Designing Place-based Education for Online Teaching

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Abstract— **Online teaching for place-based experiential learning is a rather new practice that can be used to create a more engaging and comprehensive learning experience. Though, it is a challenge to deliver experiential learning and place-based education in online teaching. This paper reports how we tackled this challenge in the pedagogical development of an interdisciplinary course within the European University Alliance for Global Health. In the present context, place-based experiential learning was introduced to create opportunities for interlinkages between the students' local tangible situation, a public urban space in their neighbourhood and the global environmental challenges. The paper describes and discusses the theoretical background, structure and the teacher role proposed to motivate students to engage with their local case and to connect and reflect upon their tangible experiences and analysis in online interaction with teachers and fellow students.**

Index Terms—**Experiential learning, Place-based education, on-line teaching, teacher role**

I. INTRODUCTION

THE course "Healthy urban living in the context of changing environmental conditions" (7 ECTS, master level) addresses the human individual in local space in relation to global environmental challenges.

The course aims to provide knowledge and understanding of how urban design can support physical activity, recreation and restoration as well as social activities that promote psychological well-being in times of climate change and biodiversity decline. The syllabus addresses human health and psychological well-being from the perspective of the individual, with focus on the individual's and different user groups relationship to their neighbourhood environment, including the buildings, streetscapes, green and blue spaces.

The complexity of the topic makes it necessary to move from silo-knowledge to inter- and trans-disciplinarity, and to support students' capacity to, in an integrated way, use knowledge derived from public health, physical health,

geography, environmental psychology, architecture, landscape architecture, and ecology [1]. Students also need support in identifying meaningful interlinkages between the local tangible situation and the global challenges.

The course development has been done within the European University Alliance for Global Health (EUGLOH), and the course should therefore be given online to be available for students within different countries. In the following sections, we outline and discuss how we have tackled the pedagogical challenge of combining experiential learning and place-based education with online teaching in an interdisciplinary context.

II. THEORETICAL APPROACH

Our theoretical approach draws on experiential learning and place-based education to create opportunities for interlinkages between students' local, tangible situations (i.e., a local neighbourhood environment) and global environmental challenges.

Experiential learning (EL) is a learning process that emphasizes the role of experience in knowledge acquisition and is centred on active engagement with real-world situations. Thus, connecting facts with real-world experiences is advocated in interdisciplinary teaching. Kolb [2] defines EL as "knowledge created through the transformation of experience". In the pedagogical approach, we refer to recent revisions and updates of experiential learning [3], which stress the importance of context. The motivation is that learning is more effective when experiences occur in meaningful real-world environments, which allows for critical thinking and integration of multiple perspectives, as well as problem-solving and decision-making processes as adaptive responses to dynamic real-world challenges.

Place-based education (PBE) has been described as the process of using the local community and environment as a starting point to teach various concepts and disciplines [4].

PBE can be seen as an umbrella [5] encompassing a pedagogical approach that engages the students with their local environment to provide an authentic and meaningful learning experience, which simultaneously engages multiple learning dimensions [6]. EL and PBE share that they emphasize the role of location in shaping learning experiences [7]. EL's connection to place-based education underscores the importance of connecting students to their local environment. EL has emerged as a key tool in urban transformation, promoting participatory, sustainable, and community-based initiatives [8].

III. APPLYING EXPERIENTIAL LEARNING AND PLACE-BASED EDUCATION FOR ONLINE TEACHING

Online teaching for place-based experiential learning is a rather new phenomenon that can be used to create a more engaging and comprehensive learning experience. Maxwell, Burke and Salton [9] included place-based activities in online teaching in geography and found that these activities helped students to open their eyes to see familiar sites in new ways. However, these authors also pointed to the importance of having a clear structure to engage students in the place-based activities.

Accordingly, the course is organised as four modules focusing on different topics and connected assignments to be completed in a public urban green space in the student's local environment (the case) (Figure 1):

Module 1: An interdisciplinary approach to healthy urban living that serves as the bridge and runs over the entire course period. The module provides interdisciplinary and transdisciplinary perspectives. Module 1 introduces and defines public urban space to discuss the value of the local to tackle global issues. In assignment 1 the student should choose the space and ensure that all criteria are met by describing the urban public space chosen with regard to each criterion.

Module 2: Health benefits of urban environments designed for physical activity and health. This module focuses on physical activity in the neighbourhood as a way of preventing and treating noncommunicable diseases (NCDs) and in preventing hypertension, overweight, and obesity, while enhancing overall well-being. In assignment 2 the student investigates the case with regard to physical active behaviour by two instruments: The POST to audit public open spaces, emphasising attributes that encourage or discourage its use for physical activity [10]. The SOPARC - systematic and periodic scans [11] of individuals within pre-determined target areas in public space.

Module 3: Experience of urban spaces and psychological well-being. The focus is upon people's experiences of the built environment, how experience and emotions can be theoretically described and empirically assessed to develop health-promoting neighbourhood environments. In Assignment 3, the student conducts an observer-based environmental assessment of a chosen space. The student will complete their assessments by two different tools: the Semantic Environmental Description [12] and the Perceived Restoration Scale [13].

Module 4: Biodiversity and urban ecosystems in a changing world. This module focuses on biodiversity and its connections to human health via ecosystem functions and services, and how urban biodiversity conservation and climate adaptation can contribute to healthy living conditions. In Assignment 4 the student will use field surveys of selected groups of species and potential habitats to assess how biodiversity varies across the chosen space (protocols, own species observation and online tools).

In the final report, the student should connect theoretical frameworks and methods from different subjects to empirical work and make a combined assessment and analysis of how to manage and improve multiple values and functions of urban public space through the production of a knowledge product such as a policy brief.

A cornerstone and boundary object in our pedagogical approach has been how students could alter between individually analysing their local place on-site as a case and collective online activities in a meaningful way. Following practices for successful online teaching [14], their local case should also serve to connect the students' tangible environments with the online classroom.

Furthermore, the student is expected to personally visit the local case at several times during the course and apply various analytical approaches and methods in field to describe and evaluate urban settings with regard to associations between biodiversity and health and well-being outcomes. These analyses build up to the final interdisciplinary report, in which students should be able to develop a new understanding of their local case that would not be possible using a single disciplinary perspective.
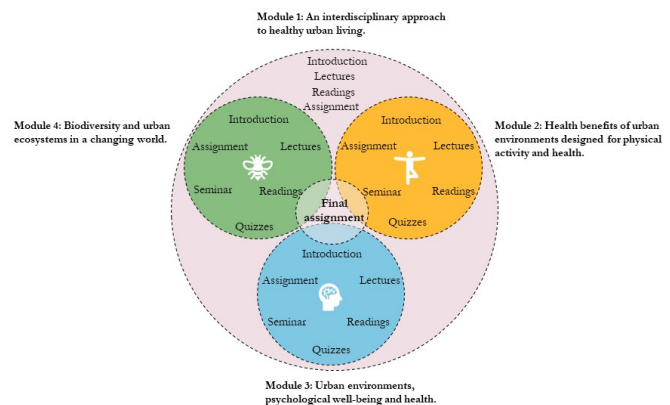

Figure 1. The course structure.

IV. THE TEACHER'S ROLE

In the place-based experiential learning approach, teachers need to:

a) Be a *curator of learning environments*: the teacher must guide the learners in the selection of meaningful locations so that it allows them to integrate different disciplinary perspectives based on a single case study or location [15].

b) Be a *connector between theory and practice:* the teacher must guide reflections and discussions so that they can link experiences in the chosen location with theoretical knowledge and also develop evidence-based strategies [4].

c) Be a *promoter of reflective thinking*: to encourage students to reflect on their experiences and how they relate to the local to global societal, environmental, and policy issues [4].

d) Be a *facilitator for effective communication*: teach the students to effectively communicate the results and broader impacts of their work to a diverse audience [16].

These roles and tasks may be challenging in online teaching as teachers and students are not sharing the same context or case. In our approach, we have strived to curate the place-based learning environment by carefully preparing a number of criteria to be met in the choice of the local case.

This is to ensure that the chosen case is suitable for all assignments and relatable to other students in discussions.

We as teachers act as connectors by linking the theoretical literature with concrete examples in lectures, and in seminars when discussing the students' cases. We promote reflective thinking in assignments and written reports by asking students to analyse the case from different perspectives and generate ideas for improvements. We support effective communication in seminars and assignments throughout the course. Most importantly, the final report should be translatable to a policy information product that could be shared in the students' local community.

V. CONCLUSION

In times of increasing online teaching, personal experiences and tangible spaces could still provide important learning situations in higher education. However, these learning situations need to motivate students to personally engage with their local case, and to be structured to easily connect to online discussions and reflections with teachers and fellow students. The course presented here offers an innovative approach to addressing these challenges and leveraging the opportunities provided by online teaching.

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