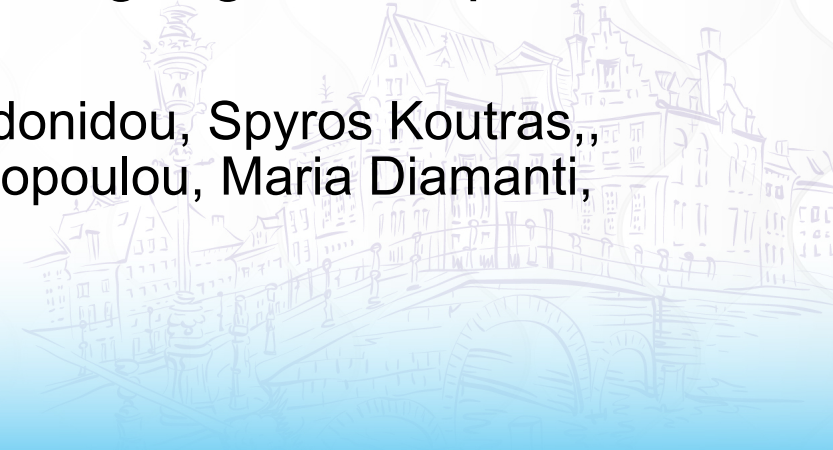


Mono- and bilingual children's phonological processing skills measured by a Greek nonword repetition task

Special Interest Group - Bilingualism/ Multilingualism
Panhellenic Association of Logopedists - Speech and Language Therapists
(PAL)

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Non-word repetition tasks (NWR):

Definition

Non-words are non-existent words constructed according to the phonotactic rules of the target language.

Widely Used

Non-word repetition tasks are widely used in research and clinical assessment of language development.

Factors Influencing Performance

The ability to repeat non-words depends on auditory and speech perception, phonological processing, working memory, and articulation.



Challenges of evaluating bi/multilingual children

Linguistic Lag

Bi/multilingual children may lag behind their monolingual peers in linguistic competence, including vocabulary, lexical access, and processing complex morphosyntactic structures.

Unique development

Research indicates that bi/multilingual development is unique, and that monolingual norms in standardized assessments should *not* be applied.

Lack of Instruments

There is a significant lack of appropriate diagnostic instruments regarding the speech and language evaluation of bi/multilingual children in Greece.





Current pilot study

Aim

- This pilot study aims to create a baseline measurement of this population's phonological processing and memory skills by comparing the performance of typically developing monolingual children 5-7 years old with that of simultaneous bi/multilingual peers.

Research Questions

- Does the NWRT reveal significant differences in performance between monolingual and bi/multilingual peers?
- Is bi/multilingual performance affected by individual factors?





Current pilot study

Material & Procedure

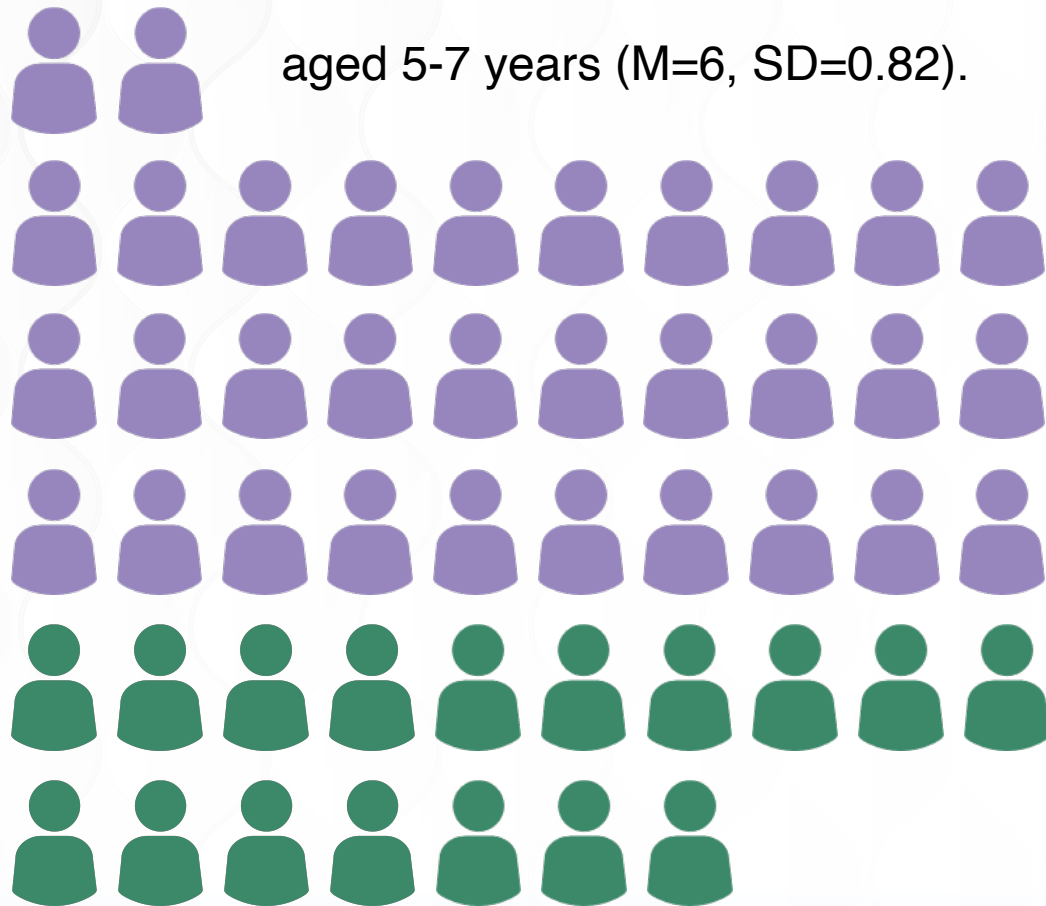
- Speech & language therapists administered the NWR task (DOMA-PAL).

NWR Task (DOMA- PAL)

- The task consists of 28 non-words with varying syllable structures and complexity.
- Total # of syllables = 74



Participants



Monolinguals



Simultaneous Bi/
multilinguals

Ukrainian-Greek 1 child

English – Greek 3 children

Romanian- Greek 1 child

Bulgarian –Greek 9 children

Turkish-Greek 2 children

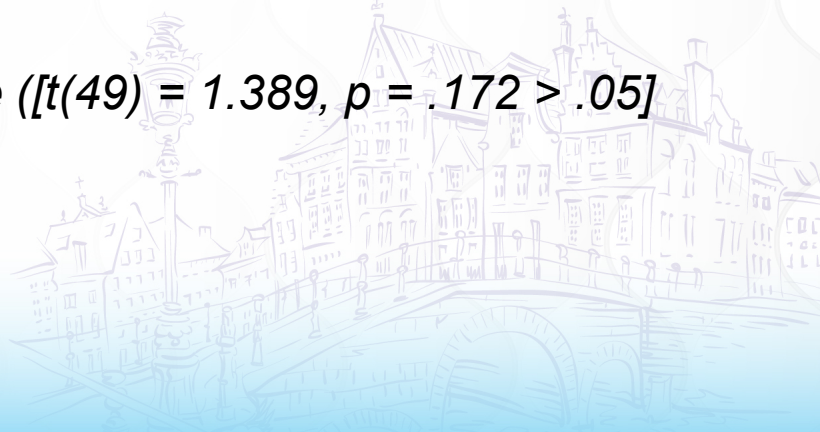
German- English – Greek 1 child

Results

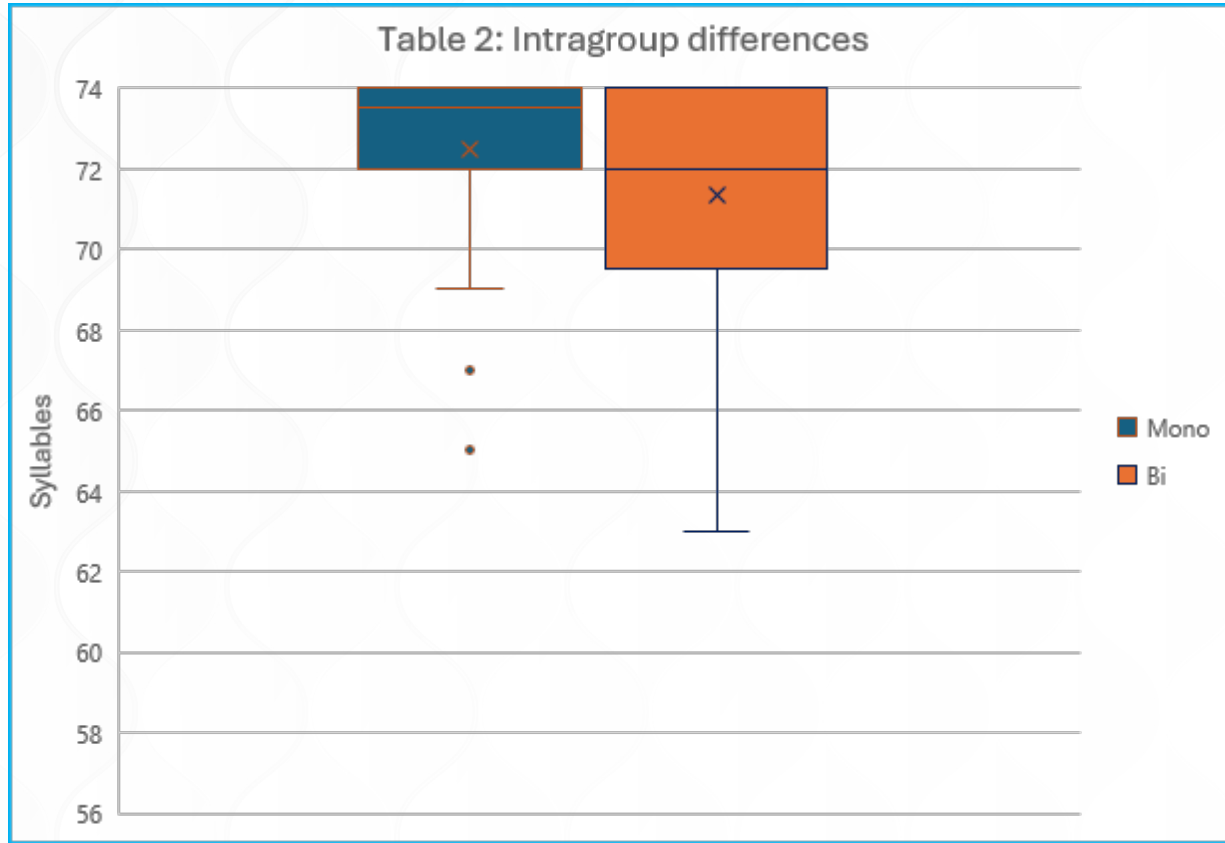
Table 1: Raw scores of the NWR task

Group	N	Mean	Std. Deviation	Variance	Range
Monolinguals	32	72.47	2.229	4.967	9
Sim- Bi/ multilinguals	17	71.00	3.279	10.750	11

A two-tailed t-test indicated no statistically significant difference ($[t(49) = 1.389, p = .172 > .05]$)



Results



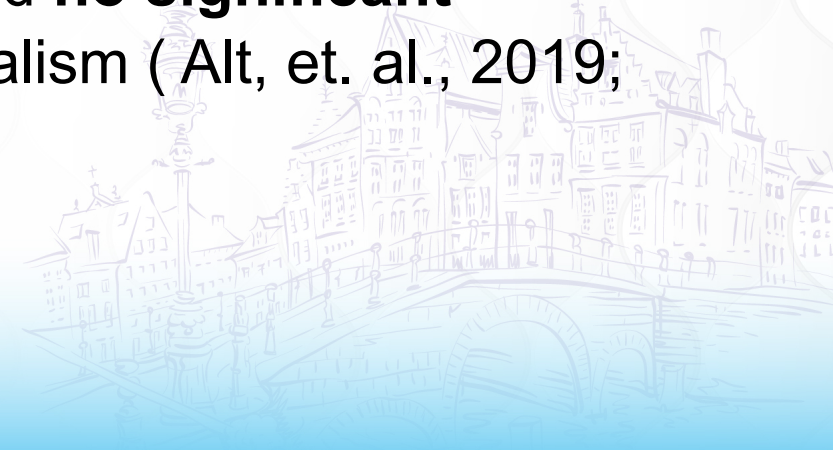
- ❖ The overall average of the **bi/multilinguals** is slightly **lower** than the monolinguals.
- ❖ The **lowest score** of the **bi/multilinguals** was 63.
- ❖ The **variance** in the **bi/multilingual** group was **greater**. Indication of greater intragroup differences



Conclusions

The comparison of monolingual and bi/multilingual children's performance on **NWR tasks** on previous findings has been inconclusive.

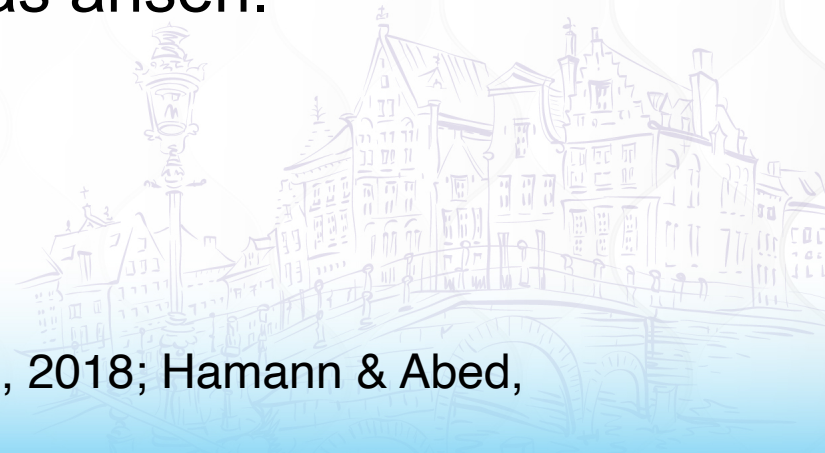
- Earlier research has indicated a **bilingual advantage** when it comes to **NWR tasks** (Donnelly, et.al., 2019; Giovannoli ; 2020)
- Previous findings have reported relatively **weaker outcomes** for **bi/multilingual** participants (Zaretsky, et. al., 2022; 2023; Grundy; 2017)
- Consist with our findings, several findings have reported **no significant differences** between monolingualism and bi/multilingualism (Alt, et. al., 2019; Bonifacci, et. al., 2018)



Conclusions

- **NWR** tasks continue to be a **valuable tool** in assessing **phonological short-term memory**, but their application and interpretation in bi/multilingual populations require a **nuanced approach**.
- Greater attention is needed when evaluating language skills in bi/multilingualism, due to numerous factors, such as the **age of language acquisition**, the **language environment influence** and the **varying other conditions** under which bi/multilingualism has arisen.

(Charles, et. al., 2023; Diego-Lazaro, et. al., 2021; Ertanir, et. al., 2018; Hamann & Abed, 2017)



Thank you!



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