BIOTALENT – Talent in Biodiversity
Innovative education and new skills to increase engagement in Science

REPORT
INTELLECTUAL OUTPUT O7
LEARNERS ASSESSMENT TOOLS

ACTIVITY LEADING ORGANISATION: NHMC-UoC
Authors:
Catherina Voreadou, PhD, Head of Education, NHMC
Isabella Van de Velde, PhD, project coordinator, RBINS

Erasmus+ KA2 Strategic Partnerships for vocational education and training
Grant Agreement: 2016-1-BE02-KA202-017356
Start - End: 01/09/2016 - 31/08/2019
Document approved by BIOTALENT Consortium
Date: August 2019

TABLE OF CONTENTS

1. INTRODUCTION

Assessment of each learner's learning achievement, general performance and effort is performed for each of the training modules (online and attended) and a final evaluation is conducted leading to a course certificate. A variety of assessment techniques that align to learning outcomes and work well in an online environment are used. Built-in tools of the e-learning platform offer the possibility to evaluate and assess the learning and training activities. Different assessment tools were developed for each category of the online modules and for the attended module.

2. COURSE ASSESSMENT TOOLS

1. Tools for the online general theoretical module (biodiversity / climate change / collections / labour market) in order to assess if learners have improved their general knowledge:
- pre- and post-evaluation tests (quizzes);
- consolidation activities;
- final course test (quiz).

2. Tools for the two online case study modules in order to assess if learners have improved their knowledge on the specialized content of the case study modules (herpetofauna and medicinal plants as model organisms of climate change):
- pre- and post-evaluation tests (quizzes, problem-based activity);
- consolidation activities;
- final group work on a research topic.

3. Tool for the training on-the-job attended module in order to assess if learners have improved their general knowledge in the field training:
- project-based group work.

Quizzes are automatically scored on-line, consolidation activities are evaluated by a team of teachers using evaluation guidelines to assess learners' performance.

3. COURSE PEDAGOGICAL APPROACH

The entire course is based on the **Inquiry Based Learning (IBL) methodology**, which is a constructivist approach where the overall goal is for learners to build knowledge by themselves. Inquiry Based Learning incorporates many current learning approaches such as project-based learning, problem-based learning, design thinking, etc.

To present their work, learners create their own workspace called 'Padlet'. This is an online virtual bulletin board where they can display any information (images, videos, documents, text) from any device. It is an easy way for learners to create, share and collaborate with their co-learners. Each learner posts the link of their Padlet on 'Lino'. Lino is an online sticky note canvas which can be populated with post stickies. These stickies show the weblinks of all learners' padlets. By using Padlet and Lino, learners share findings, comment and collaborate with other co-learners.

4. COURSE ASSESSMENT

The general module '**Biodiversity and Climate Change'** has a final test component that is weighted 50% of the total mark. The continuous assessment of this module comprises several individual tasks that are together weighted the remaining 50%. See Table 1 below for more detailed information.

Both case study modules '**Medicinal Plants**' and '**Herpetofauna**' have continuous assessments, which comprises individual work and a final group work. How they are weighted is represented in Table 2 and 3 below.

Table 1. General module: BIODIVERSITY and CLIMATE CHANGE

Theme 1. Introducing biodiversity	15% 5% for quiz and 10% for other activities
Theme 2. Exploring biodiversity	15% 5% for quiz and 10% for other activities
Theme 3. Threats to biodiversity in a changing climate	20% 5% for quiz and 15% for other activities
FINAL TEST: 25 questions	50%
TOTAL General module	**100%** **Learners have to achieve at least 60% to pass and to get access to the case study module.**

Table 2. Case study module: MEDICINAL PLANTS

Theme 1. Plant diversity STEP 1 Quiz: not marked STEP 2 Research, quiz: marked 5% STEP 3 Create: mark is part of total mark of 35% for PlantArea elaboration STEP 4 Meet & Share: mark is part of total mark of 35% for PlantArea elaboration	5% quiz

Theme 2. Complexity of plant biogeography STEP 1 Quiz: not marked STEP 2 Research, quiz: marked 5% STEP 3 Create: mark is part of total mark of 35% for PlantArea elaboration STEP 4 Meet & Share: mark is part of total mark of 35% for PlantArea elaboration	5% quiz
Theme 3. Plants and climate change STEP 1 Problem based assignment, not marked STEP 2 Research, quiz: marked 5% STEP 3 Create: mark is part of total mark of 35% for PlantArea elaboration STEP 4 Meet & Share: mark is part of total mark of 35% for PlantArea elaboration	5% quiz
Theme 4. Plants as source for the future STEP 1 Problem based assignment, not marked STEP 2 Research STEP 3 Create: mark is part of total mark of 35% for PlantArea elaboration STEP 4 Meet & Share: mark is part of total mark of 35% for PlantArea elaboration	
Theme 5: Threatening factors of plant diversity STEP 1 Research STEP 2 Create: evaluation of learner's PlantArea elaboration STEP 3 Meet & Share: final evaluation of learner's PlantArea elaboration	PlantArea elaboration Theme 1 - Theme 5 = 35%
FINAL GROUP WORK evaluation	10% Organisation/Structure 20% Originality/Creativity 10% Language use/Clarity 10% Quality of information Subtotal 50%
TOTAL Case study module Medicinal Plants	**100%** **Learners have to achieve at least 60% to pass.**

Table 3. Case study module: HERPETOFAUNA

Theme 1. Origin of the herpetofauna STEP 1 Quiz: not marked STEP 2 Research, quiz: marked 5% STEP 3 Create: mark is part of total mark of 35% for HerpetoArea elaboration STEP 4 Meet & Share: mark is part of total mark of 35% for HerpetoArea elaboration	5% quiz
Theme 2. Diversity of the herpetofauna STEP 1 Problem based assignment, not marked STEP 2 Research, quiz: marked 5% STEP 3 Create: mark is part of total mark of 35% for HerpetoArea elaboration STEP 4 Meet & Share: mark is part of total mark of 35% for HerpetoArea elaboration	5% quiz

Theme 3. Physiology and ecology of the herpetofauna STEP 1 Quiz, not marked STEP 2 Research, quiz: marked 5% STEP 3 Create: mark is part of total mark of 35% for HerpetoArea elaboration STEP 4 Meet & Share: mark is part of total mark of 35% for HerpetoArea elaboration	5% quiz
Theme 4. Threats to the herpetofauna STEP 1 Problem based assignment, not marked STEP 2 Research STEP 3 Create: mark is part of total mark of 35% for HerpetoArea elaboration STEP 4 Meet & Share: mark is part of total mark of 35% for HerpetoArea elaboration	
Theme 5. Herpetofauna and humans STEP 1 Research STEP 2 Create: evaluation of learner's HerpetoArea elaboration STEP 3 Meet & Share: final evaluation of learner's HerpetoArea elaboration	HerpetoArea elaboration Theme 1 - Theme 5 = 35%
FINAL GROUP WORK evaluation	10% Organisation/Structure 20% Originality/Creativity 10% Language use/Clarity 10% Quality of information Subtotal 50%
TOTAL Case study module Herpetofauna	**100%** **Learners have to achieve at least 60% to pass.**

TOTAL ASSESSMENT OF ONLINE COURSE	**Arithmetic average of general module and case study module. Learners have to achieve at least 60% in each of the modules to obtain the BIOTALENT certificate.**

To successfully complete the BIOTALENT course, the learners must get a minimum score of 60% in each of the modules. Only if they satisfy these criteria, participants obtained the **BIOTALENT Certificates.**

Final mark on certificate:
60% to 70% - Sufficient
71% to 75% - Good
76% to 89% - Very good
90% to 100% - Excellent

5. REFERENCES

BIOTALENT e-learning platform
http://biotalent.ucdc.uoc.gr/

Assessment: Online course evaluation

In order to have access to the course information and resources, please create an account on the e-learning platform.