

TAJWEED LEARNING THROUGH THE SUPPORT OF ARABIC PHONETIC

(Pembelajaran Tajwid Melalui Sokongan Fonetik Arab)

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ABSTRACT

This study shows the support and the role of phonetic Arabic in improving the methods of *talaqqi musyafahah* in learning of tajweed al-Quran. Tajweed has often been considered as a separate field of knowledge from the development of phonetics. Tajweed is seen as a science that adheres to the traditional method centred on memorization and imitation rather than by reference to scientific knowledge, which is the principle in Arabic phonetics. Both of these have the same goal, namely to maintain the reference in the context of the Arab pronunciation. The assumption that only *talaqqi musyafahah* is the best method in the learning of the al-Quran has become a factor as to why advancements in the field of phonetics are not fully applied to tajweed. Therefore, this study sought to 1) determine the differences between knowledge of Arabic phonetic in literature and some aspects of recitation and 2) find out similarities between several aspects found in the Arabic phonetics and tajweed which may help support the teaching and learning of tajweed of al-Quran. The methodology used in this study by comparing comparative analysis through existing literature, especially scholarly writing in phonetic and tajweed fields. This comparison analysis attempts to see the similarities and differences in the context of *makhraj* and the manner of articulation system (*sifat huruf*) in terms of definition of terms, methods and techniques of learning, and their measurements. The study found that there are some gaps between this knowledge in terms of understanding of

the definition, sources and approaches in pedagogy. However, results show that the differences between these two fields of knowledge are intertwined and complement each other.

Keyword: Arabic phonetic; tajweed al-Quran; *talaqqi musyafahah*; places of articulation system (*Makhrāj*); manner of articulation system (*Sifat al-Hurf*).

ABSTRAK

Kajian ini memperlihatkan sokongan dan peranan ilmu fonetik Arab terhadap usaha menambah baik kaedah talaqqi musyafahah dalam pembelajaran tajwid al-Quran. Ilmu tajwid sering dianggap sebagai suatu ilmu yang terpisah dengan perkembangan ilmu fonetik Arab. Beranggapan hanya kaedah talaqqi musyafahah sahaja sebagai kaedah terbaik dalam pembelajaran al-Quran menjadi faktor perkembangan ilmu fonetik tidak dimanfaatkan sebaiknya. Tujuan kajian ini adalah 1) melihat perbezaan literatur ilmu fonetik Arab dan beberapa aspek hukum tajwid dan 2) melihat titik persamaan beberapa aspek dalam ilmu fonetik Arab yang boleh menyokong kaedah talaqqi musyafahah. Metodologi yang digunakan dalam kajian ini dengan membuat analisis perbandingan melalui literatur sedia ada terutama penulisan-penulisan sarjana dalam bidang fonetik dan tajwid. Analisis perbandingan ini cuba melihat persamaan dan perbezaan dalam konteks makhrāj dan sifat huruf dari aspek definisi istilah, kaedah dan teknik pembelajaran, dan kebolehubukannya. Makalah ini mendapati terdapat beberapa kesenjangan antara kedua ilmu ini dari segi pemahaman definisi, sumber dan pendekatan dalam pedagogi. Namun akhirnya artikel ini melihat beberapa informasi tambahan dari ilmu fonetik Arab mampu disenergikan ke dalam pembelajaran tajwid al-Quran bagi pementapan kaedah talaqqi musyafahah.

Kata kunci: *Fonetik Arab; tajwid al-Quran; talaqqi musyafahah; makhrāj; sifat huruf.*

INTRODUCTION

Tajweed is the knowledge and application of rules which enable one to recite the al-Quran well. This is in accordance with several definitions of tajweed which aim to preserve the recitation of the holy al-Quran from any errors and changes as well as to ensure accuracy when the verses of the al-Quran are read. Tajweed is still considered as classic knowledge that can be learned via memorisation and can be uttered without understanding how pronunciation works. Most applications of tajweed are subjective and the teaching and learning of tajweed is still done in a very general manner.

There are few reasons for the situation described. It can be said that tajweed still maintains a learning method that optimises rote learning. This memorisation technique is evident especially when the learning process emphasizes only on the *talaqqi musyafahah* method (Mohd Yusuf 2000). The *talaqqi* and *musyafahah* methods are face-to-face teaching and learning processes between the teacher and the student that enable them to meet and listen to each other. This process shows how the teacher recites something and how the student imitates and memorizes the pronunciation of the teacher. This process often occurs without explanation of the speech organs involved and how they function. If the teacher perceives the pronunciation as a mistake, then the teacher will demonstrate the correct way to enunciate the words. According to Ahmad (1997), one of the approaches used in *Tilawah al-Quran* is the inductive approach, where teachers will demonstrate the recitation of the al-Quran according to one of the tajweed rules and the student will subsequently apply the teacher's sample recitation in their own recitation of the al-Quran.

A number of previous studies which focused on the mastery of *Tilawah al-Quran* (Mohammad Naim 2003; Mohd Aderi 2004) reported that students were weak in *Tilawah al-Quran*. A study conducted by Ab. Halim et al. (2006) showed that poor teaching methods in Islamic Education led to students having problems in reciting the al-Quran. This could be due to al-Quran teachers who have not mastered the tajweed well enough to teach the pronunciation of certain letters and tajweed recitation rules to students accurately. Very often, students get confused when the teacher's teaching approach is too general, especially when it concerns the process of producing utterances or reciting certain verses in a certain way. Ideally, a tajweed teacher should obtain accurate information on how a sound is articulated. An al-Quran teacher not only has to be well versed in pronunciation theories but should also be well-informed of the basics of Arabic phonetics in order to make the learning process of tajweed more efficient.

Tajweed and Arabic Phonetics

Tajweed is often seen as a separate entity compared to other fields of knowledge related to logical and scientific theories produced by mankind. Teaching and learning of tajweed is considered very different from other fields of knowledge in two aspects, namely measurability and objectivity. The development of modern sciences such as biology, chemistry, physics, astronomy and so on depended heavily on scientific logic and required very little memorisation. In other words, tajweed is considered very subjective and mastering it is largely based on imitation or guesswork. This can be proven through its learning system that only focuses on the *talaqqi musyafahah* methods.

The *talaqqi musyafahah* methods in the teaching and learning of tajweed is considered as the one and only best technique that enables the correct enunciation of Arabic letters via direct correction by the teacher immediately after listening to the student. The *talaqqi musyafahah* methods are where the teacher sits face-to-face with the student and demonstrates the correct recitation of the verses of the al-Quran. When the teacher is reciting the al-Quran's verses, the student is able to see the correct methods of recitation through the movement of the mouth and lips of the teacher (Zahiah & Mustapha Kamal 2011). The implication from this assumption is that differences in pronunciation and recitation often occur. This gets even more confusing when the differences are explained by attributing them to the teacher's way of pronunciation or *sanad* (chain system). Small or noticeable differences in pronunciation or recitation cannot be explained accurately. It involves speech, length, tone, intonation and so on.

In contrast, Arabic phonetics is an objective and logical science based on extensive research. The accuracy of the articulated sound can be measured using modern equipment. Hence, phonetics is similar to sciences which do not utilise subjective measurement. Phonetics requires strong logical ability and accurate application processes so that results can be measured. This study attempts to prove that tajweed, considered by many as a field of knowledge that utilises subjective measurement, can be a measurable and objective field of knowledge when it is supported by applications and measurements in phonetics. Two main aspects which will be the theme of discussion in this paper are the *makhraj* system and the manner of the articulation system. This study attempts to explore the differences between tajweed and Arabic phonetics based on the accuracy of terms and differences in approaches and portray how both fields of knowledge are able to complement each other.

METHODOLOGY

This study sought to determine the differences between knowledge of Arabic phonetic in literature and some aspects of recitation and to find out similarities between several aspects found in the Arabic phonetics and tajweed which may help support the teaching and learning of tajweed of al-Quran. The methodology used in this study by comparing comparative analysis through existing literature, especially scholarly writing in phonetic and tajweed fields. This comparison analysis attempts to see the similarities and differences in the context of *makhraj* and the nature of the letters in terms of definition of terms, methods and techniques of learning, also their measurements.

RESULTS

Places of Articulation System (*Makhrāj*)

Scholars in tajweed define *makhrāj* as the place a letter comes out from (point of articulation) that is either from the throat or the mouth (al-Hallawi 1984). This definition is still considered subjective and general compared to the definition given by phonetic experts. The general characteristics found in this tajweed term are quite indefinite and may cause people who read the al-Quran to assume that that the *makhrāj* is something very vague. Therefore, students can only guess and imitate the sounds based on what they see and hear from their teacher.

In this matter, some criticisms can be found in the definition of *makhrāj* which is still defended by tajweed experts. Ahmad Sayuti (2014) scrutinised a few aspects in relation to the definition of *makhrāj* from the perspective of tajweed experts and among these are:

1. The use of the term “letter” for *makhrāj* is said to be a less accurate definition. Letter is a product of writing which is written and can be read. If *makhrāj* is considered a letter, then it must be written and not only uttered as a sound. The liberal use of the term “letter” in writing or in speech has caused confusion among learners. The use of the term “letter” caused students to become slow in understanding the term *makhrāj* accurately. It will be different if *makhrāj* is connected with sound (definition given by phonetic experts) so that students will automatically understand that *makhrāj* is a process of producing sound in a certain manner.
2. The definition of *makhrāj* from the perspective of tajweed experts is still considered subjective because the point where a sound is produced has not been determined and only one speech organ is mentioned. However, in reality, sound cannot be produced without the use of two speech organs. This is different from the definition of *makhrāj* from the perspective of Arabic phonetic experts which clearly states that sound cannot be produced without two speech organs working together.

Makhrāj, from the perspective of Arabic phonetic experts, is defined as a specific spot in the windpipe which is the point of cooperation between two speech organs, namely an active speech organ and a passive speech organ (Bisyr 1991). The active speech organ will move and work together with the passive speech organ to produce sound. The definition given by phonetic experts does not go against the definition given by tajweed experts. In fact, it supports the definition of *makhrāj* given by tajweed experts by giving it more detail and objectivity.

If we observe the determination of the articulation point (*makhraj*) in the phonetic definition, clear boundaries can be found. It enables the utterance of each letter to be measured without imitation or guesswork. This is due to the definition which states that the two speech organs will work together to produce certain sounds until they cannot widen or lengthen any further. Ideally, tajweed needs to be taught clearly and accurately instead of relying on traditional approaches only. The explanation of the definition of *makhraj* will be clearer and it will be able to be measured accurately when phonetics is integrated into the teaching and learning of tajweed.

Based on a few definitions given by tajweed experts regarding *makhraj* and the characteristics of letters, these tajweed experts did not make use of any tools or discoveries made by other experts. This clearly differs from the development of other sciences which are constantly evolving and making use of new discoveries in other fields. In reality, when the teaching and learning of a particular field of knowledge is done without tools or accurate measurement, the description of their observation would be considered less accurate. It is rare for speech organs to be explained in detail in the teaching and learning of tajweed even though these details are essential in order to understand the *makhraj* and manners of articulation found in the al-Quran.

Manner of Articulation System (*Sifat al-Hurf*)

Manner of articulation (*sifat al-Hurf*) is important in the learning of the Arabic alphabet. The ability to understand the phonetic properties of each letter enables the individual to differentiate the characteristics between letters even though the letters possess the same point of articulation (*makhraj*). Manners of articulation have been mentioned in tajweed and phonetics. Even though the terms used are different, the scopes are similar. This paper highlights four manners of articulation, namely voiced sound (*jahr*), voiceless sound (*hams*), plosive (*syadidah*), fricative (*rakhwah*), thick sounds (*tafkhim*) and thin sounds (*tarqiq*).

1. Voiced Sound (*jahr*)

The voiced sound in tajweed is known as a *majhur* letter. Students normally learn how to produce this sound via memorisation after listening to the teacher's pronunciation; however, the process as to how this sound is produced is not explained. Furthermore, the teaching and learning approach of tajweed does not employ specific measurements to determine whether the students' utterances are accurate or otherwise. The situation is made worse with tajweed teachers who have yet to fully master the process of producing the *jahr* sound correctly as well as ways to differentiate it from the *hams* sound.

In tajweed, the voiced sound or *jahr* is defined as a loud sound which is created as a result of obstructed breath that is produced along with it (Ibn Jazari t.th). This definition is different from phonetic explanation which is clearer and is able to be taught accurately. The voiced sound (*jahr*) in phonetics is defined as sound produced as a result of two vocal cords located in the larynx vibrating repeatedly (Bisyr 1991). This sound occurs by completely covering the air passage, thereby obstructing the airflow behind the valves. When that obstruction is released and the two articulators in contact are abruptly separated, the internal air with higher pressure that was previously obstructed will be released and subsequently come into contact with air from the outside with lower pressure. This will produce air that escapes through the mouth in a burst.

To put it simply, sound is produced by involving more than one articulator and can be explained as follows:

- a. Two articulators come into contact with each other to obstruct the air passage.
- b. Airflow behind the valve is blocked when two articulators meet.
- c. Both articulators are abruptly separated and air is released.

It is understood that air or breath of air is obstructed from coming out based on definition of voice sounds. Sounds which are too loud depend on *makhraj*. The air obstruction factor can be clearly understood via explanation from a phonetic point of view where the air obstruction factor is caused by two vocal chords located in close proximity which vibrate during sound production. In this situation, phonetics can be applied in the teaching and learning of tajweed based on the explanation regarding the roles of speech organs in the production of sounds. The detection of voiced sounds in the teaching and learning of tajweed is not as easy as in phonetics, hence resulting in students employing subjective measurement when trying to determine voiced sounds.

2. Voiceless sound (*hams*)

Voiceless sound (*hams*) in tajweed is identified as the letter *mahmusah* which is defined as a weak sound that is produced along with unobstructed breath (Ibn Jazari t.th). From this definition, it can be concluded that there are three issues related to *hams*, namely; 1) what is obstructed is breath, and not sound, even though the context of discussion revolves around sound; (2) the definition of this sound does not mention the role of vocal chords, or other speech organs in the formation of voiceless sound; and (3) the definition of voiceless sound (*hams*) could be confused with fricative sound if it is not explained clearly.

In this context, fricative sound is defined as a sound that is produced as a result of weak obstruction in the air passage from the lungs or other channels which do

not obstruct the flow of air (Anbar 1990). The perplexing definition of voiced sound and explosive sound confuses students and this causes them to be unable to detect the voiceless sound accurately and thus, is only able to carry out subjective measurements.

On the other hand, voiceless sound (*hams*) has been defined as sound that is produced when two vocal chords located far apart from each other in the larynx do not vibrate during articulation (Bisyar 1991). In phonetics, the manner of articulation of *jahr* and *hams* can be detected by feeling vibrations at the tip of the fingers placed on three parts of the body namely both ears (cover both ears with fingers), the Adam's apple and the crown when enunciating the relevant letters. When vibrations can be felt at the tip of the fingers or at the palm of the hand, the sound produced can be identified as a voiced sound (*jahr*). In contrast, when there are no vibrations felt, it can be ascertained that the sound produced is a voiceless sound (*hams*) (Ahmad Sayuti 2014). Ahmad's view is based on the definition of the manner of articulation of *hams* and *jahr* that is whether vibrations occur or otherwise.

3. Plosive sound (*Syadidah*)

The plosive sound is known as *syadidah* in tajweed. *Syadidah* is defined as a letter which is strongly connected to its *makhraj* as the sound produced experiences obstruction upon exit because there is a strong dependency on *makhraj* (Qamhawiy 1978). There appears to be a confusing issue with this definition that is the letter experiences difficulty upon exit during articulation due to its strong dependence on *makhraj*. This statement is hard to understand. It might be easier, for instance, to say that the sound experiences difficulty during articulation because there is strong obstruction found on the *makhraj*. A subjective situation like this may cause the learner to carry out subjective measurements when it comes to sound production.

In the phonetics field, plosive sound is defined as sound produced due to the total occlusion of the flow of air which obstructs the passage of air flowing out from the lungs (Anbar 1990). The air will escape with a plosive sound when the stoppage is released. This definition is much clearer and can be proven with accurate measurement when the manner of articulation is being explained.

4. Fricative sound (*Rakhwah*)

The fricative sound is known as *rakhwah* in tajweed. *Rakhwah* is defined as a letter which does not strongly depend on its *makhraj* and the sound is easily produced during articulation because of its weak dependence on *makhraj* (Anbar 1990). This definition of fricative sound is also confusing as with the previous tajweed definition for plosive sound. In contrast, fricative sound in terms of phonetics is defined as

sound that is produced due to weak obstruction in the air passage which hampers the air flow from the lungs (Anbar 1990).

In order to detect the fricative sound and plosive sound, articulation can be done without *harakat* and left for a while without releasing its *makhraj*. When no air is able to escape and breathing is disturbed, it can be ascertained that the sound is a plosive sound. In contrast, if the sound still produces friction and breathing is undisturbed when the sound is produced without *harakat* for a few seconds, it can be confirmed that the sound produced is a fricative sound. This definition is clearer and the testing methods are also more accurate. Applying this definition in the teaching and learning of tajweed of *al-Quran* can help to produce a more precise understanding, and students will also be better able to differentiate between plosive sound and fricative sound.

5. Thick Sounds (*tafkhim*) and Thin Sounds (*tarqiq*)

The thick sound in tajweed is described as *tafkhim*. It is a usual practice in the teaching and learning of tajweed to teach *tafkhim* using the concept of thickening the sound by compressing air during articulation and making it stronger (Sa'udi 1990). On the other hand, a thin sound is known as *tarqiq*, specifically *Tarqiq* is the thinning of sound by weakening it during speech (Sa'udi 1990). In the teaching and learning process, *tafkhim* has often been measured by rounding the mouth as a sign of compressing air whereas *tarqiq* is measured by the widening movement of the mouth, for example with a smile.

Tarqiq and *tafkhim* are two issues which are very difficult to understand in learning the recitation of the *al-Quran*. The definitions given by tajweed experts are often unclear and cause students to become confused with the terms 'thick' and 'thin' and this leads to problems in application. As a result, students will only produce sounds by imitating and making subjective guesses.

On the other hand, phonetics explains the production of the thick sound and thin sound clearly. *Tafkhim* (thick) is a sound that becomes thick during articulation due to the elevation of the tongue towards the palate. Based on the observations by phonetic experts, the formation of a thick sound (*tafkhim*) requires the elevation of the tongue in the mouth. This is the only way to differentiate between a thick sound (*tafkhim*) and a thin sound (*tarqiq*) (Bisyr 1991).

The pronunciation of the letters *sin* (س) and *dzal* (ذ) are *muraqqaq* sounds (read thinly). When the letters *sin* (س) or *dzal* (ذ) is articulated, the tongue is not lifted towards the palate. When articulating the letter *sin* with an elevated tongue in the mouth, it will immediately change to become the letter *sad* which is *tafkhim* from

the letter *sin*. The same goes for the letter *dzal* (ذ) which is articulated by not lifting the tongue towards the palate. When the letter *dzal* (ذ) is articulated by an elevated tongue in the mouth, it will immediately change to become the letter *Zo'* (ظ) which is *tafkhim* from the letter *dzal* (ذ).

When tajweed is combined with the measurement techniques in phonetics, it is able to produce results which can be proven clearly. This is because the definition of thick and thin sounds in phonetics is very precise and can be applied easily. Anyone will be able to articulate the sounds accurately and avoid making subjective assumptions. This is important to prevent tajweed from being considered as a product of rote learning, more so when there are individuals who still think that tajweed is holy knowledge where its teaching methods cannot be changed.

DISCUSSIONS

The study found that there are some gaps between this knowledge in terms of understanding of the definition, sources and approaches in pedagogy. However, results show that the differences between these two fields of knowledge are intertwined and complement each other.

Arabic Phonetics as Supporting Knowledge

A survey was carried out on several modern tajweed books in Malaysia and it was found that the determination of the articulation point of the letter *makhraj* in most of the books no longer hold on to the definition of “from the mouth or larynx”. However, most books seem to lean towards the opinions of al-Khalil and Sibawayh who determined the number of *makhraj* as 17 or 15 speech organs respectively. Al-Khalil and Sibawayh were famous phonologists in the past who used traditional approaches such as actual speech events and auditory effect. This is different from modern Arabic phonetics where total number of speech organs determined by phonetic experts was 10 and 23 pronunciations were found.

However, the difference in the number of *makhraj* determined by phonetic experts and *tajweed* experts is not obvious. Only a few letters such as خ, غ and ض caused some conflict as it can implicate other tajweed laws (Surur 2015). Besides these letters, there are no obvious differences and ideally the similarities between these two fields of knowledge should be fully utilised to bring forth new developments to tajweed of al-Quran. *Qurras* today should take steps to review facts on *imams* in the past and at the same time make use of the latest developments in the field of phonetics in order to simplify the teaching and learning of the al-Quran. The Arabic consonant and the Malay consonant equation are as shown in table 1.

TABLE 1 Arab Consonant and Malay Consonant Equations

Arab Consonant	Malay Consonant
<i>Waw</i> / و /	/ w /
<i>Mim</i> / م /	/ m /
<i>Lam</i> / ل /	/ l /
<i>Fa'</i> / ف /	/ f /
<i>Nun</i> / ن /	/ n /
<i>Ba'</i> / ب /	/ b /
<i>Ya'</i> / ي /	/ y /
<i>Dal</i> / د /	/ d /
<i>Shim</i> / ش /	/ sh /
<i>Hamzah</i> / ء /	/ ? /
<i>Kaf</i> / ك /	/ k /
<i>Ha</i> / ه /	/ h /
<i>Sin</i> / س /	/ s /
<i>Jim</i> / ج /	/ j /
<i>Ta'</i> / ت /	/ t /

Furthermore, in terms of resources, there are claims that phonetics in the past tended to follow the approaches of other civilisations in terms of the *makhraj* order. For instance, it was not clear in terms of where the approach al-Khalil used to determine the *makhraj* order originated from until there were claims that his approach, which determined that the *makhraj* order started from the throat, was based on the *makhraj* approach of ancient civilisations such as Hindu (Syawqi 1989) and Greek (al-Zubaydiy t.th). This shows that the techniques used in tajweed to determine *makhraj* and manner of articulation is not *qat'ie* (conclusive) and has the potential for further development. Nonetheless, parts of the tajweed related to *wahyu* (revelation) are still under the control of al-Quran scholars and are maintained within certain boundaries.

Most of the elaboration on number of laws (rules) and *makhraj* in tajweed are still influenced by the views of Arabic phonologists from the past such as al-Khalil and Sibawayh. This situation has become a central topic for discussion in tajweed such as the arguments surrounding the *turath* scriptures. For example, Sibawaih (760- 796 M) failed to put forth a diagram of speech organs in order to explain the determination of *makhraj* and manners of articulation from speech organs, especially in his work, *al-Kitab, Bab al-Idgham*. Furthermore, his descriptions of the speech organs are also not as effective in the teaching and learning of *makhraj*. As a result, students often lament on the difficulty in mastering the *makhraj* chapter and

manner of articulation due to the confusion in detecting the *makhraj* and difficulty in differentiating between one manners of articulation from another.

The situation described above is different from Ibn Sina and other modern phonology experts such as Ibrahim Anis, Abdul Rahman Ayyub, Tammam Hasan and others who explained about speech organs by presenting diagrams on the anatomy of human speech organs. The description on how *makhraj* is produced using diagrams of the anatomy of speech organs makes learning better and easier to understand. Ideally, teachers and students should learn about speech organs which are depicted visually and thus diagrams on speech organ anatomy are considered very useful in the teaching and learning of tajweed. Teaching using visual teaching aids such as diagrams has been found to be more effective compared to teachers giving a general explanation of *makhraj* of Arabic letters in class.

The use of speech organ diagrams is also necessary as a teaching aid to help teachers explain where sounds are produced. Al-Nashmiy (1980) suggested that teachers choose teaching techniques which can engage students, make them interested in the subject, thereby enabling students to retain information discussed in class for a longer period of time. The learning of *makhraj* and manner of articulation will become clearer and more objective if pronunciation can be enhanced via the demonstration of speech organs involved and the articulation process which occur using diagrams of the anatomy of speech organs. The *talalqqi musyafahah* methods used can be improved if teachers incorporate the use of diagrams as a teaching aid in their tajweed classes. With this, the teaching and learning process can be enhanced. The meaning of *makhraj* (term area) and Arabic consonant articulation shown in figure 1.

In the past, a few techniques used in the teaching of tajweed of the al-Quran to detect the *makhraj* are finger signals or mirrors. Finger signals are usually used in the counting of the *harakat* that is by tapping or counting with the fingers, and clutching the fingers to form a fist is used as a signal to measure *ghunnah* (nasalization), whereas forming a circle with the fingers is used to signal *tafkhim*, which is a thick sound. These finger signals appear as if they correspond with the shape of the mouth when a letter is articulated. Same goes for the use of mirrors which are placed in front of students in order to make it easier for them to detect the manners of articulation such as rounding the lips as a sign to produce thick letters and so on (al-Ghamdiy & al-Ansariy t.th).

The use of modern equipment in the field of phonetics to detect *makhraj* should also be used to complement techniques from the past. For example, al-Quran labs should be equipped with modern phonetic tools such as spectrographs and so

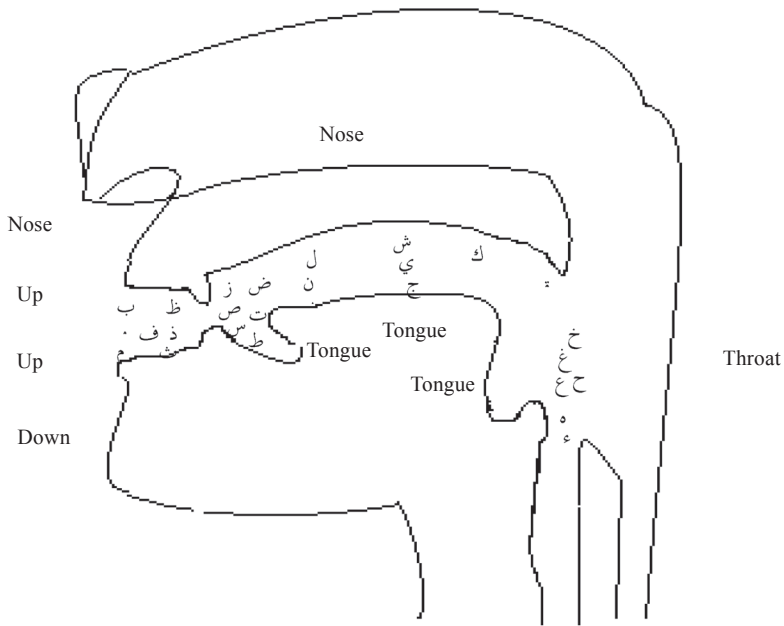


FIGURE 1 Position of *Makhrāj* and Arab Consonant Articulation

on. These facilities will not undermine tajweed in any way but instead serve as supporting tools in the teaching and learning of tajweed of the al-Quran. Along with the latest developments in technology, the learning of the al-Quran is now supported by a myriad of tools such as printed media, communication media, websites and compact discs (Norasikin Fabil et al. 2003).

In addition, the development of contrastive phonetics should be used in the teaching and learning of tajweed of the al-Quran. The contrastive approach between the *makhrāj* of Malay letters and Arabic letters will enable students to differentiate accurate and less accurate pronunciations better. This approach is also able to give students a clearer picture on how phonetics work and provide support for teachers to focus on *makhrāj*, which has a higher difficulty level.

Suggestions to Make Use of Phonetics in Tajweed of the al-Quran

Few suggestions should be considered by parties directly or indirectly affiliated with the study of the al-Quran so that development of Arabic phonetic studies and modern technology can be utilised to the fullest. The suggestions are listed as:

1. Teachers and students should receive pronunciation practice with the help of al-Quran labs equipped with modern phonetic equipment.

2. The teachers should focus on the student's needs, the level and capabilities of the students, not separating the element of pronunciation in the daily communication practice and focusing on both the main features of segmental and supra-segmental. The mention of not only suppressing the aspect of sound and correct speech production in reading skills should be seen as an important element in communication that needs to be applied in classroom activities.
3. Using a contrastive analysis by comparing the features between the native language and the target language will indicate that language student difficulties may be expected. Through this contrastive comparison, linguists can explore the sounds and pronunciation of certain native speakers that may be found to be constraints and obstacles in learning the target language. For example, Malay speakers may have difficulties in exploring the Arabic consonants that involve the *halkum* organ such as 'ghayn' and 'ha' consonant.
4. There is a need to combine the expertise of tajweed instructors as well as support from modern Arabic phonetic equipment for advice and guidance on the development of tajweed.
5. The use of teaching aids such as charts showing the anatomy of speech organs should be made compulsory so that the teaching and learning of tajweed can be made more effective.
6. Set up a conducive learning environment such as phonetic labs facilitated by al-Quran experts.
7. Disseminate the advantages of using phonetic equipment and utilise them in the field of tajweed of the al-Quran and compete with other nations which are experts in the field of phonetics.

CONCLUSION

The teaching and learning of tajweed can be made easier if it is supported and integrated with new discoveries in the field of phonetics. Several discoveries in modern phonetics which are easily measurable can be applied for the development of tajweed and its application in learning. More emphasis should be given to the definition of certain terms in tajweed as well as theoretical techniques which may cause confusion such as *makhraj*, manner of articulation, thick and thin sounds.

Based on the latest discoveries and phonetic studies, the teaching and learning of tajweed should utilise the latest developments in the field of phonetics to increase its objectivity, enhance its academic development and make it easier for people who are learning to recite the al-Quran. Integrating phonetics into tajweed may also increase public interest in the learning and mastery of the al-Quran.

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