



# The relationship between pronunciation anxiety and multiple intelligences

Bahareh Esbati

Islamic Azad University Torbat Heidarieh

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## ABSTRACT

In foreign language learning a negative correlation has been reported between language anxiety and both oral performance (Liu, 2006; Wilson, 2006; Woodrow 2006) and self-perceived levels of speaking ability (Kitano, 2001; MacIntyre, Noels, & Clement, 1997; Piechurska-Kuciel, 2008). In this study, we investigated the relationship between pronunciation anxiety and multiple intelligences. Participants are 40 students who are at Intermediate level. This study was conducted in Khorasan foreign languages institute in Kashmar. Participants were given researcher-made questionnaire on pronunciation anxiety and the Gardner multiple intelligence questionnaire. Then the students were asked to answer the questions. This research uses information from students to explore the relationship between pronunciation anxiety and multiple intelligences. The data from the questionnaires were analyzed using SPSS. The findings showed a significant correlation between pronunciation anxiety and inventory academic success; the other intelligences showed no significant correlation with it.

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## Introduction

Pronunciation is a main element of effective communication it has been defined as the act or manner in which a particular word or sound is produced, especially the manner that is accepted or generally understood (Oxford Advanced Learner's Dictionary 7th edition, 2005).

Parents and teachers can work together to help a child succeed in the classroom. There are a number of ways teachers can make the school day easier and less stressful for a child with anxiety. Feelings of anxiety, nervousness are expressed by second/foreign language learners in learning to speak a second/foreign language.

Learning English as a foreign language is problematic for students who learn English only in a language class. Most of the learners express their fears. The feeling of anxiety can provoke many problems in the acquisition, retention and production of the language (MacIntyre and Gardner, 1991a).

The learner may have fear or anxiety about communication with people. In groups, they have difficulty speaking and to feeling less control of the communication situation, they think their attempts at oral work constantly monitored.

According to a traditional definition, intelligence is a uniform cognitive capacity people are born with. This capacity can be easily measured by short-answer tests. According to Gardner, **intelligence** is:

-The ability to create an effective product or offer a service that is valued in a culture

- A set of skills that make it possible for a person to solve problems in life.

-The potential for finding or creating solutions for problems, which involves gathering new knowledge. In addition, Gardner claims that:

-All human beings possess all intelligences in varying amounts

-We can improve education by addressing the multiple intelligences of our students

-These intelligences are located in different areas of the brain and can either work independently or together

-These intelligences may define the human species.

- Multiple intelligences can be nurtured and strengthened, or ignored and weakened.

**Multiple Intelligence Theory** was developed in 1983 by Dr. Howard Gardner, professor of education at Harvard University. He (1999) expanded his definition of intelligence.

He believes that people are not born with all the intelligences they will eventually have. They are able to learn and improve their intelligences throughout their lives.

Gardner defines intelligence as "the capacity to solve problems or to fashion products that are valued in one or more cultural setting" (Gardner & Hatch, 1989).

Gardner's theory listed seven intelligences in 1983: linguistic, logical-mathematical, musical, bodily-kinesthetic, spatial, interpersonal and intrapersonal; he later added naturalist intelligence and says there more may be a few.



This photo is taken from an article By: Tracy Ostwald-Kowald) (Understanding Your Student's Learning Style: The Theory of Multiple Intelligences.

**Chen and Gardner (2005: 79)** describe the types of intelligences as the following;

1. Linguistic intelligence, describes the ability to perceive and generate spoken and written language,
2. Logical-mathematical intelligence, involves the ability to appreciate and utilize numerical, abstract, and logical reasoning to solve problems,
3. Musical intelligence, entails the ability to create, communicate, and understand meanings made out of sound,
4. Spatial intelligence, refers to the ability to perceive, modify, transform, and create visual and/or spatial images,
5. Bodily-kinesthetic intelligence, deals with the ability to use all or part of one's body to solve problems or fashion products
6. Naturalistic intelligence, concerns the ability to distinguish among critical features of the natural environment,
7. Interpersonal intelligence, describes the ability to recognize, appreciate and contend with the feelings, beliefs, and intentions of other people,
8. Intrapersonal intelligence, involves the ability to understand oneself including emotions, desires, strengths, and vulnerabilities and to use such information effectively in regulating one's own life.

#### Literature review

Gynan (1989) reports that some learners believe that **pronunciation** is the most important aspect of L2 learning, expressing great concern for speaking with an excellent accent over the content of their statements.

Less proficient speakers are more anxious about their speech.

Whereas facilitating anxiety produces positive effects on learners' performance, too much anxiety may cause a poor performance (Scovel, 1991).

Horwitz, Horwitz and Cope (1991) have found that anxiety typically centers on listening and speaking.

According to Krashen (1980), anxiety contributes to an affective filter, which prevents students from receiving input, and then language acquisition fails to progress (Horwitz et al., 1991).

If the teacher increases learners' anxiety by, for example, always correcting learners' pronunciation in the conversation circle activity, that will bring about disaster in learning. The teacher should not control the conversation in CLL (Community Language Learning), but let students talk whatever they want to talk (Rardin et al., 1988).

#### *The Core Components and Occupations Associated With Each of the Intelligences*

Özdemir et al. (2006) who also reported stronger preference for logical mathematical intelligence and weaker preference for musical intelligence.

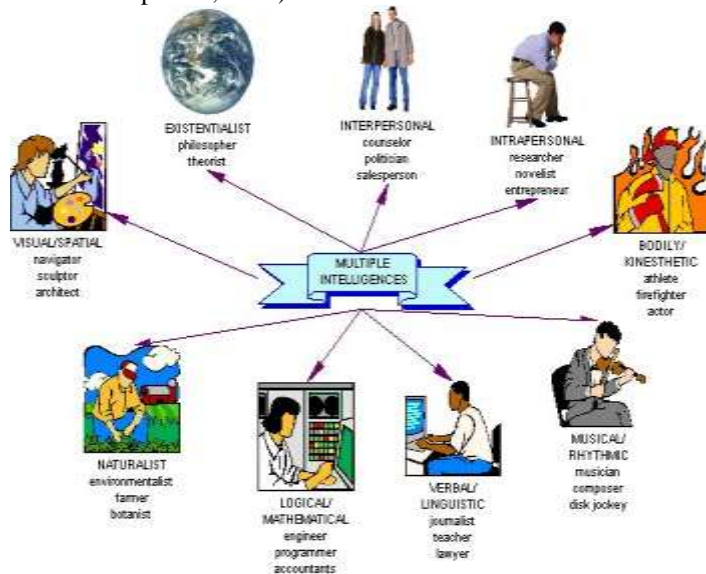
If a person's pronunciation is below average he or she will not be able to communicate orally even though the understanding of grammar and the richness of vocabulary are excellent (Rivers, 1968; Hinofotis & Bailey, 1980; Celce-Murcia, 1996; Dorling Kindersley, 2011).

As Brandl (1987) notes, the learners' fear of being negatively evaluated in the classroom can be further intensified when the instructors believe that their primary role is to constantly correct students' errors more like a drill sergeant's than that of a facilitator. Although many learners feel that some error correction is necessary (Koch and Terrell, 1991; Horwitz, 1988), the manner of error correction is often cited as potentially provoking anxiety in students.

As Young (1991, p. 429) argues, students are more concerned about how (i.e., when, what, where, or how often) their mistakes are corrected rather than whether error correction should be administered in class.

Language anxiety in the broader construct of anxiety as a basic human emotion that may be brought on by numerous combinations of situational factors (McIntyre, 1995; McIntyre & Gardner, 1989; cited in Tittle, 1997: 11). For example, (a) a shy student may feel anxious when asked to give a short talk in front of the whole class; (b) Language anxiety as a combination of other anxieties that create a separate form of anxiety intrinsic to language learning (Horwitz et al., 1986: 128).

This photo is taken from this article (the way we learn, | Posted on April 13, 2011)



Moran, Kornhaber, and Gardner (2006) offer some insight into how teachers can use MI effectively in the classroom. They support the idea that The Multiple Intelligences Theory is a way to help students maximize their learning, and not an "education panacea" (p. 23).

#### *Common games and activities to promote different intelligences*

**Rettig, M. (February 2005).**

As many authors attest (Cheng, 1998; Pawlak, 2003; Szpyra-Kozłowska, Frankiewicz & Gonet, 2002), developing learners' pronunciation seems to be a neglected area. At the same time, teachers and foreign language learners view pronunciation as an important facilitator of communication and fluency in speaking (Wanick-Klimczak, 1997; Wrembel, 2002). Indeed, the segmental and suprasegmental elements of pronunciation are an integral component of spoken language (Pawlak, 2011, p. 5), and as such are frequently taken into account when oral performance is evaluated (Szpyra-Kozłowska, 2003; Wanick-Klimczak & Dąutek, 2003).

Horwitz, Horwitz, and Cope (1986) remarked in their early research, reducing language anxiety by changing the context of foreign language learning itself may be the most valuable solution, albeit the most difficult to achieve.

Pronunciation has been identified as a significant source of student anxiety (Horwitz et al., 1986; Phillips, 1992; Price, 1991).

Pronunciation practice would be the solution to the problem of pronunciation Anxiety.

Communication apprehension is defined as "a type of shyness characterized by fear of or anxiety about communicating with people" (p.127). Furthermore, "people who have difficulty speaking in groups are likely to experience even more trouble when doing so in a foreign language class, where in addition to feeling less in control of the communicative situation, they also may feel that their attempts at oral work are constantly being monitored" (p.127).

Intelligence	Core Components	Occupations
Logical-mathematical	Sensitivity to, and capacity to discern, logical or numerical patterns; ability to handle long chains of reasoning	Scientist, Mathematician
Linguistic	Sensitivity to the sounds, rhythms, and meanings of words; sensitivity to the different functions of language.	Poet, Journalist
Musical	Abilities to produce and appreciate rhythm, pitch, and timbre; appreciation of the forms of musical expressiveness.	Composer, Violinist
Spatial	Capacities to perceive the visual-spatial world accurately and to perform transformations on one's initial perceptions.	Navigator, Sculptor
Bodily-Kinesthetic	Abilities to control one's body movements and to handle objects skillfully	Dancer, Athlete
Interpersonal	Capacities to discern and respond appropriately to the moods, temperaments, motivations, and desires of other people	Therapist, Salesman
Intrapersonal	Access to one's own feelings and the ability to discriminate among them and draw upon them to guide behavior; knowledge of one's own strength, weaknesses, desires, and intelligences.	Person with detailed, accurate, self-knowledge/understanding
Naturalist	The ability to discriminate among living things and to see patterns; also, sensitivity to features of the natural world	Animal Trainer, Florist, Farmer

(Gardner & Hatch, 1989, p.6)

Intrapersonal	Interpersonal	Naturalist	Logical	Spatial	Linguistic	Bodily	Musical
Body tracing	Group games	Climbing trees	Sorting	Drawing	Books	Dancing	Nursery rhymes
Role playing	Role playing	Sand and water	Counting	Bowling	Jokes	Sports	Musical instruments
"missing person"	Cooperative learning	Hiking	Concentration	Painting	Poetry	Ball games	Musical chairs
Different occupations	Family style snacks	Planting seeds	Cooking	Sculpture	Nursery rhymes	Climbing trees	Finger plays
Body part games	Card games	Taking care of pets	Hide and seek	Arranging furniture in a doll house	Cooking	Yoga	Listening to music
Yoga	Creating cartoons	Nature scavenger hunt	"Simon Says"	Puzzles		Bean bag toss	dancing
Making an "I Can" list	Thematic play	Cooking	Some computer games	Easel painting		Dodge ball	Making simple rhythm instruments

Rettig, M. (February 2005).

Young (1986) also examined the effects of anxiety on oral production.

#### Method

##### Participants

As it was mentioned above the focus of the study is on 40 Iranian English students are in Intermediate level . (female and male). This study is implemented in KhorasanInstitute .It is foreign language institutes in Kashmar. The researcher asked the students to fill the questionnaires about pronunciation anxiety and multiple intelligence .students answer these questions.

##### Material

Materials used in the research for data collection include 2 kinds of questionnaires, for assessing pronunciation anxiety and multiple intelligences. The questionnaires are about pronunciation anxiety include 25 questions .They evaluate anxiety that students have in pronunciation and have five scales (very much, much, a fair amount, a little, not at all ). The researcher defines these options by numbers from 1 to 5 (some items are reverse). The next questionnaires (multiple intelligences) are prepared for students have 9 parts.

- Verbal/Linguistic intelligence (5 parts )
- Logical / mathematical intelligence (5 parts)
- Visual / spatial intelligence(5 parts)
- Bodily/Kinesthetic intelligence (5 parts )
- Musical /Rhythmic intelligence (2 pats )
- Multiple intelligences Inventory Academic Success(3 parts )
- Interpersonal Intelligence (5 parts )

-Intrapersonal Intelligence (5 parts )

-Naturalist Intelligence (5parts )

This questionnaires can help the students determine which intelligences are strongest for them and researchers can also use them to find out which intelligences their learner uses most often. They Read each statement carefully and Choose one of the statements indicating how well that statement describes them.

##### Procedure

At first the researcher gives multiple intelligences questionnaires to students. In these questionnaires there are nine intelligences and each intelligence has some sentences . Students read the sentences and put a check mark next to the items that apply to them. Then the researcher gives pronunciation anxiety questionnaires to students, they answer to 25 questions to recognize their anxiety about pronunciation. All the students (girls and boys) are in the intermediate level and non-native English .Dominant language is not English for the students.

##### Data analysis

After collecting all the data, the achieved results were loaded on the computer analysis program, SPSS, for coding and categorization to distinguish the relationship between variables .

##### Results

The data were analyzed quantitatively to identify the relationship between variables. The researcher determines the correlation between each intelligence and pronunciation anxiety by obtained scores.

**A) The relationship between verbal / linguistic intelligence and pronunciation anxiety.**

**Correlations**

		Verbal/Linguistic Intelligence	Pronunciation Anxiety
Verbal/Linguistic Intelligence	Pearson Correlation	1	.131
	Sig. (2-tailed)		.422
	N	40	40
Pronunciation Anxiety	Pearson Correlation	.131	1
	Sig. (2-tailed)	.422	
	N	40	40

The result from obtained scores shows that p-value is .422 and it is larger than 0.05, thus it can be inferred that there is not any relationship between verbal / linguistic intelligence and pronunciation anxiety .

**B) The relationship between logical /mathematical intelligence and pronunciation anxiety.**

**Correlations**

		Logical/Mathematical Intelligence	Pronunciation Anxiety
Logical/Mathematical Intelligence	Pearson Correlation	1	-.151
	Sig. (2-tailed)		.352
	N	40	40
Pronunciation Anxiety	Pearson Correlation	-.151	1
	Sig. (2-tailed)	.352	
	N	40	40

we come to the conclusion that there is not any correlation between 2 variables (logical /mathematical intelligence and pronunciation anxiety ) because the p-value about correlation is .352 and it is larger than 0.05 .

**c) The relationship between visual /spatial intelligence and pronunciation anxiety**

**Correlations**

		Visual/Spatial Intelligence	Pronunciation Anxiety
Visual/Spatial Intelligence	Pearson Correlation	1	.238
	Sig. (2-tailed)		.138
	N	40	40
Pronunciation Anxiety	Pearson Correlation	.238	1
	Sig. (2-tailed)	.138	
	N	40	40

The obtained scores show that there is not any relationship between visual /spatial intelligence and pronunciation anxiety because the p-value about correlation is .138 and it is larger than 0.05 level.

**D) The relationship between bodily / kinesthetic intelligence and pronunciation anxiety**

**Correlations**

		Bodily/Kinesthetic Intelligence	Pronunciation Anxiety
Bodily/Kinesthetic Intelligence	Pearson Correlation	1	.361*
	Sig. (2-tailed)		.022
	N	40	40
Pronunciation Anxiety	Pearson Correlation	.361*	1
	Sig. (2-tailed)	.022	
	N	40	40

\*. Correlation is significant at the 0.05 level (2-tailed).

According to this table p-value is .02 and it is smaller than .05 , thus It can be inferred that there is a correlation between bodily /kinesthetic intelligence and pronunciation anxiety but it is not strong. The correlation is .36

**E) The relationship between musical / rhythmic intelligence and pronunciation anxiety**

**Correlations**

		Musical/Rhythmic Intelligence	Pronunciation Anxiety
Musical/Rhythmic Intelligence	Pearson Correlation	1	.163
	Sig. (2-tailed)		.316
	N	40	40
Pronunciation Anxiety	Pearson Correlation	.163	1
	Sig. (2-tailed)	.316	
	N	40	40

The obtained scores show that there is not any relationship between musical / rhythmic intelligence and pronunciation anxiety because the p-value about correlation is .316 and it is larger than 0.05 level.

**F) The relationship between multiple intelligences inventory academic success and pronunciation anxiety**

**Correlations**

		Multiple Intelligences Inventory Academic Success	Pronunciation Anxiety
Multiple Intelligences Inventory Academic Success	Pearson Correlation	1	.979**
	Sig. (2-tailed)		.000
	N	40	40
Pronunciation Anxiety	Pearson Correlation	.979**	1
	Sig. (2-tailed)	.000	
	N	40	40

\*\* . Correlation is significant at the 0.01 level (2-tailed).

According to these scores ,we can say that :there is a **strong** correlation between Multiple intelligences inventory academic success and pronunciation anxiety , because the correlation is .979. This table shows that the significant is 0 and confirmed the remarkable relationship when confidence interval is 0.99. Thus we come to the conclusion that with the increase of *inventory academic success* ,the anxiety decreased .

**G) The relationship between interpersonal intelligence and pronunciation**

**Correlations**

		Interpersonal Intelligence	Pronunciation Anxiety
Interpersonal Intelligence	Pearson Correlation	1	-.094
	Sig. (2-tailed)		.563
	N	40	40
Pronunciation Anxiety	Pearson Correlation	-.094	1
	Sig. (2-tailed)	.563	
	N	40	40

The obtained scores show that there is not any relationship between interpersonal intelligence and pronunciation anxiety because the p-value about correlation is .563 and it is larger than 0.05 level.

### H) The relationship between Intrapersonal intelligence and pronunciation anxiety

#### Correlations

		Intrapersonal Intelligence	Pronunciation Anxiety
Intrapersonal Intelligence	Pearson Correlation	1	.049
	Sig. (2-tailed)		.765
	N	40	40
Pronunciation Anxiety	Pearson Correlation	.049	1
	Sig. (2-tailed)	.765	
	N	40	40

we come to the conclusion that there is not any correlation between Intrapersonal intelligence and pronunciation anxiety because the p-value about correlation is .765 and it is larger than 0.05

### I) The relationship between naturalist intelligence and pronunciation anxiety

#### Correlations

		Naturalist Intelligence	Pronunciation Anxiety
Naturalist Intelligence	Pearson Correlation	1	-.314*
	Sig. (2-tailed)		.048
	N	40	40
Pronunciation Anxiety	Pearson Correlation	-.314*	1
	Sig. (2-tailed)	.048	
	N	40	40

\*. Correlation is significant at the 0.05 level (2-tailed).

The correlation is  $-.314^{**}$ , thus It can be inferred that there is a correlation in confidence interval 0.95 between naturalist intelligence and pronunciation anxiety but it is not strong and the p-value is .04

#### Discussion and Conclusion

What we did in this research was to investigate the relationship between multiple intelligences and pronunciation anxiety, considerable results were achieved. As the results clarifies: from 9 intelligences

- Just there is one strong correlation between Multiple intelligences inventory academic success and pronunciation anxiety, because the correlation is 0.98 and the significance is 0 and confirmed the significant relationship when confidence interval is 0.99. Thus we come to the conclusion that with the increase of *inventory academic success*, the anxiety is decreased. Language anxiety is the most powerful predictor on the students' performance among the affective factors (Liu & Huang, 2011). Gardner, Tremblay and Masgoret (1997) declared that foreign language anxiety was ranked as the highest factor which negatively with language achievement. Anxiety has a harmful effect on learners' performance. In other words foreign language anxiety affects the students' learning process and outcomes.

-According to obtained scores, two intelligences: Bodily/Kinesthetic intelligence and naturalistic intelligence have relationship with pronunciation anxiety, but it is not remarkable because in Bodily/Kinesthetic intelligence the correlation is .36 and p-value is .02 and in naturalistic intelligence the correlation is .31 and p-value is .04 and is smaller than .05

-The researcher could not find any correlation between other intelligences and pronunciation anxiety by obtained scores. This study is aimed to investigate the impact of multiple intelligences and pronunciation anxiety. It helps the teachers to modify teaching methods and can help policy makers to plan

and implement strategies to decrease pronunciation anxiety that has important role in increasing individual productivity.

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#### Appendix

##### MULTIPLE INTELLIGENCES INVENTORY

According to Gardner, all human beings have at least eight different types of intelligence. Depending on your background and age, some intelligences are likely to be more developed than others. This activity will help you find out what your intelligences are. Knowing this, you can work to strengthen the other intelligences that you do not use as often. Put a check mark next to the items that apply to you.

##### VERBAL/LINGUISTIC INTELLIGENCE

- I enjoy telling stories and jokes.
- I enjoy word games (for example, Scrabble and puzzles).
- I am a good speller (most of the time).
- I like talking and writing about my ideas.
- If something breaks and won't work, I read the instruction book before I try to fix it.

## LOGICAL/MATHEMATICAL INTELLIGENCE

- I really enjoy my math class.
- I like to find out how things work.
- I enjoy computer and math games.
- I love playing chess, checkers, or Monopoly.
- If something breaks and won't work, I look at the pieces and try to figure out how it works.

## VISUAL/SPATIAL INTELLIGENCE

- I prefer a map to written directions.
- I enjoy hobbies such as photography.
- I like to doodle on paper whenever I can.
- In a magazine, I prefer looking at the pictures rather than reading the text.
- If something breaks and won't work, I tend to study the diagram of how it works.

## BODILY/KINESTHETIC INTELLIGENCE

- My favorite class is gym because I like sports.
- When looking at things, I like touching them.
- I use a lot of body movements when talking.
- I tend to tap my fingers or play with my pencil during class.
- If something breaks and won't work, I tend to play with the pieces to try to fit them together.

## MUSICAL/RHYTHMIC INTELLIGENCE

- I enjoy listening to CDs and the radio.
- I like to sing.

## MULTIPLE INTELLIGENCES INVENTORY Academic Success

- I like to have music playing when doing homework or studying.
- I can remember the melodies of many songs.
- If something breaks and won't work, I tend to tap my fingers to a beat while I figure it out.

## INTERPERSONAL INTELLIGENCE

- I get along well with others.
- I have several very close friends.
- I like working with others in a group.
- Friends ask my advice because I seem to be a natural leader.
- If something breaks and won't work, I try to find someone who can help me.

## INTRAPERSONAL INTELLIGENCE

- I like to work alone without anyone bothering me.
- I don't like crowds.
- I know my own strengths and weaknesses.
- I find that I am strong-willed, independent, and don't follow the crowd.

If something breaks and won't work, I wonder whether it's worth fixing.

## NATURALIST INTELLIGENCE

- I am keenly aware of my surroundings and of what goes on around me.
- I like to collect things like rocks, sports cards, and stamps.
- I like to get away from the city and enjoy nature.
- I enjoy learning the names of living things in the environment, such as flowers and trees.
- If something breaks and won't work, I look around me and try to see what I can find to fix the problem.

A verbal/linguistic learner likes to read, write, and tell stories and is good at memorizing information. A logical/mathematical learner likes to work with numbers and is good at problem-solving and logical processes. A visual/spatial learner likes to draw and play with machines, is good at puzzles, reading maps and charts. A bodily/kinesthetic learner likes to move around and is good at sports, dance, and acting. A musical/rhythmic learner likes to sing and play an instrument and is good at remembering melodies and noticing pitches and rhythms. An interpersonal learner likes to have many friends and is good at understanding people, leading others, and mediating conflicts. Intrapersonal learners like to work alone, understand themselves well, and are original thinkers. A naturalistic learner likes to be outside and is good at preservation, conservation, and organizing a living area. You can use your intelligences to help you make decisions about a major, choose activities, and investigate career options. Which intelligences best describe you?

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