

Phonological Awareness in Portuguese College Students

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1. Introduction

•Concepts of Phonological Awareness (PA)

There is some discussion about the concept and levels of Language Awareness (see e.g. [1], [2] and [3]). As a working basis, we will follow [1]'s distinction between 'language awareness' and 'metalinguistic consciousness', by distinguishing two different levels of PA:

- (i) **Implicit PA:** implicit knowledge about the phonology of one's language that allows the subject to identify some units and control some phonological operations, done outside a communicative context;
- (ii) **Explicit PA:** explicit, abstract and formal knowledge of the phonological properties of one's language, which is the result of formal instruction and enables the subject to describe the phonological units' form and properties and deliberately control the phonological operations.

•Importance of PA

-Beginning of schooling

Many studies have proved that a good level of PA is related to greater success in learning to read and to write in an alphabetic writing system (see [4]'s bibliographical revision).

-During the whole schooling

Since the PA involves becoming able to identify, manipulate and describe the phonological units and properties of a language, it is a part of an important ability that can be called 'Explicit Knowledge' [5]. Therefore, its development endows the subject with important cognitive skills, useful for a better linguistic performance in his native language and for learning foreign languages [5].

•Our goals

As both the level of PA in College students and the awareness of segmental properties and phonological processes are not frequently analysed in the literature, our goals are:

- (i) To analyse the ability of some College students, native speakers of European Portuguese (EP), to identify and manipulate non-consonantal segments showing different segmental properties (implicit PA);
- (ii) To observe the ability of some College students, native speakers of EP, to report on the properties of the phonological processes of nasalization, vowel reduction and semivocalization (explicit PA);
- (iii) To build on the final format of a larger experiment.

•Hypotheses

- (1) The subjects will show a low level of explicit PA about the phonological processes;
- (2) The subjects will not reveal a completely satisfactory ability to identify and manipulate non-consonantal segments.

2. Method

•Participants

Ten female EP native speakers, students of the 1st or 2nd year of College, ranging in age from 18 years to 22 years (mean age 20.2 years)

•Tasks

Task 1: Report and verbal explanation of the differences between 7 pairs of words presenting one of the three phonological processes analysed (explicit PA task)

Task 2: Sound counting (12 words)

Task 3: Sound saying (18 words)

Task 4: Sound detection (2 sounds x 6 words)

Task 5: Sound deletion (2 sounds x 3 words)

Task 6: Sound substitution (2 sounds x 3 words)

Task 7: Repetition of task 1, with seven different pairs of words (explicit PA task), aiming at observing a possible improvement in PA

3. Results: description and discussion

Tasks 1 & 7: Verbal explanation of phonological differences

Responses are considered completely correct when relevant phonological processes are referred to.

Task 1 – correct responses: 25%

Task 7 – correct responses: 31%

Subjects present a low level of explicit PA, because almost 30% of the answers refer to non-phonetic aspects, and only 45% of the responses include relevant phonetic differences.

Fig.1: Global values for tasks 1 & 7

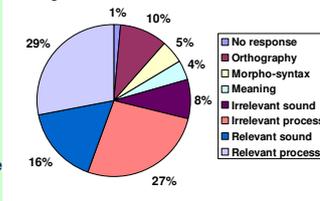


Fig.2: Vowel reduction (in %)

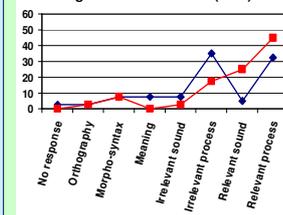


Fig.3: Nasalization (in %)

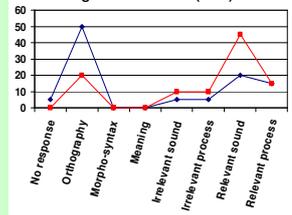
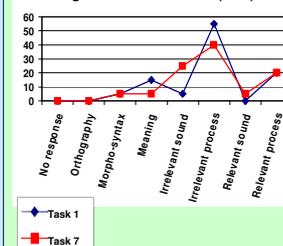


Fig.4: Semivocalization (in %)



•Responses concerning words related to **nasalization and vowel reduction** reveal an improvement from tasks 1 to 7:

- (a) the number of references to the relevant sounds and/or to the relevant phonological process increase;
- (b) the number of references to orthography and other irrelevant aspects decrease.

•Responses concerning **semivocalization** show no improvement in the PA: semivocalization is the process worst described by participants.

•Comparison between results from tasks 1 and 7 reveals:

- (a) increase in the rate of the relevant sound's identification, suggesting that the performance of tasks 2 to 6 led to an improvement in implicit PA;
- (b) no evolution in the rate of the relevant phonological process's identification; the performance of tasks 2 to 6 did not lead to an improvement in explicit PA.

Task 2: Sound counting

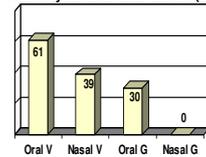
Correct responses		35%
Incorrect responses (possible causes of the incorrect responses)	Unknown cause	35%
	Semivocalization	16%
	Orthography (nasalization)	13%
	Syllable counting	1%
Total		100%

Task 3: Sound saying

Correct responses (mean): 52%

Responses consisting of naming letters (influence of orthographic knowledge): 13%

Fig.5: Ratio of non-consonantal segments correctly identified in Task 3 (in %)



Tasks 4 to 6

	Task 4: Sound detection	Task 5: Sound deletion	Task 6: Sound substitution
Correct responses (mean)	73%	77%	76%
Oral vowels: ratio of correct identification	52% [e]	73% [a]	52% [i] > [c]
Nasal vowels: ratio of correct identification	95% [ɨ]	80% [ɪ]	100% [ɛ] > [ɨ]

Note: The sounds in brackets are the ones used in each task.

Segmentation tasks (tasks 2 & 3) vs. manipulation tasks (tasks 4 to 6)

Comparison shows that in *manipulation tasks*:

- (a) global results are higher, which supports results in the literature for EP (e.g. [6], [7]) and contradicts other results (e.g. [8], [9]);
- (b) nasal vowels obtained the higher scores, contrary to the observed in segmentation tasks.

Tasks 2 to 6 (implicit PA)

Results on tasks 2 to 6 range from 35% of correct responses to 77%: subjects did not reveal a completely satisfactory ability to perform the implicit PA tasks involving the identification and manipulation of non-consonantal segments.

Influence of orthographic knowledge

Several facts suggest that the subjects' responses were partially influenced by their orthographic knowledge:

- (a) 10% of responses referring to orthography in tasks 1 & 7;
- (b) 13% of incorrect responses motivated by discrepancy between number of sounds and number of letters in task 2;
- (c) 13% of responses consisting of naming letters in task 3.

4. Conclusions

•The subjects showed a low level of explicit PA about the phonological processes.

•The answers to the final task exhibit an improvement in implicit PA but not in explicit PA. This result supports Titone's proposal: the development of 'metalinguistic consciousness' (explicit language awareness) demands formal instruction.

•The subjects did not reveal a completely satisfactory ability to perform the implicit PA tasks involving the identification and manipulation of non-consonantal segments.

•There seems to be an asymmetry in the behaviour of nasal and oral sounds. This remains a topic for further research.

•The subjects' responses show a degree of influence of their orthographic knowledge.

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