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Adaptation of the Ecological Behavior Scale to European Portuguese: A case study of creative learning methodology to improve the green skills of undergraduate psychology students.

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Keywords: Ecological behavior scale, creative learning methodology, green skills, undergraduate psychology students.

Acknowledgements. We acknowledge to Department of Psychology and Education of the University of Beira Interior, for the given conditions to perform this case study, namely the group of students who participated directly and indirectly in this study.

Funding. Not applicable.

Introduction

Creative Learning Method (CLM)

The Creative Learning Method (CLM) is an innovative training methodology designed to ignite creativity and foster intentional learning. It draws inspiration from the works of various authors and researchers who have explored the domains of creativity, motivation, and educational psychology. CLM emphasizes the importance of creativity in the learning process, supporting these emphases in the concept of flow and optimal experience (Csikszentmihalyi, 1996). CLM also integrates the principles of intentional learning, where individuals actively engage with the learning material and take ownership of their educational journey, focus on experiential learning and the importance of hands-on activities (Dewey, 1997). CLM additionally recognizes the significance of motivation in sustaining learning engagement, arguing that it is crucial the intrinsic motivation and autonomy, following the self-determination theory (Deci & Ryan, 2000).

Climate change, health, and Psychology

Climate change is regarded as the most serious global health threat of the 21st century and has numerous impacts on both physical and mental health. World Health Organization states that “climate change is the single biggest health threat facing humanity” (WHO, 2021, p. 2) and stated recommendations and priority actions in the COP26 Special Report on Climate Change and Health. It argues that the health community, with the right training and support programs, is an important climate actor that can enable transformational change to protect people and the planet. Therefore, it claims to mobilize and support the health community on climate action, stating that health professionals need to be trained and empowered to recognize, anticipate, and treat the symptoms of the climate crisis – manifested through shifting disease patterns. They conclude that it is important to enable a prepared health workforce by updating health curricula and by providing additional and continued training and support programs on climate change and health while improving professional standards to include criteria on climate and health. These programs should reach the widest range of health professionals across disciplines and specialties.

As stated by Clayton (2019), as well as other authors and entities, psychology professionals can help build understanding of the behavioral and motivational factors associated with causes of climate change. They can also assist governments, communities, and individuals to prepare for and reduce the risks of climate-related events. As experts in behavior change,

sionals can help build understanding of the behavioral and motivational factors associated with causes of climate change. They can also assist governments, communities, and individuals to prepare for and reduce the risks of climate-related events. As experts in behavior change, psychology professionals can contribute to developing skills in understanding and addressing barriers to behavioral change and motivating and supporting the needed changes.

It is necessary to develop and report education and training methods and programs on climate, health, and behavior for health professionals across disciplines, namely psychologists, as experts in behavior change.

Purpose

In today's rapidly evolving climate changes, advancing education and training about green skills for undergraduate psychology students has become increasingly necessary. CLM is a possibility to foster these skills in this population.

The general aim of this work is to describe a case study which intended to improve the green skills of higher education psychology students, by CLM.

Method

Five undergraduate psychology students' group in the third year of the Graduate course Psychology were challenged to choose, define, and develop research work in the field of climate change.

The CLM methodology was used and was initiated with a challenge given to students to develop research work about climate change. The following steps were taken: 1) Definition of the learning objectives - to develop skills and knowledge about research methods and simultaneously about assessment and intervention of ecological behavior; 2) Assess of learners' needs and preferences; 3) Generation of creative ideas; 4) Plan of learning activities – Learning plan defined: performing searching in scientific databases; selecting an ecological behavior validated measure; collecting and consolidating knowledge about proprieties of the measure chosen; translating the measure to European Portuguese; discussing the translated measure results with peers and psychology teachers; write a report; 5) Provision of resources and materials; 6) Creation of a supportive environment; 7) Facilitation of an active participation - Students developed a focus group with peers and psychology teachers about a translation of a measure of ecological behavior; 8) Encouraging of reflection and

feedback; 9) Adaptation and iteration; 10) Evaluation of the learning outcomes – It was evaluated the achieved learning outcomes through qualitative and quantitative assessment methods to measure progress and gather insights for future iterations.

Results and Discussion

The CLM methodology was adopted, and it reveals promissory to develop skills and knowledge on research methodology and on relation to climate health and behavior. Learning outcomes evaluated allow us to conclude that learning objectives were achieved, because a research work of students was concluded, complying with the quality criteria of a research report; the Ecological Behavior Scale (Kaiser, 1998) translation to European Portuguese was obtained; and knowledge about ecological behavior was developed during learning activities that included focus group with 20 students and 7 psychology teachers.

This case study must be the object of reflection to inspire education and training methods and programs on climate, health, and behavior for health professionals, namely psychologists. CLM should be considered in education and training methods and programs in this field.

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