

Auditory Phonetic Analysis of Intonation Patterns in English Interrogative Sentences by Fourth-Semester English Literature Students at UIN Sunan Gunung Djati Bandung

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ABSTRACT

This study examines the intonation patterns of English Wh-question sentences produced by fourth-semester English Literature students at UIN Sunan Gunung Djati Bandung, with a focus on the realization of suprasegmental features in spontaneous speech. A descriptive qualitative method with an auditory phonetic analysis framework was employed, where data were collected from 10 participants through spontaneous speaking activities using English and Indonesian prompts, and all responses were recorded for analysis. The results show three main intonation patterns: falling, rising, and flat. Falling intonation appears in some participants who demonstrate better control of English pronunciation, while rising and flat patterns are more dominant due to the influence of Indonesian intonation patterns and frequent code-mixing in speech. Overall, the findings indicate that students' mastery of English intonation is still inconsistent in spontaneous communication, highlighting the need for more focused practice on suprasegmental aspects in English speaking instruction..

Keywords : intonation patterns, Wh-questions, auditory phonetic analysis, EFL learners, suprasegmental features.

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INTRODUCTION

In second language acquisition, particularly within the field of English phonetics, intonation has a significant function in expressing meaning, speaker attitude, and communicative intent. Nevertheless, Indonesian learners of English often encounter challenges in producing natural-sounding English intonation. This is largely influenced by interference from the prosodic system of their first language. This issue is commonly observed among university students who regularly use both Indonesian and English in academic settings.

This research is conducted among English Literature students at UIN Sunan Gunung Djati Bandung (Semester 4). The data were collected through informal discussions and semi-structured speaking activities rather than written surveys. All answers were recorded using audio recording devices to capture authentic pronunciation and intonation patterns.

One notable finding in this study is the presence of code-mixing, where students alternate between Indonesian and English within a single utterance. This reflects a common bilingual behavior among EFL learners in academic contexts.

Previous research (Cruttenden, 2014; Roach, 2009) explains that Wh-questions in English typically use a falling intonation pattern. However, Indonesian learners often produce flat or rising intonation due to influence from the syllable-timed rhythm of Indonesian. Based on this background, the present study aims to examine students' intonation patterns and describe how Indonesian prosodic features affect their English spoken production. Furthermore, the phonetic and pronunciation theories applied in this study are drawn from established references such as Roach (2009), Kelly (2000), and Ladefoged & Johnson (2015).

METHOD

This study adopts a descriptive qualitative approach supported by an auditory phonetic analysis framework to examine the intonation patterns of English produced by Indonesian EFL learners. This methodological orientation is derived from previous studies on English interrogative intonation, which highlight the importance of voice recording data and close listening techniques in identifying pitch movement and suprasegmental features in spoken language. In addition, this approach allows a more detailed interpretation of how learners produce English intonation in natural speech situations, particularly in spontaneous communication settings.

Participants

The participants of this study consisted of 10 English Literature students from UIN Sunan Gunung Djati Bandung (Semester 4). All participants were Indonesian native speakers who actively use English in academic contexts. The respondents were selected using purposive sampling based on several criteria, namely being actively enrolled in English Speaking or Phonetics-related classes, having familiarity with basic English interrogative structures, and being willing to participate in spontaneous speaking tasks. In addition, the participants were taken from different classes in order to ensure variation in speaking behavior and intonation patterns among students.

Data Analysis Techniques

Data in this study were collected through informal speaking-based discussion sessions rather than using questionnaires. The data collection process was carried out through several stages as follows:

1. **Conducting spontaneous conversation sessions in English and Indonesian:** This was done in a relaxed setting to encourage natural speech production and capture authentic intonation patterns.
2. **Giving oral prompts such as “What are you doing?” and “Sedang apa sekarang?”:** Simple spoken questions were used to trigger immediate and spontaneous responses from participants.
3. **Allowing natural responses including code-mixing between Indonesian and English:** Participants were free to mix Indonesian and English to reflect their natural bilingual communication habits.
4. **Recording all participant responses using audio recording devices:** All responses were recorded to ensure accurate data for later analysis of pronunciation and intonation.

Instruments

Main instrument in this study was an audio recording device, specifically a smartphone voice recorder, used to record participants’ spoken responses during the tasks. Researcher also acted as the main instrument by listening to and analyzing the recordings through auditory phonetic observation to identify intonation patterns. In addition, phonetics references were used as guidance to help confirm and interpret the intonation patterns found in the data.

RESULT AND DISCUSSION

Result

The recordings of 10 participants were examined to identify the intonation patterns used in Wh-question sentences. The analysis revealed three types of intonation patterns, namely falling, flat, and rising. The distribution of these patterns across all respondents is presented in the table below.

Table1 Intonation Patterns of Respondents

No	Participants	Class	Intonation	Spoken Data (English – Indonesia)
1	Participants 1	D	Flat	What are you doing right now? dengerin musik bareng yuk.
2	Participants 2	D	Rising	Hey kalian lagi apa, what should i do?
3	Participants 3	B	Rising	Why is this material so hard? please, susah banget buat dipahami.
4	Participants 4	F	Falling	Hey guys, who called me last night? maaf yang ga kejawab, aku udah tidur itu.
5	Participants 5	F	Falling	Who wants to ask a question? okey kalo gak ada, babay.
6	Participants 6	B	Flat	Who has a pen? minjem dong.
7	Participants 7	F	Flat	Why didn't you come to class yesterday? dosen nyariin kamu loh.
8	Participants 8	D	Flat	please bantu aku, what is number 5?
9	Participants 9	C	Falling	Do you guys know? tugas aku udah di acc.
10	Participants 10	B	Falling	Who wants buy food? bareng yukk.

Discussion

The analysis of intonation patterns in Wh-question sentences was carried out based on 10 recorded utterances produced by the participants during spontaneous speaking activities. Each recording represents natural speech in both English and Indonesian, which allows the identification of intonation patterns in authentic communicative situations. This method provides insight into how learners produce English in real-time interaction, particularly in relation to suprasegmental features such as pitch variation. The results from Recording 1 to Recording 10 are presented as follows.

Recording 1 (Participant 1) shows a flat intonation pattern in the sentence “What are you doing right now?” followed by an Indonesian response. This flat tone indicates minimal pitch movement, suggesting that the speaker has not fully mastered the intonation rules of English Wh-questions.

Recording 2 (Participant 2) displays a rising intonation in “Hey kalian lagi apa, what should I do?”, where Indonesian and English are mixed. This rising pattern reflects first language influence, as Indonesian interrogative sentences commonly use rising intonation.

Recording 3 (Participant 3) also produces a rising intonation in “Why is this material so hard?”, followed by an explanation in Indonesian. This shows that the learner still applies Indonesian intonation habits when speaking English.

Recording 4 (Participant 4) demonstrates a falling intonation in “Hey guys, who called me last night?”, followed by an apology in Indonesian. This falling tone is closer to the standard English pattern for Wh-questions, indicating better control of intonation.

Recording 5 (Participant 5) similarly uses falling intonation in “Who wants to ask a question?”, showing partial understanding of correct English intonation patterns, although not yet fully consistent.

Recording 6 (Participant 6) shows a flat intonation in “Who has a pen?” followed by an Indonesian request. This level tone suggests limited ability to vary pitch in English speech.

Recording 7 (Participant 7) presents a flat intonation in “Why didn’t you come to class yesterday?”, followed by an explanation in Indonesian. This indicates inconsistency in applying Wh-question intonation patterns during spontaneous speech.

Recording 8 (Participant 8) also shows a flat intonation in “What is number 5?”, combined with Indonesian speech. This reflects uncertainty in using appropriate falling intonation for information questions.

Recording 9 (Participant 9) demonstrates a falling intonation in “Do you guys know?”, followed by confirmation about an assignment in Indonesian. This indicates better alignment with expected English intonation patterns compared to previous participants.

Recording 10 (Participant 10) also uses falling intonation in “Who wants buy food?”, followed by an invitation in Indonesian. Although there is a grammatical error in the sentence, the intonation pattern is closer to the expected Wh-question contour in English.

The recordings reveal that the participants use a mixture of falling, rising, and flat intonation patterns. Falling intonation appears in some participants who show better familiarity with English pronunciation, while rising and flat patterns are more dominant among learners influenced by Indonesian intonation systems, which tend to have simpler pitch movements.

This variation indicates that the participants’ mastery of English suprasegmental features is still inconsistent, especially in spontaneous speech production. It also suggests that although learners may understand the grammatical structure of Wh-questions, they still face difficulties in producing accurate

intonation patterns during real communication. Therefore, these findings emphasize the importance of more focused practice on English intonation in speaking and phonetics learning.

CONCLUSION

Based on the analysis of intonation patterns in Wh-question sentences from the 10 recorded utterances, it can be seen that the participants use three types of intonation, namely falling, rising, and flat intonation. These patterns vary among speakers and occur in spontaneous speech production.

The findings indicate that falling intonation, which is typically expected in English Wh-questions, is not consistently produced by all participants. Instead, rising and flat intonation patterns are still commonly used. This suggests that the learners have not fully acquired the correct intonation rules in English question forms.

The presence of rising and flat tones also reflects the influence of Indonesian intonation patterns, where pitch movement tends to be simpler and different from English intonation structures. Moreover, limited exposure to natural English speech and insufficient practice in suprasegmental features may also contribute to these variations.

The results show that the students' English intonation is still in the process of development and has not yet reached full consistency, especially in spontaneous speaking contexts. The variation in the data highlights the need for more focused practice on English intonation to help learners produce more natural and accurate speech patterns in Wh-question sentences.

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