ePlanet – an educational serious game on Planetary Health for health(care) students

Introduction to ePlanet

Health systems and healthcare professionals are increasingly confronted with the impacts of shifting environmental conditions on health. Calls to integrate Planetary Health topics into medical curricula have been getting louder, yet the already high course load only allows limited space for additions or changes to the curricula.

Integrating a Planetary Health perspective into medical education equips (future) health professionals to understand broader relationships between health and the social and natural environments, promoting mitigation and adaption efforts to the ecological and health crises facing humanity. Additionally, health professionals are ideally placed as trusted and connected members of society to raise awareness for Planetary Health topics and advocate for sustainable health care.

The aim of the Erasmus+ funded ePlanet project is to provide educational resources on Planetary Health that can easily be integrated in several educational contexts or formats.

This manual is designed to guide educators through the effective use of the ePlanet game and its associated resources to enhance students' understanding and competencies in Planetary Health.

Project Components

ePlanet consists of five project results, each playing a different role in the overall learning experience:

1. **Competency Profile:** This outlines the key competencies students are expected to develop. These competencies include knowledge, attitudes, and practices related to Planetary Health, and are integral to the game, micro-learnings and challenge-based modules.
2. **Online Platform/Serious Game:** The main platform hosts the game, where students can explore four categories of Planetary Health topics and engage with the microlearnings. This platform serves as the central hub for the learning experience.
3. **Microlearnings:** These are concise, focused lessons that provide foundational knowledge on the specific topics covered in the game. Microlearnings are embedded within the game and help to reinforce key concepts as students progress through the game.
4. **Challenge-Based Modules:** After students complete the game, teachers can utilize these challenge-based modules of 60-90 minutes to deepen students' understanding and application of the concepts learned. These modules are designed to be used in class, promoting active learning and critical thinking.
5. **Assessment:** This tool allows teachers to evaluate students' progress in terms of knowledge, attitudes, and practices with regards to Planetary Health. The assessment is aligned with the competency profile and helps to measure the impact of the game on student learning.

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Implementation Guide

Step 1: Preparation

Before introducing the game to your students, familiarize yourself with the competency profile to understand the specific learning outcomes. Review the online platform and the serious game to become comfortable with the interface and content.

Step 2: Introducing the Game

The ePlanet serious game is the central part of the ePlanet project. It is hosted on an online platform and focuses on four key categories within Planetary Health:

1. **Planetary Health Introduction**
2. **Food Systems**
3. **Air Pollution and Heat**
4. **Infectious Diseases**

Each category is designed to engage students in an interactive learning experience that lasts up to one hour. The game incorporates microlearnings—brief, targeted educational content—that appear intermittently to reinforce key concepts. These microlearnings can be accessed at home or in the classroom, providing flexibility in how and when students engage with the material.

Begin by explaining the importance of Planetary Health and its relevance to healthcare. Introduce the four categories within the game and outline the expected learning outcomes. Encourage students to approach the game with an open mind, ready to engage with the material both critically and creatively.

Step 3: Playing the Game

Students can play the game individually or in small groups, either in class or at home. As they navigate through the game, they will encounter microlearnings on Planetary Health topics that will help solidify their understanding of complex topics. Encourage students to take notes and reflect on what they learn during these sessions.

Step 4: Challenge-Based Modules

After students have completed the game, bring them together to work on the challenge-based modules. These activities are designed to deepen their understanding and allow them to apply the knowledge they've gained. Facilitate discussions, group work, and presentations to encourage collaboration and critical thinking.

Step 5: Assessment

Use the assessment tool to evaluate the students' progress. This will help you estimate the effectiveness of the overall learning experience regarding the knowledge, attitudes and practices of students related to Planetary Health and knowledge parts could be used in formal exams or assessments of students.

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Conclusion

The ePlanet educational game is an educational resource that supports the integration of Planetary Health into healthcare education which reduces effort from educators. It can be used in-class or at home as a stand-alone assignment or be integrated in specific classes with or without the use of the other resources like the challenge-based modules.

Additional Resources

For further guidance, you can access additional resources and support through the online platform at eplanet.care.

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