

An Extension of the Eindhoven Classification Model to the Educational Sector

Margarida Figueiredo¹ Lúcia Vicente² Henrique Vicente¹

Victor Alves³ José Neves³

¹Department of Chemistry & Évora Chemistry Centre, University of Évora, Évora, Portugal

²Agrupamento de Escolas de Reguengos de Monsaraz, Reguengos de Monsaraz, Portugal

³Department of Informatics, University of Minho, Braga, Portugal

Abstract

This work presents an extension of the *Eindhoven Classification Model* to sort adverse events root causes for the *Educational Sector*. *Extended Logic Programming* was used for knowledge representation and reasoning with defective information, allowing for the modelling of the universe of discourse in terms of default data, information and knowledge. Indeed, a systematization of the evolution process of the body of knowledge in terms of *Quality of Information (QoI)* embedded in the *Root Cause Analysis* was accomplished, i.e., the knowledge representation and reasoning system proposed led to a process of *QoI* quantification that allowed the study of the event's root causes, on the fly.

Keywords: Eindhoven Classification Model; Knowledge Representation and Reasoning; Education; School Dropout.