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Inter-tasks transferability of a subjective cognitive load classification model

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1 INTRODUCTION

Generic models for classifying **subjective cognitive load (CL)** are required. Two subjective CL measures exist: NASA-TLX (Hart & Staveland, 1988) and WP questionnaires (Tsang & Velazquez, 1996).

REFERENCES

Hart, S.G. & Staveland, L.E. (1988). Development of NASA-TLX (Task Load Index): results of empirical and theoretical research. In P.A. Hancock & N. Meshkati (Eds.), *Human Mental Workload* (pp 139-183). Amsterdam : North-Holland Press.

Louis, L-E., Moussaoui, S., Van Langenhove, A., Ravoux, S., Le Jan, T., Roualdes, V., Milleville-Pennel, I. (2023). Cognitive task and combined statistical methods to evaluate, model and predict mental workload. *Frontiers in Psychology-Cognitive Science*.

Tsang, P.S., Velazquez, V.L. (1996). Diagnosticity and multidimensional subjective workload ratings. *Ergonomics* 39(3), 358-381.

2 METHODOLOGY

Three-class subjective CL models (via LDA) were created for several **cognitive tasks** (N-back, Corsi, Go/No-Go, WCST, Dual task) from Louis et al. (2023) study.



Corsi test material

3 RESULTS

Corsi test alone achieving **80% accuracy**.
Models trained on N-back, WCST, and Dual task could predict the CL classes of Corsi with over **70% accuracy**.

4 CONCLUSION

Gain **time in setting up and training** a classification model.

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