. Asked what would encourage greater use of the VLE, whilst 20% of respondents replied "Nothing", others suggested having more time, use of weekly exercises to encourage using it, having more recommended texts online and improving speed of access.

Although Moodle provides statistical data, this has not been used because some students registered their log-in details in such a way as to open the VLE automatically, which made it impossible to monitor access time in any meaningful way.

Participants were asked to rate and comment on various aspects of the VLE. Table 5 gives the results, and the following section highlights the main comments received.

Online Chat

Respondents across both modules considered the online

chat good for exchanging ideas and experiences and for real time contact with other students and the tutors. Suggestions for enhancement included improving the ease and speed of connection into the chat, more direction on the topics for discussion and providing a way to see questions and answers previous to the point at which participant joined the chat. StratMan respondents regretted the low numbers of participants, whereas comments from the second survey included appreciation of the larger numbers of people taking part, a suggestion that global and in-country chats should be scheduled at different times as well as using Skype or MSN groups instead of the VLE chat room as a way of overcoming the technical difficulties experienced.

Who's Online

This feature allowed participants to see who else was logged into the VLE. All respondents referred to the benefits of being able to interact with other learners and not feeling isolated.

E-mail Digests

Participants could choose to receive e-mail updates of activity on the discussion boards. These could be daily, weekly or monthly and were triggered only when new posts were made. Those who used this feature considered it a useful tool for keeping in touch with activity on the VLE, despite initial problems, and some lack of clarity as to where a new posting had been made.

Discussion Boards

These were considered to be useful for sharing information and opinions across the pilot groups. Suggested improvements included formalising use of the discussion boards with a topic every week and creating a summary of the ideas expressed.

Submitting an Assignment

Participants found it easy, fast and convenient to be able to submit their assignments via the VLE, although some would like to see better confirmation of safe receipt by the tutor and one StratMan respondent would have preferred

	A		B	
	%	Count	%	Count
Excellent	47.1	8	14.3	3
Good	35.3	6	66.7	14
Average	11.8	2	9.5	2
Fair	5.9	1	4.8	1
Poor	0	0	4.8	1

A= Post StratMan survey; B=Post E&I survey

Table 6: Overall Module Delivery.

	Too much		About right		Too little	
	A	B	A	B	A	B
With local tutor	2	2	8	16	5	3
With subject leader	1	1	11	15	2	5
With project team	1	0	10	17	4	4

A= Post StratMan survey; B=Post E&I survey

Table 7: Level of Interaction.

	Via VLE		E-mail		Phone		None	
	A	B	A	B	A	B	A	B
Local tutor	9	9	14	21	5	5	0	0
Subject leader	10	6	11	8	1	0	1	8
Project team	8	7	12	13	0	1	0	3

A= Post StratMan survey; B=Post E&I survey

Table 8: Means used to contact Project Personnel.

to see a reduction in the number of click-through steps required.

Navigation, Appearance and Layout of the VLE

The majority of those who commented on these aspects found it informative, simple, clear and easy to navigate. They also found it easy to locate module materials. Two individuals had experienced difficulties in downloading Directed Reading articles. It was not clear whether this was a technical problem with their computer or a temporary problem on the VLE. Suggested improvements included increased use of hyperlinks to avoid excessive scrolling on any one page, better use of colour and images and the option to print blog posts.

General Technical Issues

A common thread across the feedback, but particularly in relation to online chat, was that participants experienced issues with logging in and staying logged in, or with the elements of the site taking time to load. Some of these were due to conflicts with the participant’s computer system or work network, where firewalls or company security policy

did not permit participation in synchronous interaction. Changes were also made to the hosting server to try to improve speeds; it was found, however, that the Moodle platform is known for its inability to handle more than ten individuals online in any one chat room simultaneously.

3.2 Module Delivery Mode

Participants were asked to give their views of the delivery model using the VLE with support from the subject tutor, local tutors and technical support. Table 6 summarises the overall opinion of the delivery model, whilst Tables 7 & 8 show participants’ views on the support received in terms of the amount of contact and the means participants used to contact used to contact local and subject tutors and the project team.

Overall, participants viewed the delivery model as good to excellent. Additional comments fell into five main areas which will be discussed further below. Most respondents considered the level of interaction with local and subject tutors and project team to be about right. By far the most common method of contact was by e-mail, followed by con-

"I live in a small town where it is very difficult to access to some specialized education/training, so for me the online support it is always highly valued. The CD we were sent it is also great."
"I liked the modules. They were in a logical order. I am still little against the term intuitive innovation and how much attention it got. In general, however, I think it was great that the tasks really made one think and think. It was great that we had to come up with so many ideas for each assignment."
"What's next?"
"It was interesting way (e-learning) and useful topic. Very good chance to get known what others do in different countries, their positive and negative aspects in tourism."
"Enjoying this experience from October to March would be easier for my agenda!"
"Thanks for providing me this nice opportunity to study on-line, now I would dare to undertake any other on-line training; congratulations! "
"It's been a great experience, thanks. Count on me for the next one."
"I am happy to have had this experience. This taught me a lot, made me think a lot and motivated to move forward. With improving the web you will have a great tool which encourages people to act through their assignments."

Table 9: Participants' Comments.

tact through the VLE.

Comments on the delivery and support received fell into the following main areas: technical issues; timetabling and tutor support; overall experience; constructive suggestions for future development.

Comments on technical issues reiterated concerns raised elsewhere in the survey relating to difficulties with the online chat sessions: "Idea excellent but in reality I failed to successfully participate and this was frustrating as I was online at the time".

In general, participants were pleased with the support received from the tutor. One participant noted that they personally had not needed additional help, but was confident that support would have been forthcoming if required. Problems with lack of support from one of the local tutors were resolved by changing tutor along with the change of subject and for another when additional resources were obtained by their university. There were several comments about submission deadlines being very challenging, particu-

larly at busy operating times. This was in part due to the timelines imposed by the project's funding, and more flexibility might be possible if freed of the constraints of delivering to a tight project timetable. However, some participants felt that deadlines appeared to be one-sided, with a long gap between submission and feedback. This indicates the need for tutors as well as students to participate actively in order to ensure that a VLE falls into the second of Hamuy & Galaz' categories referred to earlier [8].

In terms of the overall experience, participants were generally enthusiastic. They liked the contact with other participants both within their own and across the partner countries. For the most part they appreciated that this was a pilot project and so were understanding of the technical problems which arose and indeed made constructive suggestions for future developments, such as more opportunities for online interaction between students. The comments following the E&I module were particularly appreciative of the interactivity built into the module.

Module	Registered	Withdrawn	Remaining	Completed	%
V1:1	43	12	31	12	39
V1:2	43	12	31	10	32
V1:3	38	3	35	4	11
V1:4	25	2	23	15	65
V2:1	59	18	35 (41-6 from V1)	22	63
V2:2	58	6	52	46	88

Table 10: VocMat Completion Rates.

3.3 Completion Rates

Table 10 sets out the completion rates for each of the VocMat modules, including the four developed and delivered in the VocMat pilot project 2005-2007. The general trend is for increasing completion rates, culminating with an 88% completion rate for the E&I module. Whilst it might be expected that rates should improve across the original pilot project, the authors contend that the very great increase from StratMan to E&I in the second project reflects the increased engagement with participants as a result of embedding interactivity within the module rather than uploading a traditional text based module.

4 Conclusions

The programme was designed to address tourism managers' need for flexible, senior management level training which they could access at a time and place which fitted in with their working and non work commitments. We suggest that this experience demonstrates that these two modules, developed within the overall VocMat framework, allowed the development of flexible, specifically targeted training and contact with other international students and practitioners.

After testing the two main approaches to using the VLE we suggest that the feedback of the participants and tutors indicates that the approach used in the second module (E&I) module delivered a better learning experience than the previous module (StratMan) in terms of interaction, communication and knowledge sharing and creation, the main criteria for judging any virtual course. In addition to this we argue that the significantly increased completion rate for the second module confirms the utility of the second category of VLE described by Hamuy & Galaz [8] in increasing engagement and commitment from learners and counteracting the factors identified by Tyler-Smith (2006) which contribute to distance learners withdrawing from this type of course.

In conclusion, therefore, we suggest that the VocMat projects show that embedding interactivity within the Virtual Learning Environment, combined with both on and offline support from tutors and technical staff, will both enhance the learner experience and reduce withdrawals, leading to improved completion rates. Feedback from project participants shows that this type of e-learning has already achieved positive results; the VocMat model delivers senior level tourism management education in a flexible manner which overcomes traditional barriers to learning, and has the potential to improve access to this type of education for a wide variety of tourism managers whether in the public or private sector, urban or rural location.

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