



Journal of English Teaching and Applied Linguistic

<http://jurnal.stkipgribl.ac.id/index.php/jeta>

print ISSN 2722-3388

online ISSN 2722-3396

**OPTIMISING FRENCH PRONUNCIATION IN *SON ET INTONATION*
COURSE THROUGH SHADOWING METHOD SUPPORTED BY DIGITAL
AUDIO-VISUAL MEDIA**

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Abstract: This study examines the effectiveness of the shadowing method, integrated with digital audio-visual media, in optimising phonological competence development within the *Son et Intonation* (Sound and Intonation) course for second-semester students of the French Language Education Study Program at Lampung University. The primary concern addressed is the suboptimal phonological proficiency of beginning learners, as evidenced by a class mean pre-test score of 66.07, with the majority of participants classified within the Very Low and Low performance categories. Employing a qualitative action-based research design, the study implemented five interrelated procedural stages: initial phonological competence assessment, shadowing instructional design development, digital audio-visual media production, classroom implementation, and evaluative post-test measurement. Thirty second-semester students participated in four progressively structured shadowing variants muted shadowing, whisper shadowing, whisper-full shadowing, and full shadowing using authentic native speaker recordings as primary input models. Results indicated significant gains across all five rubric assessment dimensions: Pronunciation, *Liaison & Enchaînement* (sound linking), Intonation & Accentuation, Rhythm, and Fluency. The class mean post-test score surpassed the target threshold of 75.00, accompanied by a substantial reduction in the proportion of students in the Very Low and Low categories. These findings confirm that the

shadowing method, when systematically supported by purpose-designed digital audio-visual media, effectively strengthens phonological competence and establishes a structured foundation for the development of oral communicative skills toward the B2 proficiency target specified in the *Cadre européen commun de référence pour les langues* (CECRL; Common European Framework of Reference for Languages).

Keywords: *Son et Intonation*, shadowing method, digital audio-visual media

INTRODUCTION

The development of oral communicative competence in foreign language learning is fundamentally contingent upon the systematic acquisition of phonological skills, encompassing pronunciation accuracy, intonation patterning, prosodic rhythm, and sound-linking phenomena such as *liaison* (sound linking between words) and *enchaînement* (consonant-to-vowel linking across word boundaries). In the didactics of French as a foreign language (*français langue étrangère*, FLE), there is wide agreement that inadequate phonological development not only impairs the intelligibility of learner speech but also constrains learners' capacity to comprehend naturalistic native speaker discourse (Lauret, 2007; Guimbretière, 1994). Phonological competence is therefore recognised as foundational to communicative language proficiency a prerequisite, rather than an ancillary component, of foreign language education (Callamand, 1981; Inceoglu, 2022).

In the context of French as a foreign language, phonological mastery carries particular significance given the distinctive complexity of French phonology. French is characterised by features including nasal vowels (/ã/, /õ/, /ẽ/), rounded front vowels (/y/, /ø/, /œ/) absent from many learner first languages, mandatory *liaison* and *enchaînement*, fixed tonic accentuation on the final syllable of prosodic groups, and an isosyllabic rhythmic structure all of which constitute persistent challenges for beginning learners (Léon, 2005; Wioland, 1991). These distinctive features demand intensive, systematic, and contextualised phonological practice grounded in authentic native speaker input (Lauret, 2007; Callamand, 1981; Racine & Detey, 2017).

The institutional framework for defining and measuring communicative competence is provided by the *Cadre européen commun de référence pour les langues* (CECRL; Common European Framework of Reference for Languages), developed by

the Council of Europe (*Conseil de l'Europe*, 2018). The CECRL articulates communicative proficiency across six levels (A1–C2), foregrounding *compréhension orale* (oral comprehension) and *production orale* (oral production) as primary competence domains. Both domains are directly conditioned by phonological development, rendering systematic phonological instruction an indispensable component of any curriculum targeting CECRL-defined outcomes (Lauret, 2007; Guimbretière, 1994).

The French Language Education Study Program at Universitas Lampung, Indonesia, targets a minimum B2 proficiency level under the CECRL as its Graduate Learning Outcomes (*Capaian Pembelajaran Lulusan*, CPL). However, empirical observation reveals that the majority of students encounter persistent difficulties in achieving B1-level oral competence, particularly in the production of French-specific phonological features such as nasal vowels, *liaison*, and natural speech rhythm. To address this challenge, the study program introduced the *Son et Intonation* (Sound and Intonation) course as part of the 2025 curriculum revision, targeting second-semester students who are, in most cases, beginning learners with no prior formal French language background.

A growing body of research has examined various approaches to phonetic instruction in foreign language learning, including explicit phonetic corrective teaching (Callamand, 1981) and perception-articulatory approaches. Among the pedagogical techniques receiving increasing scholarly attention is shadowing a procedure in which learners listen to native speaker speech and simultaneously or near-simultaneously repeat it (Hamada, 2016b). Empirical studies have demonstrated shadowing to enhance phonological sensitivity, intonation naturalness, prosodic rhythm, and oral fluency through intensive, contextualised exposure to authentic native speaker models (Hamada, 2016a; Murphey, 2001). A systematic review by Whitworth and Rose (2025) confirmed that shadowing training improves L2 learners' comprehensibility, intelligibility, and prosodic control across 44 peer-reviewed studies, affirming its robust evidence base for pronunciation instruction.

The integration of digital audio-visual media into pronunciation instruction enriches the shadowing learning environment by simultaneously engaging auditory and visual processing channels. This approach is theoretically grounded in Mayer's (2021) Cognitive Theory of Multimedia Learning (CTML), which posits that learning is optimised when verbal and pictorial information are presented in a coordinated manner, enabling learners to construct referential connections between dual representational systems. Complementarily, Paivio's (1986) Dual Coding Theory proposes that the concurrent activation of verbal and non-verbal cognitive codes substantially enhances both encoding efficiency and long-term retrieval of learned material. Technology-enhanced multimodal approaches in L2 pronunciation training have been shown to effectively support learners' development of segmental and suprasegmental features through visual and auditory channels (Farias & Obilinovic, 2025). When combined with shadowing, such multimodal resources create a scaffolded learning environment that concurrently addresses the perceptive and productive dimensions of phonological competence (Inceoglu, 2021; Wioland, 1991).

The present study sought to optimise phonological instruction in the *Son et Intonation* course through the systematic integration of the shadowing method with purpose-designed digital audio-visual media. Specifically, the study aimed to: (1) assess the initial phonological competence of second-semester students; (2) design and implement a differentiated shadowing instructional sequence supported by multimodal media; and (3) evaluate the impact of the intervention on learner phonological development across five rubric-assessed dimensions. In doing so, the study contributes to the literature on phonological instruction in FLE contexts (Lauret, 2007; Callamand, 1981; Guimbretièrre, 1994; Inceoglu, 2022) and proposes a replicable pedagogical model for comparable institutional settings.

RESEARCH METHOD

Research Design

This study adopted a qualitative action-based research design, conceptualised as a systematic, practitioner-led, and cyclical form of inquiry oriented toward the

improvement of instructional practice within an authentic educational context (Kemmis, McTaggart, & Nixon, 2014; Burns, 2010). Action research is particularly well-suited to pedagogical investigations in which the researcher simultaneously occupies the role of classroom practitioner, enabling the iterative refinement of instructional design on the basis of ongoing classroom evidence (Creswell & Creswell, 2018). The present study implemented a single action research cycle comprising five sequential procedural stages: (1) initial phonological competence assessment (pre-test); (2) shadowing instructional design development; (3) digital audio-visual media production; (4) classroom implementation; and (5) evaluative post-test measurement. The intervention was conducted during the second semester of the 2025/2026 academic year.

Research Context and Participants

The study was conducted within the *Son et Intonation* course at the French Language Education Study Program, Faculty of Teacher Training and Education, Lampung University. Thirty second-semester students constituted the research participants. All participants were classified as beginning learners with no prior formal French language instruction, rendering systematic phonological competence development particularly critical at this initial stage of their language learning trajectory. Purposive sampling was employed to ensure that the participant group authentically represented the instructional context under investigation, consistent with qualitative action research methodology.

Data Collection Instruments

Data were collected through multiple complementary instruments to enable methodological triangulation and enhance the credibility of findings. The primary instruments comprised: (a) pre-test and post-test oral recording tasks, in which participants read aloud an identical standardised French passage embedding key phonological features; (b) rubric-based assessments scored independently by the researcher and a qualified co-evaluator to establish inter-rater reliability; (c) systematic observational field notes documenting learner engagement patterns, error types, and responsiveness to instructional scaffolding; and (d) structured

student feedback documentation collected at the conclusion of the intervention period.

Both assessment tasks employed the same French reading passage, designed to embed a representative range of phonological phenomena, including nasal vowels (e.g., *étudiant* [ã], *français* [ã], *chansons* [õ]), *liaison* (e.g., *nous avons, les étudiants écoutent*), and declarative intonation contours. The use of an identical assessment instrument at both time points ensured the direct comparability of pre- and post-intervention performance data.

To address validity and reliability considerations, the pronunciation rubric was developed through consultation with established phonetics instruction literature (Lauret, 2007; Callamand, 1981) and reviewed by two experienced French language educators prior to administration. Inter-rater reliability was established through independent scoring of a randomly selected subset of oral recordings; any score discrepancies were resolved through deliberative discussion and consensus.

Assessment Rubric

A five-component pronunciation rubric was applied consistently across both assessment points, comprising: (1) Pronunciation (30%), assessing the accuracy of French vowel and consonant production, with particular attention to nasal vowels and rounded front vowels absent from Indonesian phonology; (2) *Liaison & Enchaînement* (20%), assessing learner execution of obligatory and optional sound-linking across word boundaries; (3) Intonation & Accentuation (20%), assessing adherence to native-speaker intonation contours and appropriate tonic accent placement on the final syllable of prosodic groups; (4) Rhythm (15%), assessing maintenance of French isosyllabic rhythmic structure and temporal regularity; and (5) Fluency (15%), assessing the continuity, rate, and naturalness of oral delivery. The weighted distribution of components reflects the relative pedagogical priority assigned to each dimension on the basis of pre-test diagnostic findings (Lauret, 2007).

Instructional Intervention

The instructional intervention comprised four progressively structured shadowing variants, each targeting a distinct phonological dimension: (a) muted

shadowing, in which students silently mirrored the articulatory gestures and breathing patterns of native speaker models to internalise nasal vowel formation; (b) whisper shadowing, in which students produced minimal-volume repetitions to focus perceptual attention on *liaison* and *enchaînement* phenomena; (c) whisper-full shadowing with video, in which students simultaneously imitated native-speaker intonation contours and accentual patterns from video input; and (d) full shadowing, in which students engaged in full-voice simultaneous repetition targeting overall prosodic rhythm and oral fluency. Each variant was supported by purpose-designed digital audio-visual media incorporating curated native speaker recordings, phonetic transcriptions, rhythmic segmentation markers, and pause indicators. This shadowing sequence is further supported by Foote and McDonough (2017), who demonstrated the effectiveness of technology-assisted shadowing for L2 pronunciation improvement, and by Hamada (2018), who provided evidence for structured shadowing variants in pronunciation development.

Data Analysis

Data analysis followed a cyclical interpretive procedure consistent with qualitative action research methodology. Pre-test oral recordings were scored using the five-component rubric and individual competence profiles were constructed to inform differentiated instructional design. Post-test recordings were subsequently scored using the same rubric and compared with pre-test data to assess both individual and group-level phonological development. Class mean scores and performance category distributions at each time point provided the primary quantitative indices of intervention effectiveness. Qualitative data from observational field notes and student feedback documentation were analysed thematically to triangulate and contextualise the quantitative findings.

RESULT

Initial Pronunciation Competence Assessment (Pre-Test)

Pre-test analysis of the 30 participants' oral recordings revealed substantial variability in phonological competence at the commencement of the course, with a class mean score of 66.07, placing the cohort overall within the Low performance

category. Table 1 presents the distribution of students across competence categories.

Table 1. Distribution of Students' Initial Pronunciation Competence (Pre-Test)

Category	Score Range	n	%
Very Low	< 60	5	16.67%
Low	61-65	13	43.33%
Adequate	66-70	6	20.00%
Good	71-75	1	3.33%
Excellent	> 76	5	16.67%
Class Mean	66.07	-	-

As shown in Table 1, 60% of students (n = 18) were classified in the Low or Very Low categories, indicating that a significant majority entered the *Son et Intonation* course without the phonological foundations necessary for effective oral communication in French. Among the five assessed rubric dimensions, Pronunciation presented the greatest challenge (63.3% of students exhibiting significant articulatory deficiencies), followed by *Liaison & Enchaînement* (56.7%) and Intonation (53.3%). These diagnostic findings provided the empirical basis for designing a differentiated shadowing instructional sequence and for assigning pedagogical priority to specific phonological phenomena in the media development phase.

Shadowing Learning Design and Media Development

On the basis of pre-test diagnostic data, a three-tiered shadowing instructional sequence was developed, structured to progress systematically from perception-focused to production-focused activities in accordance with a principled task complexity gradient (Callamand, 1981; Guimbretière, 1994). Each shadowing variant explicitly targeted the phonological difficulties most prevalent in the pre-test profiles, and differentiated scaffolding was operationalised through varied levels of cognitive and articulatory demand: students classified in the Very Low

category received intensive individualised support during muted shadowing, while those in the Excellent category were provided extended authentic discourse samples for full shadowing practice.

The digital audio-visual media package developed for this intervention comprised: (1) curated native speaker audio extracts graded by phonological difficulty and indexed to specific rubric dimensions; (2) video materials with embedded phonetic annotations, rhythmic segmentation markers, and pause indicators calibrated to learner processing capacity; (3) a structured student usage guide specifying the objectives and procedures of each shadowing variant; and (4) self-assessment prompts aligned with the five rubric components to scaffold reflective practice (Mayer, 2021). All media resources were made accessible beyond scheduled class hours via a shared digital platform to support autonomous and self-regulated phonological practice.

Classroom Implementation of Shadowing

The shadowing instructional sequence was conducted across two class meetings in April 2026, with all 30 participants engaging actively in the four-stage progression. During the muted shadowing phase, students silently mirrored the lip movements and articulatory positioning of native speaker models in video materials, aiming to internalise the articulatory configurations required for nasal vowel production without acoustic interference. The whisper shadowing phase engaged students in minimal-volume production, directing perceptual attention toward the acoustic salience of *liaison* and *enchaînement* in connected speech. The whisper-full shadowing with video phase required near-simultaneous imitation of intonation contours and tonic accentuation from native-speaker video input. The full shadowing phase required students to engage in full-voice simultaneous repetition targeting overall prosodic rhythm and communicative fluency

Differentiated real-time formative feedback was administered throughout each phase. Students in the Very Low and Low categories received targeted individual corrections addressing specific articulatory errors; those in the Adequate and Good categories were guided to refine suprasegmental features; and those in the Excellent

category received additional authentic discourse materials for self-directed extension practice. All feedback instances were documented in individual student observation logs for post-session analysis.

Post-Test Results and Comparative Analysis

Post-test assessment of all 30 participants demonstrated significant improvements across all five assessed dimensions of French phonological competence. Table 2 presents a comparative overview of pre-test and post-test performance distributions.

Table 2. Pre-Test and Post-Test Comparison of Competence Distribution

Category	Pre-Test n (%)	Post-Test n (%)
Very Low (< 60)	5 (16.67%)	0 (0.00%)
Low (61–65)	13 (43.33%)	3 (10.00%)
Adequate (66–70)	6 (20.00%)	7 (23.33%)
Good (71–75)	1 (3.33%)	9 (30.00%)
Excellent (> 76)	5 (16.67%)	11 (36.67%)
Class Mean	66.07	≥ 75.00

As shown in Table 2, the Very Low category was entirely eliminated in the post-test, and the proportion of students in the Low category decreased substantially from 43.33% to 10.00%. Concurrently, the proportion of students achieving Good or Excellent performance increased from 20.00% to 66.67%. The class mean post-test score surpassed the target threshold of 75.00, confirming that the shadowing intervention achieved its primary success criterion.

Improvement was most pronounced in Pronunciation and *Liaison & Enchaînement* the two dimensions identified as highest priority in the pre-test diagnostic analysis indicating that the differentiated muted and whisper shadowing phases were particularly effective in addressing these foundational phonological challenges. Intonation and Rhythm also demonstrated marked improvement, attributable to the authentic prosodic models provided through the whisper-full shadowing video phase, which embedded native-speaker intonation contours

within communicatively contextualised discourse. Fluency gains, while comparatively modest, nonetheless reflected a meaningful shift toward more continuous and natural-sounding oral performance.

These results are consistent with Hamada's (2016b) contention that shadowing constitutes an effective technique for developing phonological sensitivity and oral fluency through intensive exposure to authentic native speaker models, corroborated by the systematic review of Whitworth and Rose (2025) confirming shadowing's positive effects on L2 pronunciation across 44 peer-reviewed studies. The specific benefits of shadowing for L2 prosody and oral fluency are further documented by Hamada (2016a) and Foote and McDonough (2017), who demonstrated the effectiveness of technology-assisted shadowing in authentic instructional contexts. The present findings extend this body of evidence to the FLE context with true beginning learners who have received comparatively limited attention in the shadowing literature and confirm the efficacy of the method under conditions of zero prior target-language exposure.

The integration of digital audio-visual media contributed a visual-prosodic scaffolding dimension absent from audio-only shadowing paradigms. Consistent with Mayer's (2021) Cognitive Theory of Multimedia Learning, the dual-channel presentation of phonological information through coordinated audio and visual input appears to have facilitated deeper phonological encoding and more accurate production, particularly for learners with no prior exposure to French phonological patterns. This finding supports the emerging body of research advocating for multimodal approaches to phonological instruction in technology-mediated language learning environments (Farias & Obilinovic, 2025; Inceoglu, 2021).

Furthermore, the structured progression of shadowing variants from minimally articulatory muted to fully productive full shadowing corresponds to a principled task complexity gradient consistent with cognitive accounts of L2 skill development, as documented in the FLE phonetics literature (Callamand, 1981; Guimbretière, 1994). The explicit instruction of *liaison* and *enchaînement* through structured shadowing aligns with Inceoglu's (2021) findings that explicit pronunciation

instruction significantly enhances learner awareness and production of L2 French connected speech processes. This gradual increase in productive demand appears to have reduced affective barriers to participation, particularly among students in the lowest performance categories, as evidenced by full-class engagement across all phases and positive affective responses documented in student feedback notes.

DISCUSSION

The findings of this study carry several substantive pedagogical implications for phonological instruction in foreign language teacher education programs, particularly those targeting phonologically complex languages such as French.

First, the pre-test diagnostic mapping procedure demonstrated that systematic initial assessment of learner phonological competence provides indispensable diagnostic data for instructional design. Without this foundational step, shadowing instruction risks misalignment between activity complexity and learner readiness, potentially reinforcing existing phonological errors rather than correcting them. Diagnostic assessment should therefore be treated as a non-negotiable prerequisite for evidence-based phonological instruction (Callamand, 1981; Lauret, 2007; Inceoglu, 2022). Inceoglu's (2022) empirical study on L2 French pronunciation instruction demonstrates that structured assessment of learner starting points is essential for designing effective pronunciation interventions.

Second, the development of tiered digital audio-visual media classified by phonological difficulty, annotated with prosodic markers, and accompanied by structured learner guides has the potential to transform shadowing from an exclusively teacher-dependent activity into a tool for autonomous, self-regulated phonological practice. The accessibility of such resources beyond scheduled class time is particularly significant given the constrained instructional hours typically allocated to phonetics within tertiary language curricula (Lauret, 2007; Wioland, 1991). Online and technology-enhanced pronunciation instruction has been shown to effectively support L2 French learners' phonological awareness and connected speech development (Meritan & Mroz, 2022; Inceoglu, 2021).

Third, the provision of explicit, rubric-referenced, and differentiated formative feedback during shadowing sessions is essential to ensure that learners internalise accurate phonological models rather than consolidate existing errors. This pedagogical requirement demands that instructors possess both substantive phonological expertise and the flexibility to adapt feedback delivery responsively across heterogeneous ability groups, a dimension of phonetics pedagogy that warrants greater attention in pre-service teacher education programs for FLE (Guimbretière, 1994; Meritan & Mroz, 2022). The use of shadowing with explicit instructional support, as Hamada's (2018) work on haptic-shadowing and IPA-shadowing demonstrates, offers structured frameworks for differentiated corrective interventions addressing rhythm, intonation, and segmental features of French.

CONCLUSION

This study demonstrates that the systematic integration of the shadowing method with purpose-built digital audio-visual media significantly enhances phonological competence among beginning-level French language learners in a FLE instructional context. Beginning from a class mean pre-test score of 66.07 in the Low category, participants achieved a class mean post-test score surpassing the target threshold of 75.00, with substantial and consistent improvements across all five assessed dimensions: Pronunciation, *Liaison & Enchaînement*, Intonation & Accentuation, Rhythm, and Fluency.

The five-stage implementation model comprising initial assessment, instructional design, media development, classroom implementation, and evaluative measurement offers a replicable and evidence-grounded framework for optimising phonological instruction in comparable FLE, FFL, and broader L2 instructional contexts. The differentiated shadowing sequence, progressing from muted to full production modes, provides a principled structure for addressing the diverse phonological needs of heterogeneous learner groups at the beginning proficiency level.

Future research is encouraged to employ larger and more diverse participant samples, longitudinal assessment designs, and experimentally controlled comparisons with non-shadowing or audio-only instructional conditions to establish the generalisability and relative efficacy of this multimodal shadowing approach. The investigation of learner self-assessment, peer feedback integration, and long-term retention of phonological gains within the shadowing cycle warrants attention in subsequent inquiry. Application of this model to other phonologically complex target languages in comparable institutional contexts represents an additional avenue for productive scholarly investigation, as a contribution to the literature on phonological instruction in FLE contexts proposing a replicable pedagogical model for comparable institutional settings.

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