



# Phonological awareness in the Hebrew abjad


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# Semitic abjad – a consonantal writing system

- The characters denote mainly consonants.

(Daniels, 1996)

- Secondary representation of vowels.

# Phonological awareness among Hebrew speakers

- ❖ Phonological units accessible to Hebrew speakers (CV).


(Ben-Dror et al., 1995; Saiegh-Haddad, 2007; Share & Blum, 2005; Tolchinsky et al., 2011).

- ❖ Consonants (C) versus vowels (V).

(Levin et al., 1997, Lapidot, et. al., 1995/96; Levin et al., 2013; Tolchinsky & Teberosky, 1998).

- ❖ An advantage for final as opposed to initial consonants.

Saiegh-Haddad, 2007a; Share and Blum, 2005; Tolchinsky et al., 2012.



# Research questions

1. Does the Hebrew abjad affect the nature of phonological awareness?
  - How do Hebrew-speakers split the spoken word into its constituent sounds?
  - Do they have different levels of awareness of consonants as opposed to vowels?
2. How does phonological awareness change over time?
3. How does the awareness of consonants versus vowels relate to word identification process in reading and spelling?

# Method

Design: a combination of cross-sectional and longitudinal design (overlapping cohorts)

Participants: 4 groups (N =254) of native Hebrew-speaking children, at different stages of literacy development.

Grade level Group	Pre-kindergarten (PA)	Kindergarten (PA)	Grade 1 (PA)	Grade 2 (PA, R&W)	Grade 4 (PA, R&W)
1	✓ →	✓			
2		✓ →	✓ →	✓	
3				✓	
4					✓

# Phonological awareness measures (unguided tasks)

1. Initial consonant isolation in two types of words:

/gɑmɑl/, 'camel' - CVCVC

/zmaɪn/ – 'time' - CCVC

C - consonant  
V - vowel

2. Final consonant / vowel isolation:

/mɑʊtʃɑ/, 'teacher' – CVCV

/geɪn/, 'rain' – CVCVC

3. Free segmentation of monosyllabic (CVC) and bisyllabic (CVCVC) words.

# Phonological awareness measures (guided tasks)

4. Consonant / vowel isolation in CV units.

/mɑ/, 'what' - (C)V

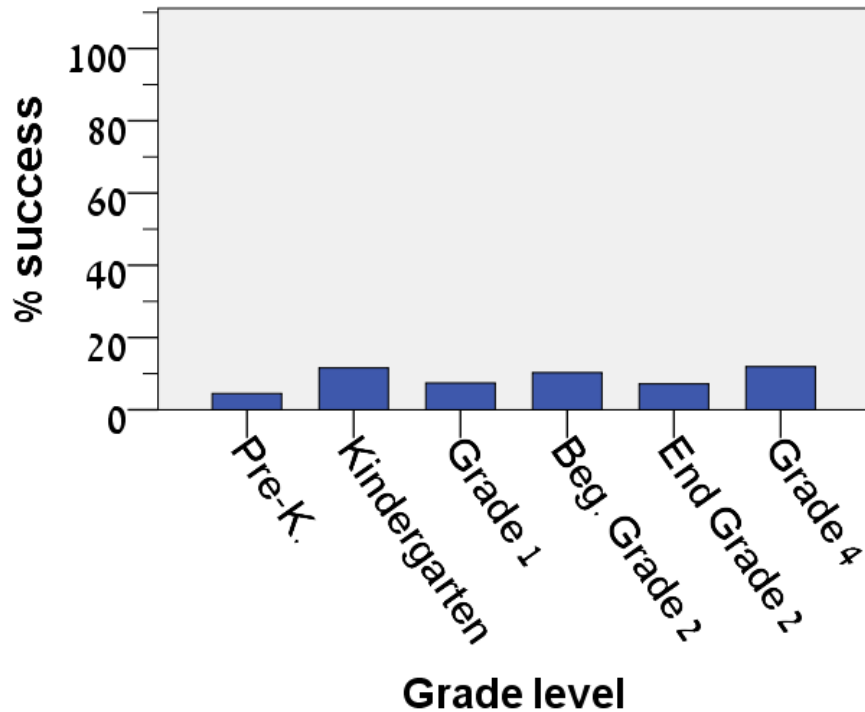
/li/, 'to me' - C(V)

5. Vowel identification in monosyllabic CVC.

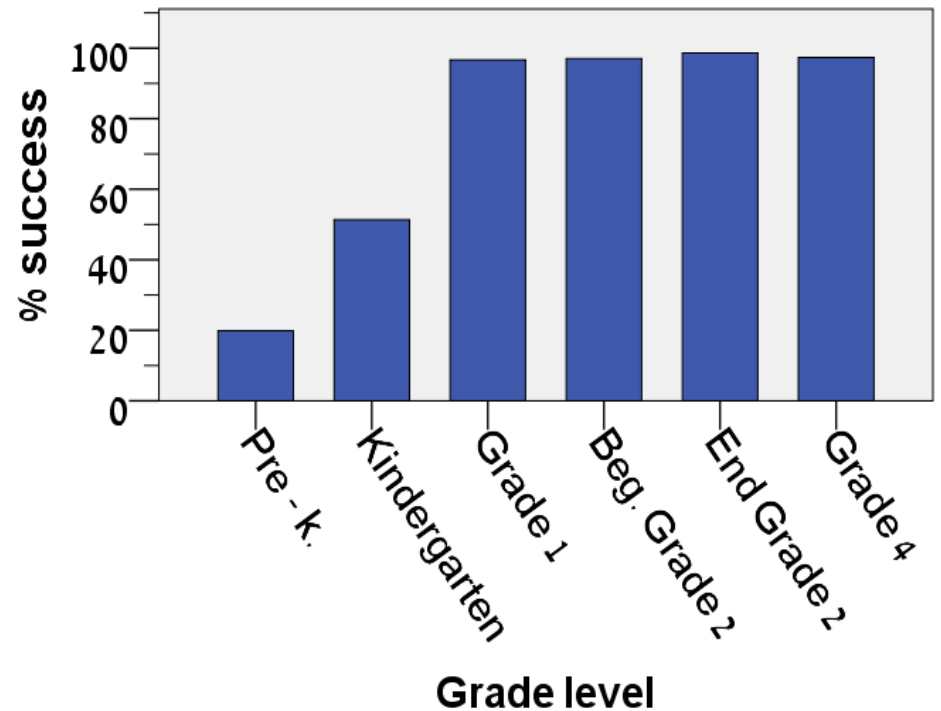
/zɛʌ/, 'bouquet' – C(V)C

# Initial consonant isolation

**c**vCVC



c**CV**C



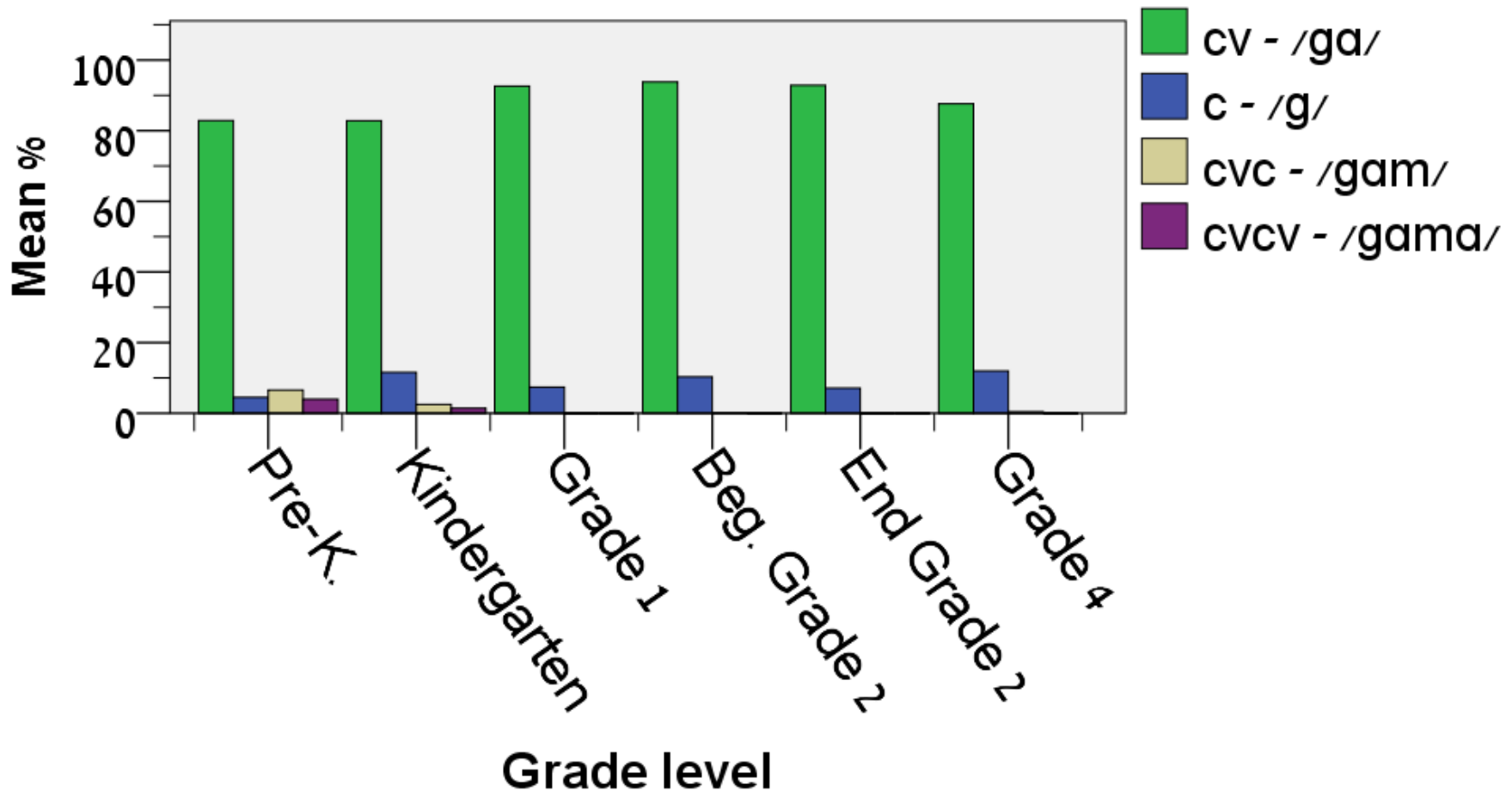
/ **d** ε g ε l /

/ **d** va f /

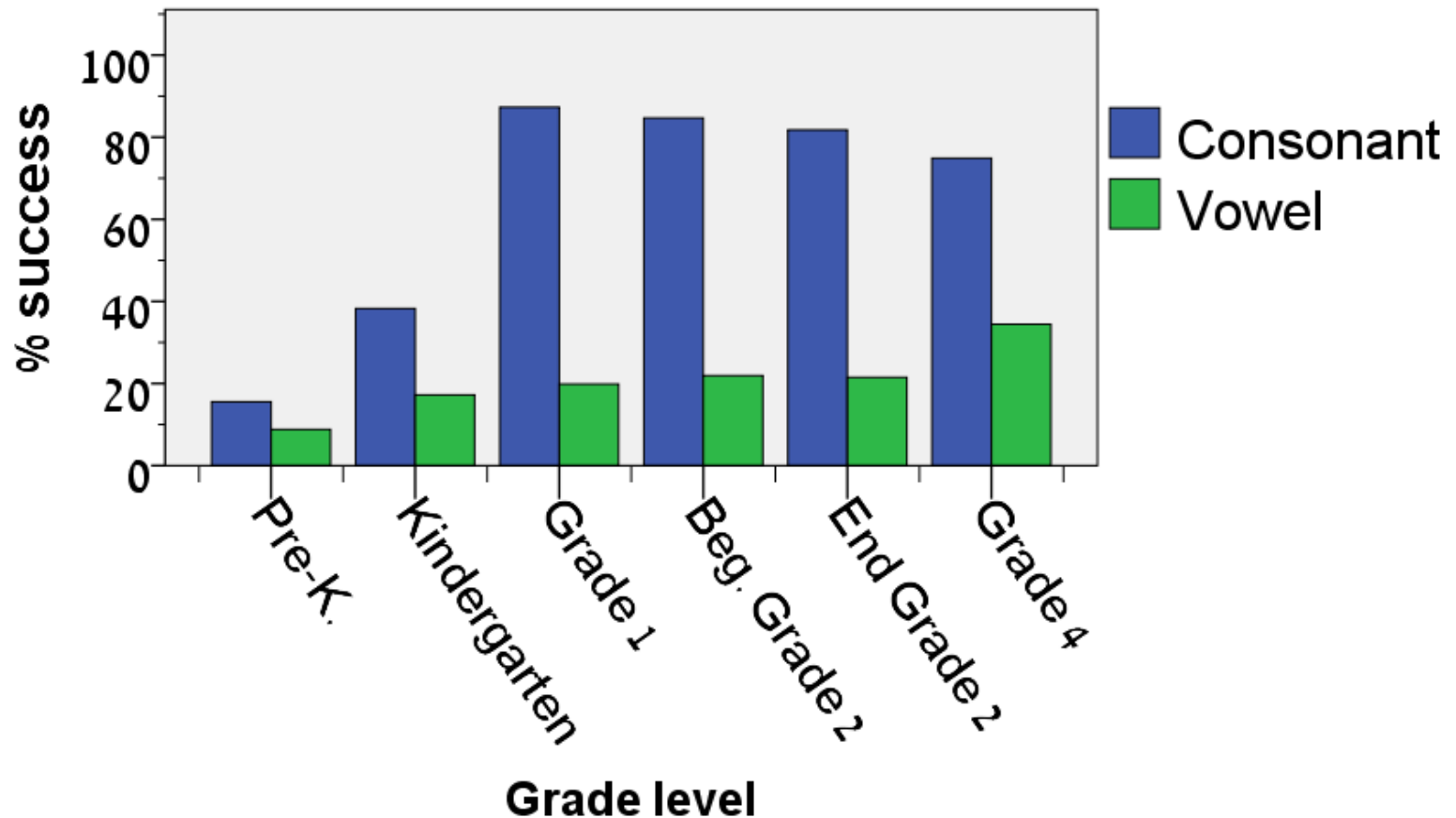


# Initial 'sound' isolation

## CVCVC /gamal/, 'camel'



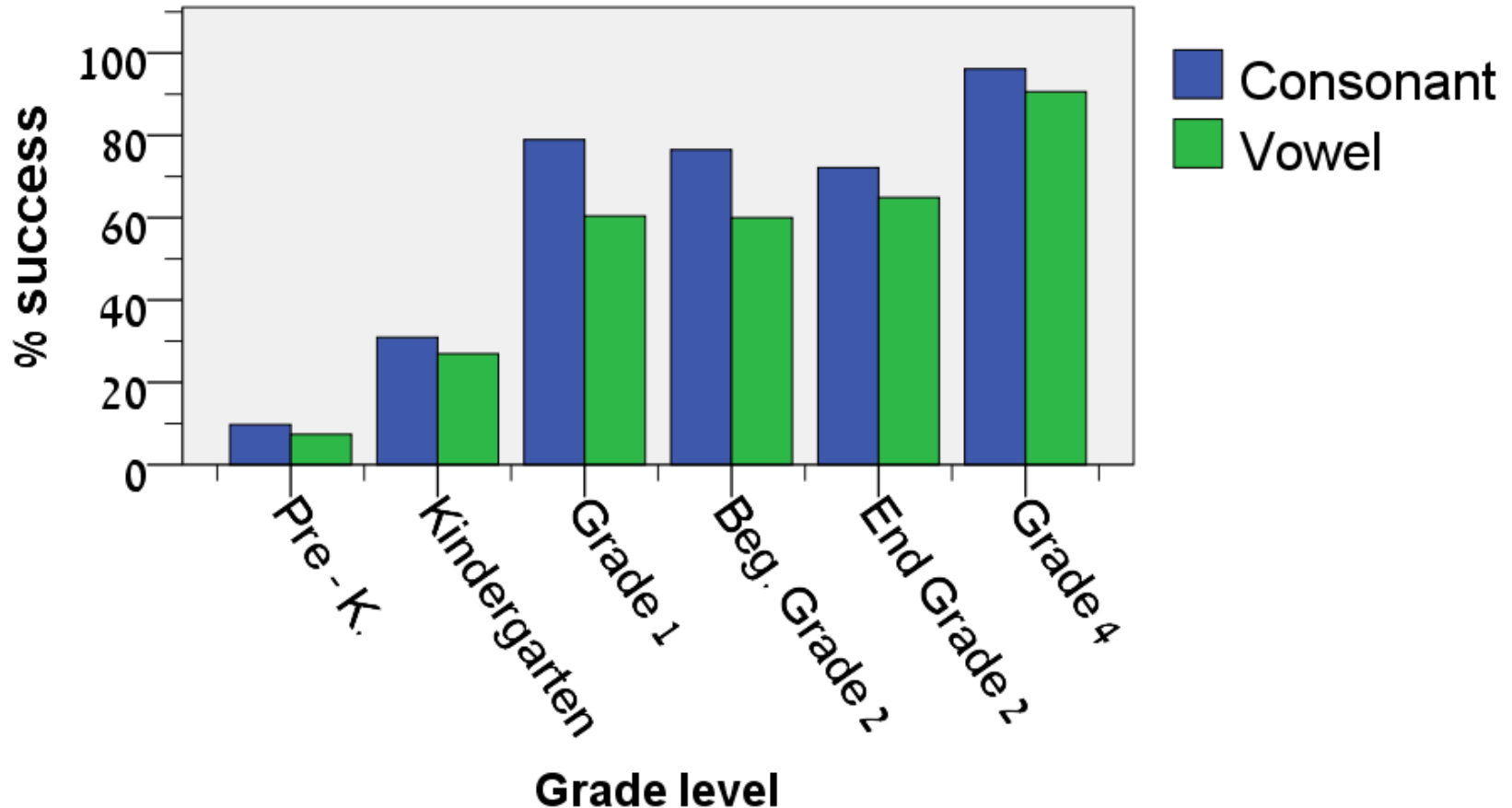
# Final phoneme isolation



/mɒvə/

/gɛʃɛm/

# Phoneme isolation in CV units



b*i*-Vowel isolation

*b*i - Consonant isolation

# Intra-core vs. extra-core phonemes

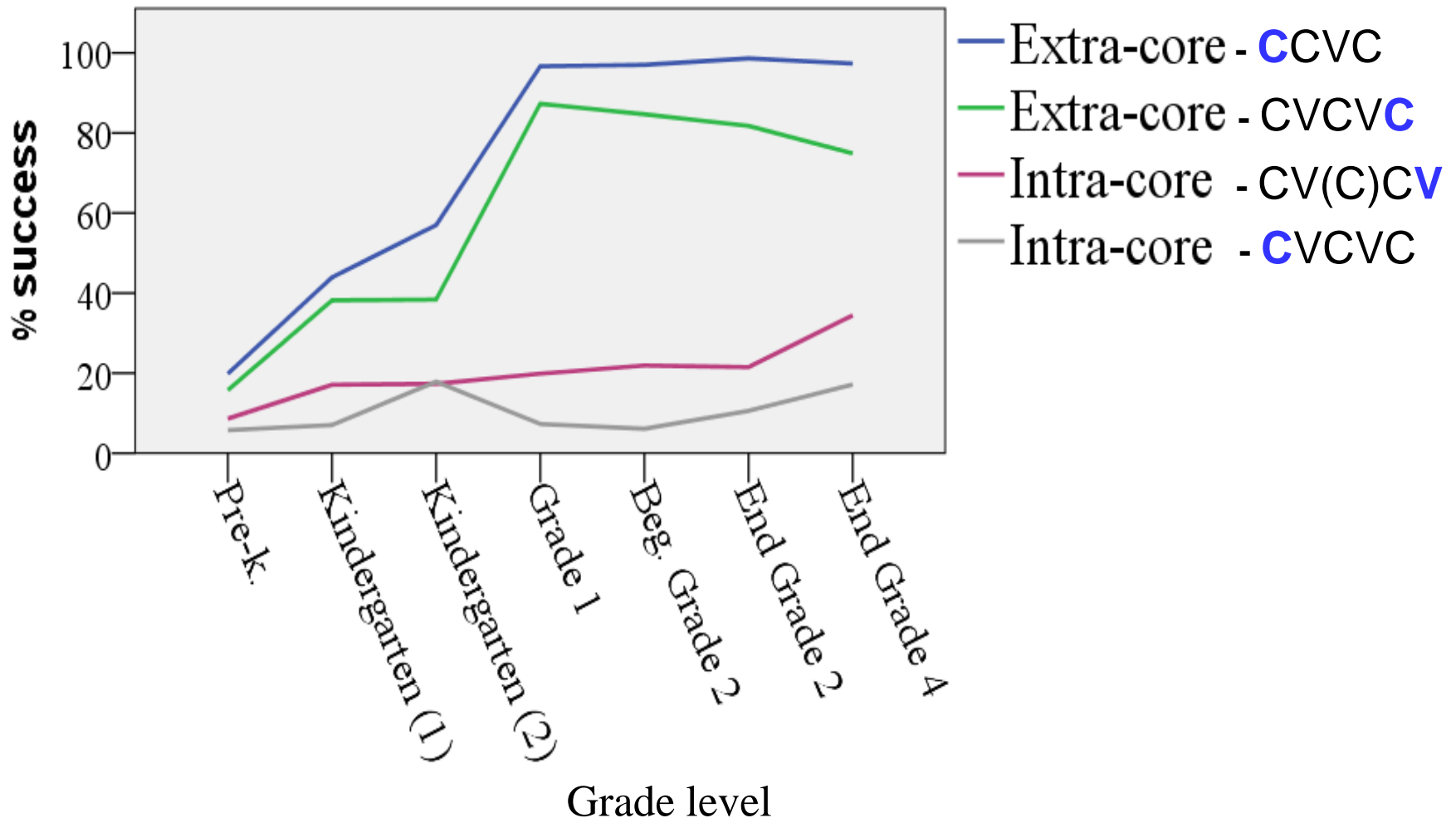
## Intra-core phonemes:

- Initial consonant in **C**V CVC words - /l**i**mon/, 'lemon'.
- Final vowel in CV**C**V words - /moʊ**a**/, 'teacher'.

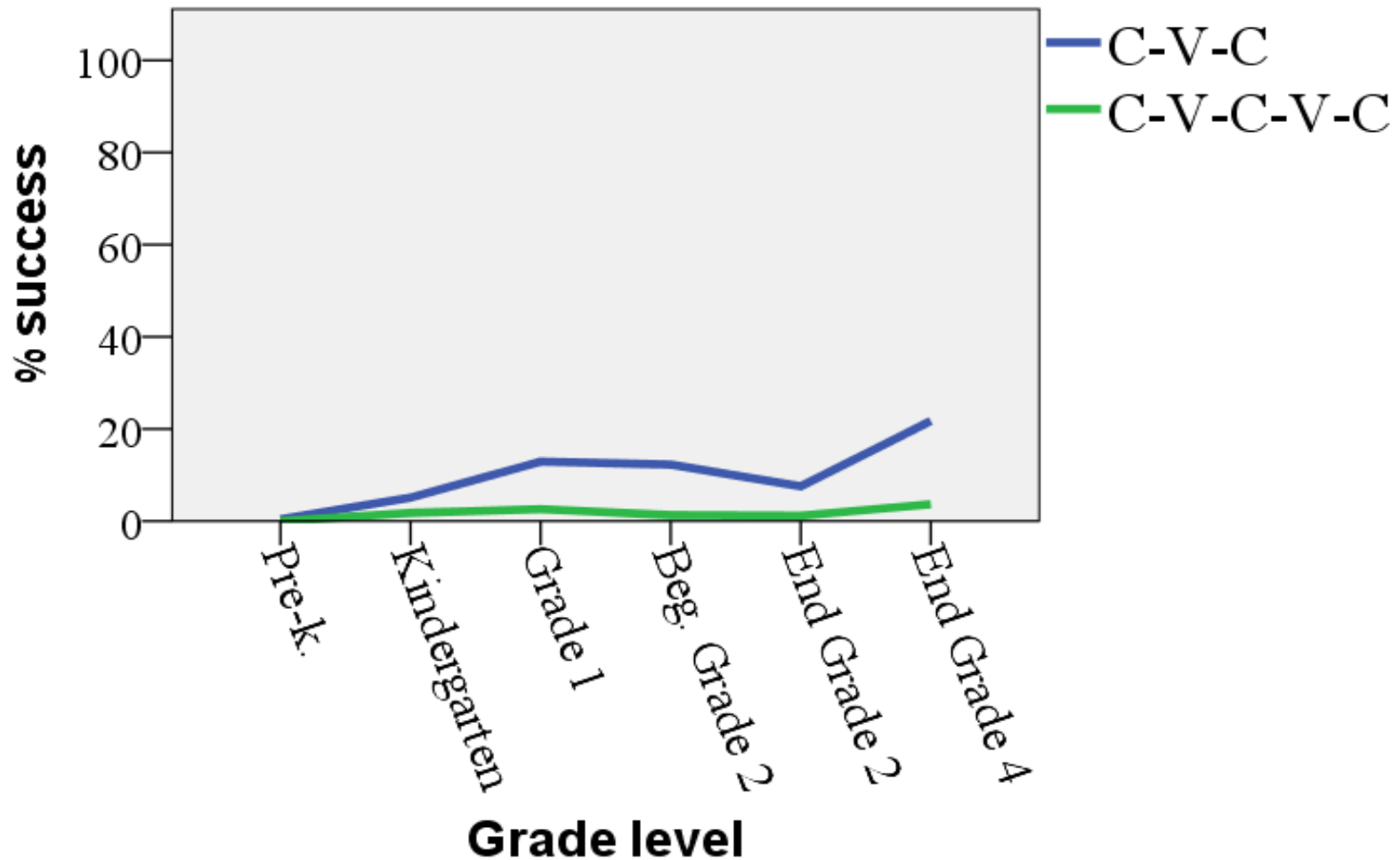
## Extra-core phonemes:

- Initial consonant in **C**CV C words - /**d**vaf/, 'honey'.
- Final consonant in CV CV**C** words - /gɛʃɛ**m** /, 'rain'.

# *Intra-core & extra-core* phoneme isolation



# Free segmentation in CVC and CVCVC words



# Conclusions

- The most accessible phonological unit for Hebrew speakers is the CV core-unit, not the body (and not the rime).
- No alphabetic-phonemic segmentation.
- Awareness of single phonemes is related to their position in the intra/extra-core hierarchy.
- Phoneme awareness is not related to phoneme class (consonant or vowel) or to position (word-initial or word-final).





# Phonological units mostly isolated

	Phonological units					
Grade	Initial cons. CCVC	Initial cons. CVCVC	Final cons. CVCVC	Final vowel CV(C)CV	Free segmentation CVC	Free segmentation CVCVC
Pre-k.	CCV	CV	CVC	CV	CV - VC	CV - CVC
K.	CCV	CV	CVC	CV	CV - C	CV - CVC
Grade 1	C	CV	C	CV	CV - C	CV - CV - C
Begin. of Grade 2	C	CV	C	CV	CV - C	CV - CV - C
End. Grade 2	C	CV	C	CV	CV - C	CV - CV - C
Grade 4	C	CV	C	CV	CV - C	CV - CV - C