

CPLDL 2009 - Ljubljana

*Influence of **encourage** on
automatic voice range profiles*

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Introduction

Q1

Is there a statistically significant difference in VRP-parameters between phonetograms obtained with and without verbal and non-verbal encouragement of the clinician?

Q2

Is there a gender-related effect?

Q3

Is there an effect related to experimental sequence?

Study design

Counterbalanced cross-over design

E_1 R X_N X_S

E_2 R X_S X_N

Participants

36 health care students (no SLT or audiology)

G_0 R_0 B_0 A_0 S_0 I_0

	Age	Gender
	mean (range)	female - male
E_1	19.7 (18-22)	9 - 8
E_2	19.6 (18-22)	10 - 9

Standardized VRP-protocol (Heylen & Mertens, 1997)



Homoth Medizinelektronic

Warming up
Vowel /a./
Standing
Sequence:

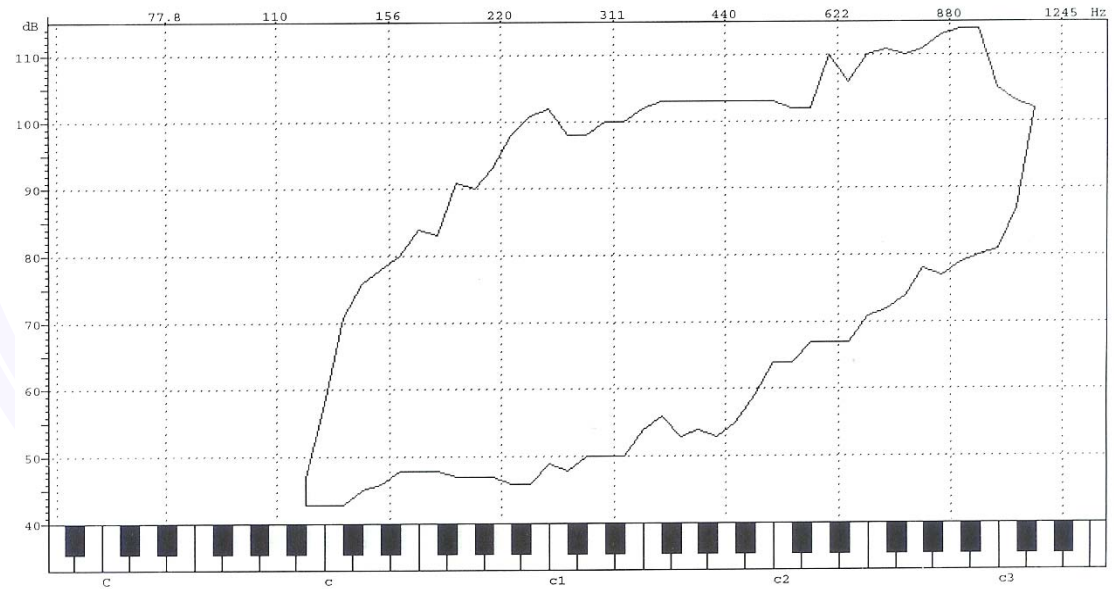
- ▶ FO_{hab} , I_{hab}
- ▶ ascending glissando
- ▶ descending glissando
- ▶ lower contour
- ▶ upper contour
- ▶ gap filling

VRP-parameters (Heylen & Mertens, 1997)

FO_{low}
 FO_{high}
 FO_{range}

I_{min}
 I_{max}
 I_{range}

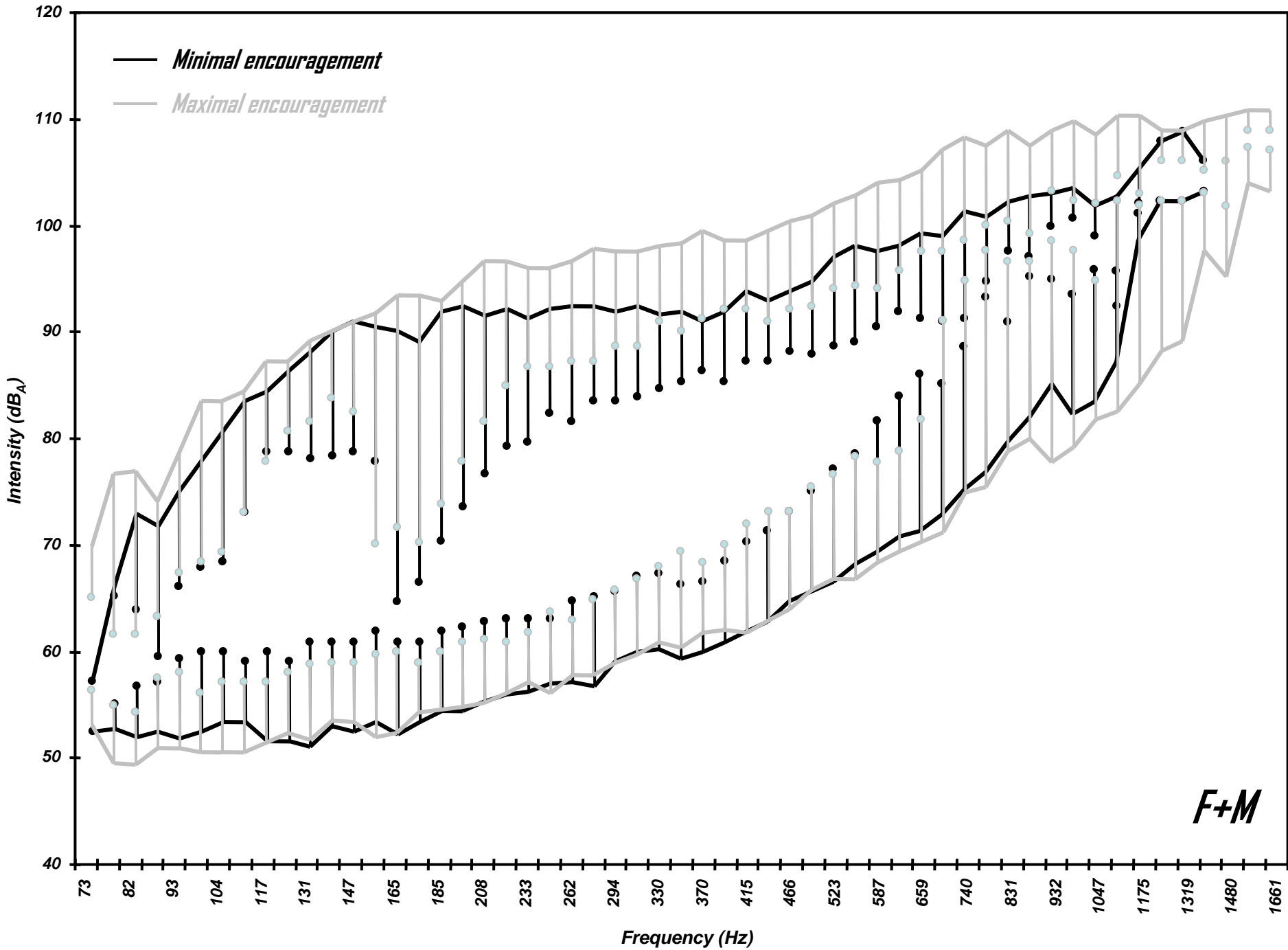
$VRP_{surface}$



Q1 - Differences

p (paired samples t-test)

FO_{low}	0.129
FO_{high}	0.000
FO_{range}	0.000
I_{min}	0.253
I_{max}	0.000
I_{range}	0.000
$VRP_{surface}$	0.000



Q2 - Gender

p (paired samples t-test)

	M	F
FO _{low}	0.053	0.524
FO _{high}	0.002	0.000
FO _{range}	0.001	0.000
I _{min}	0.245	0.886
I _{max}	0.000	0.000
I _{range}	0.000	0.000
VRP _{surface}	0.000	0.000

Q3 – Experimental sequence

p (Wilcoxon signed rank test)

	E_1	E_2
FO_{low}	0.045	0.629
FO_{high}	0.000	0.000
FO_{range}	0.000	0.000
l_{min}	0.255	0.715
l_{max}	0.000	0.000
l_{range}	0.000	0.000
$VRP_{surface}$	0.000	0.000

Discussion

Expected results

FO_{low} and I_{min} versus FO_{high} and I_{max}

Gender: no effect

Experimental order: no effect

Male experiment leaders?

Voice patients? Trained/professional voice users?

Discussion

Encouragement:
conditio sine qua non to quantify true VRP-boundaries

Encouragement:
part of a standardized phonetography protocol (guidelines)

Encouragement:
included in student VRP courses

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