

# Information about Maltese speech

## 1. A comparison between Maltese and English phonology

Aspect	Language	Number	Details	Source
Syllable-initial consonants	Maltese	22 consonants	/p, b, t, d, k, g, ʔ, m, n, f, v, s, z, ʃ, h, ɹ, j, l, w, ts, tʃ, ɟʒ/	Grech (2007)
	English	24 consonants	/p, b, t, d, k, g, m, n, ŋ, θ, ð, f, v, s, z, ʃ, ʒ, h, tʃ, ʒ, j, w, ɹ, l/	Smit (2004)
Consonant clusters	Maltese	Syllable-initial and syllable-final consonant clusters	Mostly two-element consonant clusters.	Grech (2007)
	English	Approx. 29 syllable-initial and many syllable-final consonant clusters	Many 2 and 3 element consonant clusters in initial position including /pl, bl, kl, gl, fl, sl, pɹ, bɹ, tɹ, dɹ, kɹ, gɹ, θɹ, ʃɹ, pj, tj, fj, mj, nj, sm, sn, sp, st, sk, spl, spɹ, stɹ, skw/ and many 2 to 4 element consonant clusters in final position	McLeod (2007) Smit (2004)
Vowels and diphthongs	Maltese	11 vowels + 7 diphthongs	Vowels: /i, ɪ, ɪ, ε, εɪ, ɐ, ɛ, ɔ, ɔ, u, u:/ Diphthongs: /ɐʊ, ɛɪ, εʊ, εɪ, ɪʊ, ɔɪ, ɔʊ/	Grech (2007)
	English (US-General American)	14 vowels + 3 diphthongs	Vowels: /i, ɪ, e, ε, æ, ə, ɝ, ɝ, u, ʊ, o, ʌ, ɔ, ɑ/ Diphthongs: /aɪ, aʊ, ɔɪ/ (Smit also lists 5 'r'-colored diphthongs)	Smit (2007)
	English (Canadian)	14 vowels + 3 diphthongs	Vowels: /i, ɪ, e, ε, æ, ə, ɝ, ɝ, ʌ, ʊ, o, ʌ, ɔ, ɑ/ Diphthongs: /aɪ, ʌʊ, ɔɪ/	Bernhardt, & Deby (2007)
	English (UK-Received Pronunciation)	12 vowels + 8 diphthongs	Vowels: /i, ɪ, e, æ, a, ə, ɜ, u, ʊ, ʌ, ɔ, ɒ/ Diphthongs: /aɪ, aʊ, ɔɪ, eɪ, oʊ, ɪə, eə, ʊə/	Howard (2007)
	English (Australian)	12 vowels + 8 diphthongs	Vowels: /i, ɪ, e, æ, ɛ, ɐ, ɔ, ɔ, ʊ, ʌ, ɜ, ɜ, ə/ OR /i, ɪ, e, æ, a, ʌ, ɒ, ɔ, ʊ, u, ɜ, ə/ <sup>ii</sup> Diphthongs: /æɪ, aɛ, əɪ, əɔ, ɔɪ, ɪə, eɪ, ʊə/ <sup>i</sup> OR /eɪ, aɪ, oʊ, aʊ, ɔɪ, ɪə, eə, ʊə/ <sup>ii</sup>	<sup>i</sup> Harrington, Cox, & Evans, (1997) <sup>ii</sup> Mitchell (1946)
	English (New Zealand)	12 vowels + 8 diphthongs	Vowels: /i, ɪ, e, æ, ə, ɜ, u, ʊ, ʌ, ɔ, ɒ, ɑ/ <sup>i</sup> OR /i, ɪ, e, æ, a, ə, ɜ, ʊ, ʌ, ɔ, ɒ/ <sup>ii</sup> Diphthongs: /aɪ, aʊ, ɔɪ, eɪ, oʊ, ɪə, eə, ʊə/ <sup>i</sup> OR /aɪ, aʊ, ɔɪ, eɪ, oʊ, ɪə, eə, ʊə/ <sup>ii</sup>	<sup>i</sup> Bauer & Warren (2004) <sup>ii</sup> Maclagan (2009)
Tones	Maltese	0 tones	-	Grech (2007)
	English	0 tones	-	
Syllable shape	Maltese	C <sub>(0-3)</sub> VC <sub>(0-2)</sub>		
	English	C <sub>(0-3)</sub> VC <sub>(0-4)</sub>	The smallest syllable is V and the largest is CCCVCCCC <i>strengths</i> .	Smit (2004) McLeod (2007)

<b>Stress-timed or syllable-timed?</b>	<b>Maltese</b>		Long vowels are stressed. Stress on the last syllable in multisyllabic words	Grech (2007)
	<b>English</b>	Stress-timed	Syllables can be strong or weak. Stress also is used for emphasis.	
<b>Varieties</b>	<b>Maltese</b>	Regional variation		
	<b>English</b>	Many dialects	Many dialects including General American English, Received Pronunciation (England), Scottish English, Irish English, Australian English, New Zealand English, South African English etc.	
<b>Writing system</b>	<b>Maltese</b>	Latin alphabet		
	<b>English</b>	Latin alphabet	Roman script loosely related to phonetic realizations of the consonants and vowels.	

## References

### Maltese studies

Grech, H. (2007). Maltese speech acquisition. In S. McLeod (Ed.), *The international guide to speech acquisition* (pp. 483-494). Clifton Park, NY: Thomson Delmar Learning.

### English studies

Bauer, L., & Warren, P. (2004). New Zealand English: Phonology. In E. Schneider, K. Burridge, B. Kortmann, R. Mesthrie & C. Upton (Eds.). *A handbook of varieties of English: Vol. 1. Phonology* (pp. 580-602). Berlin, Germany: Mouton de Gruyter.

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Smit, A. B. (2004). *Articulation and phonology: Resource guide for school-age children and adults*. Clifton Park, NY: Thomson Delmar Learning.

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## 2. Maltese speech assessments

For a list of speech assessments in Maltese see: [www.csu.edu.au/research/multilingual-speech/speech-assessments](http://www.csu.edu.au/research/multilingual-speech/speech-assessments)

Intelligibility in Context Scale: Maltese [www.csu.edu.au/research/multilingual-speech/ics](http://www.csu.edu.au/research/multilingual-speech/ics)

### 3. Monolingual speech acquisition (summaries and studies written in English)

Grech, H. (2006). Phonological development of Maltese-speaking children. In Zhu Hua & B. Dodd (Eds.), *Phonological development and disorders in children: A multilingual perspective* (pp. 135-178). Cleavdon, UK: Multilingual Matters.

Grech, H. (2007). Maltese speech acquisition. In S. McLeod (Ed.), *The international guide to speech acquisition* (pp. 483-494). Clifton Park, NY: Thomson Delmar Learning.

### 4. Multilingual speech acquisition (summaries and studies written in English)

#### General summaries

Goldstein, B. A., & McLeod, S. (2012). Typical and atypical multilingual speech acquisition. In S. McLeod & B. A. Goldstein (Eds.), *Multilingual aspects of speech sound disorders in children* (pp. 84-100). Bristol, UK: Multilingual Matters.

Grech, H., & McLeod, S. (2012). Multilingual speech and language development and disorders. In D. Battle (Ed.), *Communication disorders in multicultural and international populations* (4th ed., pp. 120-147). St Louis, MO: Elsevier.

Zhu Hua & Dodd, B. (Eds.). (2006). *Phonological development and disorders in children: A multilingual perspective*. Cleavdon, UK: Multilingual Matters.

Yavaş, M. (2007). Multilingual speech acquisition. In S. McLeod (Ed.), *The international guide to speech acquisition* (pp. 96-100). Clifton Park, NY: Thomson Delmar Learning.

#### Summaries of multilingual Maltese speech acquisition

Grech, H. (2012). Translation to practice: Phonological analysis of the speech of multilingual children in Malta. In S. McLeod & B. A. Goldstein (Eds.), *Multilingual aspects of speech sound disorders in children* (pp. 211-213). Bristol, UK: Multilingual Matters.

#### Studies of multilingual Maltese speech acquisition

Languages	Country	Study	Age of children	Total number of children (no. of multilingual children)**	Typically/atypically developing children	Speech /language	Production/perception
Maltese-English	Malta	Grech, H., & Dodd, B. (2008). Phonological acquisition in Malta: A bilingual learning context. <i>International Journal of Bilingualism</i> , 12, 155-171.	2;0 – 6;0	241 (93)	typical	speech	production

Note. \* Studies of typically and atypically developing multilingual children published in English were included; however, studies that only included monolingual children were excluded.

\*\*The total number of children may have included both multilingual and monolingual children, so the number in brackets provides the total number of multilingual children.