Adaptation and Anxiety Assessment in Undergraduate Nursing Students

Ana Costa[1], Analisa Candeias[2], Célia Ribeiro[3], Herlander Rodrigues[2], Jorge Mesquita[2], Luís Caldas[4], Beatriz Araújo[5], Isabel Araújo[6], Henrique Vicente[7,8], Jorge Ribeiro[9], and José Neves[6,8(✉)]

[1] Hospital Senhora da Oliveira, Guimarães, Portugal
a45330@gmail.com
[2] Escola Superior de Enfermagem, Universidade do Minho, Braga, Portugal
acandeias@ese.uminho.pt, twinscorpion@gmail.com
[3] Hospital da Misericórdia, Vila Verde, Portugal
celia.ribeiro1984@gmail.com
[4] Centro Hospitalar de Setúbal, Setúbal, Portugal
luiscaldas@gmail.com
[5] Centro de Investigação Interdisciplinar em Saúde, Universidade Católica Portuguesa, Lisbon, Portugal
bea9araujo@gmail.com
[6] CESPU, Instituto Universitário de Ciências da Saúde, Famalicão, Portugal
isabel.araujo@ipsn.cespu.pt
[7] Departamento de Química, Escola de Ciências e Tecnologia, REQUIMTE/LAQV, Universidade de Évora, Évora, Portugal
hvicente@uevora.pt
[8] Centro Algoritmi, Universidade do Minho, Braga, Portugal
jneves@di.uminho.pt
[9] Instituto Politécnico de Viana do Castelo, Rua da Escola Industrial e Comercial de Nun'Álvares, 4900-347 Viana do Castelo, Portugal
jribeiro@estg.ipvc.pt

Abstract. The experiences and feelings in a first phase of transition from undergraduate to graduate courses may lead to some kind of anxiety, depression, malaise or loneliness that are not easily overwhelmed, no doubt the educational character of each one comes into play, since the involvement of each student in academic practice depends on his/her openness to the world. In this study it will be analyzed and evaluated the relationships between academic experiences and the correspondent anxiety levels. Indeed, it is important not only a diagnose and evaluation of the students' needs for pedagogical and educational reorientation, but also an identification of what knowledge and attitudes subsist at different stages of their academic experience. The system envisaged stands for a Hybrid Artificial Intelligence Agency that integrates the phases of data gathering, processing and results' analysis. It intends to uncover the students' states of Adaptation, Anxiety and Anxiety Trait in terms of an evaluation of their entropic states, according to the 2nd Law of Thermodynamics, i.e., that energy cannot be created or destroyed; the total quantity of energy in the universe stays the same. The logic procedures are based on a Logic Programming approach to Knowledge Representation and Reasoning complemented with an Artificial Neural Network approach to computing.

C. Analide et al. (Eds.): IDEAL 2020, LNCS 12489, pp. 112–123, 2020.
https://doi.org/10.1007/978-3-030-62362-3_11

Keywords: Adaptation · Anxiety · Anxiety trait · Artificial Intelligence · Entropy · Logic Programming · Artificial neural networks