# Investigating the relationship between Gardner Multiple Intelligences and Speech-Aural Skills in DBA Students of Golestan Universities

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**Abstract**

The main purpose of this study is to investigate the relationship between multiple intelligences and speech and audio skills of Arabic language and literature students, which has a basic hypothesis and eight sub-hypotheses. This is a descriptive study which is a correlation method. The statistical population of the study included Arabic language and literature students of Tehran universities. Total number was 228. The sample size was determined according to the Morgan tables. According to the size of the statistical population, 142 individuals were selected by random sampling method. For data collection, Gardner's multiple intelligence questionnaires and a researcher-made linguistic skills questionnaire were used. Descriptive statistics and inferential statistics (Kolmogorov-Smirnov test and Pearson regression test) were used to analyze the data. According to the results, it can be said that multiple intelligences can play a meaningful role in acquiring the speech and audio skills of DBA students in Golestan universities.

**Key Words**: *Intelligence, Multiple Intelligences, Speech-Audio Skills*

## Introduction

An amazing dimension of humans is the ability to communicate. Perhaps the greatest human ability is the only ability to use language. Trying to identify and name the language features is difficult. Linguists too often do not agree on language definition. (Justin, 1988). Language is a social institution. This means that people in a community are communicating with one another to the goals and intentions of each other. The language of language is not the same in all societies, and the way it works is different in each community (Bagheri, 1380). Sapir (1921) considers language as part of traditional culture and social contexts and social habits, and compares the unlimited variety of languages to cultural issues such as religions, beliefs, customs, and arts among nations. Chomsky (1957) also considers language as a finite or infinite series of sentences, each of which has been constructed with a limited length of number of specified components. In terms of boosting language, the child's institution is due to the language program that is intentionally designed according to which language the child is exposed to in the first years of development. From Chomsky's point of view, languages are only different in terms of appearance, and he calls this phenomenon a superficial structure or a structural structure or a deep structure. From his point of view, in the transmission of message, the profound construction is transformed into structuring, and the perceived receipt of the other is profoundly transformed and the message is perceived. According to Vygotsky (1962), the language is an interface for the flow and functions of the mind and in the growth of thinking and awareness. The growth of language leads to his separation from nature and the creation of a particular human society. The child becomes aware of his psychological functions by being influenced by external physical affairs and by virtue of his specific condition of his life and with the help of a language developed in relation to himself and his behavior and the possibility of decision-making. Sapir (1921) considers language as part of traditional culture and social contexts and social habits, and compares the unlimited variety of languages to cultural issues such as religions, beliefs, customs, and arts among nations. The study of the historical transformation of the Arabic language teaching resources in Iran suggests that two periods can be considered with an overlapping approach to each other. In the traditional Arabic language training course in Iran, which began with the Islamic religion of Islam to Iran and its location under the influence of Islamic culture, which is an undeniable Arabic language, it continues to teach Arabic language with a constructive approach that builds knowledge the vocabulary and syntax build (syntax) is the basis for training. In this way, which is still used in many educational centers, only reading and comprehension skills and less literate writing skills are meant for writing. (Georgians, 1372). Sapir (1921) considers language as part of traditional culture and social contexts and social habits, and compares the unlimited variety of languages to cultural issues such as religions, beliefs, customs, and arts among nations. According to Gardner's theory, there are several types of intelligences that are relatively independent and can be cultivated in different ways by different individuals and cultures. Gardner's theory focuses on the differences in the learning process, and thus does not measure intelligence in general and can be measured as distinct parts. By using the results of his observations, as well as other areas such as anthropology, psychology, physiology, cognitive science, and the biography of exceptional people, Gardner concluded that there were at least 7 different intelligences. He later added a different intelligence and brought the total intelligence to eight. According to Gardner, all people

benefit from this intelligence set.  His classification is: logical mathematical intelligence, verbal linguistic intelligence, spatial visual intelligence, musical intelligence, motion intelligence, interpersonal intelligence, intrapersonal intelligence, and naturalistic intelligence Each intelligence represents a series of abilities that are relevant Solving problems and cultivating cultural crops. Since the relationship between types of intelligence and language learning skills in Iran was less studied, researchers sought to find the link between different types of reading and interpreting Iranian skills. In the educational resources produced with these spoken skills Hearing or how to teach the second language is not attended and often written with the presumption that users of that language are. But in the second approach, which can be called a functional approach, the use of language as the main communication tool is considered. In new sources that have not been for decades, of course, are based on the need to use Arabic in the field of communication, resources focusing on other skills or some skills, and predicting the language of instruction other than the dialect and as The second language is produced (Intellectual, 1392).  Language is the most developed intellectual tool used to link human beings and human societies. Human beings need more knowledge and knowledge that they acquire throughout their lives or with their growth and one of the skills or tools for accessing more knowledge and awareness, and communication is also one of the ways of communication. Verbal communication Or use of language. In recent years, due to various scientific, political, economic and cultural causes, Arabic language has become a link between peoples from different cultures and nationalities. Today, Arabic is used in the financial, commercial, educational, research and scientific activities of the entire world as the main means of transferring the concepts. On the other hand, recent studies have shown that intelligence and cognitive skills play an essential role in organizing the learning process (Seif, 2007). One of the theories that has been addressed in recent decades on intelligence and is well received by many scholars is the Multiple Intelligence Theory, presented by Gardner (1983). This theory challenges the traditional concept of intelligence as a single and constant being, and it consists of a number of abilities that have a unique status in one's life. He believed that reasoning, intelligence, logic, and knowledge did not have the same meaning, provided a new perspective on intelligence that was quickly adopted by many educational planners. (Andrews, 2009). Gardner argued that intelligence has various forms and manifestations, and emphasizes the fact that humans have different intelligence profiles, the source of intellectual and practical movements in a number of world education systems, which is based on the concept of intelligence Multiple programs have been developed to diversify and diversify their educational programs (Mehr Mohammadi, 2006). He treats personally as a whole because they are very close together and act in harmony. Individuals have a unit of intelligence that can be used for good or bad purposes. Gardner's theory has been highly regarded by teachers. In essence, this theory enables several methods of teaching instead of one; that is, it can stimulate the mind in the field that is ready, and in a way that is of interest to the student (Ebrahimi, 2009).  On the other hand, students' individual differences in terms of cognitive, emotional and other personality traits have always been a serious issue for teachers. For this reason, the measurement of intelligence and talent has long been considered by psychologists. In Gardner's view, the operation of the mind is different in a symbolic system, such as language, with symbolic actions in music, expression movements, mathematics and images. Therefore, for the processing of cognitive information, only the

linguistic and mathematical symbols, as emphasized in traditional perspectives, are not sufficient. His theory of multiple intelligence has changed the traditional view of intelligence and mental abilities in the field of education and cognitive sciences and has influenced educational methods and programs (Seif, 2007). According to this theory, the traditional psychometric views of intelligence are very limited and weak. According to Gardner, all human beings have different types of intelligence. For the first time in 1983, in a book entitled "Framework of the Mind", he considers intelligence as the difference in the learning process and states that intelligence cannot be measured in its entirety, but can be measured in terms of specific parts and challenged. Drawing the traditional perception of intelligence classifies eight different types of intelligence, and it is likely that the ninth type is also "ontological intelligence." His theory does not necessarily restrict to eight intelligences or eight capabilities, and to acquire all capabilities and The talents of one person should not only be the consideration of the intelligence quotient, but also other types of intelligence He must also be considered as musical intelligence, intrapersonal intelligence, spatial intelligence and verbal-linguistic intelligence (Green, et al., 2006). Therefore, according to the mentioned topics, the present research seeks to answer the question of whether there is a meaningful relationship between multiple intelligences and speech-hearing skills.

## Hypotheses
### The main hypothesis
There is a relationship between the multiple intelligences with the spoken-language skills of the students of Arabic language and literature in the universities of Tehran

Sub-hypotheses:
➢ There is a relationship between academic intelligence and students' spoken-language skills.
➢ There is a relationship between intrapersonal intelligence and students' speech-hearing skills.
➢ There is a relationship between the social / extravagant intelligence with students' speech-hearing skills.
➢ There is a relation between the nature-oriented intelligence and students' speech-hearing skills.
➢ There is a relationship between verbal intelligence and students' speech-hearing skills.
➢ There is a relationship between mathematical intelligence and students' speech-hearing skills.
➢ There is a relationship between spatial intelligence and student-to-speech skills.
➢ There is a relationship between motor-physical intelligence and students' speech-hearing skills.

## Descriptive findings
The findings of this study showed that out of a total of 142 students, 80% of subjects were female and 20% were men. The rate of education was 55.5% of the subjects at the undergraduate level, 39.5% of the master's degree, and 5 the percentage is at the doctorate level, which is the highest percentage of undergraduate students. The rate of Internet use in

57.5% of subjects is high, 38.6% average and 3.9% low. The highest rate of Internet use in students was high and the lowest percentage was low. Also, the percentage of Arabic in 68.3% of subjects is high, 22.2% moderate and 9.5% low. The highest rate of interest in Arabic was in high level students and the lowest percentage was low. The mean and standard deviation of components of verbal intelligence (33.81), mathematical-logical intelligence (35.11), spatial-intelligence intelligence (34.44), motor-physical intelligence (34.73), musical intelligence (77.7) 36), intrapersonal intelligence (35/88), social intelligence (24/31) and naturalistic intelligence (34/11), which is the highest mean for musical intelligence and the lowest mean for social intelligence. Also, the average total score of multiple intelligence was 277.05 and the standard deviation was 39.61 which had the lowest score of 162 and the highest score was 372. – The mean and standard deviation of components of the components of the code (5.61), Qism al-Quraa (4.62), Qism al-Hawar (3.49), and Qum al-Asma (13.63). Also, the average total score of language skills was 5.61 and the standard deviation was 4.24, with the lowest score of 18 and the highest score of 53.

Table 1. Average and standard deviation of multiple scorecard scores and its components

| Max | min | number of standard deviations | Average | n | Variable |
|---|---|---|---|---|---|
| 49.00 | 20.00 | 5.54 | 33.81 | 142 | **Mathematical intelligence-logic** |
| 88.00 | 18.00 | 7.82 | 35.11 | 142 | **Spatial-visual intelligence** |
| 48.00 | 21.00 | 5.60 | 34.40 | 142 | **Physical-motor intelligence** |
| 48.00 | 16.00 | 5.82 | 34.73 | 142 | **Musical intelligence** |
| 50.00 | 19.00 | 6.13 | 36.77 | 142 | **Intelligent Intelligence** |
| 75.00 | 20.00 | 6.68 | 35.88 | 142 | **Social intelligence / extra-personal** |
| 75.00 | 13.00 | 8.58 | 31.24 | 142 | **Naturalistic intelligence** |
| 372.00 | 162.00 | 39.61 | 276.05 | 142 | **Total intelligence** |

## Inferential Findings

According to the results of the main hypothesis, there is a relationship between the multiple intelligences and the spoken-language skills of the Arabic language and literature students of the universities of Tehran.

Table ۲. Results of Kolmogorov-Smirnov test

| The result | sgn | k – s | Variable |
|---|---|---|---|
| **Normal (Verification H0)** | .763 | .668 | **Mathematical intelligence-logic** |
| **Normal (Verification H0)** | .891 | .579 | **Spatial-visual intelligence** |
| **Normal (Verification H0)** | .156 | 1.129 | **Physical-motor intelligence** |
| **Normal (Verification H0)** | .328 | .950 | **Musical intelligence** |
| **Normal (Verification H0)** | .151 | 1.136 | **Intelligent Intelligence** |

| Normal (Verification H0) | .241 | 1.028 | Social intelligence / extra-personal |
|---|---|---|---|
| Normal (Verification H0) | .111 | 1.202 | Naturalistic intelligence |
| Normal (Verification H0) | .501 | .827 | extra-personal |
| Normal (Verification H0) | **.059** | **1.344** | Total intelligence |

According to the result, it can be said that multiple intelligences can play a significant role in acquiring the speech-hearing skills of Arabic language and literature students of the universities of Tehran. The results are consistent with the findings of Sadeghi (2008), Hashemi et al. (2006), Feyzabadi (2004), Bugheyzadeh (2002), Douglas et al. (2008), Oak et al. (2006).

Table 3. Definition of affinities and correction coefficient

| Watson Camera | The standard deviation | R corrected | R | R |
|---|---|---|---|---|
| 1.596 | 8.85 | .107 | .113 | .336[a] |

According to the results of the third hypothesis, there is a relationship between spatial intelligence and students' speech-hearing skills.

According to the result, spatial and spatial intelligence has a significant and significant role in increasing speech-to-speech skills. According to the present result, with the increase of spatial and visual intelligence, students' speech-hearing skills are reduced, with the reduction of spatial and spatial intelligence, spoken- Student audiences increase. The results are consistent with the findings of Feiz Abadi (2004), Hashemi et al. (2006), and Douglas et al. (2008).

According to the results of the fourth hypothesis, there is a correlation between motor-physical intelligence and students' speech-hearing skills.
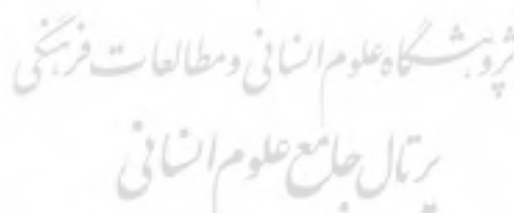
Table 4. F test: Significance of Regression the Relationship between Multiple Intelligence Components and Language Skills

| sig | F | Average | Df | Sum of squares | Coefficients |
|---|---|---|---|---|---|
| .000[a] | 17.856 | 1398.495 | 1 | 1398.495 | Regression |
| | | 78.319 | 140 | 10964.710 | Residual |
| | | | 141 | 12363.205 | Total |

According to the result, high ability in motor-physical intelligence plays an important role in improving speech-to-speech skills. According to the results of this study, with increasing motor-motor intelligence, students' speech-hearing skills decreased, with reduced motor-physical intelligence, speech skills - Student audiences increase. The results are consistent

with the findings of Douglas et al. (2008), Oak et al. (2006), Hashemi et al. (2006), and Feyzabadi (2004).

According to the results of the second hypothesis, there is a relationship between the mathematical-logical intelligence and students' speech-hearing skills.

According to the result, it can be concluded that having high mathematical-logical intelligence can increase the spoken-vocal skills because according to the present result, with increasing the mathematical-logical intelligence, the students' speech-hearing skills are reduced and with decreasing mathematical-logical intelligence, Student audiences increase. The results are consistent with the findings of Sadeghi (2008), Hashemi et al. (2006), Feizabadi (2004), Bughizadeh (2002), Douglas and colleagues (2008).

According to the results of the sixth hypothesis, there is a correlation between intrapersonal intelligence and students' speech-hearing skills.

Table 5. Regression coefficients of independent variables with language skills

| sig | T | Standard coefficients | Not standardized coefficients | | variable |
|-----|---|------------------------|--------------------------------|---|----------|
| | | Beta | Std | B | |
| .001 | 3.391 | | 4.641 | 15.740 | Constant |
| .000 | 4.226 | .336 | .133 | .563 | Verbal intelligence |
| .539 | .617 | .071[a] | - | - | Math-Logic Intelligence |
| .192 | 1.311 | .138[a] | - | - | Spatial-visual intelligence |
| .881 | -.150 | -.016[a] | - | - | Motorized and physical intelligence |
| .288 | -1.068 | -.097[a] | - | - | Musical Intelligence |
| .878 | .154 | .015[a] | - | - | Intelligent Intelligence |
| .907 | .117 | .011[a] | - | - | SOCIAL-EXCHANGE INTELLIGENCE |
| .509 | .663 | .066[a] | - | - | Naturalistic intelligence |

According to the result, high in-person intelligence plays an important role in enhancing the performance of speech-and-speech skills, since according to the present result, with increasing intrapersonal intelligence, the students 'speech-hearing skills are reduced and with increasing intrapersonal intelligence, students' speech-hearing skills increase Finds. The results are consistent with Hashemi et al. (2006), Feyzabadi (2004), and Uak et al. (2006).

According to the results of the fifth hypothesis, there is no correlation between academic intelligence and students' speech-hearing skills.

According to the results, it can be concluded that the ability or ability to perform musical intelligence does not play a role in acquiring speech-based skills because according to the present results, there is no statistically significant relationship. Therefore, at 95% confidence level, there is a significant relationship between academic intelligence and students' There is not. Results with Sadeghi's findings (2008), Feyzabadi (2004), Bughizadeh (2002), Hashemi

et al. (2006), are uncoordinated and incompatible in view of their results, contrary to the results of the study and confirmed by the results of that hypothesis.

According to the results of the seventh hypothesis, there is a relationship between the social / extra-intelligence and the students' speech-hearing skills.

According to the results, the high level of social / extra-human intelligence can contribute to the improvement of speech-to-speech skills. According to the results, with increasing social / extra-personal intelligence, students' speech-hearing skills are reduced and with reduced social / individually speaking, students' voice-to-speech skills will increase. The results are consistent with Hashmi et al. (2006), Feyzabadi (2004), and Oak et al (2006).

According to the results of the eighth hypothesis, there is a relationship between the intelligence of nature and students' speech-hearing skills.

According to the result, high natural intelligence can play a role in increasing the spoken-vocational skills. According to the results, with increasing social / extra-personal intelligence, students' speech-hearing skills are reduced, with reduced naturalistic intelligence, spoken-Student audiences increase. The results are consistent with the findings of Sadeghi (2008); Saneh (2004); His eminence (2003).

According to the results of the ninth hypothesis, the contribution of each of the components of intelligence is different in predicting the spoken-language skills of Arabic language and literature students of Tehran universities.

According to the result, it can be said that verbal intelligence has an essential contribution to the development of speech-to-speech skills. The results are consistent with the findings of Snah (2004); Mybarah Humor (1382); Oak et al. (2006).

## Suggestions

> It is suggested considering the significant relationship between verbal intelligence and speech-audio skills from coherent education in order to increase the spoken-vocal skills and identify the verbal intelligence, especially students of the fields such as Arabic language and literature from universities.

> It is suggested that considering the lack of a meaningful relationship between musical intelligence and speech-hearing skills, a more extensive, more comprehensive study on the relationship between these two variables is suggested.

> It is suggested that due to the significant relationship between multiple intelligences and speech-to-speech skills, coherent efforts to identify multiple intelligences and their dimensions should be made to the education of universities and other professionals by respected psychologists and specialists.

> It is suggested that the relationship between social / extra-intellectual intelligence and speech-hearing skills of high-skilled people be encouraged; in the classroom and presentation of the conference, encouraged and repressed people be encouraged.

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