

Assimilation in Connected Speech: Challenges, Causes and Strategies in English

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Abstract: Assimilation is a key phonological process that could contribute to natural fluency in spoken English. However, perceiving assimilation in connected speech might cause challenges for Algerian English as Foreign Language (EFL) students, particularly when trying to identify familiar words in rapid speech. The present study attempts to explore particular difficulties that first-year EFL students can face in perceiving assimilation, the underlying causes, and possible strategies used to overcome these challenges. A mixed-methods design was adopted, employing a semi-structured questionnaire and a cloze dictation test. The findings from the quantitative data revealed that participants struggle with lexical segmentation, particularly with regressive assimilation across word boundaries. Furthermore, it revealed that the main contributing factors include limited awareness of assimilation rules, first language transfer, and a lack of exposure to the English language. Despite these obstacles, participants reported using strategies such as increased exposure to authentic input, phonetic training, and shadowing to improve their perception skills. The study aimed to highlight the importance of raising EFL students' consciousness of the importance of assimilation, considering the impact of their first language and the need for targeted instruction explicitly designed to improve their ability to perceive and decode assimilated sounds.

Keywords: assimilation; perception; challenges; causes; strategies.

المخلص: يُعدّ الإدغام الصوتي عملية فونولوجية أساسية تُسهّم في تحقيق الطلاقة الطبيعية في الكلام المنطوق. غير أنّ إدراك ظاهرة الإدغام في الكلام المتصل قد يشكّل تحديات لطلبة اللغة الإنجليزية كلغة أجنبية في الجزائر، خصوصاً عند محاولتهم تمييز الكلمات المألوفة في الكلام السريع. تسعى هذه الدراسة إلى استكشاف الصعوبات التي قد يواجهها طلبة السنة الأولى في إدراك الإدغام، وأسبابها الكامنة، والاستراتيجيات الممكنة لتجاوز هذه التحديات. وقد تمّ اعتماد منهج ذي مقارنة مختلطة شمل استخدام استبيان شبه مقنن واختبار إملاء بالنقص. أظهرت النتائج أنّ المشاركين يجدون صعوبة في تقسيم الكلمات، خاصة في حالات الإدغام التراجعي عند حدود الكلمات. كما بيّنت النتائج أنّ العوامل الأساسية وراء هذه الصعوبات تشمل ضعف الوعي بقواعد الإدغام، وتأثير اللغة الأم، وقلة التعرّض للغة الإنجليزية. ورغم هذه العقبات، أفاد الطلبة باستخدام استراتيجيات مثل زيادة التعرّض للمداخلات الأصلية، والتدريب الصوتي، وتقنية المحاكاة لتحسين مهاراتهم الإدراكية.

وتهدف هذه الدراسة إلى إبراز أهمية رفع وعي طلبة اللغة الإنجليزية بأهمية الإدغام، مع مراعاة أثر لغتهم الأم والحاجة إلى تعليم موجّه وصريح لتطوير قدرتهم على إدراك وفهم الأصوات المدغمة.

الكلمات المفتاحية: الإدغام؛ الإدراك؛ التحديات؛ الأسباب؛ الاستراتيجيات

1. INTRODUCTION

In the context of EFL education, the ability to perceive connected speech may be important to develop perceptual skills and improve intelligibility. Connected speech can occur when native English speakers communicate naturally in real-time conversations; it involves phonological processes such as assimilation, elision, and linking (Celce-Murcia, Brinton, & Goodwin, 2010). Assimilation is a phenomenon of connected speech where one sound changes to resemble the neighbouring sound; it may occur within the same word or between word boundaries. Such sound modifications can pose challenges for EFL students, as they might anticipate perceiving familiar words but can fail to recognise them when assimilation in connected speech causes them to merge or change, despite being able to identify the exact words with ease in isolation (Field, 2003; Fitriani, 2025).

Even though EFL students may have developed considerable vocabulary knowledge through years of English study, they might still struggle to grasp the intended meaning. This means that the difficulty could not lie in the vocabulary, since the words being uttered are familiar, but rather in the way they are transformed through assimilation. For example, the phrase ‘Green Park’ may be perceived as /gri:m pa:k/, which can confuse EFL students because of a possible mismatch between what they expect to hear and what is spoken. This sound change could lead EFL students to misunderstand the meaning, even if they may have a good understanding of vocabulary. Such difficulties might affect learners’ intelligibility, potentially causing challenges in understanding authentic English and resulting in perception failures (Goh, 2000).

Although prior studies have investigated perception difficulties in general (Vandergrift, 2007), few have explored perceptual assimilation challenges among EFL students. Moreover, little may be known about how these difficulties are experienced by Algerian EFL students, who may use Arabic, Berber, and French languages that differ phonetically and phonologically from English in terms of segmental and suprasegmental features (Derouaz, 2022; Meziani, 2019). These phonetic and phonological differences might create additional barriers that could hinder EFL students’ perception of connected speech in real time

This gap in the literature may highlight the need for further research on how Algerian EFL students might perceive assimilation in connected speech. The present study focuses on three distinct objectives. The first objective is to examine whether EFL students might encounter difficulties with assimilation in connected speech, as well as the possible extent and nature of these difficulties. The second objective is to identify factors that could contribute to these challenges. The third objective is to consider possible strategies that could help EFL students improve their ability to perceive assimilated forms in connected speech. By tackling these difficulties, the current study may help EFL students raise their awareness of assimilation in natural speech, improve their perception skills, and clarify

the difference between words spoken in isolation and natural spoken English. It could also offer both theoretical and practical contributions to the EFL education context in general, and to listening comprehension and phonology in particular.

The present study aims to address the following questions:

1. Do EFL students encounter challenges in perceiving assimilation in connected speech? If yes, what are these difficulties?
2. What are the principal causes of EFL students' challenges in the perception of assimilation?
3. What solutions can be suggested to improve EFL students' perceptual skills?

2. Literature Review

2.1 Definition of Assimilation in Connected Speech

Assimilation is a fundamental phonological process that contributes to the natural flow of spoken English. It occurs when a sound changes one or more of its features to become more like a neighbouring sound. Native English speakers produce assimilation unconsciously and automatically during real-life conversations, enabling them to communicate fluently and efficiently (Roach, 2009). The main function of assimilation is to facilitate smoother pronunciation, reduce articulatory efforts, and maintain the rhythm of spoken language (Brown, 2006; Rattanasak, 2025).

Assimilation in connected speech can occur within a single word or between two words. It has been classified in various ways by linguists (Cruttenden, 2014; Millar & Warner, 2023), depending on the direction of assimilation and the type of assimilation.

As its name implies, the direction of assimilation refers to the direction in which the sound changes encompassing three types: progressive assimilation, regressive assimilation, and coalescent assimilation. Progressive assimilation is when a sound is influenced by a preceding sound, as in the final /s/ of the word 'cards' that is pronounced /z/ due to the influence of the preceding voiced consonant /n/. Regressive assimilation takes place when the following sound affects the one that comes before it, as in 'good girl', which is pronounced as /gʊg gɜ:l/, where the second sound /g/ of 'girl' influences the preceding sound /d/ of 'good' to match it. Coalescent assimilation happens when two sounds merge into each other, as in the phrase 'could you' which is uttered as /kʊdʒu:/ (Millar & Warner, 2023).

Cruttenden (2014) categorises assimilation according to the types of sound change, including changes in place of articulation, manner of articulation, and voicing. Assimilation of place of articulation is when the sound's place of articulation is modified, as in the phrase 'in bed' that may be pronounced as /ɪm bed/ where alveolar /n/ becomes bilabial /m/. Assimilation of manner of articulation occurs when a sound changes the way it is pronounced, For example, the phrase 'that side' can be pronounced

/ ðæs saɪd/, where plosive /t/ of ‘that’ shifts to the fricative /s/. Voicing assimilation is related to the vibration or lack of vibration of the vocal cords; a typical case is the phrase ‘have to’ that can be pronounced ‘haf tə’ in connected speech; the sound /v/ of ‘have’, which is voiced, becomes voiceless /f/.

Understanding these classifications is particularly important to EFL education because these sound modifications, although systematic and predictable, may go unnoticed by EFL students. Awareness of assimilation can therefore improve EFL perception of connected speech.

2.2 Perception of Assimilation in the EFL Context

The ability to perceive assimilation in connected speech might be crucial for EFL students to develop strong listening skills and understand authentic spoken English. Assimilation as a feature of connected speech reflects the smooth and dynamic nature of authentic spoken language. It occurs when a sound adapts to its phonological environment to facilitate smoother words transitions. The recognition of these sound changes can help EFL students to process connected speech effectively. Hadiyatulloh and Suharyadi (2023) noted that raising EFL students' awareness of authentic pronunciation patterns such as assimilation in rapid speech can improve their ability to understand the flow and rhythm of the English language. This increased awareness might also promote EFL students' ability to recognise words more precisely, and facilitate their understanding of vocabulary and grammar in fast speech.

Furthermore, understanding assimilation might help EFL students improve their lexical segmentation accuracy which refers to the ability to identify word boundaries in connected speech (Field, 2003). In connected speech, words are often produced in a continuous stream, without specific pauses or clear separations between them. Assimilation can change familiar words from their citation forms, making it complex to depict where one word ends and the next begin. Consequently, it may obscure the boundaries between the two words. However, when EFL students are trained on how assimilation works, they could be better equipped to anticipate sound changes and decipher speech more accurately.

Ultimately, Celce-Murcia, Brinton, and Goodwin (2010) emphasise that raising EFL students' awareness of the aspects of connected speech, including assimilation, may enable them to decode authentic speech more successfully, and could enhance their perceptual skills. In this way, developing this skill might be beneficial for EFL students, as it may promote intelligibility, vocabulary recognition, and accurate comprehension.

2.3 EFL Students' Challenges with the Perception of Assimilation

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Despite having adequate vocabulary knowledge, many EFL students might struggle to comprehend English speech due to difficulties in perceiving connected speech features such as assimilation (Willis, 1990). There seems to be a gap between EFL students' knowledge of vocabulary and their perceptual of assimilation. Even when EFL students may be familiar with English words, they may fail to understand native speech, particularly in rapid contexts. This means that factors beyond vocabulary and grammar, such as the features of connected speech and the ability to perceive assimilation, can play a crucial role in successful listening.

EFL students might also face challenges in perceiving assimilation in connected speech due to differences between spoken and written English. Assimilation is a phonological process that may influence nearby sounds by altering how words are pronounced in rapid speech (Roach, 2009). It might make familiar vocabulary unrecognisable when words merge. To illustrate, the phrase 'red boat' may be perceived as /reb 'bəʊt/ in connected speech; this sound modification refers to a case of regressive assimilation, where the final sound /d/ of the first word 'red' may be influenced by the initial sound /b/ of the second word 'boat'. Since the sound /d/ is an alveolar voiced plosive and the sound /b/ is a bilabial voiced plosive, the place of articulation of /d/ shifts to match /b/, resulting in /reb 'bəʊt/. Accordingly, this process may make it difficult for EFL students who may expect citation forms and attempt to align their perceptions with their existing knowledge.

Another challenge that EFL students might face is the difficulty in distinguishing word boundaries in rapid speech. When sounds merge due to assimilation, they may be pronounced differently from the way they are written. This change might not be recognised by EFL students who may be unaware of the process of assimilation in connected speech. As Cauldwell (2013) explains, EFL students might often expect dictionary-like words and therefore could fail to process sound changes, as these modifications are not included in dictionaries. This potential inability to perceive assimilation could lead to incomplete understanding, which might hinder the listening process.

A further factor that could contribute to perceptual challenges is first language transfer. Algerian EFL learners, whose native languages include Arabic, Berber, and French, may not share the same assimilation patterns found in English. As a result, they might misinterpret or fail to anticipate assimilation in connected speech. Differences in phonological systems across languages might create erroneous expectations and could hinder accurate perception (Derouaz, 2022).

Eventually, EFL students might encounter multiple perceptual challenges with assimilation in connected speech. Even if they may possess adequate vocabulary, these students could struggle to recognise familiar words when they are altered by assimilation, particularly in fast speech. This might partly occur because their native language(s) may use different sound systems, or may not employ assimilation in the same way as English. They

could also misidentify word boundaries or rely on incorrect assumptions due to the influence of their first language. Therefore, improving EFL students' awareness of the process of assimilation, and specifically how sounds may be altered by changes in their features in specific contexts, might be crucial for bridging the gap between their language knowledge and perceptual skills, helping them adapt to how English is spoken in natural conversations. In short, EFL students may face perceptual obstacles with assimilation, such as struggling to recognise modified words, misidentifying word boundaries, and interference from their native phonological systems. Hence, raising learners' awareness of assimilation processes could be essential for helping bridge the gap between their vocabulary knowledge and the realities of natural spoken English.

3. Methodology

3.1 Participants

The participants in this study were fifty (50) first-year students from the Department of English Language at the University of Aboul Kacem Saad Allah Algiers 2, Algeria. The study took place during the academic year 2024 /2025. Thirty-six (36) females and fourteen (14) males participated in the study; their ages ranged from eighteen (18) to twenty-five (25) years old. The majority (40) have been studying English for seven (7) years, while the remaining (10) reported eight (8) years of English study. It is worth mentioning that all participants took part in both data collection instruments: the semi-structured questionnaire and the cloze dictation test

3.2 Research instruments

To achieve the research objectives outlined earlier, the study adopted a mixed-methods research approach that combined qualitative and quantitative techniques. Data were gathered using two instruments: a semi-structured questionnaire and a cloze dictation test.

The semi-structured questionnaire was designed to explore participants' difficulties in perceiving assimilation in connected speech, their causes and the strategies used to enhance perceptual skills. It included four (4) sections. Section one aimed to gather demographic information (age, gender and language background). Section two primarily investigated participants' causes of difficulties in perceiving assimilation in connected speech. Section three explored participants' perspectives regarding potential solutions and suggestions that can improve their understanding of assimilation in connected speech. The questions were diverse and included yes/no questions, 5-point Likert scales, closed-ended, and open-ended questions. The questionnaire was checked for validity and reliability, and was administered via email to the participants.

The cloze dictation test aimed to assess participants' difficulties in perceiving assimilation in connected speech by evaluating their recognition of assimilated forms in spoken English. It also aimed to assess whether

participants could recognise the assimilated words and the words that influenced assimilation. The test comprised thirteen (13) sentences taken from four (4) published sources: Marks and Bowen (2012), Ashton and Shepherd (2012), Dale and Poms (2005), and Baker and Sharon Goldstein (1990). The cloze dictation test was administered via Google Forms, with embedded audio tracks containing 25 blanks targeting assimilation in connected speech. Participants were requested to fill in blanks representing either assimilation across word boundaries (two words) or assimilation within the same word (one word). To enhance construct validity, participants were instructed to use headphones and spelling mistakes were not penalized unless they changed the meaning of the word. Reliability was checked by administering the test online where each audio track was played twice and scoring was automated to avoid rater bias. Playing the recordings twice gave participants a chance to adjust to the speaker's intonation, speech rate, and voice attributes (Marzona, 2025).

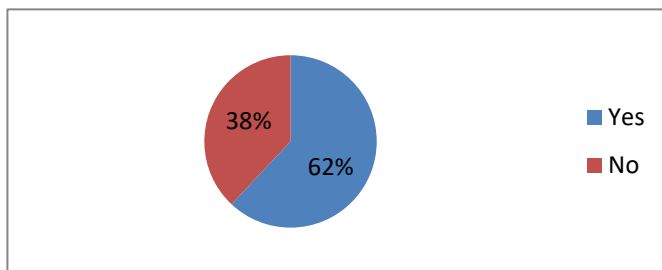
4. Analysis and Results

A combination of quantitative and qualitative methods was employed to analyze the data. The quantitative data from the cloze dictation test and the closed-ended questionnaire items were analyzed using descriptive statistics, including percentages and mean scores. The open ended responses of the qualitative data were analyzed thematically.

The quantitative analysis from the demographic data revealed that most participants 70% were female, while male accounted for 30%. In terms of educational background, 80% reported studying English for seven years. Arabic was the predominant first language with 83%, Berber was ranked after with 17%. Regarding foreign languages, French language was the most widely spoken 79%, with smaller groups reporting knowledge of German, Spanish, Italian, and Turkish.

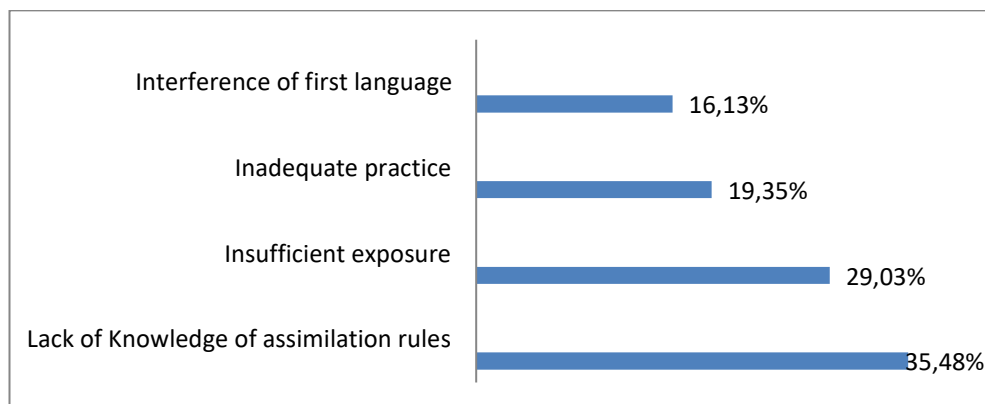
When asked about their difficulties in perceiving assimilation in connected speech, 62% (n = 31) of participants responded affirmatively, while 38% (n = 19) responded negatively. These results suggested that most participants encountered perceptual challenges with assimilation. Therefore, the findings revealed that the majority of participants struggled with the perception of assimilation in connected speech, as shown in Figure 1, p. 8.

Fig.1. Percentage of participants reporting difficulties with assimilation



When asked about the causes of these difficulties, the responses revealed that among the 31 participants that reported having difficulties with the perception of assimilation: 11 (35.48%) participants attributed them mainly to a ‘lack of knowledge of assimilation rules’, for 9 (29.03%) participants it was due to ‘insufficient exposure’, 6 (19.35%) participants relate their difficulties to ‘inadequate practice’, and for 5 (16.13%) participants it was ‘interference from the first language’ (see figure 2, p. 8).

Fig.2. Participants’ causes of difficulties with the perception of assimilation



In response to the open-ended question on strategies used to perceive assimilation, participants reported various self-developed techniques. More than half of the participants, 28 out of 50, stated that they improve their perception of assimilation by listening to native English speakers. They engage with podcasts, movies, and natural conversations to familiarize themselves with the way words are connected in natural speech. Instances of participants’ answers include: “Constant exposure to native content and regular practice through speaking”, “Listening to podcasts, watching reels of native speakers, movies...etc.”, and “Paying close attention while hearing native speakers talk”.

Eleven (11) participants indicated that they listen to native speakers and then repeat what they hear through self-recording and shadowing. They record their speech and compare it with native speakers to adjust both their

perception and production of connected speech. For example, one participant noted: “I pause English videos and try imitating native speakers immediately after, by focusing on how words are connected”, while another mentioned: “I often record myself when I am reading something and then compare it with native speakers”.

Interestingly, nine (9) participants reported using phonetic awareness by detecting and understanding how speech sounds are produced and connected in English authentic language. It was reflected in statements like: “I’ve noticed that in fast speech, people don’t pronounce every single sound clearly. I try to focus on these changes to improve my listening”, as well as “I try to notice the flow of speech and how certain sounds change when people speak fast”.

Conversely, two (2) participants explicitly stated that they rely on no specific strategy. One participant stated, “It’s instinctive”, while another admitted, “I have never really followed any strategy before; I just went with instinct.”

Ultimately, the open-ended question revealed that participants adopted a range of strategies to enhance their perception of assimilation in connected speech. The most common approach involves exposure to native input, followed by shadowing, as well as phonetic awareness.

The results from the cloze dictation test showed that the number of correct answers is 503, the number of participants is 50, and the mean is 10.06, suggesting a below average recognition rate.

Figure 3 (p.11) presents the percentage of correct responses in the perception of assimilation across three types: regressive, coalescent, and progressive. Overall, the results revealed generally low recognition rates of regressive assimilation with phrases like “start by” 47.98% being the most correctly identified, followed by “gone back” 30.06%, “white gate” 25.16%, “haven’t paid” 19.98% and “foot path” 18.11%. Other items, such as “seat covers” 12.05%, “did Brazil” 11.25%, and “wet paint” 7.25% were identified with lower frequency, indicating a limited awareness of regressive assimilation patterns. In contrast, participants demonstrated moderate awareness of coalescence, particularly for “as usual” which was recognised by 59.43% of the participants. “But you” and “should use” followed with recognitions of 41.58% and 38.22% respectively. Furthermore, progressive assimilation received the highest recognition overall, with “cooked” being correctly identified by 62.33% of participants, closely followed by “decided” 51.61%, “rooms” 50.08% and “repaired” 49.58%. By comparison, the items with the lowest scores were “Tim’s friends” 40.08% and “have lots” 39.76%.

These findings suggest that Algerian participants are more perceptive of progressive assimilation, with coalescence ranking next; however, regressive assimilation presented greater perceptual challenges.

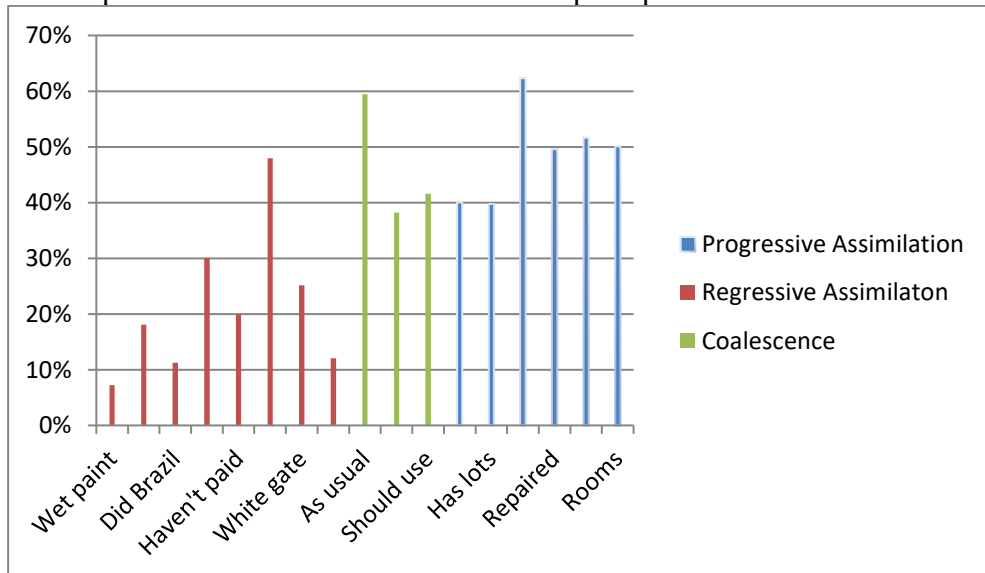
Accordingly, the findings indicate that Algerian participants experienced difficulties perceiving not only the words affected by

assimilation but also the adjacent words that caused assimilation. In particular, words that underwent regressive assimilation posed greater challenges compared to those involved in coalescent assimilation. The results further revealed that the assimilated words were more complex to perceive than the words that influenced assimilation.

The chart highlights distinct differences in participants' perception of assimilation within a single word (e.g., cooked, decided, rooms) compared to assimilation across word boundaries (e.g., white gate, but you, gone back). Overall, items involving within-word assimilation were more accurately identified, as evidenced by a higher recognition rate for "cooked" 62.33%, "decided" 51.62%, and "rooms" 50.08%. In contrast, phrases involving across-word assimilation, particularly those with regressive assimilation, such as "seat covers" 12.02%, "did Brazil" 11.25%, and "wet paint" 7.25%, yielded lower recognition rates (see Figure 3, p. 11).

These findings suggested that Algerian participants experienced lexical segmentation difficulties in perceiving assimilated forms. They struggled to distinguish individual word boundaries, particularly in phrases involving regressive assimilation across word boundaries, like "seat covers", "did Brazil", and "wet paint". This result points to a broader difficulty in the perception of connected speech when sounds merge due to assimilation, often leading to the misperception of word boundaries. This difficulty was more pronounced in regressive assimilation contexts, whereas assimilation within a single word was comparatively easier for students to recognise.

Fig.3. Participants' causes of difficulties with the perception of assimilation



5. Discussion

This section attempts to discuss the key findings of the study in relation to the research questions and relevant literature. The aim is to interpret the results considering both the quantitative and qualitative data collected. The findings were examined in relation to the challenges participants experienced in perceiving assimilation in connected speech, possible factors contributing to these difficulties, and strategies that could support improvement.

5.1 Perceptual Challenges in Recognizing Assimilation

The first research question attempted to examine whether EFL students encounter difficulties in perceiving assimilation in connected speech. Findings from the semi-structured questionnaire and the cloze dictation test revealed that the majority of participants (62%) had difficulties to perceive assimilation in English connected speech.

Despite the fact they have been studying English for several years, participants showed difficulties in perceiving words changed by assimilation, affecting overall comprehension. These findings are consistent with Field's (2003) assertion that learners often fail to recognise familiar words in connected speech because they expect to hear words as they appear in their written forms. Furthermore, training in assimilation might help revise these expectations, and could enable EFL students to recognise how words are modified in natural speech, making the process of assimilation easier to understand and identify.

The study further revealed four primary perceptual challenges faced by participants when attempting to identify assimilation in connected speech. The first challenge was the inability to recognise assimilated words; even though participants were familiar with the words in isolation, they failed to identify them in connected speech. In the same vein, Bi et al. (2022) emphasised that without specific instruction, EFL students might struggle to accurately perceive assimilation in connected speech contexts.

The second challenge lay in the misperception of neighbouring words; participants failed to perceive the assimilated words and at the same time misidentified the words that triggered the change. This aligns with the findings of Glaspey et al. (2022), who noted that even advanced learners may find it difficult to identify assimilation contexts without explicit awareness of connected speech features.

The third challenge was the direction of assimilation, particularly regressive assimilation, where the following sound influences the preceding which was proved to be especially challenging. Millet et al. (2022) pointed out in their recent perceptual assimilation model that regressive assimilation is more difficult for non-native listeners to identify because it is less intuitive, particularly when their first language lacks this feature.

The fourth challenge was lexical segmentation, as participants had difficulties discerning where one word ends and the next begins, which affected their recognition and comprehension. This finding resonates with

Sanders et al. (2022), who demonstrated in their study that second language learners of English could find difficulties using speech segmentation cues, particularly when features such as assimilation made word boundaries less distinct.

5.2 Causes of Assimilation Perceptual Challenges

The second research question aimed to investigate the principal causes of EFL students' challenges in the perception of assimilation. The results from the semi-structured questionnaire revealed that participants struggled to perceive assimilation for four key factors.

First, the majority of participants (35.48 %) reported a lack of awareness of assimilation rules as a key factor, as they might be unaware of the conditions under which sounds are modified in connected speech. This is consistent with Horslund and Bohn (2022), who found that limited awareness of assimilation patterns undermines learners' ability to recognise modified speech sounds, particularly consonants influenced by neighbouring sounds.

Second, 29.03% of participants attributed their challenges to insufficient exposure to authentic English speech. In the same vein, Bi et al. (2022) supported this, noting that learners' limited exposure to continuous speech input can negatively affect their perception of connected speech features such as assimilation.

Third, 19.35% of participants pointed out that the lack of perceptual practices of assimilation caused a significant hindrance to the perception of assimilation in connected speech. This finding aligns with Bi et al. (2022), who emphasised the importance of structured exercises like shadowing and dictation, in training learners to detect assimilation.

Fourth, 16.13 % of participants indicated that their first languages contributed to their difficulties in perceiving assimilation in connected speech. It is worth mentioning that the participants come from a multilingual background, with Arabic and Berber as their native languages and French as a second or foreign language. However, this multilingual background gave rise to first-language interference. Brown (2006) pointed out that the phonological patterns of the learners' first language can hinder the perception of modified speech forms in English, especially in fast or informal contexts.

5.3 Strategies to Enhance Assimilation

The third research question focused on potential solutions to help EFL students' improve their perception of assimilation. Insights from qualitative data showed that participants suggested different strategies that could help them overcome these perceptual challenges, including exposure to authentic language, raising their phonetic awareness, and applying shadowing techniques. Recent studies have underlined the importance of these strategies. For instance, Lai and Munro (2022) found that phonetic awareness significantly benefits learners' ability to recognise modified sound forms in connected speech. Similarly, Yamano (2022) asserted that

shadowing, which involves listening and repeating after native speakers to improve the production and perception of assimilation in connected speech, including speech segmentation skills.

While these strategies may be helpful, results from the cloze dictation test scores and the semi-structured questionnaire suggested that they are not sufficient on their own. EFL students may not consistently or accurately perceive assimilation unless they are supported by explicit and systematic instruction. As Suzuki and Kormos (2023) argued, explicit training in connected speech features, including assimilation, can enable learners to make conscious connections between theory and practice, which could improve both the perception and production of natural speech.

6. CONCLUSION

The present study investigated the perceptual challenges of assimilation in connected speech among first-year Algerian EFL students at the University of Algiers 2 – Abu El Kacem Saadallah. The primary objective of the study was to identify the major difficulties EFL students encounter, explore their underlying causes, and probe possible pedagogical solutions in order to improve their perceptual skills.

The findings revealed that, despite several years of English instruction, participants struggled to accurately perceive assimilated forms in authentic speech. In particular, they faced difficulties recognizing familiar words once they were modified by assimilation processes. The lexical segmentation of regressive assimilation across word boundaries proved to be especially problematic.

Several key factors contributed to these challenges, such as a lack of awareness of assimilation rules, insufficient exposure to authentic language input, insufficient practice as well as negative transfer from their spoken languages, mainly Arabic, Berber, and French. These linguistic backgrounds appeared to influence how participants perceived altered sound patterns in natural speech.

In response to these challenges, participants reported using some strategies to improve their perceptual skills. These included increasing exposure to authentic English language, phonetic awareness by consciously noticing how sounds change in rapid speech, and applying shadowing by repeating after native speakers.

Although these strategies reflect participants' active efforts, the findings indicated that they are not sufficient on their own. It is therefore recommended that language instructors combine these strategies with explicit pedagogical interventions to increase their impact. Teachers can provide focused listening tasks, raise awareness of assimilation by using guided exercises, and encourage students contrast English assimilation patterns with those of their native languages to reduce transfer issues. Activities such as minimal pair discrimination, transcription tasks, and targeted shadowing can also be incorporated to strengthen both perception and awareness.

All in all, while Algerian EFL students show engagement in addressing perceptual challenges by using different strategies, their efforts need to be reinforced by structured and explicit instruction. This guidance can strengthen their ability to perceive assimilation effectively and enhance their overall listening comprehension.

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