

# Comparison between face-to-face and remote language assessment with the Minilinguistic State Examination

María Agustina Pistolesi<sup>1</sup> | Macarena Martínez-Cuitiño<sup>2</sup> | Leticia Vivas<sup>3</sup> |  
 Laura Manoiloff<sup>4</sup> | Patricia Paolantonio<sup>5</sup> | Axel Fernández-Zaionz<sup>6</sup> | Tobias Ortells<sup>7</sup> |  
 Reimundo Geraldine<sup>7</sup> | Lucía Montero<sup>8</sup> | Mayda Nieto<sup>9</sup> | Nicolás Romero<sup>1</sup> |  
 Federico Castaño<sup>1</sup> | María Victoria Sanchez<sup>1</sup>

<sup>1</sup> INECO, Buenos Aires, Argentina

<sup>2</sup> INCYT (INECO/CONICET), Buenos Aires, Argentina

<sup>3</sup> IPSIBAT (CONICET/National University of Mar del Plata), Mar del Plata, Argentina

<sup>4</sup> Córdoba Private Institute of Neuroscience, Córdoba, Argentina

<sup>5</sup> Universidad Nacional de Córdoba, Córdoba, Argentina

<sup>6</sup> IPSIBAT (CONICET-National University of Mar del Plata), Mar del Plata, Argentina

<sup>7</sup> Universidad Nacional de Mar del Plata, Mar del Plata, Argentina

<sup>8</sup> INECO, Córdoba, Argentina

<sup>9</sup> Instituto Privado de Neurociencias de Córdoba, Córdoba, Argentina

## Correspondence

María Agustina Pistolesi, INECO, Buenos Aires, Argentina

Email: [agustinapistolesi@gmail.com](mailto:agustinapistolesi@gmail.com)

## Abstract

**Background:** The COVID-19 pandemic had an impact on neuropsychological assessment and implied an adjustment in the settings of evaluation. To continue providing clinical assistance to patients, it was necessary to adapt previously developed tools for face-to-face evaluation for a remote format. To know the effectiveness of this way of administration, it becomes necessary to identify whether this new modality differs significantly from the face-to-face one. With the pandemia some researcher started to make this comparisons. Identify these possible differences using short tools makes it easy to access this information. The Minilinguistic State Examination (MLSE) is a recently developed tool for assessing acquired language difficulties that is being adapted and validated in various languages.

**Objective:** The aim of this work is to identify possible differences in the performance of control subjects by comparing the face-to-face and remote clinical evaluation using the MLSE Argentinean version.

**Method:** Two groups of healthy subjects were assessed: 23 face-to-face and 31 remotely. All were native Spanish speakers with middle to high educational level. A Mann-Whitney's U test was performed between groups comparing the scores on each of the subtests of the MLSE (except sentence repetition because it was subtly changed for the remote version).

**Result:** There were no significant differences in any of the aforementioned tasks concerning both modalities ( $p > .005$ ) but only in the comprehension part of repeat and point ( $U = 310$ ;  $p = .004$ ), where better performance was observed for the remote group. Additionally, within modality (face-to-face and remote), comparisons were performed considering age and educational level and there were no statistically significant differences ( $p > .005$ ).

**Conclusion:** The remote modality of this version of the MLSE could be a good option to perform a language screening. The better performance observed in the remote group in one comprehension task could be explained by the higher cultural level of that group. That can be a bias when considering samples that access computer mediated eval-

uations. Thus, additional sample must be collected including lower educated participants. Also, further studies are necessary to assess the utility of the remote modality for patients with aphasia.