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**Toolkit Case Study of Practice: Developing innovative and applied digital technology skills for tourism students at Breda University of Applied Sciences (BUAS)**

1. **Organisation name and brief explanation of purpose**

Breda University of Applied Sciences (BUAS).

The NTG toolkit was introduced and used for the module called E-Lab/Digilab which stimulates students to be creative, innovative and research focused. This module is being offered to first-year Tourism students.

Purpose of the module

During the E-Lab/Digilab module, the student experiences the role of digitalisation within tourism. The learning objectives are to:

* design contents for tourists and visitors.
* apply social media for encouraging customer interaction with tourism organisations and destinations.
* understand the various possibilities of algorithms and programming in the contact between customers, tourist organisations, and destinations.
* apply research and data to analyse the interaction between customers and tourism organisations.
* understand the digital user experience within tourism organisations.
* apply digital tools in creating engaging tourists’ experiences.
* develop oral communication and presentation skills.

The essence of this module is that the student is introduced to **digitalisation in tourism** in daily practice. Besides experimenting with digital tools within the E-Lab/Digilab, attention is paid to the professional presentation of the (end) products, both verbally and visually.

**The NTG Sectors Skills Toolkit was used alongside an existing course manual**. The developing curricula section used was regarding digital skills where students learn to work independently with online applications. They develop a mock-up for a tourism app, discover how algorithms work, build a website, create content such as a 360˚ film, infographics, and animation videos.

Furthermore, they experience how important digital resources can be used when sharing information and contacting customers. The specific digital skill set of competencies and digital training resource used was **D5: Communication and collaboration and sharing through digital technologies at level 7.**

Furthermore, the toolkit was also used throughout other tourism modules at Breda University. For example, some sections of the NTG toolkit were applied in the Marketing & Communication and E-Business modules, in which the students were taught to understand the theories of digitalisation transformation taking place both in tourism and other (similar) industries.

1. **How was the toolkit used to address an educational need?**

The E-lab case study was used. {How to work with social media from a business perspective: how to analyse operational issues using social media: setting up tools / platforms to connect with potential customers; how to analyse and think critically when reacting to customers}.

The NTG toolkit was used to address student ability to create digital tools to enhance the customers’ holiday or leisure experience. Students were also instructed how to look and work with social media from a business perspective. In addition to this, students learnt how to analyse operational issues within companies and organisations by means of social media. They did this by setting up digital tools or platforms to interact with potential customers. Finally, students learnt how to think critically about the applications of social media tools.

Students had to address tasks such as how to:

* create involvement between tourists and visitors via social media;
* inform tourists/visitors regarding the use of online tools;
* provide tourists/visitors with relevant online information;
* work with algorithms and effectively contribute to customer engagement.

1. **Were partner organisations involved and if so, who?**

Yes, a few partner organisations were involved. There were two partner organisations which participated in and contributed to this module including the Destination Management Organisation (DMO), the City of Breda (home of the University) and the ANVR (the Dutch Association of Travel Agents and Tour operators). They were actively involved in the training / module and were helpful in providing advice to students when necessary. Contact persons from these companies were there to provide key support regarding technical and / practical assistance from the industry perspective.

1. **What benefits resulted from use of the toolkit?**

Students were offered real-life insights into the use and effectiveness of social media accounts. The NTG toolkit session plans (Developing Curricula for Digital skills, Communication and collaboration: sharing through digital technologies and interacting through digital technology see PPT in D4 Level 7), were very useful in supplying real-world examples and approaches to digital skills applications. Students learnt how to create appealing infographics (Communicating information) and how to publish / present the results of their final product.

1. **Were there any challenges or lessons learnt using the toolkit?**

One challenge that can be observed by using the toolkit is that the material needs to be constantly updated. Every industry has been affected by the pandemic, and it is said that the tourism and hospitality sector has been affected the most. While the toolkit had some contingencies in this regard, it did not address some of the most pressing issues of the pandemic such as resilience, flexibility, agility. Also some of the materials needed to be translated into Dutch as there was some confusion for students and teachers on the English terminologies used in the toolkit.

Finally, there should be more involvement from the industry. Some industry partners that were approached found the toolkit quite difficult to work with, and so they were hesitant to participate. The fact that it is in English might be a reason. Furthermore, time is a constraint. Due to the many lockdowns in the Netherlands, there were also the Covid-19 measures that had to be adhered to: companies were not allowing visits and most practical assignments had to be done online.

1. **Have you any further reflections and/or recommendations?**

The current assessment is summative rather than on students’ proficiency / creativity.

It is advisable to adapt the current use of summative assessment and focus more on the creativeness and competence of the student. Therefore, there should be a totally different starting point for designing this type of curriculum. Another challenge was finding and using tools that are not licensed-restricted. Many images/charts are subject to copyright. It is extremely difficult to find suitable pictures / images which are licence-free. However, sourcing and referencing images can help address this problem. There is a lot of theoretical information available in the toolkit. As an Applied Sciences Institute, students are trained in a more practical way. In other words, a less theoretical and more creative, practical way of learning is more valuable for our students. However, the toolkit offers areas for flexibility.

However, the NTG toolkit seems to be flexible enough to discern what is relevant for specific cases. This can also be seen as an advantage of the toolkit: it allows for individual course collation. Collaboration with companies to secure license-free tools for educational purposes is a recommendation.