

## **Analysis of Students' Arabic Speech Rhythm in Mataram State Islamic University**

**Abdul Azis, Moh. Nasikin**

<sup>12</sup>Universitas Islam Negeri Mataram

<sup>1</sup>[abdulaziz@uinmataram.ac.id](mailto:abdulaziz@uinmataram.ac.id), <sup>2</sup>[nasikin@uinmataram.ac.id](mailto:nasikin@uinmataram.ac.id)

### **Abstract**

This paper seeks to explain how students enrolled in the Arabic Language Study Programme at the State Islamic University of Mataram acquire Arabic speech rhythm. The research method utilised was a quantitative descriptive method termed as a survey study which covered 91 respondents comprising of 45% males and 55% females and consisting of the 2020 (40%), 2021 (35%) and 2022 (25%). The findings indicated that around 15% of the respondents are found to be very excellent in the mastery of Arabic rhythms, 40% moderate, 30% poor mastery while 15% did not master Arabic rhythms at all. Other than the place of residence, the factors that contribute to the mastery of speech rhythm are educational background, training frequency and exposure to Arabic-language media where the respondents cited all three as contributing factors totalling 100%, with how many percent each contributing further indicating language barriers such as 40%, 35%, and 25% respectively. Bilingualism is crucial for pronunciation; however, students pointed out their inability to acquire accurate bilingualism as one of the reasons for the students' deficient Arabic pronunciation, which also involves difficulties in controlling the tempo of pronunciation (50%), the syllables during pronunciation (30%), and acquiring an Arabic vocabulary (20%). Students wish for special training (45%), using audio/video learning media (30%), and receiving individual supervision (25%) in order to better their control of the speech rhythm. The study states that even though a reasonable number of students have acquired sufficient control of rhythm, a great number still have problems with controlling the appropriate timing and pressure when speaking. This calls for more natural and rhythmic Arabic speaking through more practical exercises and accompanying media.

**Keywords:** Analysis, Arabic, Speech, Rhythm

## Introduction

The above sentence is somewhat unclear and can be greatly expounded upon. The purpose of this paper is to discuss problems related to teaching Arabic at Islamic Higher Education Institutions in Indonesia. After some adjustments, this study is still relevant. Let us remember that the aim of MLDA (the Modern Language Department Association) is to promote modern educational approaches to improve the knowledge, ideas and skills of learners, who have international status which offers many opportunities for young people. Other scholars have particularly emphasised its role for development purposes in Indonesia.<sup>1</sup>. An example of such an institution is the Mataram State Islamic University, which for the researchers aims to analyse students' speech rhythm patterns in their Arabic Language competence.

Rhythm of speech has its origin in the study of time in linguistics which examines time as a means of organising sound segments in a spoken language. Prosodic research by Gussenhoven et al. shows that the duration and rate of speech is subjectively controlled by the speech's prosody in a manner that it forms a rhythm of stress or syllable clusters. This, in our opinion, underlies the principle of 'proper timing' that is stated according to this theory as necessary for adequate comprehension since information timing can change the way a message is received and processed by a listener<sup>2</sup>. Prosodic theory considers the rhythm of speech to be correlated with the organisation of prosodic phrases in a sentence. Rhythm, as he sees it, is not merely influenced by stress or accent of individual words, but also by the embedding of these words into larger syntactic structures. In the Conclusion, Jun emphasised that the tempo of language is closely associated with grammar as well as the fact that prosodic packaging facilitates speech and enhances comprehension<sup>3</sup>.

---

<sup>1</sup> Ritonga, M., Asrina, A., Widayanti, R., Alrasi, F., Julhadi, J., & Halim, S. (2020). Analysis of Arabic Language Learning in Higher Education with Multi-Religious Students. In M. Ritonga, A. Asrina, R. Widayanti, F. Alrasi, J. Julhadi, & S. Halim, Universal Journal of Educational Research (Vol. 8, Edition 9, p. 4333). Horizon Research Publishing. <https://doi.org/10.13189/ujer.2020.080960>

<sup>2</sup> Gussenhoven, C. (2004). *The Phonology of Tone and Intonation*. Cambridge: Cambridge University Press.

<sup>3</sup> Jun, S. A. (2018). Prosodic Typology: The Phonology of Intonation and Phrasing. Oxford: Oxford University Press.

Rhythmic patterning of speech has been defined as the ordered temporal grouping of salient and nonclient speech partitions that include clips, syllables, foot, word and<sup>4</sup> phrases. As far as the peculiarities of intonation in language are concerned, it seems that it is the alternation of more and less audible units that establishes the rhythm of speech of a particular language<sup>5</sup> . There have been numerous scholarly discussions on the stress patterned rhythm of English whereby alternation of stress units occurs but is not the focal point of the discourse; instead, there is a tendency for the stress units to be consistent at equal intervals. Similarly, although Arabic has been in existence for centuries, English rhythm patterns established earlier did not receive much attention, and it is not clear what elements in a unit of Arabic speech are responsible for alternation<sup>67</sup>.

Several researchers have considered the studies of speech rhythm to be directly linked to other components of second language acquisition, and more specifically to: 1) Fielder and Tsurutani learnt that native rhythm (L1) interferes with learning L2 rhythm and native Japanese English speakers are particularly of interest in this case. It turned out that speakers whose native language is very rhythmic find it difficult to adjust to the variety of rhythm in English<sup>8</sup>. 2) Nasser and Rachman sought to understand the control of rhythm by Arabic including differences in syllable duration and tempo among non-native speakers of Arabic<sup>9</sup>. Their studies showed that nervousness and pressure are the key problems for non-native speakers, especially inadequate non-observance of stress and the timing for stressed and unstressed syllables. 3) Sato (2023) looked at the topic

---

<sup>4</sup> Fletcher, Janet. (2010). 'The prosody of speech: Timing and rhythm'. In William Hardcastle, John Laver, and Fiona Gibbon (eds.) *The Handbook of Phonetic Sciences*, 521–602. Oxford: Wiley-Blackwell.

<sup>5</sup> Nespor, Marina, Mohinish Shukla, and Jacques Mehler. (2011). 'Stress-timed vs. syllable-timed languages'. In van Oostendorp et al. 1147–1160.

<sup>6</sup> Abercrombie, David. (1967). *Elements of General Phonetics*. Edinburgh: Edinburgh University Press.

<sup>7</sup> Ladefoged, Peter and Keith Johnson. (2015). *A Course in Phonetics*. 7th edition. Stamford, Connecticut: Cengage Learning

<sup>8</sup> Tilsen, S., & Johnson, K. (2008, July 18). Low-frequency Fourier analysis of speech rhythm. In S. Tilsen & K. Johnson, *The Journal of the Acoustical Society of America* (Vol. 124, Issue 2). Acoustical Society of America. <https://doi.org/10.1121/1.2947626>

<sup>9</sup> Fahrurrozi, A. (2014). LEARNING ARABIC LANGUAGE: PROBLEMS AND SOLUTIONS. In A. Fahrurrozi, *ARABIYAT Journal of Arabic Language and Arabic Language Education* (Vol. 1, Issue 2). Jakarta State Islamic University. <https://doi.org/10.15408/a.v1i2.1137>

of acquisition of Chinese intonation by Indonesian speakers and was able to record the tendency among Indonesian speakers to apply a more generalized set of Indonesian rhythm patterns as well as a more generalized form of Chinese which poses problems for Indonesian speakers who learn Chinese which has stress prominence<sup>10</sup>.

Promoting Teaching among Malay Students and Speakers of Other Languages at University<sup>11</sup>, Arabic language teaching has been researched concerning the practices of various Malaysians regardless of aspects. In particular, these include American, Arabic, and bilingual education policies and so forth<sup>12</sup>. These are among the gaps that demand researchers' scrutiny and empirical studies to explore the factors that lead to English proficiency and effective teaching methods. More specifically, the present research is interested in and describes the articulation characteristics of the speech rhythm patterns of students from the State Islamic University of Mataram. The aim is to focus on the language proficiency of the students.

## **Theoretical Foundations**

### **A. Definition of Speech Rhythm**

The construction of verbal rhythm can be understood as the patterned recurrence of sounds or other prosodic features of speech, since it determines the way in which we order and make sense of information communicated in a message during a conversation. As defined in linguistic theories, the speech rhythm is sometimes modified in the form of duration, stress, and intonation which form combinations working together towards understanding the message conveyed<sup>13</sup>.

Speech rhythm strongly resembles music; therefore, it can be broken down into two distinct intonational types: stress and syllable rhythms. Stress-timed rhythm: English, along with some other languages, places emphasis on syllables within a

---

<sup>10</sup> Mhemed, W. (2018). A Conceptual Framework for Mobile Application in Learning Arabic Language Proficiency. In W. Mhemed, The Journal of Social Sciences Research. <https://doi.org/10.32861/jssr.spi4.66.70>

<sup>11</sup> Mhemed, W. (2018). A Conceptual Framework for Mobile Application in Learning Arabic Language Proficiency. In W. Mhemed, The Journal of Social Sciences Research. <https://doi.org/10.32861/jssr.spi4.66.70>

<sup>12</sup> Ritonga, M., Asrina, A., Widayanti,.. <https://doi.org/10.13189/ujer.2020.080960>

<sup>13</sup> Hayes, B. (1995). Metrical Stress Theory: Principles and Case Studies. University of Chicago Press.

word and clusters them into groups that fall on the same rhythmic time frame, with the main difference being the interval's period. This has an impact on the time gap between stressed words, which tends to average out over time while the amount of stressed syllables changes<sup>14</sup>. Syllable-timed rhythm: On the other hand, French and Spanish languages are more introverted and emphasise the repetition of syllables at constant time intervals, allowing each syllable to take an almost equal amount of time regardless of the stress. In general, it could be said that there are many other languages that have both systems which are not placed in the French or Spanish category.

### B. Conceptualisation of Speech Rhythm

Many theories have emerged in the literature on the issue of speech rhythm. Among these, the theories of Generative Phonology, Articulatory Phonology and Prosodic Theory seem to have more impact. Generative Phonology: This theory incorporates rhythm into the concept of the language hierarchy based on larger language units, which could be phrases or sentences. It is held that rhythm is but a manifestation of the higher prosodic levels of the sequence of sounds produced Selkirk<sup>15</sup>.

Articulatory Phonology: This viewpoint regards rhythm as emerging from articulation and the perceptual goal. Clear communication is achieved by recognising the organisation of timing and pressure which comprises several components, including rhythm<sup>16</sup>. Prosodic Theory: This theory maintains that rhythm is embedded in a more encompassing prosody including intonation, timing and stress. It is considered that prosody is a basic unit of language information organisation within oratory communication, in such a way that the organisation and meaning of a sentence would be clearer<sup>17</sup>.

### C. Determinants of Speech Rhythm

---

<sup>14</sup> Jun, S.-A. (2005). *Prosodic Typology: The Phonology of Intonation and Phrasing*. Oxford University Press.

<sup>15</sup> Selkirk, E. (1984). *Phonology and Syntax: The Relation between Sound and Structure*. MIT Press, p.140

<sup>16</sup> Smith, C. L. (2003). The Role of Rhythm in Speech Perception and Production. *Journal of Phonetics*, 31(1), 1-30.

<sup>17</sup> Ladd, D. R. (2008). *Intonational Phonology*. Cambridge University Press.

Due to its dynamic nature, speech rhythm is influenced by a range of linguistic and psychological factors. In general some of the factors that seem to influence rhythm are: Speech rate: The temporal spacing of words and syllables is likely to depend on the psychological or brain activities called Rate of Speech, the greater at which the faster is the PPP and syllables tension. Sociolectal speech seems to suppress stress as it tends to be rapid while pantonal speech reduces stress and enhances a metrical structure<sup>18</sup>. Social context: The social context in which speech takes place also influences the rhythms of speech. For instance, stress and intonation patterns may vary when people speak during formal and informal settings<sup>19</sup> . Gender and age: Certain linguistic traits differentiate a male speech rhythm from a female speech rhythm as well as the mastery levels in young and older adults<sup>20</sup>. Dialect and accent: Linguistic and rhythm structures across the different nations or ethnic groups differ due to the variations in their dialects and accent<sup>21</sup> .

#### D. Understanding Speech through Its Rhythm

The rhythm of speech constitutes important structural units for language comprehension. Prior studies indicate that rhythm has an impact on how one is able to decode messages. As an example, the words of those who have a more regular rhythm would be easier to understand because such information is given in a more predictable form and is presented within interval spacing<sup>22</sup> . Furthermore, rhythm may also assist listeners in determining the main and supportive information contained in the sentence. Rhythm, too, has significance in post mastery of a second language because if speech rhythm is appropriate that means the texts or speeches in the second language will be easily comprehended. Language learners

---

<sup>18</sup> Fowler, C. A. (1996). The Articulatory Interpretation of Gestural Phonology. In R. L. Allen (Ed.), *Phonological Structure and Phonetic Form: Papers in Laboratory Phonology IV*. Cambridge University Press.

<sup>19</sup> Giles, H., & Coupland, N. (1991). *Language: Contexts and Consequences*. Open University Press.

<sup>20</sup> Jacewicz, E., et al. (2009). Cross-Dialectal Variations in Speech Rhythm: A Comparison of American English and Polish. *Journal of Phonetics*, 37(2), 122-135.

<sup>21</sup> Henton, C. (1991). A Cross-Linguistic Study of Intonation and Rhythm. *Language and Speech*, 34(2), 189-213.

<sup>22</sup> Smith, C. L. (2003). The Role of Rhythm in Speech Perception and Production. *Journal of Phonetics*, 31(1), 1-30.

can benefit from using proper rhythm patterns since this will enable them to use structures of sentences in speaking more fluently<sup>23</sup> (Schneider, 2008).

## **Methodology**

This study employs a quantitative approach to research by utilising survey method techniques. With a total of 91 Arabic Language Education Students of the Faculty of Tarbiyah and Teacher Training of the Mataram State Islamic University in order to assess their evaluation towards the actual practices of teaching and learning of the Arabic language. Also in order to further understand the factors that affect the Arabic speech rhythm and proficiency of the students, the researchers sampled students and faculty members for detailed interviews.

## **Results and Discussion**

The analysis of the survey data showed that despite a recognition of the importance of Arabic language learning, students encountered difficulty in using the language satisfactorily in their daily and academic activities. The interview findings further explored the factors contributing to the students' Arabic speech rhythm patterns, the large number of their native languages, the pedagogical strategies employed and the possibility of using the language in informal situations outside the classroom<sup>24</sup>.

### **A. Survey Result: Analysis of Students' Arabic Speech Rhythm**

**Participants:** 91 Students of Arabic Study Program, Mataram State Islamic University

**Respondent Demographics: Gender:** Male: 45%, and Female: 55%,

**Year Entry:** Class of 2020: 40%, Class of 2021: 35%, and Class of 2022: 25%.

**1. Mastery of Speech Rhythm in Arabic: Very Good (15%):** 14 respondents were able to pronounce Arabic rhythms very fluently, with appropriate tempo differences between words in sentences, **Quite Good (40%):** 36 respondents had good rhythm mastery, but there were still minor errors in tempo setting and syllable pressure. **Medium (30%):** 27 respondents showed a standard rhythm,

---

<sup>23</sup> Schneider, E. W. (2008). English Around the World: An Introduction. Cambridge University Press.

<sup>24</sup> Ritonga, M., Nazir, A., & Wahyuni, S. (2016). Pembelajaran Bahasa Arab Berbasis Teknologi Informasi dan Komunikasi. *Arabiyat: Jurnal Pendidikan Bahasa Arab Dan Kebahasaaraban*, 3(1), 1–12. <https://doi.org/http://dx.doi.org/10.15408/a.v3i1.2879>

although more practice is needed to improve the flow and tempo of speaking.

**Not Good (15%)**: 14 respondents had difficulty maintaining the right rhythm, with a tendency to inconsistent or intermittent tempos.

## **2. Factors Affecting Mastery of Speech Rhythm: Educational Background**

**(40%)**: Most respondents who have an Arabic language education background in madrassas or pesantren tend to be better at mastering the rhythm of the language. **Practice Frequency (35%)**: Students who practiced speaking in Arabic more often, both in daily conversation and in class, showed a more maintained rhythm. **Exposure to Arabic-language media (25%)**: Students who watch videos, listen to audio, or read books in Arabic more often show better mastery of rhythm.

## **3. Challenges Students Face in Arabic Pronunciation:**

**a. Difficulty in Maintaining a Consistent Tempo (50%)**: Many students admitted that they had difficulty maintaining a consistent tempo when speaking.

**b. Difficulty in Emphasizing Syllables (30%)**: Some respondents had difficulty putting pressure on the right syllables, which affected the overall pronunciation.

**c. Vocabulary limitations (20%)**: Especially for students who have not mastered enough vocabulary, difficulties in pronouncing sentences with the correct rhythm often occur.

### **d. Student Needs and Expectations:**

**a) Special Training (45%)**: Most students expect more intensive training on Arabic pronunciation and rhythm mastery.

**b) Learning Media (30%)**: Students want to get more learning materials in the form of audio or video that can help them hear examples of correct pronunciation.

**c) Personal Guidance (25%)**: Some students want special guidance from lecturers or supervisors in improving their Arabic speaking skills.

According to the survey results presented above, it can be suggested that the majority of the students have a relatively good knowledge of Arabic rhythms; however, there are still a good number who struggle with maintaining the appropriate speed and the amount of stress that is supposed to be applied. In ensuring that students master Arabic as a language, more practical teaching techniques and relevant graphical materials are required.

## **Conclusion**

The findings indicated that around 15% of the respondents are found to be very excellent in the mastery of Arabic rhythms, 40% moderate, 30% poor mastery while 15% did not master Arabic rhythms at all. Other than the place of residence, the factors that contribute to the mastery of speech rhythm are educational background, training frequency and exposure to Arabic-language media where the respondents cited all three as contributing factors totalling 100%, with how many percent each contributing further indicating language barriers such as 40%, 35%, and 25% respectively. Bilingualism is crucial for pronunciation; however, students pointed out their inability to acquire accurate bilingualism as one of the reasons for the students' deficient Arabic pronunciation, which also involves difficulties in controlling the tempo of pronunciation (50%), the syllables during pronunciation (30%), and acquiring an Arabic vocabulary (20%). Students wish for special training (45%), using audio/video learning media (30%), and receiving individual supervision (25%) in order to better their control of the speech rhythm. The study states that even though a reasonable number of students have acquired sufficient control of rhythm, a great number still have problems with controlling the appropriate timing and pressure when speaking. This calls for more natural and rhythmic Arabic speaking through more practical exercises and accompanying media.

## **Cordova Journal : language and culture studies**

Terbit 2 kali setahun

Vol. 14, No. 2, Desember 2024

<https://journal.uinmataram.ac.id/index.php/cordova/index>

### **Reference**

Abercrombie, David. (1967). Elements of General Phonetics. Edinburgh: Edinburgh University Press.

Boersma, P., & Weenink, D. (2013). Praat: Doing Phonetics by Computer. *Glot International*, 7(5), 341-345.

Fahrurrozi, A. (2014). PEMBELAJARAN BAHASA ARAB : PROBLEMATIKA DAN SOLUSINYA. In A. Fahrurrozi, ARABIYAT Jurnal Pendidikan Bahasa Arab dan Kebahasaaraban (Vol. 1, Issue 2). Jakarta State Islamic University. <https://doi.org/10.15408/a.v1i2.1137>

Fletcher, Janet. (2010). 'The prosody of speech: Timing and rhythm'. In William Hardcastle, John Laver, and Fiona Gibbon (eds.) *The Handbook of Phonetic Sciences*, 521–602. Oxford: Wiley-Blackwell.

Fowler, C. A. (1996). The Articulatory Interpretation of Gestural Phonology. In R. L. Allen (Ed.), *Phonological Structure and Phonetic Form: Papers in Laboratory Phonology IV*. Cambridge University Press.

Giles, H., & Coupland, N. (1991). *Language: Contexts and Consequences*. Open University Press.

Gussenhoven, C. (2004). *The Phonology of Tone and Intonation*. Cambridge: Cambridge University Press.

Halliday, M. A. K., & Greaves, W. S. (2008). *Intonation in the Grammar of English*. Equinox.

Hayes, B. (1995). *Metrical Stress Theory: Principles and Case Studies*. University of Chicago Press.

Henton, C. (1991). A Cross-Linguistic Study of Intonation and Rhythm. *Language and Speech*, 34(2), 189-213.

Jacewicz, E., et al. (2009). Cross-Dialectal Variations in Speech Rhythm: A Comparison of American English and Polish. *Journal of Phonetics*, 37(2), 122-135.

Jun, S. A. (2018). *Prosodic Typology: The Phonology of Intonation and Phrasing*. Oxford: Oxford University Press.

## **Cordova Journal : language and culture studies**

Terbit 2 kali setahun

Vol. 14, No. 2, Desember 2024

<https://journal.uinmataram.ac.id/index.php/cordova/index>

Jun, S.-A. (2005). Prosodic Typology: The Phonology of Intonation and Phrasing. Oxford University Press.

Ladd, D. R. (2008). Intonational Phonology. Cambridge University Press.

Ladefoged, Peter and Keith Johnson. (2015). A Course in Phonetics. 7th edition. Stamford, Connecticut: Cengage Learning

McCarthy, J. J., & Prince, A. (1993). Generalized Alignment. In G. Booij & J. van Marle (Eds.), Yearbook of Morphology (pp. 1-65). Springer.

Mhemed, W. (2018). A Conceptual Framework for Mobile Application in Learning Arabic Language Proficiency. In W. Mhemed, The Journal of Social Sciences Research. <https://doi.org/10.32861/jssr.spi4.66.70>

Nespor, Marina, Mohinish Shukla, and Jacques Mehler. (2011). 'Stress-timed vs. syllable-timed languages'. In van Oostendorp et al. 1147–1160.

Pierrehumbert, J. B., & Hirschberg, J. (1990). The Intonational Structure of Discourse. The Linguistic Society of America, 2, 1-37.

Rahmawati, M., & Sumarlam, S. (2020). KAJIAN WACANA: PEMANFAATAN PRINSIP ANALOGI DALAM KUMPULAN CERKAK KEMBANG PASREN KARYA IMPIAN NOPITASARI (DISCOURSE ANALYSIS: THE APPLICATION OF THE ANALOGY CONCEPT IN SHORT STORIES SERIES KEMBANG PASREN BY IMPIAN NOPITASARI). In M. Rahmawati & S. Sumarlam, Metalingua Jurnal Penelitian Bahasa (Vol. 18, Issue 1, p. 75). <https://doi.org/10.26499/metalingua.v18i1.367>

Ritonga, M., Asrina, A., Widayanti, R., Alrasi, F., Julhadi, J., & Halim, S. (2020). Analisis Pembelajaran Bahasa Arab di Perguruan Tinggi dengan Mahasiswa Multi Agama. Dalam M. Ritonga, A. Asrina, R. Widayanti, F. Alrasi, J. Julhadi, & S. Halim, Jurnal Universal Penelitian Pendidikan (Vol. 8, Edisi 9, hlm. 4333). Penerbitan Penelitian Horison. <https://doi.org/10.13189/ujer.2020.080960>

Ritonga, M., Asrina, A., Widayanti,.. <https://doi.org/10.13189/ujer.2020.080960>

Ritonga, M., Nazir, A., & Wahyuni, S. (2016). Pembelajaran Bahasa Arab Berbasis Teknologi Informasi dan Komunikasi. Arabiyat: Jurnal Pendidikan Bahasa Arab

## **Cordova Journal : language and culture studies**

Terbit 2 kali setahun

Vol. 14, No. 2, Desember 2024

<https://journal.uinmataram.ac.id/index.php/cordova/index>

Dan Kebahasaaraban, 3(1), 1–12. <https://doi.org/http://dx.doi.org/10.15408/a.v3i1.2879>

Schneider, E. W. (2008). English Around the World: An Introduction. Cambridge University Press.

Selkirk, E. (1984). Phonology and Syntax: The Relation between Sound and Structure. MIT Press.

Smith, C. L. (2003). The Role of Rhythm in Speech Perception and Production. *Journal of Phonetics*, 31(1), 1-30.

Tilsen, S., & Johnson, K. (2008, July 18). Low-frequency Fourier analysis of speech rhythm. In S. Tilsen & K. Johnson, *The Journal of the Acoustical Society of America* (Vol. 124, Issue 2). Acoustical Society of America. <https://doi.org/10.1121/1.2947626>

van der Hulst, H. (2010). The Prosodic System of Languages: Typological Considerations. In A. Cohn, C. Fougeron, & M. K. Huffman (Eds.), *The Handbook of Laboratory Phonology* (pp. 198-222). Oxford University Press.