







# **IGS 2021**

# The 20th Conference of the International Graphonomics Society

Intertwining Graphonomics with Human Movements

June 6-9, 2022 Museo Elder Las Palmas de Gran Canaria



#### PROCEEDINGS of the 20th Conference of the International Graphonomics Society

# Intertwining Graphonomics with Human Movements

Edited by Cristina Carmona-Duarte, Moises Diaz and Miguel A. Ferrer

June 7-9, 2022 Las Palmas de Gran Canaria, Spain

#### Wednesday, 8

# ORAL SESSION 3 (Handwriting learning and development). Chairman: Cristina Carmona

## Copy of geometric figures in children from 4 to 6 years old: a kinematic analysis

Ana Rita Matias, Filipe Melo, Beatriz Costa, Hans-Leo Teulings, Gabriela Almeida

The acquisition and development of prerequisites for writing, in preschool age, is essential, as are figures copy. Objective: To study the relationship between different kinematic variables (process) in children between 4 and 6 years old. Methodology: A cross-sectional observational study was carried out, with a descriptive and correlational research. 110 children participated in the study, 42 children aged 4 years, 44 aged 5 years, and 24 aged 6 years. Results: Process variables vary according to age and figures, but in some situations in a heterogeneous way. Conclusion: The analysis of the process of copy figures provides more detailed information about the handwriting readiness of each child. Its relevance in preschool age is significant, as it can lead to a preventive action, whether diagnostic or intervention. It is important, that in the future children with graphomotor difficulties could be included in the sample to help us to define their graphomotor characteristics.

### Handwriting Performance, Motor Coordination and Quality of Life Among Adolescents with Dysgraphia

Liat Hen-Herbst, Sara Rosenblum

Objectives: To (1) compare handwriting process measures, motor-coordination performance, and quality of life (QOL) between adolescents with dysgraphia and matched controls, as well as the correlations between those domains among individuals with dysgraphia; Further to (2) examine the contribution of handwriting process measures and motor-coordination performance to the prediction of the physical domain of QOL among adolescents with dysgraphia.

Method: Participants included 80 adolescents (13–18 yr), 40 with dysgraphia and 40 matched controls. Adolescents copied a paragraph on paper affixed to a digitizer supplying objective handwriting process measures (Computerized Penmanship Evaluation Tool [ComPET]) and