

AL-MA'RIFAH Jurnal Budaya, Bahasa, dan Sastra Arab

(Journal of Arabic Culture, Language, and Literature)

Vol. 20, No. 1, April 2023, 49-60

P-ISSN: 1693-5764 E-ISSN: 2597-8551

Intonation of Interrogative Sentences in Learning Arabic for Mahārat al-Kalām

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Intonasi Kalimat Tanya dalam Pembelajaran Bahasa Arab untuk Keterampilan Berbicara

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Abstract

The purpose of this study was to find out the intonation patterns of interrogative sentences for students in class 10 of MAS Al-Hikmah, Soe, Nusa Tenggara Timur, their acceptance by Arabic linguists, and their learning of speaking skills (*mahārat al-kalām*). This research is a case study that is included in qualitative descriptive research. The data collection technique in this study was to test the intonation of interrogative sentences with the help of the Praat application. The data were analyzed with qualitative descriptive and investigative methods. The results obtained are: first, students of class 10 at MAS Al-Hikmah can apply intonation patterns of Arabic interrogative sentences with varying acceptability values, assisted by teaching aids in the form of articulated sound images and contours. Second, apply the application of interrogative sentence intonation patterns to learning *mahārat al-kalām*, namely, students and lecturers as parties involved in this learning can apply the principles and fulfill the components of learning Arabic in general.

Keywords

Intonation; interrogative sentence; Arabic learning; speaking ability

Introduction

In learning Arabic, as we already know, there are language skills and also language elements. Language skills in Arabic consist of listening skills (*mahārat al-istimā*'), speaking skills (*mahārat al-kalām*), reading skills (*mahārat al-qirā'ah*), and writing skills (*mahārat al-Kitābah*). While the language element consists of vocabulary (*mufradāt*), grammar (*qawā'id*), and phonology (*'ilm al-aṣwāt*) (Hamid, 2010). The study of Arabic phonology in Arabic language learning is still not much discussed in terms of how to teach this element of language specifically and in detail. Whereas it is this phonology that will be much more decisive and influential, especially in communicative Arabic (Marlina, 2019). Phonology learning in particular is not listed independently in the Arabic language learning component (Aziz et al., 2020). However, when we read the basic competencies in the

curriculum, we will see that there are quite a lot of competencies or standards that expect students to be able to pronounce and distinguish Arabic phonology (Marlina, 2019).

The problem in learning phonology is that usually educators do not emphasize too much the importance of good and correct pronunciation of sounds when learning. So, that there are often errors, whether it is place of articulation (makhraj), consonants (sawā'it) or intonation (Hania et al., 2022). The second factor is the interest of students, who take less initiative to correct their pronunciation independently to get a good sound (Batmang, 2013). Third is the lack of mastery of the educator (competence of the teacher of Arabic) towards the correct pronunciation and possible mistakes of learners derived from the original language (Wulandari, 2020). Speech skills involve not only linguistic, but also non-linguistic elements. The linguistic elements in question are the precision of speech; the placement of pressure, tone, joints, and corresponding duration; the choice of words; and the accuracy of the targets of the conversation (Daroeni et al., 2020). While the non-linguistic elements include the sociolinguistic and psycholinguistic atmospheres that include the speech event (Syahid, 2015). The suitability of intonation is also a determining factor for the understanding of a speech-language message, as well as being able to be a special attraction in speaking. It is necessary to know that the correct pronunciation of intonation is very important, just as it is important to pronounce the sounds of the letters in the correct way. The use of proper intonation is a necessity in speaking, as is always participating in and covering the events of one's speech (Effendy, 2005).

Basically, intonation can't change the lexical meaning (Lehiste, 1970). Nevertheless, in oral communication, intonation still has an important function. Intonation can signal syntax and be semantic (Nashoih, 2019). On a pragmatic level, Pike (1984) explains that differences in tone configurations in speech can imply a change in the relationship of speakers or sentences to their environment. For example, a person's indecisive attitude can be signaled by his intonation. From the point of view of oral discourse, intonation is an element that cannot be ignored because intonation is one of the main pillars of oral discourse (Nashoih & Darmawan, 2019).

Changes in intonation in Arabic do not always change understanding. Intonation in Arabic occurs due to the influence of one's dialect or one's habits in the language (Reranta & Laksman-Huntley, 2022). However, under some conditions, intonation in Arabic can serve as a differentiator between positive sentence forms and question sentences, just as it can serve other targets, such as indications against approval, rejection, astonishment, and awe (Alfirdaus, 2021). In relation to the learning of a foreign language, knowledge of intonation becomes very important. It is appropriate for each language to be able to speak with characteristics similar to those of the native speakers of the language being studied. In many languages, there is a special intonation for declarative and interrogative sentences. Intonation can also be caused by other elements that relate to the type of sentence in question, as is the case with intonations that indicate a sense of sadness, joy, wonder, and so on.

Many studies related to this topic have been carried out, including Haryani (2015), who analyzed the phonetics and phonology of the use of Arabic in the call to prayer (ādhān) and Friday sermons (khutbat al-Jum'ah) in five mosques in Sleman Regency, Yogyakarta. This study found irregularities in the use of Arabic in the call to prayer and sermons in five mosques in the Sleman regency. The deviations found were 13 phonetic deviations with details: a vowel pronunciation deviation, 7 consonant pronunciation deviations, and a tasydid omission pronunciation deviation, and 14 phonological deviations with details: 2 vowel phoneme pronunciation deviations and 8 consonant phoneme pronunciation deviations. Therefore, the teaching of linguistic elements in the form of phonetics needs to be emphasized in order to avoid pronunciation errors.

Furthermore, Mufrodi (2015) discusses the phonology and morphology of Egyptian Arabic. The conclusion is that in Egyptian Arabic there are phonological and morphological variations in the form of sound changes, sound additions, sound absorption, metathesis, and acronyms. Intonation serves to distinguish declarative, interrogative, and positive and negative sentences. Egyptian Arabic has more vowels than fushá Arabic, which has five short and five long vowels. Egyptian Arabic adopts several foreign words, such as villa, cake, and so on. In addition, it does not have a final sila in the form of a CVV and only has eight subject and object prenominations.

Another study by Ramli et al. (2016) concerning Malay students' mastery of sound pressure mentions Arabic words from the point of intensity. This study concludes that many students have difficulties speaking Arabic. The results showed that most Malay students tend to put pressure on the final syllable when speaking with the CV+CV+CV pattern, and their knowledge of voice pressure in words is weak.

Mubin and Laksman-Huntley (2021) studied the intonation of Indonesian declarative and interrogative utterances by Korean students. This study shows that there is a certain relationship between intonation contours and the level of students' understanding. However, it failed to prove a relationship between pitch and learner level. Regardless, this study found that tone markers contrast between declarative and interrogative utterances. This study also found that the intonation patterns and acoustic characteristics of speech at beginner and intermediate levels tend to be the same as in Korean, while the acoustic characteristics of advanced speech tend to be the same as in Indonesian, even though the intonation patterns are different. This is related to the minimal portion of teaching intonation in BIPA (Indonesian Language for Foreign Speakers) classes.

Finally, research conducted by Yanita and Sekarwati (2015) studied the intonation pattern of declarative and interrogative sentences in Bima language. This study shows that there are differences in intonation in declarative and interrogative modes in Bima. The intonation contour of a declarative sentence shows an even-rising tone flow in the subject, an even-decreasing tone flow in the predicate, and a descending tone flow in the adverb. The intonation contours in interrogative sentences show a flat-rising tone flow in the subject and an up-and-down tone flow in the predicate. The peak in declarative mode is in the subject, while the peak in interrogative mode is in the predicate or description. In addition, it was found that the final tone of the interrogative mode was 0.91 st lower than the final tone of the declarative mode.

The description above confirms that the research conducted by researchers has significant differences from previously existing studies. Researchers see from the various studies above that there have been no studies that follow up on the results obtained in the realm of Arabic language education, especially the learning of speaking skills (mahārat al-kalām). The shortcomings and advantages of these studies are the starting point for this study, but it can clearly be concluded that this study has never been conducted before.

On various occasions, we often listen to how Arabic learners, when speaking the language being studied, tend to put pressure evenly on words, and intonation flattens speech sentences. This inevitably makes the ears of Arabs or Indonesians who are already fluent in Arabic feel unfamiliar when they hear the narrative with unrecognized intonation; in fact, not infrequently, this interferes with the accuracy of understanding and meaning. In Arabic, there are a number of words and sentences that have different meanings when given different intonations (Rosyidi, 2016). Therefore, a person is considered correct in speech if he can carefully and accurately maintain the use of intonation. Wherever the intonation of a language is a system that must be obeyed by its users in order for the speech to be acceptable and understandable in its meaning.

There are three main parameters that must be considered for the purpose of studying the pronunciation of a foreign language: the type of phonetic element and the process of its formation; the characteristics of the target language that should be used as a guide; and the pronunciation of the learner with the specified guidelines. To fulfill these objectives, foreign language learners are expected to not only master segmental elements but also suprasegmental elements, such as intonation. Learning a foreign language can be easier if the teacher tolerates the learner's pronunciation, but at the same time, the teacher must speak like a native speaker of the target language. But the extent to which the pronunciation of learning can be tolerated is still a big question in research related to the teaching of pronunciation. The extent to which the learner can master the pronunciation of the intonation pattern of the target language being studied can be used as a reflection to make improvements in the teaching of the language, which in this case is Arabic, among which it is a consideration in determining the application of standard intonation patterns to be taught (Umam, 1980).

The reality on the ground shows that there are often misunderstandings due to improper application of tone. The error of drawing a conclusion from the message conveyed by the speaker can occur due to misperceptions caused by the use of improper intonation patterns. The inaccuracy of applying this intonation pattern was also found in the speech of students at MAS Al-Hikmah, Soe, Nusa Tenggara Timur (NTT).

This is the case for class 10 students at MAS Al-Hikmah for the 2021/2022 school year. Through the subject of Arabic, especially listening and speaking skills (mahārat al-istimā' wa-al $kal\bar{a}m$), students are required to master Arabic with good listening and speaking skills, already having a minimum provision in *mahārat al-kalām* at the previous level. The provision should have been used as capital to develop mahārat al-kalām, but in reality, there are still obstacles to conducting conversations properly and correctly according to the intonation that can be well thanked. A simple example of the error of applying the intonation pattern occurs in a question sentence where the intonation spoken by the student tends to flatten, which should go up and down following the pattern of intonation that is accepted as an interrogative sentence by a native Arabic speaker. Some of the things above prove that research on Arabic speaking skills related to the application of intonation patterns is very necessary. This research will provide maximum benefits for the progress of mastering Arabic as a foreign language, especially for students, teachers, and Arabic learning institutions that make speaking skills the core of learning Arabic.

Thus, the teacher largely determines the success of the learner. Therefore, this research is important to reveal how the realization of the use of Arabic, especially in terms of intonation, by students of class 10 at MAS Al-Hikmah, Soe, NTT, and the results of the data regarding the application of intonation patterns can be analyzed to determine the extent of the implications caused in Arabic learning, especially mahārat al-kalām, as a foreign language, and can also be used as material for learning evaluation, especially related to phonetic teaching.

Method

This research is field research with a descriptive-qualitative approach. A descriptive qualitative approach is used to describe and analyze the pattern of the use of intonation in Arabic introgative sentences by non-Arabic-speaking learners and their implications for Arabic learning in the mahārat al-kalām of class 10 students at MAS Al-Hikmah, Soe, NTT. Data collection at the phonetic level is assisted by applying the IPO (Institut voor Perceptie Onderzoek) approach to processing voice data, namely a phonetic approach to speech melodies. Language intonation research using IPO design has three main activities: speech production, acoustic analysis of speech, and perception testing. The three stages have their own goals. The production of speech is carried out in order to obtain oral data. Acoustic analysis is performed to process and identify acoustic features contained in the contours of speech. Perception tests are carried out aimed at testing the validity of the data.

Results and Discussion

A person, when speaking in his language, does not just follow a certain rhythm in the pronunciation of various sounds (Ramli et al., 2016). A sound in a syllable sometimes has a different rhythm. So is the sound that composes the word. Intonation is produced by the grinding of the vocal cords due to air currents caused by the difference in air pressure in the lungs. For example, in Chinese, a word sometimes has a variety of meanings depending on the intonation of its pronunciation. The word "fan" in Chinese with a rhythm (tone) will have six possible meanings, namely sleep, burning, courageous, obligatory, dividing, and fatigue (Chaer, 2014).

Each utterance can be intoned in a different way. An unlimited number of contours of different tones is a manifestation of a finite number of basic intonation patterns. Each pattern of intonation generates a number of variants, and all those variants form a similar set of contours based on their original state (Alfirdaus, 2021). This section displays the contour pattern of intonation of 10 interrogative sentence utterances by students in class 10 at MAS Al-Hikmah, Soe, NTT, for the 2021/2022 school year who are assisted by using the Praat application.

Interrogative Sentence Intonation Patterns in Arabic Language Learning for Students

The utterances taken are interrogative sentences contained in language activities in the classroom in the material المهنة والنظام. The sentences are: ماذا يجب على الطلاب في المدرسة (what are the obligations of the students at school?).

The target sentence is in the form of a sentence with the realization of an interrogative mode that uses the word nomina form (asmā' al-istifhām). The question word ω (what) in this target sentence represents an interrogative sentence with other nomina form question words such as من (who), متى (how), متى (when), and كمر (how much). The contour patterns of intonation in interrogative sentence speech can be observed in the following figure.

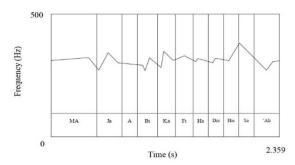


Figure 1. Intonation Contours of Stimulus Interrogative Sentences B1

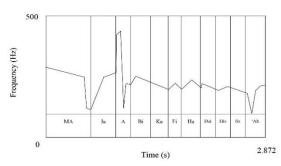


Figure 3. Contours of Interrogative Sentence Intonation of Stimulus B3

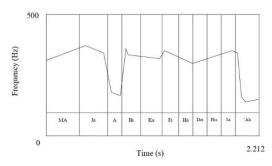


Figure 5. Contours of Intonation of Interrogative Sentences of Stimulus B5

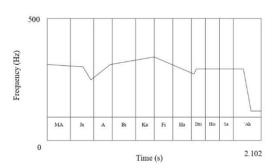


Figure 7. Contours of Interrogative Sentence Intonation stimulus B7

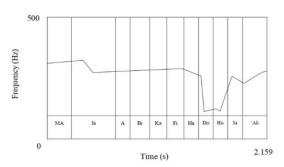


Figure 2. Contours of Intonation of Interrogative Sentences of Stimulus B2

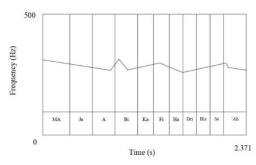


Figure 4. Contours of Interrogative Sentence Intonation of Stimulus B4

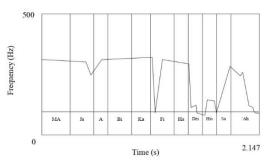


Figure 6. Contours of Intonation of Interrogative Sentences of Stimulus B6

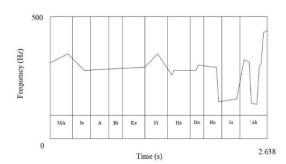
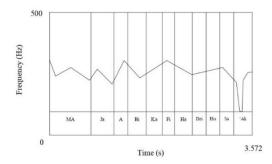


Figure 8. Contours of Interrogative Sentence Intonation of Stimulus B8



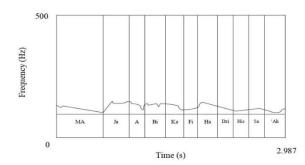


Figure 9. Contours of Interrogative Sentence Intonation of Stimulus B9

Figure 10. Contours of Intonation of Interrogative Sentences of Stimulus B10

In the interrogative sentence speech, a perception test was carried out by the respondent. This perception test aims to determine the value of accepting the intonation of interrogative-mode sentences. Based on the perception test that was heard, the response to the sentence speech data given to two Arabic language experts was as follows:

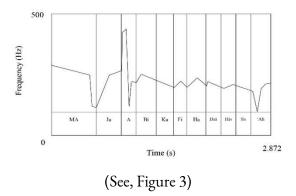
			ı	1	0			
	Answe	er Ready		The Value of Acceptance				
Stimulus	Do not	Already	1	2	3	4	5	Scores
			(Very Bad)	(Bad)	(Enough)	(Ok)	(Excellent)	
B1		$\sqrt{}$	-	2	3	-	-	5
B2		$\sqrt{}$	-	-	3	4	-	7
В3		$\sqrt{}$	-	-	-	4	5	9
B4		$\sqrt{}$	1	-	3	-	-	4
B5		$\sqrt{}$	-	2	3	-	-	5
B6		$\sqrt{}$	-	2	3	-	-	5
B7		$\sqrt{}$	-	-	3	4	-	7
B8		$\sqrt{}$		2	-	4	-	6
В9		$\sqrt{}$	-	-	-	-	10	10
B10		$\sqrt{}$	-	-	-	8	-	8

Table 1. Response to the Acceptance of Interrogative Sentences

In describing the contour patterns in this study, a description system was established. The description of contour patterns in this study is done by using words instead of symbols, namely:

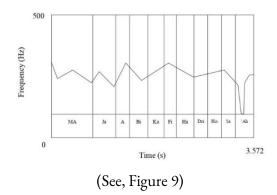
- The description of the contour pattern uses one word or two words without hyphens when the flow of the described tone is only one note. For example:
 - Flat: to describe the flow of a horizontal tone.
 - b. Flat-down: to describe the flat flow of the tone downhill.
- The description of the contour pattern uses two or more words with hyphens when the flow of the described tone is in the form of a configuration. For example:
 - Up-down: to describe the flow configuration of the tone up and then down.
 - b. Down-up-down: to describe the flow configuration of the tone going up, then up, and finally down.

In this study, three target utterances were selected. The three target utterances are used as the basis for giving tone contours along with the creation of sentences that have been distilled. The three sentences were sorted based on the highest scores of 63, 61, and 61 obtained by the stimulus with the codes B3, B9, and B10. A picture of the intonation contour of the selected utterance can be seen below.



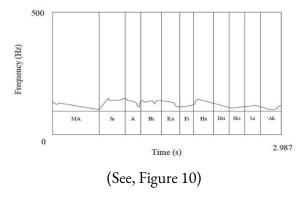
Based on the contours of intonation in figure 3, an overview of the features of these linked contours is obtained:

- There is a downward tone flow in the question word, up-down-up on the predicate, up-downup on the object, and the flow of the final note is up-down-up in the caption.
- The tone line tends to decrease or indicate declination. 2.



Based on the contours of intonation in figure 9, a picture of the following contour features is obtained:

- There is a down-up-down tone flow in the question word, up-down-up-up in the predicate, upand-down on the object, and an up-and-down-up final note flow on the caption.
- 2. The tone line tends to decrease or indicate declination.



Based on the contours of intonation in figure 10, a picture of the following contour features is obtained: There is a flow of down-to-down notes on the question word, up-and-down on the predicament of the object, and the flow of the final note up-down on the caption.

From the best sentence intonation pattern on the perception test, it can be seen that the ideal interrogative sentence intonation pattern is endowed by the tone flow at the intonation contour, namely:

Table 2. The Contours of The Student's Best Intonation Contours

No	Say Ask	Object	Information
1	Up-down-up-up	Ups and downs	Up-down-up-up
2	Up-down-up-up	Ups and downs	Up-down-up-up
3	Down	Ups and downs	Up-down-up-up

Implications of the Intonation Pattern of Interrogative Sentence Speech on Mahārat al-Kalām

Learning specifically and at length regarding phonetics, especially intonation, can be said to be lacking (Dong et al., 2020). So far, its refrain has been tucked away in teaching methods in general, which pay attention to the importance of mastering the language sound system in achieving language proficiency (Porter & Filho, 2021). Therefore, the eclectic use that exists should be able to look for elements of the phonetic teaching method from the existing language teaching methods (Hania et al., 2022).

The teaching of the Arabic language should be done gradually. The stage begins with training to listen to clear speech sounds, both consonant and vocal, in the form of words and sentences. Next, the learner imitates and repeats the speech of the sound heard. In principle, the form of learning activities in this audio-lingual method is to master the conversation, not the grammar, because that grammatical ability is only a medium, not an end. People can learn Arabic grammar faster after having good speaking skills and fluency. A teacher acts as a model at all stages of learning by always practicing listening and speaking skills without being preceded by written language. The main model given to the learner is how the learner can listen to a conversation taught by the teacher repeatedly or listen to a cassette recording containing the main structure or rules that are the focus of learning (Savchenko, 2017).

Among the methods that pay attention to language sounds or phonetics are, first, the phonetic method. The learning step using the phonetic method begins with listening exercises, then practice the pronunciation of sounds from syllables, words, short sentences, and long sentences, and from sentences, it's strung together conversations and stories (Bhagath & Das, 2021). Second, the mimmem method develops into the audio-lingual method, namely learning in the form of grammatical demonstrations or drills, pronunciation drills, and exercises using vocabulary by following or imitating the teacher and native informants. A native informant acts as a drill master. The learner imitates the sentence he says several times until he memorizes it. At the advanced level, these lessons take the form of discussion and dramatization. The variety of this method can be combined using recordings of dialogue and drills that are commonly associated with audio-lingual methods (Barona-Oñate et al., 2020). Third, the dual-lingual method is based on the similarities and differences between the two languages. The comparison is carried out thoroughly, including sound systems, words, and grammatical structures of both languages. The language of students is used as a tool to

explain the differences in phonetics, syntax, and vocabulary between the two. Each difference is used as the focus of the lesson and drill (Anh & Nishimoto, 2018). These three methods are recommendations for learning Arabic in mahārat al-kalām and are adapted to the learning objectives of phonetic learning, especially intonation.

Conclusion

Based on the foregoing, it can be concluded that the keyword rather than the phonetic teaching method, including the Arabic phonetics, is imitation, that is imitating the pronunciation of sounds in the Arabic language that he learned, which was spoken as the owner of the language, either directly by the native informant or through recordings. However, the quality of imitation is largely determined by the power of remembering against the sounds of the language heard. While the quality of memory is influenced by the frequency of repetition, attention, and explanation of descriptions, deciphering the way of articulation of a sound is assisted by props in the form of images of sound articulation and intonation contours. The application of the pattern of interrogative sentence intonation patterns to Arabic language learning in the mahārat al-kalām for students in class 10 at MAS Al-Hikmah, Soe, NTT basically meets the learning component. It is hoped that subsequent researchers can conduct research on Arabic language learning in various other elements of Arabic so that the scope discussed becomes wider and can be an input in the development of Arabic language learning, especially phonology ('ilm aṣwāt).

References

- Alfirdaus, A. Z. 'A. (2021). Pengaruh intonasi dan nada Arab dalam pembelajaran bahasa Arab pada maharah kalam. Seminar Nasional Bahasa Arab Mahasiswa V Tahun 2021, 5(0), 302-308. Retrieved from http://prosiding.arab-um.com/index.php/semnasbama/article/view/800
- Anh, B. B. H., & Nishimoto, K. (2018). A half-duplex dual-lingual video chat to enhance simultaneous second language speaking skill. In V. L. Uskov, R. J. Howlett, & L. C. Jain (Eds.), Smart Education and e-learning 2017 (pp. 205–214). Cham: Springer International Publishing.
- Aziz, M. H., Nawawi, M. S., & Alfan, M. (2020). Pembelajaran mahārat al-kalām pada program kursus bahasa Arab spesial Ramadan di Pesantren Darul Lughah Waddirasatil Islamiyah, Pamekasan, Madura. Al-Ma'rifah: Jurnal Budaya, Bahasa, dan Sastra Arab, 17(1), 29-40. doi:10.21009/almakrifah.17.01.03
- Barona-Oñate, R. V., López-Pérez, S. de los A., López López, J. P., & Mocha-Bonilla, J. A. (2020). Use of e-learning and audio-lingual method for the development of listening comprehension skills. In J. Nummenmaa, F. Pérez-González, B. Domenech-Lega, J. Vaunat, & F. Oscar Fernández-Peña (Eds.), Advances and applications in computer science, electronics and industrial engineering (pp. 83–98). Cham, Switzerland: Springer International Publishing.
- Batmang. (2013). Kesalahan fonologis dalam berbicara bahasa Arab pada mahasiswa matrikulasi STAIN Kediri. Al-Izzah: Jurnal Hasil-hasil Penelitian, 8(1), 19-38. Retrieevd from https://ejournal.iainkendari.ac.id/index.php/al-izzah/article/view/85
- Bhagath, P., & Das, P. K. (2021). Graph eigenvalue based structural method towards phonetic boundary detection. 2021 IEEE Region 10 Conference (TENCON) (pp. 591-596). Auckland,

- New Zealand. doi:10.1109/TENCON54134.2021.9707281
- Chaer, A. (2014). Linguistik umum. Jakarta: Rineka Cipta.
- Daroeni, N., Walfajri, & Khotijah. (2020). Metode pembelajaran keterampilan berbicara bahasa Arab di MAN 1 Metro, Lampung. Al-Ma'rifah: Jurnal Budaya, Bahasa, Dan Sastra Arab, 17(2), 127–138. doi:10.21009/almakrifah.17.02.03
- Dong, J.-W., Liao, Y.-J., Li, X.-D., & Huang, W-b. (2020). The application of big data to improve pronunciation and intonation evaluation in foreign language learning. In J. H. Kim, Z. W. Geem, D. Jung, D. G. Yoo, & A. Yadav (Eds.), Advances in Harmony Search, Soft Computing and Applications (pp. 160–168). Cham: Springer International Publishing. doi:10.1007/978-3-030-31967-0 18
- Effendy, A. F. (2005). Metodologi pengajaran bahasa Arab. Malang: Misykat.
- Hamid, M. A (2010). Mengukur kemampuan bahasa Arab untuk studi Islam. Malang: UIN-Maliki Press.
- Hania, I., Fauzi, M. S., Suteja, Pangestu, E. S., Faiqotussana, & Rosyada, M. F. (2022). The phonics method in aswat learning and its influence on the reading ability of ibtidaiyyah madrasah students. Al Mahāra: Jurnal Pendidikan Bahasa Arab, 8(2), 231-247. Retrieved from https://ejournal.uin-suka.ac.id/tarbiyah/almahara/article/view/2022.082-03
- Haryani, L. S. (2015). Penggunaan bahasa Arab dalam azan dan khotbah Jumat di lima masjid Kabupaten Sleman: Analisis fonetis dan fonologis (Skripsi, Universitas Gadjah Mada, Yogyakarta). Retrieved from http://etd.repository.ugm.ac.id/penelitian/detail/86845
- Lehiste, I. (1970). Suprasegmentals. Cambridge: The MIT. Press.
- Marlina, L. (2019). Pengantar ilmu ashwat. Bandung: Fajar Media.
- Mubin, I. S., & Laksman-Huntley, M. (2021). Intonasi tuturan deklaratif dan interogatif bahasa indonesia oleh pemelajar Korea. Jurnal Ilmu Budaya, 9(2), 43-62. Retrieved from https://journal.unhas.ac.id/index.php/jib/article/view/14391
- Mufrodi. (2015). Fonologi dan morfologi bahasa Arab 'amiyah Mesir. Arabiyat: Jurnal Pendidikan Bahasa Arab dan Kebahasaaraban, 2(2), 192–215. doi:10.15408/a.v2i2.2184
- Nashoih, A. K. (2019). Revolusi ilmiah Thomas Kuhn dan relevansinya terhadap pengembangan 6(2), 1–16. Retrieved from dan pembaharuan ilmu nahw. Jurnal Pusaka, http://www.ejournal.alqolam.ac.id/index.php/jurnal pusaka/article/view/182
- Nashoih, A. K., & Darmawan, M. F. (2019). Pengembangan bahan ajar nahwu berbasis kontrastif untuk mengatasi interferensi bahasa Indonesia terhadap bahasa Arab. Arabiyatuna: Jurnal Bahasa Arab, 3(2), 335–354. doi:10.29240/jba.v3i2.1008
- Pike, K. (1984). Tone languages: A technique for determining the number and the type of pitch contrasts in a languages, with studies in tonemic substitution and fusion. Michigan: University of Michigan Press.
- Porter, B., & Filho, R. R. (2021). A programming language for sound self-adaptive systems. 2021 IEEE International Conference on Autonomic Computing and Self-Organizing Systems (ACSOS) (pp. 145–150). Washington DC, USA. doi:10.1109/ACSOS52086.2021.00036
- Ramli, N. A., Mezah, C. R., & Thai, Y. N. (2016). Penguasaan pelajar Melayu terhadap tekanan suara menyebut perkataan Arab dari sudut intensiti. Jurnal Kemanusiaan, 25(1), 110-123. Retrieved from https://jurnalkemanusiaan.utm.my/index.php/kemanusiaan/article/view/69

- Reranta, R. C., & Laksman-Huntley, M. (2022). Acoustic parameters giving the angry impression in Lampungnese neutral speech. Linguistik Indonesia, 40(1), 49-61. doi:10.26499/li.v40i1.272
- Rosyidi, A. W. (2016). Penerapan pola nabr dan tanghim dalam maharah al kalam mahasiswa Indonesia. *LiNGUA*, 11(1), 46–53. doi:10.18860/ling.v11i1.3438
- Savchenko, V. V. (2017). Words phonetic decoding method with the suppression of background noise. Journal of Communications Technology and Electronics, 62(7), 788–793. doi:10.1134/S1064226917070099
- Syahid, A. H. (2015). Bahasa Arab sebagai bahasa kedua: Kajian teoretis pemerolehan bahasa Arab pada siswa non-native. Arabiyat: Jurnal Pendidikan Bahasa Arab dan Kebahasaaraban, 2(1). doi:10.15408/a.v2i1.1797
- Umam, C. (1980). Aspek-aspek fundamental dalam mempelajari bahasa Arab. Bandung: Al Ma'arif.
- Wulandari, N. (2020). Analisis kesalahan fonologis dalam keterampilan berbicara bahasa Arab. Al-Fathin: Jurnal Bahasa dan Sastra Arab, 3(01), 71. doi:10.32332/al-fathin.v3i01.2089
- Yanita, S. R., & Sekarwati, S. H. (2015). Kontras intonasi kalimat deklaratif dan interogatif dalam bahasa Bima. Sirok Bastra, 3(2), 151-156. doi:10.37671/sb.v3i2.63