Fiabilidade na codificação dos acidentes de trabalho para quatro variáveis da metodologia EEAT

Intercoder reliability of accidents at work for four variables of the ESAW methodology

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Abstract

This paper presents a study on the intercoder reliability of the coding process of work accidents within the Portuguese official system, which follows the European Statistics on Accidents at Work (ESAW) methodology of Eurostat (2001). It comprises two main objectives: 1) to assess the current situation, i.e., quantify the coding reliability performed by a group of "experts" of the Cabinet for Strategy and Planning (GEP; Ministry of Solidarity and Social Security), and 2) to assess the impact in the coding reliability when the coding is carried out by a group of Health and Safety Senior Technicians (H&SST), defined herein as the "non-experts" group in what concerns codification of ESAW variables. The study followed a structured methodology and besides using those two groups of coders it involved the following: the assessment of four nominal ESAW variables; the use of Krippendoff's α through the macro KALPHA developed to estimate this reliability coefficient in SPSS software; 100 accident notifications (coding units) of year 2007, randomly selected from the GEP's historical archive. The results showed that all variables held acceptable levels of reliability only when coded by the GEP group, and two of them even were classified as reliable data; by contrast, there was a considerable "loss in reliability" when the coding was transferred from the GEP group to the non-experts (H&SST) one. This proved that special training and expertise knowledge on the ESAW coding scheme has impact on the coders' performance. Given that Portuguese authorities are developing a new electronic form for notifying accidents at work, it is expected that, in the near future, the coding task be accomplished *online* by non-experts, i.e., by the H&S professionals who currently fill in the notifications forms for company's insurers. Therefore, this study is important to outline a nationwide training plan in companies and for monitoring the quality of accident data (reliability).

Keywords: intercoder reliability, work accidents, Krippendorff's α.

REFERENCES

Eurostat 2001. Estatísticas Europeias de Acidentes de Trabalho (EEAT) - Metodologia. Comissão Europeia, Março de 2001. Acedido a 30 de Setembro de 2008 no sítio http://ec.europa.eu/index_pt.htm.

Hayes, A. F. & Krippendorff, K. (2007). Answering the Call for a Standard Reliability Measure for Coding Data. *Communication Methods and Measures*, 1(1), 77-89.

Jacinto, C., Guedes Soares, C., Fialho, T., Antão, P. & Silva, S.A. (2011). An overview of accidents notification systems within the enlarged EU-27. *WORK: A Journal of Prevention, Assessment & Rehabilitation*, Special Issue on Safer and Healthier Workplaces. IOS Press, ISSN: 1051-9815; 39 369-378.

Krippendorff, K. 2004. *Content Analysis: An Introduction to Its Methodology*. 2nd Edition. Thousand Oaks, CA: Sage.