

Relationship Between Phonology, Phonetics, and Tajweed: A Literature Review

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ABSTRACT

Based on the discussion's results of previous studies, general phonological rules cannot be linked entirely to the phonological rules of Al-Quran due to the nature of the Quranic phonological rules. In the field of phonetics, many studies investigated the features of the Quranic phonetics. However, the present study intends to identify the characteristics of the phonology and phonetic rules and how both linguistic components are applied in the Al-Quran language. The methodology used in this study is textual analysis through existing literature. Therefore, this study discussed the features in the phonetic and phonology environment and its relationship with the Quran's phonetic rules known as Tajweed.

Keywords: *Phonology, Phonetics, Tajweed, Relationship*

1. INTRODUCTION

A language is a set of signals by which we communicate and express thoughts and emotions [1]. Each country has its own distinct spoken language features. As for the Arabic language, there are two main types of written Arabic known as Classical Arabic and Modern Standard Arabic [2]. Classical Arabic is the language of the Al-Quran and classical literature where Muslims rely on translation to understand the text, whereas Modern Standard Arabic is the universal language of an Arabic-speaking world which is understood by all Arabic Speakers (Arabic Language Information). The focus on the Al-Quran revealed the way to pronounce the Classical Arabic Language correctly [3], which is reasonably challenging, and

mistakes often occur when reading it. The best way to improve the ability of people to recite the Quran is to start with the Arabic text of the Quran [4]. There is a possibility that the phonology and phonetics are related to this issue as discovered by [5] that any language shared several linguistic components including phonology, and phonetics, but each of these components differs from that component or language. In this present study, the author determines to identify the relationship between the phonetics and Quranic recitation rules (Tajweed) based on textual analysis from past studies.

1.1. The Terminology of Phonology and Phonetics)

Phonology familiarly gets us figured out what each sound does and acts such as when it combines with other sounds. In general, [6] stated that phonology is one of the linguistic branches by which permits us to feel connected with a language to reach its very root known as language sound. The produced sound of languages can carry any meaning in the style sounds presented. In the aspect of linguistics, the research by [7] mentioned that the language shared some linguistic components namely semantics, syntax, morphology, phonology, and phonetics. What is phonetics? The study of phonetics is widely found in many disciplines of linguistic studies as phonetics is much closer related to any sound produced from text-to-speech or speech-to-text. According to [8], phonetics and phonology can be defined as:

- i. Cannorn and Ekundare defined phonetics as the sound of the basis of human speech as an acoustic phenomenon that has a source of vibration somewhere in the vocal apparatus.
- ii. Varshney defined phonetics as a scientific study of the production, transmission, and reception of speech sounds.
- iii. Ramamurthi defined phonology when it involves the evaluation, analysis, arrangement, and description of the phonemes or meaningful sounds of a language.
- iv. Simpson defined phonology as the statement or description of the lingual stoically relevant suprasegmental features, the phonetic system, allophones, their distribution, and the phonological structure.
- v. Ekundare defined phonology simply as a study of the properties of the sound system of a language which speakers have mastered or internalized by the time they are competent users of it.

Furthermore, [9] defined phonetics as a general study of human sounds without referring to their systemic roles in a specific language, while phonology is a system of sounds by means of which the meanings are differentiated in a language that served as the building blocks or the higher linguistic levels such as morphology.

Based on those definitions, the term phonetics can be understood as the study of the production of sound from the basic of human speech while phonology is the study of the sound's properties and features. Each speech or utterance has its own phonetic features and properties, which give different meanings to the expression uttered, more accurately referred to as language prosody. A study by [10] discovered that language differs in a phonetic property which is categorized into two situations whether it is used to convey post-lexical meaning or have become

conventionalized bearers of post-lexical meaning, thus a part of the phonological language. In general, the phonetic and phonological properties of language are used to convey the post-lexical of meaning language prosody.

1.2. Quranic Recitation Rules (Tajweed)

In general, the phonemes of any language can be classified into two categories: vowels that contain no major air restriction through the vocal tract, and consonants that involve a significant restriction and therefore weaker in amplitude, and often "noisier," than vowels [22]. Based on the Quranic text analyzed and transcribed in relation to the distinct syllable conducted by [23], the complete set of Quran consists of 211, 573 syllables where 2, 642 syllables of that total are distinct.

On the other hand, [24] addressed that the knowledge of Tajweed is contingent on four matters which are Knowledge of the articulation points of the letters, Knowledge of the characteristics of the letters, Knowledge of the rules of change in letters due to the order of the letters, and exercising the tongue and a lot of repetition. The way to pronounce the letter of the Quran is related to the term called phonetics, where each syllable, phonemes of Arabic letter required a specific sound to be pronounced based on the Quranic recitation rules for instance Idgham, Izhar, Ikhfaa, and Qalqalah, which involve the nasal assimilation particularly in learning Tajweed [25].

In regard to one of the general characteristics in Arabic linguistic, the Arabic language has short vowels which are usually ignored in the text but make a difference in meaning when reading an Arabic text [26]. In the discussion of their study, there is a difference between writing and reading the Quran, which is a special case that the Quranic recitation rules must be followed when reciting the Quran. This finding is supported by [27] who conducted a study to acquire a complete set of distinct syllables from a set of Quran verses (Ayat) that emphasized the Quranic texts are fully vocalized, which means a proper diacritic are placed on each letter of the texts. Therefore, it is the basis for the correct recitation of the Quran when the accuracy of Quranic text is very critical. Thus, the rules of Tajweed can be classified into four which are Nun Sakinah and Tanween Rules, Nun and Mim Mushaddad, Mim Sakinah Rules and Al-Qalqalah

- i. Nun and Mim Mushaddad mean that nun or mim has shaddah with Ghunnah of two beats.
- ii. Al-Qalqalah is the vibration of sound at the end of the pronunciation of certain letters; Qaaf, Ttaa, Baa, Jiim and Daal, when the letter carries sukoon or shaddah.
- iii. Nun Sakinah and Tanween Rules; Nun Sakinah means no Harakah or Sukun sign on Nun, Tanween is a

nun sakinah at the end of nouns that pronounced as Nun Sakinah but without written the Nun.

iv. Mim Sakinah Rules is no Harakah or with a Sukun sign on Mim.

v. Al-Madd Rules means the letter of Madd is pronounced long under some conditions, from two to six beats depending upon its type [28]. Then, each of Nun Sakinah or Tanween Rules, Mim Sakinah and Al-Madd, have more sub-classes of Rules:

i. Nun Sakinah or Tanween Rules is classified into four sub-classes: Izhar Halqi, Iqlab, Idgham, and Ikhfaa Halqi

ii. Mim Sakinah with three types of Rules: Ikhfaa Shafawi, Idgham Shafawi, and Izhaar Shafawi.

iii. Al-Madd has eight Rules: Tabii'ie, Al-Badal, 'Ewadh, Mad 'Aridh Li-Sukun, Al-Leen, Muttasil, Mumfasil, and Laazim.

Based on the Rules, [29] mentioned in his study that the characteristics or Sifaat of the Arabic letters are divided into two groups, namely characteristics with opposites, and characteristics without opposites. He also addressed that Qalqalah is one of the most well-known rules but has some very difficult characteristics to pronounce: bouncing or echoing of sound.

1.3. Phonetics, Phonology and Quranic Recitation Rules (Tajweed)

In a modern way, the Quranic recitation technique is presented in technological mediums such as applications, and speaker recognition system to assist non-Arabic or new learner recites correctly as the recitation rules are complex and critical. These tools assist in the aspect of Arabic language learning, especially in pronunciation. [30] mentioned in their study that the aspect related to pronunciation learning is referred to as another term known as Computer-Aided Pronunciation Learning (CAPL). It revealed the achievements in the fields of computer-aided learning systems, intelligent tutoring systems, speech recognition, speech synthesis, and dialogue systems, which permits the ability to produce efficient computer-aided systems in language learning fields.

Concerned about on how the sound and pronunciation of Arabic syllables are generated, many studies and models were built to investigate the Tajweed Rules and its correct pronunciation, thus helped novice learners and their interest to learn Quranic characters. The literature review of the phonology and phonetics rules in Quranic recitation rules found that both phonology and phonetics are applied to investigate the pronunciation's technique of Tajweed Rules analysed from the verses of Al-Quran as in Table 1.

Table 1. Research on the Phonological and Phonetic Rules in Quranic Recitation Rules (Tajweed)

Research (Year)	Research Objective	Research Discussion	Linguistic environment	Quran's phonetic Rules
(Amer, 2016)	Compare the phonetic rules of the Al-Quran to the phonetic rules of the English language.	Demonstrate the existing features in the phonetic of Arabic and English speech sound and differentiate Quranic phonetic rules from other Arabic literature.	Phonetics	Assimilation (Idgham), Plotion (Qalqalah), Rules of 'noon sakinah', Conversion (Al-Iqlab), Concealment (Al-Ikhfaa'), elongation (Mac al-tamkeen), Slanting or Inclination (Imala).
(Al-Shishtawi, 2018)	Apply the rules of the generative phonological theory to the rules of the phonological system of the Qur'anic phonology.	Generate generative phonological rules for the Qur'anic phonological rules.	Phonology	Noon Sakinah and Tanween
(Shariq, 2015)	Investigate the actual pronunciation of Arabic and English consonants	Analysis of phonetics and phonological tools for the pronunciation of consonants of Arabic and English	Phonetics and Phonology	It does not specialize in Tajweed rules.
(Aldubai, 2015)	Discuss the phonological patterns in Quranic verse-final pauses (fawasil)	Investigation focus on three major phonetic criteria: The phonetic features of the fawasil The Fasilah shift from the surrounding fawasil. The semantically-oriented sound	Phonetics	Focus on the symmetrical and the asymmetrical pauses (fawasil) in terms of concordance (al-nasaq al-sawti)
(Kasnin & Jaafar, 2018)	Discusses the process of nasal assimilation which existed in the selected rule of Tajweed	Analysis of the phonological process and pronunciation of Idgham Bila al-Ghunnah	Phonology	Focus on Idgham Bila al-Ghunnah
(Al-Solami, 2013)	Argue the phonological and phonetic sound of Arabic emphatics	Argue both phonology and phonetics is no part of the Arabic guttural class.	Phonology and phonetics	It does not specialize in Tajweed Rules. Focus on Arabic emphatics.

Phonetically, Amer and Aldubai discovered the different areas of phonetic features where Amer compared Al-Quran's phonetic rules with another language while Aldubai focused his study on the phonetics of Al-Quran verses-final pause (fawasil). Phonologically, Al-Shishtawi and Kasnin & Jaafar generate the phonological rules applied on Quranic phonological rules where Al-Shishtawi discovered that the phonological rules are applied partially in some cases due to the nature of the Quranic phonological rules, while Kasnin & Jaafar only focused their study on the phonology rules at a case of the nasal assimilation process. Lastly, Shariq and al-Solami covered both areas of the linguistic components phonology and phonetics. Al-Solami claimed that both phonetics and phonology are not part of Arabic guttural class, while Shariq found that even phonetics and phonology are different in linguistic pattern, he claimed that the elaboration of the similarities and dissimilarities between the Arabic and English consonantal sound solved the problem of pronunciation.

2. CONCLUSION

As a conclusion from the discussion, the phonetic can be applied in the Quranic phonetic rules as stated by Amer (2016) that the Quran's phonetic rules are not connected to the Arab tongue, but rather, it is by which the human tongue was created to function. Therefore, a similar comparison is welcomed to be studied with other languages to verify the nature of the phonetics of the Quran. On the phonological side, the phonological rules can be applied in Quranic phonological rules partially at some cases due to the complex nature of Quranic phonological rules and sound structures.

AUTHORS' CONTRIBUTIONS

Design of the Work (Mesbahul Hoque)
 Data Collection (Mohamed Hj Ibrahim)
 Data Analysis (Nurhasma Muhamad Saad)
 Drafting the Article (Tuan Hj Sulaiman Ismail)
 Paper Write-Up (Nurul Nazariah Mohd Zaidi)
 Final Approval (Dr. Yuslina Mohamed)

ACKNOWLEDGMENTS

Deeply grateful to research grant USIM/FRGS/FPBU/055002/50518, project entitled: Interaksi Organ Pertuturan, Bunyi dan Perkembangan Bahasa Kanak-kanak dalam Membentuk Modal Bacaan Al-Quran untuk Golongan Tidak Minat al-Quran.

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