Teaching French Segmental Phonology to Enhance Spelling Competency

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Abstract

The empirical study investigates the effect of a French segmental training programme on the spelling abilities of fourteen students studying French as a foreign language (FFL). The study used a pre and post-test design to examine the training programme's effect. Besides the pre and post-test dictations, data was also collected through observations. The findings are presented and discussed under three heads, namely, (a) observations during the Training Programme, (b) performance on the dictation tests, and (c) performance on specific words. The implications of the findings are discussed for phonological instruction in French.

Keywords: French segmental phonology, spelling competency, training programme

Introduction

Phonology, grammar, and vocabulary are interrelated components of a language that collectively contribute to better language acquisition. While each component has significance, phonology holds a distinct and foundational role as crucial as syntax and lexis. Miller (2012) compared two methods of second language teaching approaches to phonology: the explicit teaching of phonetics and the popularly used method of repeating words after the instructor. Based on the findings, Miller concludes that explicitly teaching French phonology in the beginner's classroom enhances their acquisition of French. The study suggests that integrating phonetics at the beginner level can enhance learners' perception skills and improve their overall pronunciation and listening comprehension abilities.

There are a few studies on the effect of phonological instructions on adults learning French as a second language (Kennedy et al., 2014; Meritan, 2021). A search for such studies in the context of FFL does not obtain any published study highlighting that this is an under-researched area. This study has been undertaken in response to this gap. It investigates the effect of segmental phonological training in FFL on spelling abilities.

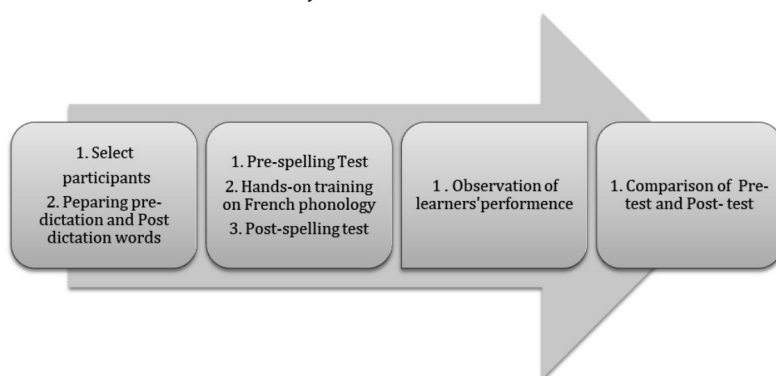## The Importance of Phonology in the Development of Spelling Accuracies

Phonological Education is "phonological awareness and the ability to decode words into their constituent sounds" (Milankov et al., 2021, p. 1). In the initial stages of learning languages, it is vital to impart phonological awareness while teaching foreign languages, as phonology helps develop reading skills and understand the language's spelling system. Through phonological awareness, individuals learn to segment words into constituent sounds (phonemes—distinct speech sounds), enabling them to map these sounds to corresponding letters (graphemes —written symbols) or letter combinations (Ehri, 2013). The relationship between phonemes and graphemes forms the basis of spelling. Learners who grasp the complexities of phonology are better equipped to decode words, recognize patterns, and translate spoken language into written form. This connection between sound and symbol fosters a more intuitive approach to spelling, enhancing accuracy (Shankweiler et al., 1996). Moreover, a firm grasp of phonology allows individuals to predict the spelling of unfamiliar words and apply consistent spelling rules.

Spelling is essential not only for itself but for its contribution to reading. A longitudinal study on the contribution of decoding, segmental and suprasegmental phonology on reading comprehension shows that in upper primary grades Dutch children, are both essential for themselves and their contribution to reading (Veenendaal et al., 2016). Boyer and Ehri (2011) report that English-speaking preschoolers trained in phonemic segmentation showed better spelling and reading abilities than the control group without training. Such studies indicate the importance of segmental phonology and its interaction with spelling, reading and literacy development. Given the significant role of phonemic segmentation, this study used phonemic segmentation and phonological awareness in French to train students for better spelling abilities.

Methodology

This research used a pre-and post-design with an intervention programme on awareness of phonemic segmentation. The steps followed in the study are presented in the flow chart.

Flow chart: *The Process of Research*

| 1. Select participants 2. Peparing pre-dictation and Post dictation words | 1. Pre-spelling Test 2. Hands-on training on French phonology 3. Post-spelling test | 1 . Observation of learners'performence | 1. Comparison of Pre-test and Post- test |

Forty-three first-year undergraduate students at Avinashilingam Institute for Home Science and Higher Education for Women formed the population. These students were enrolled in Part 1 French during the academic year 2022-23. From this population, 14 students volunteered to participate in the study because the training and the testing were after the classes.

Data Collection Instrument

Two dictation tools were used for data collection: the pre-test and the post-test. A dictation test is an assessment tool where the learners transcribe spoken text after listening attentively.

The fourteen learners took a level A1 French dictation. About thirteen words were selected from each lesson's course manual's phonology section under *Sons du Francais* (Hirschsprung & Tricot, 2017). These were oral and nasal sounds, words with silent letters, consonant sounds, and sentences with liaison, enchainment, and elisions. The word list for dictation in the pre and post-tests are given in Tables 1 and 2.

Table 1: *List of words with their phonological features used in pre-test.*

Pre-dictation test words and sentences	French segmental phonology
Froid (cold)	oral, silent /d/
Gentil (kind)	oral/nasal/silent /l/
Fils (son)	oral/pronounced consonant /s/
Fille (daughter)	oral/semi-vowel [j]
Vivre (to live)	oral/semi-vowel [v]
Dormir (to sleep)	pronounced consonant /R/
le chat (cat)	oral/silent consonant /t/
l'été (summer)	oral
Forêt (forest)	oral/silent consonant /t/
Manger (to eat)	oral/silent consonant/ silent /R/
Champ (field)	nasal/silent consonant /p/
Champagne (Name of a French wine)	oral/nasal consonnant/semi-vowel[ɲ]
Mon ami habite ici depuis longtemps (My friend has been living here for a long time.)	oral/nasal/liaison

Table 2: *List of words with their phonological features in post-test.*

Post-dictation test words and sentences	French segmental phonology
Choristes (Singers)	oral/ consonants /k/, /R/, /t /
Baggages (luggage)	oral/silent ending consonant /g/
Ecran (Screen)	oral/ nasal/ consonant /k/
Grand (big)	oral/ silent consonant /d/
Cheval (horse)	oral/ pronounced ending consonant /l/
Beau (handsome)	oral/consonant /b/
Une (indefinite article—a, an)	composed vowel /y/
Fou (fool)	oral/ consonant /f/
Lit (bed)	oral/silent consonant /t/
Montagne (mountain)	oral/nasal consonant/semi-vowel [ɲ]
Hôtel (hotel)	oral/pronounced consonant /l/
Les enfants apprennent les nouvelles chooses (The children are learning new things)	oral/nasal/liaison
c'est la rentré (It is back to school)	oral/nasal/liaison/elision/ enchainemnt

Training Programme in French Phonology

The participants underwent a four-day training on French phonology of two hours per day. The first author of this paper was the trainer, and the training programme focused on increasing awareness of the sounds of the French alphabet by introducing participants to:

- articulation points
- classification of sounds (See Table 3)
- structural changes of sounds (liaison and enchainment)
- practising knowledge of segmental phonology through minimal pairs, tongue twisters, and reading aloud
- IPA symbols

Table 3: *French speech sounds focused in the training programme*

| French oral and nasal sounds	/a/- chat (cat), /e/ - été (summer), /ɛ/ - belle (beautiful), /i/ - lit (bed), /o/- eau (water), /ø/ - peu (little), /u/ - fou (crazy), /y/ - une (a/an)
Words with silent letters	est: Forêt (forest), ent: Talent (talent), er: Manger (to eat), es: Ames (souls), ez: Allez (go), et: Filet (net), s: Paris (Paris), x: Prix (price), d: Froid (cold), p: Champ (field)
Consonant sounds	gn- montagne (mountain), h- hôtel (hotel), b- subtil (subtle), d -mercredi (Wednesday), s - île (island)
Sentences with liaison	Les amis (The friends) - Here, the 's' in "amis" is pronounced due to liaison. Les enfants aiment apprendre de nouvelles choses
Sentences with e Enchaînement	Les enfants aiment danser (Children like to dance) - The sounds at the end of "enfants" and "aiment" smoothly transition due to enchaînement. Mon ami habite ici depuis longtemps. (My friend has been living here for a long time.)
Sentences with Élision	J'aime l'école (I like school) - Nous allons à l'épicerie (we are going to the grocery shop)

Findings and Discussion

The study's findings are discussed under two heads: performance on dictation tests and performance on word categories.

Performance on Dictation Tests

As a part of the analysis, the number of correctly spelt words in the pre and post-tests are visually presented in Graph 1

Graph 1: *Total number of words correctly spelt in pre and post-tests.*
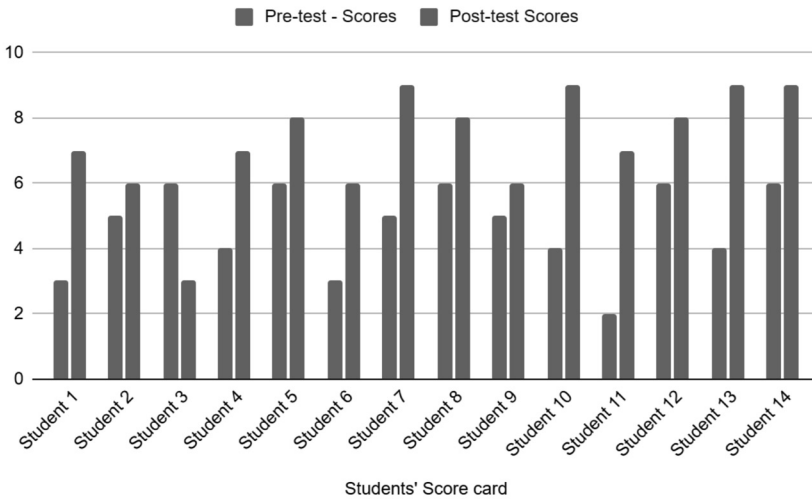
The bar diagram provides a comparative picture of the effectiveness of the phonology training programme. Thirteen students scored more on the post-test compared to the pre-test. Of the thirteen participants, students 7,10, 13 and 14 obtained a maximum number of correct answers in the post-test (a score of 9). Among these, students 10 and, 13 and student 11 have shown the maximum increase in the number of correctly spelt words in the post-test compared to the pre-test (a score of 5). Students have yet to obtain the maximum score (13), which means all students have made mistakes. Only student No. 3 has shown decreased performance in the post-test.

Students' performance in the dictation test can be attributed to many factors. These factors encompass their pre-existing language skills, level of motivation, the quality of the training programme and its duration, the extent of practice, listening skills, stress levels, prior knowledge, feedback and support received, test conditions, and the home environment. These factors combine differently in each student, influencing their performance. Since most students have scored more

in the post-test, overall, the training programme has helped students improve their spelling.

Performance on Word Categories

Five students (Student Nos. 1, 4, 5, 7, and 8) could spell oral and nasal phonemes, graphemes, and liaison and enchainment structures. Some errors in spelling made by students were writing *koristes* for *Choristes*, *Ekran* for *Ecran*, *gran* for *grand*, and *lez* for *les* in *les enfants apprennent les nouvelles choses*. Students' spelling abilities improved in the post-test on cluster sounds like /nt/ and /ʃ/. A few students could differentiate the absence of nasal sounds in connected (liaison) words like *mon ami*. These findings showed that explicit teaching of French phonology helped improve the spelling abilities of student participants.

Seven of 13 students had problems with nasal sounds, liaison, elision and enchainment structures in French. Another issue was the limited ability to differentiate between vowel sounds nasalized (like /ã/) and those that have not. These issues were also observed in the training programme but were brought out starkly in the post-test performance.

The findings underline the need for continued reinforcement and practice. They also provide insights for refining French language instruction. They identify categories of words where students have problems that must be targeted in teaching. These findings also guide the exercises and activities in adaptive and technology-driven teaching methods. Overall, the findings provide a foundation for a more effective and nuanced pedagogy, ultimately contributing to improved proficiency in French orthography among language learners. Overall, the findings provide a foundation for a more effective and nuanced pedagogy, ultimately contributing to improved proficiency in French orthography among language learners.

Limitations and Scope for Future Research

The training programme in the study was for 8 hours. Consequently, the time may only be adequate for some participants to improve their spelling skills. Regular follow-up training programmes can be a part of future studies. The errors shown by students in this study can become the focus of future studies, along with considering complex words in these categories. Conducting a longitudinal study that tracks the progress of

the same cohort of learners over an extended period could provide richer insights into the long-term effects of phonology-segmental phonology-based interventions on spelling competency.

Conclusion

The phonology education integrated into French language classrooms has a dual role in an academic context. Initially, it enhances students' understanding of the underlying structure of the written French orthographic system. Simultaneously, this knowledge can yield substantial benefits for spelling and reading skills among French learners. In summary, the findings point to the pivotal role of phonological awareness in shaping spelling proficiency. The explicit teaching of phonology, particularly in the foreign language context, can have far-reaching consequences by impacting reading and writing skills.

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