



INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES



Scientific *I'jaz* in *Qira'at*

Sabri Mohamad, Mohd Faizulamri Mohd Saad, Hamdi Ishak

To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v11-i12/11680> DOI:10.6007/IJARBSS/v11-i12/11680

Received: 03 October 2021, **Revised:** 08 November 2021, **Accepted:** 27 November 2021

Published Online: 12 December 2021

In-Text Citation: (Mohamad et al., 2021)

To Cite this Article: Mohamad, S., Saad, M. F. M., & Ishak, H. (2021). Scientific *I'jaz* in *Qira'at*. *International Journal of Academic Research in Business and Social Sciences*, 11(12), 1677–1691.

Copyright: © 2021 The Author(s)

Published by Human Resource Management Academic Research Society (www.hrmars.com)

This article is published under the Creative Commons Attribution (CC BY 4.0) license. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this license may be seen at: <http://creativecommons.org/licenses/by/4.0/legalcode>

Vol. 11, No. 12, 2021, Pg. 1677 – 1691

<http://hrmars.com/index.php/pages/detail/IJARBSS>

JOURNAL HOMEPAGE

Full Terms & Conditions of access and use can be found at
<http://hrmars.com/index.php/pages/detail/publication-ethics>



INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES



www.hrmars.com

ISSN: 2222-6990

Scientific *I'jaz* in *Qira'at*

Sabri Mohamad, Mohd Faizulamri Mohd Saad, Hamdi Ishak

Research Centre for al-Quran and al-Sunnah, Faculty of Islamic Studies,

Universiti Kebangsaan Malaysia, UKM

Email: sabri_m@ukm.edu.my

Abstract

Scientific *i'jaz* (in context: defined as inimitability of Quran and refers to the belief that none has been successful to imitate the Quran due to the miracle of the contents and form) in *quranic qira'at* is one of the many forms of *i'jaz* of the Quran, which has its own attractiveness and beauty. The various form of *i'jaz* are existed in few aspects, which were in the linguistic, the unseen things and scientific explanation. This paper discussed about the approach of *i'jaz* that was found in *qira'at* to develop the Quranic generation. The exposure and explanation of scientific *i'jaz* in the methods of Quranic recitation is necessary to generate numerous benefits. Among the benefits was explanation regarding the interpretation were more accurate and show the miracles of the Quran. The data were collected through literature reviews and documents analysis according to the discussion topic. Different views from various scholars were also added in the discussion section. The finding showed that scientific *i'jaz* in *qira'at* can help mould an excellent and eminent Quranic generation. It is recommended for further research to studies about the implementation of scientific *i'jaz* in the *huffaz* syllabus as one of the approach to develop Quranic generation with integrated-knowledge.

Keywords: Scientific *I'jaz*, Methods of Quranic Recitation, *I'jaz* of The Quran, Quranic Generation

Introduction

This research will discuss about scientific *i'iaz* in *qira'at* in the developing of Quranic generation. The discussion will be classified into three major topics, starting with the explanation of the meaning of scientific *i'jaz*, and other related matters. Then, some examples of the different forms of Quranic recitation, which related to scientific *i'jaz* will be highlighted. The final part is the approach of *i'jaz* in *qira'at* to develop Quranic generation and get benefit from various types of *qira'at*. However, the discussions about *qira'at* in this paper are still open for further studies.

Meaning of *I'jaz 'Ilmiy* (Scientific *I'jaz*)

The Quran is a great miracle of the Prophet Muhammad PBUH (Peace Be Upon Him) which challenged the Arab people and their intellectual to compete it. However, the creation will

always have weakness and therefore, it is urgent and vital to have the need towards the creator, Allah Almighty.

I'jaz, literally means 'to prove weakness' and means the inability to do something. The word *i'jaz* comes from the root word *'ajaza* (عجز) which means: weak. It is the opposite word of, *al-Qudrah* (القدرة) which means: strong. The word *'ajaza* also comes from, *al-Ta'akhur a'n al-Syay-ie* (being late for something) (Al-Razi, 1999). Literally, it also means: 'A miracle from Allah Almighty to His Prophet to prove their truth' (Iskandar, 2002). Contextually, it means: 'To reveal the Prophet's truth in his *da'wah* (preaching) by proving the inability of the Arabs to compete against it, the miracle which lasts forever' or 'something that is unusual, and serves as a challenge, and free from any obstacle' (Al-Qatthan, n.d.). Allah Almighty challenges if anybody could come up with a match or compete with His words, through three levels (Al-Qatthan, n.d.):

1. A public challenge for all mankind and jinn to come up with something that is as of the same quality as the Quran. Allah Almighty said in the Quran: Say, "If mankind and the jinn gathered in order to produce the like of this Quran, they could not produce the like of it, even if they were to each other assistants." (Chapter Al-Israa: 88).
2. Allah Almighty challenges anybody to come up with 10 chapters from the Quran. He said in the Quran: Or do they say, "He invented it"? Say, "Then bring ten chapters like it that have been invented and call upon [for assistance] whomever you can besides Allah, if you should be truthful." (Chapter Hud: 13).
3. Allah Almighty calls upon mankind to come up with only one chapter. He stated in the Holy Quran: "And if you are in doubt as to which We have revealed to Our servant, then produce a chapter like it and call on your witnesses beside's Allah if you are truthful." (Chapter Al-Baqarah: 23).

When the shortcomings of man and the inability of their minds and knowledge are proven, then it is only right to acknowledge the power of the Quran: the beauty of its words, which covers all the needs of mankind in this world and in the hereafter. In fact, its perfectness and miraculousness are all found in the Quran, whether we are able to comprehend it or not.

Whereas the definition of *'Ilmiy* (Science) is: one of the branches of knowledge which research about proven texts, or facts that are arranged systematically and compiled in the form of common laws (Nordin, 1990). If we relate it to the Quranic exegesis, it means: "Exegesis which describe in detail about the definitions of science in Quranic verses and extract various knowledge as well as philosophical views." (Al-Dhahabi, n.d.).

A Brief Explanation on the Various Forms of *I'jaz* in the Quran

Among the various forms of *I'jaz* in the Quran are:

1. *I'jaz* from the Lingual Aspect

Example: There is a very strong meaning in these two words: *'as'as* (عسس) and *tanaffas* (تنفس). These two words are also perfect (meaning-wise). They are also arranged beautifully, nice to recite and listened. This shows the miracle of the Quran from its lingual aspect, which cannot be denied and competed by the linguists. Ibn Kathir said that, in this verse, there is *al-Saja'*, which means that the last two alphabets are the same in two stops, which leads to it being nicely recited and beautifully listened (Ibn Kathir, 1998).

An example for the above is in the word: *atthaqaltum* (اثقلتم). There is a beautiful art from the aspect of alphabet arrangement, and a sound that is parallel to its meaning. There is a *tashdid* (ّ) on the *tha* (ث) and the *madd* (prolongation letters) after. Then, the *qaf* (ق) is one of the *qalqalah* (a slight bounciness sounds) alphabets. The last alphabet; the *ta' al-maftuhah* (ت) and the *mim* (م), and their *makhraj* (the discharge place of letters) is the lips and their sound are produced from the nose. From the aspect of the alphabet arrangements, it shows *al-harakah al-bati'ah*; slow movement and shows that it is a bit difficult to be pronounced, but at the same time it is pleasant to the ears when recited, and goes well with the meaning, which is: 'you feel reluctant to go for jihad.

2. Scientific *I'jaz* in the Quran

The second form of *i'jaz* is, verses from the Quran which demonstrate science to us, and its relation to Allah's mightiness and power.

Among the verses which are related to science are:

a) The sun produces light, and the moon reflects light from it.

Allah Almighty stated in the Quran: "It is He who made the sun a shining light and the moon a derived light and determined for it phases - that you may know the number of years and account [of time]. Allah has not created this except in truth. He details the signs for a people who know." (Chapter Yunus: 5).

b) The lack of oxygen in the high levels of the sky, causing men a difficulty to breathe and it has already been mentioned in the Quran.

"So whoever Allah wants to guide - He expands his breast to [contain] Islam; and whoever He wants to misguide - He makes his breast tight and constricted as though he were climbing into the sky. Thus, does Allah place defilement upon those who do not believe." (Chapter Al-An'am: 125).

c) The uniqueness of the thumbprint for every individual. Allah Almighty mentioned in the Quran, "Yes, (We are) able (even) to proportion his fingertips." (Chapter Al-Qiyamah: 4).

3. *I'jaz* of the Unseen (*Al-Ghayb*) in the Quran

I'jaz of the unseen means strengthening the truth of the Quran that it truly comes from Allah, and there are no doubts and faults in it. It has told unseen stories, which had happened 15 centuries before the time of Muhammad PBUH and until now. It also informs us about the unseen matters that have not yet happened, and is promised to happen in the future. The unseen matters that have been mentioned in the Quran had really taken place, and among the stories are:

a) The story of Prophet Nuh and his people, which were among the first on Earth. The Quran informs us that Prophet Nuh, for 950 years, had persuaded his community and clan to worship Allah Almighty and leave worshipping any other thing or being apart from Him, but to no avail. Prophet Nuh prayed to Allah Almighty to help him in his *da'wah* (preaching), and Allah had sent down a heavy rain which drowned all of the disbelievers. In the Quran: "That is from the news of the unseen which we reveal to you, [O Muhammad]. You knew it not, neither you nor your people, before this. So be patient; indeed, the (best) outcome is for the righteous." (Chapter Hud: 49).

b) Knowledge of *i'jaz* of the unseen which happened during the time of Prophet Muhammad PBUH. There were incidents which happened during the lifetime of the Messenger of Allah, but he did not see or witness them himself and therefore, the Quran told him about them. For example, Allah Almighty had revealed about the

Munafiqins' (hypocrites) deceit and trickery. The *Munafiqin* (hypocrites) during the time of the Prophet had planned to trick the Muslims secretly, but they knew and felt scared in their hearts that Allah would expose their deeds. Allah Almighty said: "The hypocrites fear that a chapter should be revealed about them, informing them of what is in their hearts. Say, "Mock (as you wish); indeed, Allah will expose that which you fear." (Chapter Al-Taubah: 64).

Based on the facts above, among the main aims of the *i'jaz* of the unseen is to confirm the truth of the Prophet's message, as Allah said in the Quran: "And it was not (possible) for this Quran to be produced by other than Allah, but (it is) a confirmation of what was before it and a detailed explanation of the (former) scriptures, about which there is no doubt, from the Lord of the worlds." (Chapter Yunus: 37).

Exegetes' view about *Tafsir 'Ilmiy* (Scientific Exegesis)

The exegetes have different views about doing interpretation from the scientific aspect, be it accepted or not. If we were to look in the book *'Ulum Al-Quran*, the differences have been stated clearly on the first level and till now, whether it is accepted or refuted. Briefly, we can classify their views into three groups. The first group is the scholars who accept the scientific exegesis, now and then. Among them are Fakhr al-Din al-Razi (606H), Abu Hamid Al-Ghazali (505H), Jalal al-Din al-Sayuthi (911H). Whereas the second group, are the scholars who refute the scientific exegesis, now and then. Among them is al-Shatibi (790H). For the last group, they are scholars who agree and accept the scientific exegesis, with the requisition that they follow the rules of exegesis that have been laid down by the exegetes. This is to prevent scholars from exaggerating in their interpretation. Among the scholars who are included in the third group are Sheikh Muhammad Abu Zahrah, Sheikh A'bd al-A'zim al-Zarqani and the rest.

The most *rajih* (correct) view: The chosen view is the view of the third group, scientific exegesis of the verses should be done following the rules, because ('Abbas, 1999) it is an important matter, pertaining to time and place. Furthermore, the view saying that to totally refute the scientific exegesis is unaccepted. The Quran is not a poetry collection, but it is a guide for mankind. Therefore, every Muslim must try to conduct research about Quran to not let the miracle left unravel. Based on the facts, which have been discussed, scientific exegesis is accepted, but the exegetes will have to abide by the rules which have been laid down as follow ('Abbas, 1999):

1. Scientific exegesis should not contradict with Arabic language and its syntax and basic *Balaghah* (Arabic literature).
2. The scientific fact should not contradict with Hadith which are *ma'thur* (tradition) from Prophet Muhammad.
3. The scope of discussion should not be expanded, till it becomes a science book instead of an exegesis book.
4. Scientific exegesis should not be interpreted based on theories. It should be interpreted based on facts founded and based on research.
5. *Al-Kawaniyyat* verses should not be interpreted except by the exegetes and those who have deep knowledge in it.

Based on the facts stated above, the method could be classified into *al-Tafsir bi-Ra'yi* (reason-based exegesis), in the knowledge of the Quran.

Definition of *'Ilm Qira'at* (Recitation Knowledge) and its Source

The word *qira'at* literally and contextually means:

- a) **Literally:** The word *qira'at* is a plural of the word *qira'ah*. It is derived from the root word *Qara'a*. It is said that *qara'a, yaqrau, qurana* means: He has recited, he is reciting, recitation with the meaning of 'reciting' and 'reciter'. (Majma' al-Lughah al-'Arabiyyah, 1985).
- b) **Contextually:** There are many definitions which came from the scholars (Bazamul, 1996) which was: A knowledge, which is known from it, the proper way to recite the words of the Quran and the way to practice it, be it the way agreed upon or the way disagreed upon, where every different way to recite is named after the one who brought it.
- c) **Source:** *Qira'atal-Quraniyyah* (Quranic recitation), the practice will not be produced, only except through *talaqqiy* (learning from one-to-one), and, accept all the different schools of recitation (the *Mutawatirah*) and practice it exactly like the Prophet Muhammad, as taught by his teacher, Jibril and revelation of Allah (Syukri, al-Qudah & Mansur, 2001).

Relationship between *Qira'at* and Science

The Quran is the words of Allah Almighty which the contents were about life and living. Based on the views of scholars, the Quran contains more than 750 verses which are related to this life and other phenomena (Shihab, 1996). The findings on science in those verses would not make the Quran is a science book, but rather the aim is to let mankind think and contemplate as to make themselves nearer to the Creator of the worlds, Allah Almighty.

Qira'at is the difference of the pronunciation of the words in the Quranic verses, and it has many benefits. Such as that it could clear differences (*khilaf*) and also preserve the pronunciation of the words in the Quran from unnecessary changes. The same goes for the advantage of differences in *qira'at* in relation to science.

These scientific findings are proven to support and not to contradict with the Quran, thus leading to the fact that the Quran is a miracle. Though some words in the Quran are being pronounced differently, this is a form of Allah's mercy on the Muslims. Among the mercy is that, it opens a path for scholars to unravel the mysteries and miracles behind the differences, and at the same time proving the truth of the Quran. The differences in *qira'at* do not mean a difference in the meaning or a different interpretation on the whole, but it serves to complement another verse. Therefore, *qira'at* and science form a whole harmonious relationship and bring us to understand the aspect and content of the Quran with a wider and deeper view, thus proving the authenticity of the words of Allah, which would never contradict among one another.

Analysis of *I'jaz Qira'at* (Recitation *I'jaz*)

The purpose of the discussion is not to glorify science, but instead to integrate the knowledge of science to glorify the Quran within the permissible limit.

1. The Different Forms of Quranic Word Recitation of *Nunshiruha* (نُنشِرُهَا) and *Nunsyizuha* (نُنشِرُهَا)

The creation of bone is one of the wisdom and sovereignty of Allah Almighty. The word 'bone' was mentioned in Chapter al-Insan verse 28, which explains about the process of embryology,

and also mentioned in Chapter al-Qiyamah verse 4, and Chapter al-Mukminun verse 14. In Chapter al-Baqarah verse 259, the word 'bone' is also stated which contains *i'jaz 'ilmiy* (scientific *i'jaz*), and there is a different *qira'at*, which will be discussed in the different section. Allah Almighty said: "And look at the bones (of this donkey) - how We raise them and then We cover (نُنشِرُهَا) them with flesh." And when it became clear to him, he said, "I know that Allah is over all things competent."

Different forms of *Qira'at*

The word *nunsyiruha* has two different recitations:

- a) Imam Nafi', Ibn Kathir and Abu 'Amru recite the word with a *ra' muhmalah*, means *nunsyiruha* (comes from the word *an-Nusyuur* which means: life) Allah Almighty says in the Quran: "Look at the bones of the donkey, how we brought it to life."
- b) The other scholars, Ibn A'mir, A'sim, Hamzah and al-Kisa-i read with *al-Mu'jamah*, means: *nunsyiruha*. The word is derived from *nasyara* which means: arrange. Allah states in the Quran: "Look, how We raise up the skeleton and set the bones (of the ass) and cover them with flesh and (put breath of life into them)."

Both of the different *qira'at* almost have the same meaning but the second meaning has deeper definition because it is entirely impossible for something that is dead to be back alive, if the bones are left scattered, unarranged. Therefore, with Allah's will and power, He brought back the dead to life with the arrangement of those scattered bones.

Exegete's views: Most of the exegetes say that the meaning of 'bones' are the bones of the donkey, but there are some who say that the bones refer to those of humans. The meaning of *kayfa nunsyiruha* is 'how We put life to it' while *kayfa nunsyizuha* means: 'how We cover them with flesh' (Al-Razi, 1999).

Scientific facts about bones and skeleton: Bones play a vital role in animals such as fish, horse, bird, snake, and also humans. The roles of bones are the same for all of the creatures (Florencio-Silva, Silva Sasso, Sasso-Cerri, Simões, & Cerri, 2015). In the human body for example, the arrangement of the bones form a system which is called skeleton. This system is made up of bones, and supportive structures like the ligament, cartilage, and joints. There are 206 bones in the skeleton that have really, hard and solid outer layers, and the middle hollow part which contains marrow (Molnar & Gair, 2015). Other than that, there are five main functions for the skeleton. First, the skeleton serves as a support for the body. It forms a firm shape for the attachment of soft tissues and to protect body organs. Second, is to serve as a protection, like the skull which protects the brain, and the rib cage which protects the lungs and heart, and the pelvic cavity which protects the kidney, and other vital organs as well. Then, the bones also enable the body to move around. The bones also help in the forming of cells. Other than that, a big part of the bone matrices are made up of minerals which make the bones strong and firm against any pressure (Molnar & Gair, 2015).

A very precise and detailed arrangement of the bones is something that is miraculous and has a specific aim in the body function. For example, the axial skeleton like the skull which contains the forehead bone, cheek bone, jaw bone, nose bone, back head bone, and the temple bone, are different types of bones and attached together like the arrangement of bricks, therefore it is impossible for the bones to rub against each other. Whereas the chest bone and the back bone together form as a shield for vital organs in the chest, heart and

lungs. Every bone is arranged in pairs, has the appropriate length for the process of expansion and contraction of the lungs during breathing (Molnar & Gair, 2015).

For the back bone structure, the arrangement of the back bone is made up of 33 segments of bones, and each of them has its own name. And all 33 segments of the bones can be divided into 5 parts, the neck bone, the thorax, hip bone, sacrum, and tail bone. In the arrangement of the bones, there is a nerves system, in which when the back bone is injured, it will affect the nerves (Molnar & Gair, 2015).

A very precise arrangement of bones is vital in connecting muscles in the process of moving the body. A human body, has more than 600 skeletal muscles. The skeletal muscles get attached to the bones directly, or with the help of the tendon. The muscles work in pairs, one contracts, and another expands, till the muscles can make different parts of the body move, like the hand and knee, which can be bent or straightened. The muscles can make the bones move with their ability to expand and contract (Maulana, 2010).

Conclusion of the Exegesis: Based on the findings of science, bones are the creation of Allah Almighty. It is perfect and flawless, appropriate with the body functions. In the first *qira'at*, the word *nunsyiruha* means 'bring it back to life'. As we all know, Allah Almighty is capable of bringing the dead to life, if He wills. The verse explains the way Allah brings back bones of the dead. Whereas in the second *qira'at*, the word *nunsyizuha* which means 'arranging it', explains further about the precise arrangement of the bones, and how it has its own place in the arrangement, enabling creatures such as snakes, donkeys, birds and also humans to function well. The importance of this arrangement of bones has been discussed in scientific facts and skeletal system. Therefore, both of these *qira'at* do not contradict each other from the exegetes' interpretation, but both of them are complementing one another and making precise the words that are used in the verse.

2. The Different Forms of Quranic Word Recitation of *Yas'adu* (يَضَعُدُّ) and *Yassa'adu* (يَصَعَّدُّ)

There are many verses in the Quran that explain phenomena such as wind and sky. For example, Chapter asy-Syu'ara, verse 33 explains about the role of winds in ship's sailing in the ocean and also Chapter al-Burj, verse 1 describes about the sky serves as a site for the stars and also explains about the concept of galaxy. Yet, there is another chapter that describes the wind and sky phenomena which contains scientific *i'jaz* as well as different types of *qira'at* on a particular word, Allah says: *"Those whom Allah (in His plan) wills to guide, He opens their hearts to Islam, and those whom He wills to leave straying, He makes their hearts close and constricted, as if they had to climb up to the skies, thus does Allah (heap) the penalty on those who refuse to believe."* (Al-An'am:125).

Different forms of *Qira'at*

- a) Ibn Kathir recites the word *yas'adu* as follows: *sod sukn* (صن) *a'in* (ع) without *shadda* (ّ), and without *alif* (ا), comes from word *sa'ida* (present tense) which means high. Allah states that the unbelievers cannot accept faith as it appears to them very tasking; as if they were to climb up to the sky. The oxygen level become less and difficult to breathe well.
- b) Shu'bah recites the word *yasa'adu* as follows: *sod shadda* (صّ), *alif* (ا) after it, and *a'in* (ع) without *shadda* (ّ). It has the same meaning as Ibn Kathir which he says that unbelievers cannot accept faith as it appears to them very tasking as if they were climbing up to the sky and unable to breathe.

- c) The other scholars like Imam Nafi', Abu A'mru, Ibn A'mir, A'sim, Hamzah and Kisa-i recite *yassa'adu* as follows: *sod shadda* and *fatha* (صَّ), *a'in shadda* (عَّ), and without alif (ا) which has a difference meaning from both reciters. The meaning of the word depicts the unbelievers' inability to have faith as if they were to climb up the sky gradually, and they feel congested because of inability to breathe. As they keep on proceeding higher, the more congested they feel (Mohamad, 1999).

Exegete's Views: Ibn Kathir recites the word *yas'udu* with letter *sod sukun* (صْ) which means climbing. Allah Almighty compares the unbelievers' situation toward their faith as if it is a burden to them and have no strength to climb up to the sky (Al-Qurtubi, 1999). Shu'bah recites it by pronouncing the word *yasa'adu*. The word originally comes from the word *yatas'adu* after changing letter *ta* (ت) to *sod* (ص) which means climbing gradually or one by one and feel the burden on it. Other reciters read the word by pronouncing as, *yassa'adu* which has the same meaning with Shu'bah's recitation. Ibn Mas'ud narrated that the meaning of words, *yassa'adu* and *yasa'adu* are the same. Both of these words describe about the difficulty of the unbelievers: as if they want to climb to the sky, but unable to climb it (Maulana, 2010).

Based on the explanation by Al-Qurtubi, it is believing that Chapter al-An'am verse 123, shows the miraculousness of the Quran from scientific perspective. Miracle is not only on the sentence itself, but it explains the miracle regarding different forms of *qira'at* among the seven reciters. The recitation of Ibn Kathir has been explained and supported by Shu'bah's recitation and others.

The Scientific Facts (respiration and altitude): Respiration is a process of mechanism which involves the movement of air from inside the lung to the outside. The process of air entering the lung is influenced by different air pressure on the chest's cavity with air pressure outside the body. Air enters the lung if air pressure outside the chest's cavity is higher. This process is known as inspiration or inhalation process of the respiratory mechanism (Molnar & Gair, 2015).

The air goes out of the lung if the air pressure inside the chest's cavity is intense. It is known as expiration. Respiration is a normal mechanism, but if we understand it in more detail, we can see it as a miraculous creation of Allah Almighty. Normally, people can breathe without any tools inside the atmospheric circumference. Atmosphere is an air layer which is surrounding the earth and it contains a several essential gases needed by all living things like oxygen, nitrogen, and others. There are seven different layers which are different from each other's based on atmospheric pressure and gas content (Yahya, 2006a).

Respiratory mechanism will be in a good condition on the sea level. Atmospheric pressure will be lower if the altitude is higher. If a person moves from a place which is sea level to high altitude areas, for example, 3500 m above sea level, he will face some difficulties in his body, because the body is unable to adapt to the changes in pressure. His body will face hypoxia (lack of oxygen in tissues and cells), headache, nausea, lethargy, and dizziness. Tissue fluid is probably absorbed by brain tissue and lungs, and this will cause death as a result of the situation. Nevertheless at certain level, some individuals may be able to adapt to low atmospheric pressure. This process is known as acclimatization.

The content of oxygen will be less in higher altitude places. Human beings are unable to breathe without the aids of respiratory organ. It is the same situation that can be happened when people go to the air space or outside of the atmosphere which is known as vacuum. Vacuum is a place without oxygen and any living thing is unable to breathe in it. Additionally,

absence of pressure outside of the atmosphere will cause severe complications to the nerve system, muscles and heart. Thus, this phenomenon explains the meaning behind verse 165 of Chapter al-An'am from the scientific perspective.

Conclusion of the exegesis: From the scientific studies, it was shown that the higher the atmosphere, the less oxygen will be and more difficult for human living things to breath. This fact is parallel with recitation of Imam Nafi', Abu A'mr, Ibn A'mir, A'sim, Hamzah, and Kisa-i which is *yassa'adu*. It proves that the Quran has preceded the scientific study, and yet the facts on it are more accurate and detail.

Ibn Kathir has a different recitation from others which is *yas'adu*. It means climbing up the space to certain height only. The word differs from *yassa'adu* because *yassa'adu* means climbing to higher places continuously without limit (Faris, 2006).

Besides that, the word *yassa'adu* with letter *sod shadda* (صّ) and *a'in* (ع) shows the greatness of Arabic literature because the meaning does not refer to any normal climbing, but it means going up to the sky which is difficult for those who are not given the *hidayah* (the guidance from the God) (Faris, 2006).

Both of these interpretations are not contrary to each other, in fact they both refer to the same phenomenon that will be faced by people when they are at high altitude areas. The interpretation which explains about the difficulty of breathing at higher places is more detailed compared to another interpretation which explains only about the climbing of human to the sky.

3. The Different Forms of Quranic Word Recitation of *Bushra* (بُشْرَى) and *Nushra* (نُشْرَى)

The word air or wind has been discussed in the Quran many times in order to emphasize its importance in humans' live. For instance, Chapter an-Nur verse 43, describe about the objective behind the creation of air which is able to drive clouds from one place to another. Its explanation is supported by another verse from Chapter ar-Rum verse 48. Chapter al-A'raf, verse 57 also describe about the phenomenon of wind. However, the verse contains different *qira'at* from the other verses which can be studied in order to know the advantages of the differences. Allah Almighty says: "It is He Who sends the winds like heralds of glad tidings, going before His Mercy: when they have carried the heavy-laden clouds, We drive them to a land that is dead, make rain to descend thereon, and produce every kind of harvest therewith; thus shall We raise up the dead: perchance you may remember." (Chapter Al-A'raf: 57).

Different forms of *Qira'at*

1. Imam Nafi', Ibn Kathir, and Abu A'mr recite the word *nushuran* as follows: *nuun dhomma* (نُ) and *shin* (شُن) by which is plural for word *nashir*.
2. Imam Ibn A'mir recites the word *nushran* as follows: *nuun dhomma* (نُ) and *shin sukn* (شُن), which is plural for word *nashir*.
3. Imam A'sim recites the word with *bushran* as follows: *ba dhomma* (بُ) and *shin sukn* (شُن).
4. Imam Hamzah and Kisa-i recite it with *nashran* as follows: *nuun fatha* (نُ) and *shin sukn* (شُن).

Imam Hamzah and al-Kisa-i recite it - *nashran* - as a derivative which means, 'He is Allah Who sends the wind'. It also can be a derivative for *hal* (adverb) for the word 'wind' which means, 'He is Allah Who sends the wind and created the earth', and also it can be a derivative for *maf'ul* (things done on it) which means: 'He is Allah Who created winds as a blowing'.

Imam Nafi', Ibn Kathir, and Abu A'mr recite the word with *nuun dhomma* (نُ) and, *shin* (ش) by pronouncing it *mushuran*, which is plural for the word *nashir* which means 'gives life'. Allah creates the winds to lighten the earth and He sends down the rain in order to ensure the plants can grow.

Imam A'sim recites it with *ba dhomma* (بُ) and *shin sukn* (شْ) by pronouncing it *bushran*. The word comes from the word *bashir* which means: 'He sends the winds as heralds of glad tidings of rain'. Allah says: "Among the signs of His greatness is that He sent His winds as heralds of glad tidings".

Exegete's Views: Imam Hamzah's recitation is a derivative of *hal* (adverb) for the word 'wind' which means: 'He is Allah who sends the wind for giving life'. While, Imam A'sim's recitation carry the meaning: 'The wind shows a coming of rain as good news for people'.

The Scientific Facts (rain and wind): Wind is a flow of gases which is caused by a few related factors such as earth movement, temperature differences, and air pressure differences inside the atmosphere (Cappucci, 2018). The wind will move fast if pressure differences are higher (National Centre for Atmospheric Research, 2010). The wind plays an important role in human lives. The first stage of rain process is a forming of winds (Yahya, 2006a). Vaporization process is a process that changes water to vapour in order to be released on air. The process is caused by factors such as humidity, temperature of surrounding areas, width of water surface, and movement of air and wind (Answered, 2010).

Hot air from the sea surface will cause water particles to evaporate and be released to the atmosphere. The movement of air or wind will accelerate the evaporation process, and then carry the water vapour to the sky to form clouds. Small clouds will merge to form larger clouds. This movement of air at this level occurs vertically and its speed gradually increases. This air movement causes the clouds to grow larger vertically, and results in overlapping of clouds. At the higher atmospheric layers where the temperature is cooler, water particles and ice begin to take shape through a process called condensation. These water droplets will be heavier than air and come down to earth as rain (Anthes, 1981).

Through the combination of rain with sunlight and carbon dioxide in the air, plants can undergo a primary food production process, namely glucose. The function of air is also to stabilize the world's climate where hot air will move to the earth poles to be cooled, while cool air will move to the equator or centre of the earth to be warmed. Therefore, the climate of the earth will always be stabilized with the movement of air or wind by the power of God (Tyron, 2010).

In addition, air or wind also aids the process of pollination. Plants reproduce either through sexual or asexual reproduction (Arunasalam & Ching, 2008). When fertilization occurs, seeds will form and eventually grow into a fruit (Dorcey et al., 2009). Therefore, it is concluded that, the wind plays important roles in the formation of life in terms of rainfall, pollination, climate stabilization of earth to ensure a balanced ecosystem.

Conclusion of the Exegesis: The different forms of *qira'at* in the verse lead to various meanings. If it is recited as *bushra* it means: Allah Almighty informs us about His power, that He is able to create wind and rain as good news for human. If it is recited as *nushra*, it means: Allah Almighty is able to create wind and gives life to plants.

The explanation above shows that the meanings resulting from the different types of *qira'at* in the verse, between the word *nushura* which is plural form for *nashir* meaning 'gives

life', and the word *bushra* which means, 'He sends the wind as heralds of glad tidings of rain', are not opposite to each other. In fact, it brings about a unique interpretation to show us the various function of winds and also encourages further and more in-depth research about this phenomenon.

The different types of *qira'at* explain about the important role of wind, in terms of the formation of rain which is in the word *bushra*, meaning good news. Meanwhile the function of wind in pollination is depicted in the word *nushra*, which means to give life. These two words complement each other in terms of the meaning.

4. The Different Forms of Quranic Word Recitation of *Siraja* (سِرَاجًا) and *Suruja* (سُرُوجًا)

The word light is mentioned a few times in the Quran. Chapter as-Shams and at-Takwir verse 1, both explain about the sun and its capacity for light rays, meanwhile Chapter Nuh verse 16, explains about moonlight and the role of the sun which serves as a light that illuminates the moon. Allah Almighty says in Chapter al-Furqan: "Blessed is He Who made constellations in the skies, and placed therein a lamp and a Moon giving light." (Chapter al-Furqan: 61).

Different forms of *Qira'at*

1. Imam Hamzah and al-Kisa-i recite the word *suruja* as follows: *sin dhomma* (سُنْ) and *ra* (رْ) without *alif* (ا) as a plural means, 'the sun and all planets in the space'. In this plural form, it also includes the moon. The word 'moon' is mentioned twice in the verse in order to highlight its importance.
2. Other scholars like Imam Nafi', Abu A'mr, Ibn Kathir and A'sim recite the word *siraja* as follows: *sin kasra* (سِ) and *ra fatha* (رَ), which means the sun.

Exegete's Views: Ibn Abbas says the word *siraja* means the sun, while, Imam Hamzah and Kisa-i recite it with *suruja* which means the stars including the moon and the sun (Al-Qurtubi, 1999).

The Scientific Facts (moon and sunlight): Based on the verse from the Quran, the sun is mentioned as an object that radiates light which in turn causes the moon to be illuminated. The same thing is mentioned in another chapter: "And placed (therein) a light of splendour?" (Chapter al-Naba: 13). Allah Almighty says: "And made the moon a light in their midst, and made the sun as a (glorious) lamp." (Chapter Nuh: 16).

In Hans Wehr: A Dictionary, of Modern Written Arabic, *siraj* is defined as 'lamp' or 'light'. Whereas, the definition of *wahhaaja* is burn, blaze, or flame. Thus, sun is defined as *siraj* and the phrase *sirajan wahhaaja* means producing its own light through certain processes that occur in it. While the word *nur* is defined as brightness, gleam, and glow. The word *munir* is defined as luminous, radiant, and shining. Therefore, the moon which is called as *nur* and *munir* is not emitting its own light, but it merely reflects the light coming from the sun which causes them to be illuminated.

The difference in *qira'at* in this verse serves to explain the context of light emission which is released by both the moon and the sun. According to the Quran, the sun burns and because of that, the sun is able to produce light, while the moon only shines. As an analogy, suppose we assume that the sun and the moon are like a lamp and a mirror respectively, where the lamp emits light, the mirror only reflects the light it receives (Abidin, 2007).

The *qira'at* that used the word *suruja* which means glowing sun and planets, actually refers to the galaxy. A galaxy contains cluster of stars existing in the universe. It is where the solar system is located, together with the earth and the sun, and is known as the Milky Way.

This verse explains the structure of the solar system that produces light and also gives clarification on the existence of the galaxy (Yahya, 2006b).

Conclusion of the Exegesis: The different forms of *qira'at* in the verse lead us to a unique study of the universe or otherwise known as astronomy. If we read the verse by following the recitation of Imam Nafi', Abu A'mr, Ibn Kathir and A'sim, it then explains to us about sunlight. However, if we read it in plural form, *suruja*, it gives a broader and deeper meaning as it explains about the galaxy itself.

Based on the above explanation, these two forms of *qira'at* do not differ in their meaning and interpretation. The word *suruja* gives wider meaning about sunlight compared to the word *siraja*.

5. The Different Forms of Quranic Word Recitation of *Bizinatil kawakibi* (بِزِينَةِ الْكَوَاكِبِ) and *Bizinatil kawakiba* (بِزِينَةُ الْكَوَاكِبِ)

There are many verses in the Quran that describe about stars. In fact, Allah creates the stars in various colours as a beautification of the sky. Allah says: "We have indeed decked the lower heaven with beauty in the stars." (Chapter Al-Saffat: 6).

The above verse contains scientific *i'jaz* which explains about the existence of stars and their characteristics. There are different forms of *qira'at* in the word *bizinatil kawakib* in this verse that are related to the seven *qurra'* (reciters):

Different forms of *Qira'at*:

1. Imam Nafi', Ibn Kathir, Abu A'mr, Ibn A'mir and Kisa-i recite the word *bizinah* without *tanwin* (diacritical sign – double line) as *mudaf* (possessive phrase) and word *al-Kawakib* with *kasrah* (diacritical *kasra* [single line symbol below a letter]) as *mudaf l'layh* (possessive phrase), which means: 'Verily, We beautify the sky with stars'.
2. Imam Shu'bah recites the word *bizinah* with *tanwin* (diacritical sign – double line) as a *masdar* (infinitive- third in conjugation) and word *al-Kawakib* with *maf'ul* (object) which means: 'Verily, Allah beautify the stars with light that illuminates His creation'.
3. Imam Hafs and Hamzah recite the word *bizinah* with *tanwin* (diacritical sign – double line) and word *al-Kawakib* with *kasrah* (diacritical *kasra* [single line symbol below a letter]). The meaning is quite the same with the first recitation, 'Verily, We beautify the sky with stars'.
- 4.

Exegete's views: Qatadah says: The stars are created because of three things; as a means of stoning devils, producing the light, and to serve as guidance as well as beautification of the sky. We can recite *bizinatil kawakib* with various recitations. If we recite the word *bizinah* without *tanwin* (diacritical sign – double line) and *al-kawakib kasrah* (diacritical *kasra* [single line symbol below a letter]), therefore it means 'Verily, Allah beautify the sky with stars'. Meanwhile, if we recite the word *bizinah* with *tanwin* (diacritical sign – double line) and *al-kawakib* with *fatha* (diacritical *fatha* [single line symbol above a letter]), therefore, the meaning is 'Verily, Allah beautify the stars with the light that lightning His creation'.

Scientific Facts about the star: A star is a ball of gas that exists in space, emits light and produces heat. Just like other stars, the sun is also a star that contains gas (Abidin, 2007). Other stars appear to be shining because they are located far from earth, while the sun appears like a big ball because it is the closest star to the earth. Stars have different

brightness, depending on the volume of gas that form around it and the mass it contains. A massive star is brighter than the small star (Hafiz, 2010).

A star, like human, goes through a life cycle. It is formed and lives through a few phases and finally dies (Green, 2005). Stars will go through different phases depending on their mass before they die. Some stars will eventually become smaller and will leave a core called white dwarf, will finally turn into black dwarf and will no longer discharge light. They will also become colder. Some of them will go through the phase of red giant and slowly become white dwarf and black dwarf. Whereas a small portion of them will experience an explosion which is known as supernova.

Due to that, scientific research regarding stars have identified that the space is full of stars of different mass, colour, and composition. Some of the stars emit light that are green, red and even blue in colour, while other stars do not even produce light.

Conclusion of the exegesis: The different forms and styles of *qira'at* give a deep meaning to the interpretation of the verse. The verse that recites as *al-kawakib* - with *kasrah* (diacritical *kasra* [single line symbol below a letter]), mentions about the stars generally as a beautification of the sky. While, another *qira'at* which recites as *al-kawakib* - with *fatha* (diacritical *fatha* [single line symbol above a letter]), explains about the roles of the stars as beautification of the sky, and also as a living thing which emits light of various colours that appear to shine and glitter from far. This living star is one of the stars found in the galaxy.

Conclusion

Based on the previous discussions, it is found that there are many verses in the Quran that contain scientific *i'jaz* which proves the miraculousness of the Quran in regard to science. It also shows that the Quran has preceded research in science, despite being revealed more than 1400 years ago. Thus, if a person is to really ponder the verses in the Quran, especially verses that are related to science, he would acknowledge the greatness of the Quran.

The present paper focuses on several verses that contain both scientific *i'jaz* and different forms of *qira'at* among the seven *qurra'* (reciters). The verses that have been studied by the researchers are verse 125 of Chapter al- An'am, verse 57 of Chapter al-A'raf, verse 61 of Chapter al-Furqan, and verse 6 of Chapter as-Saffat. Discussion of these five verses have led to further research on the meaning of these verses from the scientific perspective.

In conclusion, the authors found that differences of *qira'at* found in these selected verses do not contradict each other, and in fact, serves to strengthen the interpretation of the verses. In addition, these verses, despite the different forms of *qira'at*, also complement each other and bear witness to the miraculousness of the Quran as a book revealed by Allah Almighty.

Acknowledgement

This study using fund under research grant GGP-2020-044 (Geran Galakan Penyelidikan) from UKM, Malaysia.

References

- Abidin, D. Z. (2007). *Quran Saintifik: Meneroka Kecemerlangan Quran daripada Teropong Sains*. PTS Millenia Sdn. Bhd. : Kuala Lumpur
- Anthes, R. A. (1981). *The Atmosphere*. Merrill Pub Co: Athens

- Arunasalam, J., & Ching, L. (2008). *SPM Bilingual Biology Form 5*. Arah Pendidikan Sdn. Bhd: Kuala Lumpur.
- Al-Dhahabi, M. H. (n.d). *Tafsir al-Mufasssirin*,Maktabah Sawdiyyah: Riyadh
- Al-Qatthan. (n.d). *Manna', Mabahith fi 'Ulum al-Quran*. Dar al-Risalah: Beirut
- Al-Qurtubi, A. A. M. A. (1999). *al-Jami' al-Ahkam al-Quran*. Dar al- Fikr: Beirut
- Al-Razi, A. F. Z. (1999). *Mu'jam Maqayis al-Lughah*. Dar al-Kutub al-Ilmiyah: Beirut
- Bazamul, M. U. S. (1996). *al-Qira'at wa Atharuha fi al-Tafsir wa al-Ahkam*. Dar al-Hijrah.
- Cappucci, M. (2018). *Explainer: Winds and where they come from*. Science News for Students. <https://www.sciencenewsforstudents.org/article/explainer-winds-and-where-they-come>
- Dorcey, E., Urbez, C., Blázquez, M. A., Carbonell, J., & Perez-Amador, M. A. (2009). Fertilization-dependent auxin response in ovules triggers fruit development through the modulation of gibberellin metabolism in Arabidopsis. *The Plant Journal*, 58(2), 318-332
- Faris, N. M. (2006). *al-I'jaz al-'Ilmiy fi al-Quran wa al-Sunnah*. Dar Ibn Hazm: Beirut
- Florencio-Silva, R., Silva Sasso, G. R. D., Sasso-Cerri, E., Simões, M. J., & Cerri, P. S. (2015). Biology of Bone Tissue: Structure, Function, and Factors That Influence Bone Cells. *BioMed Research International*, 2015
- Green, P. J. (2005). "Star" *World Book Online Reference Center*. World Book, Inc. <http://www.worldbookonline.com/wb/Article?id:ar52954>
- Hafiz, M. (2010). *The Stars*. <http://astronomi-semesta.blogspot.com/2009/06/perihal-bintang.html>
- Ibn Kathir. (1998). *Tafsir al-Quran al-A'zim*. Dar Ibn Hazm: Beirut
- Ibn Kathir. (n.d). *Qasas al-Anbiya'*. Dar al-Bayan: Egypt
- Iskandar, T. (2002). *Kamus Dewan*, 3rd Edition, Kuala Lumpur: Malay for the Institute of Language and Literature (DBP)
- Islam Answered. (2010). *Formation Process of Rain in Quran's Perspective*. <http://iislamanswered.wordpress.com/2010/06/16/proses-pembentukan-hujan-menurut-al-qur%E2%80%99an/>
- Mohamad, H. K. (1999). *Taqrib al-Ma'ani fi Syarah Hirz al-aman fi al-Qira'at al-Sab'ah*. Maktabah Dar al-Zamiin: Medina
- Molnar, C., & Gair, J. (2015). *Concepts of Biology: 1st Canadian Edition*. <https://opentextbc.ca/biology/front-matter/preface-to-the-1st-canadian-edition/>
- National Center for Atmospheric Research. (2010). *Weather and Climate Basics*. http://eo.ucar.edu/basics/wx_2_c.html
- Nordin, S. (1990). *Sains Menurut Perspektif Islam*. National University of Malaya: Bangi
- Shihab, M. Q. (1996). *Membumikan al-Quran Fungsi dan Peranan Wahyu dalam Kehidupan Masyarakat, Mizan, Bandung*, 1417H/ 1996. <http://www.luk.staff.ugm.ac.id/kmiiislam/Quraish/Membumi/Kawniyyah.html>
- Syukri, A. K., al-Qudah, A. M. M., & Mansur, M. K. (2011). *Muqaddimat fi 'Ilm al-Qira'at*, Amman: Dar Ammar
- Tyron, L. (2010). *Science Facts about the WIND*. <http://www.leslietryon.com/science/windfacts.html>.
- Yahya, H. (2006a). *Keindahan Di Langit (Atmosfera)*. <http://www.harunyahya-com1malaysian/keindahan.php>
- Yahya, H. (2006b). *Restoring The Sky*. <http://www.harunyahya.com/indo/artikel/027.htm>
- Abbas, F. H. (1999). *I'jaz al-Quran al-Karim*. Dar al-Furqan: Amman