

DYNAMIC ASSESSMENT FOR THE DIAGNOSIS OF DEVELOPMENTAL LANGUAGE DISORDER IN CHILDREN:



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A RAPID REVIEW

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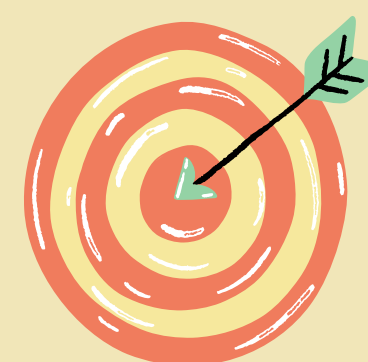
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WHAT DO WE KNOW ABOUT DYNAMIC ASSESSMENT IN DEVELOPMENTAL LANGUAGE DISORDER (DLD) ?

- ✓ Dynamic assessment (DA) = assessment of latent abilities and learning potential ↔ static assessment (SA) = assessment of prior knowledge
- ✓ The goal of DA is to ↑ the reliability of the diagnosis of DLD by ↓ the content, linguistic and normative biases of SA mainly related to cultural and linguistic diversity of the population being assessed (Camilleri & Law, 2014)
- ✓ DA is based on the postulate that DLDs have more difficulties to improve their performance following the presentation of cues or learning strategies related to their underlying language learning difficulties (Hunt et al., 2022)

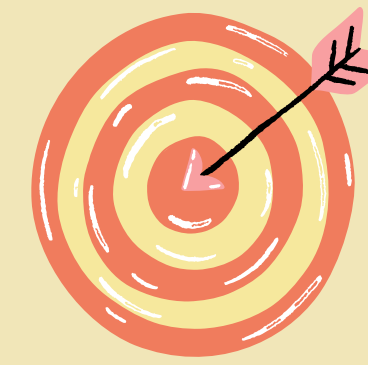
However, DA is currently not well-known and frequently used by French-speaking SLPs (in Belgium, France, and Switzerland) (Delage et al., 2021)

GOALS

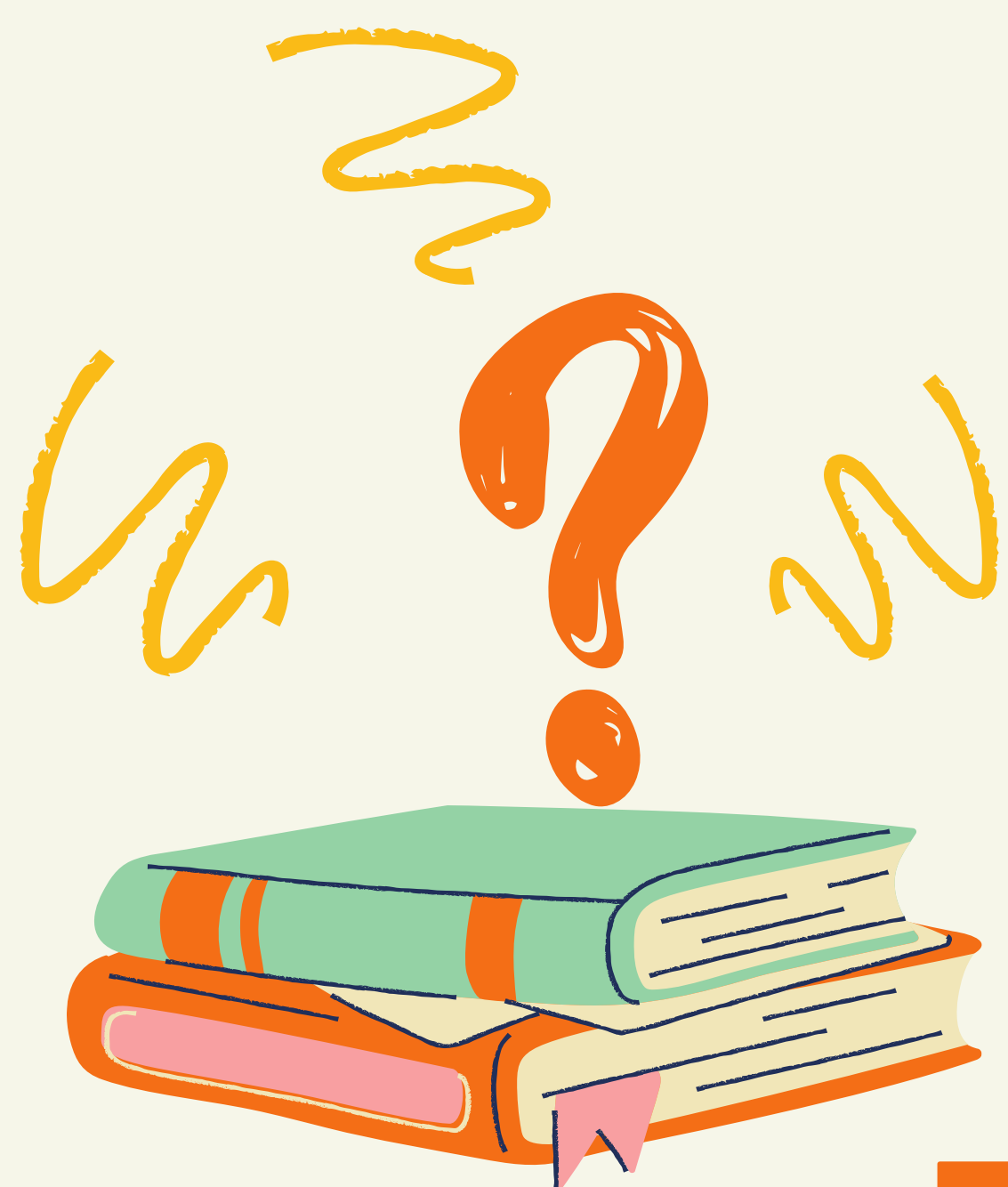


What are the DA tasks used in the scientific literature to diagnose DLD ?

1. the characteristics of the participants assessed
2. the language used in DA tasks
3. the design of DA tasks (sandwich, cake or both)
4. the linguistic domains targeted by the DA tasks



What are the sensitivity and specificity of DA tasks in the DLD diagnosis ?



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Identification

410 studies identified

- Via 4 databases Medline, PsycINFO, Eric/Ovid, Scopus
- 181 duplicates

Selection

231 studies selected

- 185 excluded after reading title and abstract
- 31 excluded after reading full text

Inclusion

15 studies included

5 eligibility criteria :

- peer-review
- monolingual or multilingual DLD children
- DA task
- comparison group : monolingual or multilingual children without DLD
- presence of psychometric proprieties related to the diagnostic of DA tasks

RESULTS

- 3 à 11;9 years

- preschool or school-aged children
- monolingual or multilingual



The language used in DA tasks



Format **sandwich** = 3 phases

- pretest assesses initial performance
- learning phase teaches strategies for improving initial performance
- post-test re-evaluates performance (progress?)

Format **cake** = 1 phase

- production of hierarchical cues to help the child succeed in the task

73 %

20 %

7 %

(N = 15)

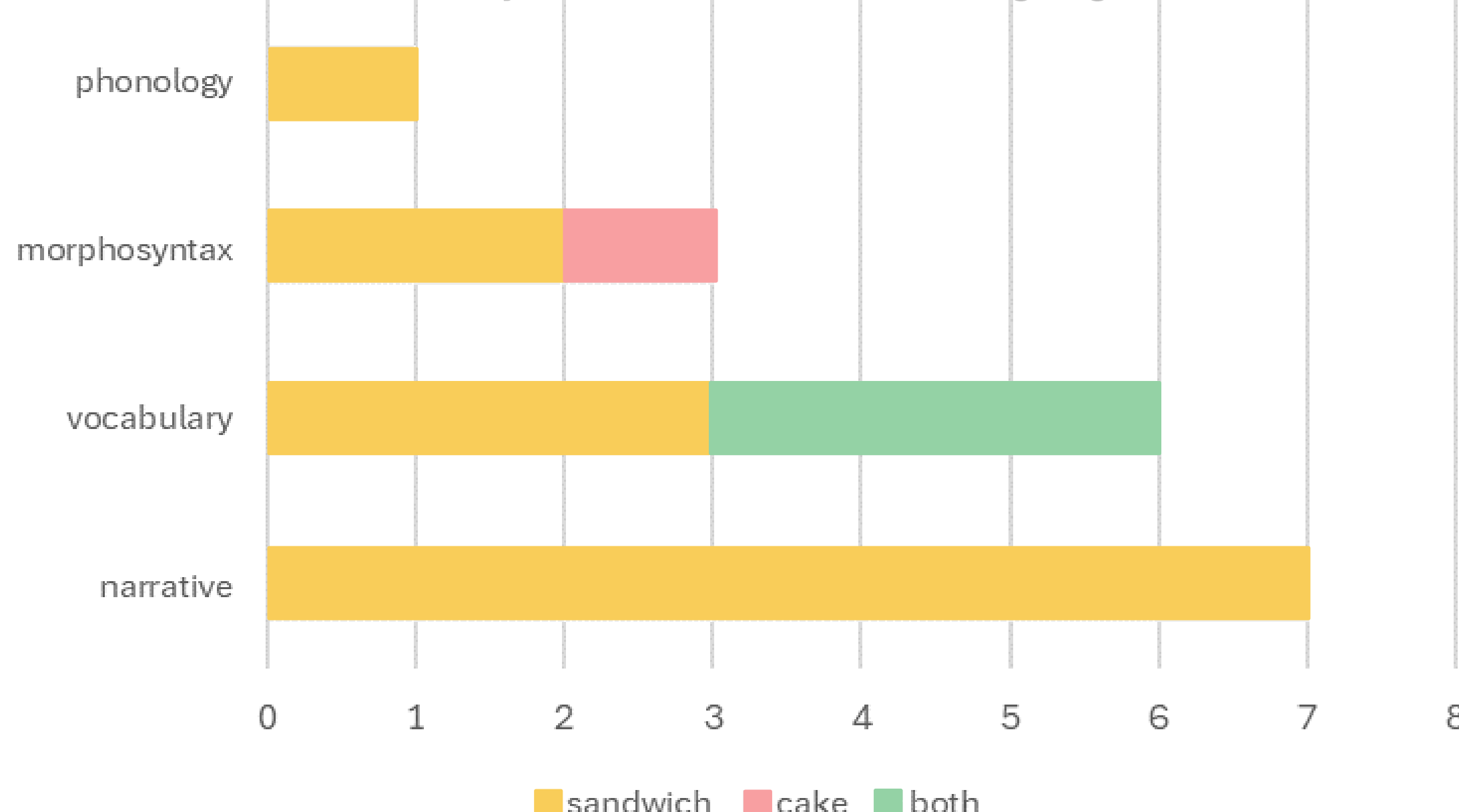
Format **sandwich + cake** = 2 or 3 phases

- hierarchical cues produced during the learning phase or post-test



The linguistic domains targeted by DA tasks

(N = 15, one study can assess several language domains)



Sensibility

(N = 10 ; the ability of a task to correctly identify people with a disorder ; true positive)

Percentage	Number of tasks	Min.	Max.
≥ 90%	3	90%	93,30%
80-89%	1	88,90%	88,90%
< 80%	6	71,40%	78,60%

Specificity

(N = 10 ; the ability of a task to correctly identify people who do not suffer from a disorder ; true negative)

Percentage	Number of tasks	Min.	Max.
≥ 90%	6	90,50%	97,00%
80-89%	3	80,00%	88,90%
< 80%	1	77,30%	77,30%

CONCLUSION

- Including DA in the diagnosis of DLD is relevant, as it tends to reduce the influence of environmental factors (e.g., linguistic diversity)
- There is a need to consider the measures (e.g., post-test score, modifiability, number of aids required) and design to be used in a DA task in order to achieve good specificity and, especially, good sensibility
- It's important to develop DA protocols that are easy to access and adapted to clinical reality to increase their use in clinical practice

Find out more, read the related article



Reference

Camilleri, B., & Law, J. (2014). Dynamic assessment of word learning skills of pre-school children with primary language impairment. *International Journal of Speech-Language Pathology*, 16(5), 507-516. <https://doi.org/10.3109/17549507.2013.847497>

Delage, H., Prat, P., & Margaret, K. (2021). Évaluation dynamique en orthophonie / logopédie. *Glossa*, 121-142.

Hunt, E., Charn Nang, Meldrum, S., & Armstrong, E. (2022). Can dynamic assessment identify language disorder in multilingual children? Clinical applications from a systematic review. *Language, Speech & Hearing Services in Schools*, 53, 598-625. https://doi.org/10.1044/2021_LSHSS-21-00094