

## Students' Ability to Identify Different Tones and the Tonic Syllable in the English Intonation

**Areig Osman Ahmed Mohamed**

Department of English language, College of Languages  
Sudan University of Science and Technology, Sudan

### Abstract

This study aims at knowing the degree of students' knowledge concerning different tones and the tonic syllable in the intonation of English language. Moreover, if this knowledge could be improved through teaching students these different tones and the tonic syllable. Thus the objectives of this study are to determine to what extent students can identify various tones when hearing them, and also if they can identify the tonic syllable; moreover to show the statistical differences before studying intonation and after studying intonation. To achieve this aim the researcher selected a sample of 92 third year students at Sudan University of Science and Technology and conducted a pre-test to determine their standard before teaching them intonation then a post-test of 30 items of words and sentences was conducted. Statistical analysis of the students' performance showed the following: Regarding single words, students' understanding of the tone *fall* has improved and they became much better in identifying it. When considering the tone *rise* the students still face problem with it. When looking into the *fall-rise* and *rise-fall* tones, students confuse them together. Regarding the level of sentence it has been recognized that the students understanding of the tone *fall-rise* has improved but they still confuse the *rise* and the *fall* tones together. Regarding the tonic syllable the students in the post test have an inclination not to choose the structure words as a tonic syllable. Their understanding in this area has improved.

**Keywords:** Stress, tone, pitch, intonation

### Students' Ability to Identify Different Tones and the Tonic Syllable in the English Intonation

Language is so an integral part of the human life and activities that one does not realize the enormous complexities that are involved in the language learning process until one tries actively to either teach a language other than one's own or tries to learn one. A human language is described as a 'system of systems' and these systems are: phonology, lexis, morphology, syntax, cohesion, and semantics. This study aims at knowing the degree of students understanding of intonation concerning the different tones and the tonic syllable. Moreover, whether teaching intonation to those students could help them better identify different tones when hearing them.

The significance of this study stems up from the importance of English language itself as a global language. Thus, it is important for the foreign language speaker to understand various tones when hearing them. Because intonation in any language serves many functions, so if the foreign language speaker doesn't know different tones implied in English language this may lead to misunderstanding.

The objectives of this paper are: To find out to what extent students (before studying intonation and after studying intonation) can distinguish various tones when hearing them? To find out whether the students can: a) Identify different tones on the level of words. b) Identify different tones on the level of sentences. c) Identify tonic syllable.

#### Literature review:

**Tone:** Tone refers to significant (i.e. meaningful, contrastive, phonemic) contrasts between words signaled by pitch differences. Tone may be lexical, as in Mandarin Chinese or grammatical tone, or as in many African languages. However, as with stress, there may also be non-pitch aspects of tone. Lexical tones are often related to durational, phonatory and vowel quality distinctions as well as frequency distinctions. (Soltani,2007:11).

**Pitch:** The pitch of the human voice is continuously variable. Nevertheless, phonologists often assert that any language uses only a small set of different patterns to control intonation-variation in pitch, whose primary acoustic correlation is fundamental frequency or  $f_0$ . Intonation in English, for example, is said to behave this way. Similar claims have been made for numerous other languages. (Braun,2006:406)

English is termed a stress language, not a tone language, but intonation plays a great role in it. Many scholars have recognized the relationship between intonation form and function from very early times. Pike (1972, p. 56) mentioned the communicative importance of intonation by stating that "we often react more violently to the intonational meanings than to the lexical ones; if a man's tone of voice belies his words, we immediately assume that the intonation more faithfully reflects his true linguistic intentions." He tried to give more explanation by mentioning "If one says something insulting, but smiles in face and voice, the utterance may be a great compliment; but if one says something very complimentary, but with an intonation of contempt, the result is an insult." (Pike 1972, p. 56)

Another scholar comment on the communicative importance of intonation, describing changes in it as "the most efficient means of rendering prominent for a listener, those parts of an utterance on which the speaker wishes to concentrate attention". (Gimson, 1980, p. 264) The grammatical and attitudinal importance is also not neglected by the scholars. "Intonation is often important grammatically in distinguishing one type of sentence from another, it is important in signaling the attitude of the speaker in what he is saying." (Jackson, 1982, p.48)

The acknowledged importance of intonation in communication is quite obvious, but still there are many obstacles in the way of a clear-cut analysis of the relationship between the form and function of intonation, not to mention how to make the non-native speaker of English understand these functions.

L2 learners, who already use their L1 intonation as perhaps the most unconscious resource to communicate, might apply this language acquisition strategy to their L2 spoken discourse. (Best, 1995, p. 171–206) Their L1 intonation may work, then, as a source of hypothesis for their L2 intonation.

Children learn the rhythm of their L1 very early in life. By the time they reach the age of one, that rhythm is deeply familiar to them, and they will unconsciously apply it to any L2 that they learn. (Aoyama et al. 2007: 281–297). Their L1 intonation may work, then, as a source of hypothesis for their L2 intonation. This hypothesis would enable learners to perceive and convey basic speech functions in the target language. (Brown & Levinson, 1987)

## **Method**

The descriptive method is used because is suitable for such kind of studies.

### ***Subjects***

The population of the study is the third year students at Sudan University of Science and Technology with total of 92 students sat to pre- and post receptive tests of intonation.

### ***Procedure and Material***

The researcher has conducted a pre-test to determine the standard of the students before being taught intonation, after teaching intonation to the group a post- test (the same test) was conducted to find out the newly acquired standard of the students, i.e. the degree of the progress they have achieved after studying intonation. The researcher consulted three books when it came to teaching intonation: Roach (2005, PP. 120-180) English Phonetics and Phonology, O'Connor (2007, PP.108-125) Better English Pronunciation, and Rogerson (2011, PP. 179-205) English Phonology and Pronunciation Teaching . The intonation has been taught for ten hours mainly from Roach (2005) and the students have listened to different tones. The test is composed of 30 items which students have to listen to and determine the right tone they hear. All 30 items were taken from Roach (2005, PP.120-180) (appendix A)English phonetics and phonology, even the model answer was derived from it. The first 10 items were words the students were asked to identify the different tones, the second 10 items were sentences the students were asked to identify the different tones, the last 10 items were sentences the students were asked to identify the tonic syllable. After a period of thirteen weeks the students sat to the same test after being taught intonation. Their intonation knowledge, as data, has been collected through results of marking the pre and post tests. Each test has been marked out of 30 to determine the scores of the students and how much they achieved in the two tests.

Frequency and percentages have been used to reflect the tones which cause problems to the students.

### ***Validity and Reliability***

For internal consistency reliability, for multiple item scales of this test, the researcher has computed the most commonly used type of internal consistency reliability, Cronbach's

coefficient alpha. (Nancy L. Leech et al, 2005:63) Number of items is 2, Cronbach's Alpha based on standardized Items is 0.437.

The correlation of each specific item with the sum/total of the other items in the scale is 0.437 this mean that the test is reliable.

The validity is 0.6, which mean the degree of the test validity is good.

Concerning the face validity; five scholars were consulted, concerning the intonation perceptive and their comments have been taken under consideration.

### Result and discussion:

Students have been given a receptive test before being taught intonation, then they has been given the same test after being taught intonation, they listened to different words and sentences and asked to decide the correct answer. The following tables show the frequency(F) and percentage (%)of students' answers before studying intonation, it will be shown in the tables as (Pre), and the frequency (F)and percentage (%)of students answers after studying intonation it will be shown in the tables as (Post)

### Students' identifications of different tones on the level of words:

In this question students have been asked to listen to each word and identify the tone they heard. (Appendix B)

**Table. Identifying the tone "fall"**

Tones	Pre-						Post.					
	Two		Five		Now		Two		Five		Now	
	F.	%	F.	%	F.	%	F.	%	F.	%	F.	%
Fall	32	34.8	20	21.7	18	19.6	49	53.3	40	43.5	35	38.0
Rise	38	41.3	23	25.0	11	12.0	30	32.6	29	31.5	27	29.3
Fall -rise	7	7.6	22	23.9	26	28.3	6	6.5	8	8.7	14	15.2
Rise - fall	15	16.3	27	29.3	37	40.2	7	7.6	15	16.3	16	17.4
Total	92	100.	92	100.	92	100.	92	100.	92	100.	92	100.

The correct tone for the words "Two", "five", and "now" is *fall* 34.8%, 21.7%, 19.6% consecutively of students got it right in the 'Pre'. However, the performance of the students improved more students got it right on the 'Post' that is 53.3%, 43.5%, 38% consecutively, this shows that more of them got a better understanding of this tone. For the word "two"41.3% of the

students have mistaken it with *rise* in the 'Pre' but the students performance improved and 32.6% of the students have mistaken it with *rise* in the 'Post'. For the word "five" also many students have mistaken it with *rise*, 25% in the 'Pre' and 31.5% in the post. For the word "Now" 40.2% of the students had mistaken it with *rise-fall* in the 'Pre', but the students performance got much better and only 17.4% of the students had mistaken it with *rise-fall* in the 'Post'. All this reveals that the students understanding of the tone *fall* has improved after being taught. But still many students mistaken *rise* with *fall* even after being taught intonation.

**Table. 2 Identifying the tone "Rise"**

Tones	Pre-						Post-					
	Three		Six		Us		Three		Six		Us	
	F.	%	F.	%	F.	%	F.	%	F.	%	F.	%
Fall	43	46.7	38	41.3	14	15.2	39	42.4	29	31.5	15	16.3
Rise	15	16.3	26	28.3	31	33.7	19	20.7	30	32.6	51	55.4
Fall - rise	13	14.1	14	15.2	14	15.2	25	27.2	21	22.8	13	14.1
Rise-fall	21	22.8	14	15.2	33	35.9	9	9.8	12	13.0	13	14.1
Total	92	100	92	100	92	100	92	100.0	92	100	92	100

The correct tone for the words "Three", "Six" and "us" is *rise* only 16.3%, 28.3%, 33.7% consecutively of students got it right in the 'Pre'. For the word "three" the performance of the students did not improve much in the 'Post' 20.7% got it right. 46.7% of the students have mistaken it with *fall* in the 'Pre' and 42.4% of the students have mistaken it with *fall* in the 'Post'. The performance of the students improved a little in the word "six" in the 'Post' 32.6% got it right, this shows that only few of them got a better understanding of this tone. 41.3% of the students have mistaken it with *fall* in the 'Pre', the performance of the students has improved in the 'Post' less students have mistaken it with *fall*; this is 31.5%, which is still a very high percentage. The correct tone for the word "us" is *rise* 33.7% of students got it right in the 'Pre'. For the word "us" the performance of the students improved a lot in the 'Post' 55.4% got it right. This reflects that students understanding of the tone *rise* improved just a little after being taught. But still many students have mistaken *fall* with *rise* even after being taught. Also there is no consistency in their understanding because for the word us many identified it better in the post.

**Table.3 Identifying the tone “Fall-rise”**

Tones	Pre-				Post-			
	One		You		One		You	
	F.	%	F.	%	F.	%	F.	%
Fall	27	29.3	23	25.0	16	17.4	5	5.4
Rise	43	46.7	16	17.4	29	31.5	13	14.1
Fall – rise	10	10.9	33	35.9	23	25.0	47	51.1
Rise – fall	12	13.0	20	21.7	24	26.1	27	29.3
Total	92	100	92	100.0	92	100.0	92	100.0

The correct tone for the word “One”, and “you” is *fall-rise* only 10.9%,35.9% respectively of the students got it right in the ‘Pre’. However, the performance of the students improved more students got it right on the ‘Post’ that is 25%, 51.1% respectively, this shows that some of them got a better understanding of this tone. The tone with the second higher percentage which students have mistaken it with *fall-rise* in the ‘Pre’ is *fall*, this is 29.3%,25% respectively but the students performance improved and only 17.4%, 5.4% of the students have mistaken it with *fall* in the ‘Post’. For the word “One” many students have mistaken it with *rise* in both tests, in the Pre. 46.7%, and in the Post 31.5%. This shows that students mistaken *rise* with *rise-fall*. For the word “you” the tone with the second higher percentage which students have mistaken it with *fall-rise* in the ‘Post’ is *rise-fall*, this is 29.3 this tone is closer to *fall-rise* than *fall*, this reflects that the students started to develop better understanding to tones as general.

**Table.4 Identifying the tone of the word “Rise-fall”**

Tones	Pre-				Post-			
	Four		More		Four		More	
	F.	%	F.	%	F.	%	F.	%
Fall	1	1.1	16	17.4	5	5.4	3	3.3
Rise	19	20.7	14	15.2	9	9.8	12	13.0
Fall – rise	37	40.2	23	25.0	38	41.3	37	40.2
Rise – fall	35	38.0	39	42.4	40	43.5	40	43.5
Total	92	100.0	92	100.0	92	100.0	92	100.0

The correct tone for the words “four” and “More” is *rise-fall* 38%, and 42.4% of students got it right in the ‘Pre’. The performance of the students improved a little in the ‘Post’ 43.5% (for both words) got it right, this shows that only few of them got a better understanding of this tone. 40.2%, 25% respectively of the students have mistaken it with *fall-rise* in the ‘Pre’ and 41.3%, 40.2% respectively of the students have mistaken it with *fall-rise* in the ‘Post’. This proves that many students mistaken *rise-fall* with *fall-rise* even after being taught intonation.

From all the above tables it is recognized that the students understanding of the tone *fall* has improved and they became much better in identifying it after being taught intonation. The right tone for words “two”, “five” and “now” is *fall* the percentages of the students who got it right in the ‘Post’ are: 53.3%, 34.5% and 38% consecutively, which reflect an improvement because in the ‘Pre’ the percentages for the same words are: 34.8%, 21.7% and 19.6%.

When considering the tone *rise* the students understanding of it improved, but not like the tone *fall* and many confuse it with the tone *fall*. The right tone for the words “three”, “six”, and “us” is *rise* the percentages of the students who got it right in the ‘Post’ are: 20.7%, 32.6% and 55.4% consecutively. The percentages of students who mixed it with *fall* are: 42.4%, 31.5% and 16.3% consecutively.

Regarding the *fall-rise* and *rise-fall* tones, it is clear that the students' standard in recognizing them has improved after being taught intonation but still many students confuse them together. Before being exposed to the teaching material there was no consistency with the tones they confuse them with, but after having the knowledge of intonation most of them started to mix them together, and this could be a step towards the right direction. The right tone for the words “one” and “you” is *fall-rise* the percentages of the students who got it right in the ‘Post’ are: 25% and 51.1% respectively. The percentages of students who mixed it with *rise-fall* are: 26% and 29.3% respectively. The right tone for the words “four” and “more” is *rise-fall* the percentages of the students who got it right in the ‘Post’ are: 43.5% for both words. The percentages of students who mixed it with *fall-rise* are: 41.3% and 40.2% respectively.

#### Students' identifications of different tones on the level of sentence:

In this question students have been asked to listen to each sentence and identify the tone they heard: In the table the sentences are numbered the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> etc. (Appendices)

**Table.5 Identifying the tone “fall” in the sentences: 1<sup>st</sup> “Now here’s the weather forecast.” 2<sup>nd</sup> “A few years ago they were top.”**

Tones	Pre-				Post-			
	1 <sup>st</sup>		2 <sup>nd</sup>		1 <sup>st</sup>		2 <sup>nd</sup>	
	F.	%	F.	%	F.	%	F.	%
Fall	52	56.5	13	14.1	65	70.7	30	32.6
Rise	18	19.6	65	70.7	16	17.4	49	53.3
Fall-rise	22	23.9	14	15.2	11	12.0	13	14.1
Total	92	100.	92	100.	92	100.	92	100.

The correct tone for the sentences 1<sup>st</sup> “Now here’s the weather forecast.”, 2<sup>nd</sup> “A few years ago they were top.” is *fall* 56.5%, 14.1% respectively of students got it right in the ‘Pre’. The performance of the students improved a lot that is in the ‘Post’ 70.7% 32.6% respectively got it right, this reflects that many of them got a better understanding of this tone. The tone with the second higher percentage which students have mistaken it with *fall* in the ‘Pre’ is *fall-rise*, for the 1<sup>st</sup> sentence, this is 23.9%, and *rise*, for the 2<sup>nd</sup> sentence this is 70.7%. The tone with the second higher percentage which students have mistaken it with *fall* in the ‘Post’ is *rise*, this is 17.4%, 53.3% for the 1<sup>st</sup> and second sentences respectively. This reflects that their understanding of tones started to improve because a *fall-rise* tone has two components a fall and a rise, while *fall* and *rise* tones have one main component either falling or rising. But many students are still having difficulty in identifying this tone.

**Table.6 Identifying the tone “fall”: in the sentences; 3<sup>rd</sup> “We try to do our shopping in the market.” 4<sup>th</sup> “But I never go there now.”**

Tones	pre-				Post-			
	3 <sup>rd</sup>		4 <sup>th</sup>		3 <sup>rd</sup>		4 <sup>th</sup>	
	F.	%	F.	%	F.	%	F.	%
Fall	12	13.0	27	29.3	34	37.0	33	35.9
Rise	50	54.3	40	43.5	36	39.1	38	41.3
Fall-rise	30	32.6	25	27.2	22	23.9	21	22.8
Total	92	100.0	92	100.0	92	100.	92	100.0

The correct tone for the sentences 3<sup>rd</sup> “We try to do our shopping in the market.”, and 4<sup>th</sup> “But I never go there now.” is *fall* only 13%, 29.3% respectively of the students got it right in the ‘Pre’. The performance of the students improved a lot in the ‘Post’ that is 37%, 35.9% got it right, this reflects that many of them got a better understanding of this tone. However, the tone which students have mistaken it with is *rise*, 39.1%, 41.3% respectively of the students in the ‘Post’ mistaken it with rise which nearly the same as the percentage of the students who got it right. But still this is better because 54.3%, 43.5% respectively mistaken it with rise in the pre. This shows the percentage of the students who got it wrong even after being taught intonation is higher than those who got it right.

**Table.7 Identifying the tone “Rise” in the sentences: 5<sup>th</sup> “You didn’t say anything about rates.” 6<sup>th</sup> “Is there anything you wouldn’t eat?”**

Tones	Pre-		Post-	
	5 <sup>th</sup>	6 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>

	F.	%	F.	%	F.	%	F.	%
Fall	25	27.2	60	65.2	15	16.3	48	52.2
Rise	27	29.3	19	20.7	48	52.2	32	34.8
Fall-rise	40	43.5	13	14.1	29	31.5	12	13.0
Total	92	100.	92	100.	92	100.	92	100.

The correct tone for the sentences 5<sup>th</sup> "You didn't say anything about rates.", and 6<sup>th</sup> "Is there anything you wouldn't eat?" is *rise* 29.3%, 20.7% respectively of students got it right in the 'Pre'. The performance of the students improved a lot that is in the 'Post' 52.2%, and 34.8% respectively got it right. This reflects that many of them got a better understanding of this tone. For the 5<sup>th</sup> sentence the tone with the second higher percentage which students have mistaken it with is *fall-rise* with 43.5% in the 'Pre' and 31.5% in the post. For the 6<sup>th</sup> sentence more students mistaken it with *fall*, the percentage is even higher than *rise* with 65.2% in the 'Pre' and 52.2% in the post. This shows that many students are still having difficulty in identifying it.

**Table.8 Identifying the tone "Rise" in the sentences: 7<sup>th</sup> "Have you ever considered writing?" 8<sup>th</sup> "It wouldn't be difficult to find out."**

Tones	Pre-				Post-			
	7 <sup>th</sup>		8 <sup>th</sup>		7 <sup>th</sup>		8 <sup>th</sup>	
	F.	%			F.	%		
Fall	44	47.8	37	40.2	42	45.7	27	29.3
Rise	24	26.1	36	39.1	33	35.9	37	40.2
Fall-rise	24	26.1	18	19.6	17	18.5	29	31.5
Total	92	100.0	92	100.0	92	100.	92	100.0

The correct tone for the sentences 7<sup>th</sup> "Have you ever considered writing?", and 8<sup>th</sup> "It wouldn't be difficult to find out." is *rise* 26.1%, 39.1% respectively of students got it right in the 'Pre'. The performance of the students improved, that is in the 'Post' 35.9%, 40.2% respectively got it right, this reflects that few of them got a better understanding of this tone. However, the tone which students have mistaken it with is *fall*, with 47.8%, 40.2% respectively in the 'Pre' and 45.7%, 29.3% respectively in the post. This shows the percentage of the students who got it wrong even after being taught intonation is still high.

**Table.9 Identifying the tone “Fall-rise” 9<sup>th</sup> “No one could say the cinema was dead.” 10<sup>th</sup> “That was what he claimed to be.”**

Tones	Pre-				Post-			
	9 <sup>th</sup>		10 <sup>th</sup>		9 <sup>th</sup>		10 <sup>th</sup>	
	F.	%			F.	%		
Fall	32	34.8	31	33.7	22	23.9	32	34.8
Rise	5	5.4	25	27.2	11	12.0	22	23.9
Fall-rise	55	59.8	36	39.1	59	64.1	38	41.3
Total	92	100.	92	100.	92	100.	92	100.

The correct tone for the sentences 9<sup>th</sup> “No one could say the cinema was dead.”, and 10<sup>th</sup> “That was what he claimed to be.” “That was what he claimed to be.” is *fall-rise* 59.8%, 39.1% respectively of students got it right in the ‘Pre’. The performance of the students improved a little that is in the ‘Post’ 64.1%, 41.3% respectively got it right, this reflects that few of them got a better understanding of this tone. However, the tone with the second higher percentage which students have mistaken it is *fall* with 34.8%, 33.7% respectively in the ‘Pre’ and 23.9%, 34.8% respectively in the post. This shows that the performance of the students becomes a little bit better but still many students are still having difficulty in identifying it.

From all the above tables it is recognized that the students understanding of the tone *fall-rise* has improved and they became much better in identifying it after being taught intonation. The right tones for sentences “No one could say the cinema was dead.”, and “That was what he claimed to be.” is *fall-rise* the percentages of the students who got it right in the ‘Post’ are: 64.1%, 41.3% respectively, which reflect an improvement because in the ‘Pre’ the percentages for the same sentences are: 59.8% and 39.1% respectively.

When considering the *rise* and the *fall* tones the students confuse them together even after being taught intonation.

### Students' identifications of tonic syllable.

In this question the students have been asked to listen to different sentences and identify the tonic syllable. The following tables reflect whether the students have chosen the right focus word (referred to in the table as F. word) or a content word (referred to in the table as C. word) or a structure word, (referred to in the table as S. word). In the following tables the sentences are numbered 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> etc.(Appendices E&F)

**Table.10 Identifying the tonic syllable in the last content word in the sentences 1<sup>st</sup> "We could go by bus." 2<sup>nd</sup> We could go from Manchester. 3<sup>rd</sup> Have you finished?**

	Pre						Post					
	1 <sup>st</sup>		2 <sup>nd</sup>		3 <sup>rd</sup>		1 <sup>st</sup>		2 <sup>nd</sup>		3 <sup>rd</sup>	
	F.	%										
F. word	39	42.4	54	58.7	57	62.0	62	67.4	73	79.3	73	79.3
C. word	21	22.8	9	9.8	-	-	11	12.0	7	7.6	-	-
S. word	32	34.8	29	31.6	35	38.0	19	20.6	12	13.1	19	20.7
Total	92	100.	92	100.	92	100.	92	100.	92	100.	92	100.

The tonic syllable in each of the above sentences is on the last content word which happened to be the last word.

The tonic syllable for the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> sentences is on **bus, Manchester, finished**. 42.4%, 58.7%, 62% consecutively of students got it right in the 'Pre'. The performance of the students improved a lot and in the 'Post' 67.4%, 79.3%, 79.3% respectively got it right. 34.8%, 31.6%, 31.6% consecutively of the students put the tonic syllable on structure word that is **we, by, could, from, you, or have** in the 'Pre', this percentage has been reduced to 20.6%, 13%, 20.7% respectively in the 'Post'. These sentences reflect that the teaching of intonation raised the percentage of students understanding on recognizing the place of the tonic syllable. Moreover, after being taught they knew the difference between structure words and content words regarding intonation.

**Table. 11 Identifying the tonic syllable in the last content word in the sentences 4<sup>th</sup> "The car was where I'd left it." 5<sup>th</sup> "How much is the biggest one." 6<sup>th</sup> "It was too cold."**

	Pre						Post					
	4 <sup>th</sup>		5 <sup>th</sup>		6 <sup>th</sup>		4 <sup>th</sup>		5 <sup>th</sup>		6 <sup>th</sup>	
	F.	%										
F. word	17	18.5	47	51.1	45	48.9	42	45.7	69	75.0	65	70.7
C. word	50	54.3	14	15.2	41	44.6	37	40.2	5	5.4	23	25.0
S. word	25	27.2	31	33.7	6	6.5	13	14.1	18	19.6	4	4.3
Total	92	100.	92	100.	92	100.	92	100.	92	100.	92	100.

The tonic syllable for the sentences is on the last content word that is for 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> is on *left, biggest, cold respectively*. 18.5%, 51.1%, 48.9% consecutively of students got it right in the 'Pre'. The performance of the students improved a lot and in the 'Post' 45.7%, 75%, 70.7% consecutively got it right. 27.2%, 33.7%, 6.5 consecutively of the students put the tonic syllable on structure words that is *the, was, I'd, it, much, is, one* in the 'Pre', this percent dropped to 14.1%, 19.6%, 4.3% consecutively in the 'Post'.

The above sentences reflect that the teaching of intonation raised the percentage of students understanding on recognizing the place of the tonic syllable. Even if the content word is not the last word in the sentence like in the 4<sup>th</sup> and 5<sup>th</sup> sentences, or when there is a content word close to the focus word and it could be the focus word as in the 6<sup>th</sup> sentence "too cold".

**Table.12 Identifying the tonic syllable in a content word which is not at the end of a sentence : in the sentences 7<sup>th</sup> "Of course it is broken." 8<sup>th</sup> "I knew it would go wrong" 9<sup>th</sup> "Her it is."**

	Pre-						Post-					
	7 <sup>th</sup>		8 <sup>th</sup>		9 <sup>th</sup>		7 <sup>th</sup>		8 <sup>th</sup>		9 <sup>th</sup>	
	F.	%										
F. word	40	43.5	40	43.5	61	66.3	65	70.7	55	59.8	77	83.7
C. word	23	25.0	39	42.4	-	-	20	21.7	28	30.4	-	-
S. word	29	31.5	13	14.1	31	33.7	7	7.6	9	9.8	15	16.3
Total	92	100.	92	100.	92	100.	92	100.	92	100.	92	100.

The tonic syllable in the above 7<sup>th</sup>, 8<sup>th</sup> sentences is not in the last content word which is the common place of the tonic syllable it is in another word which indicates that the speech is related to something before it. While in the 9<sup>th</sup> "Her it is." it is on the only content word which happened to be at the beginning of the sentence.

The tonic syllable for the sentences 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup> is on *course, Knew, here* consecutively 43.5%, 43.5%, 66.3% consecutively of students got it right in the 'Pre'. The performance of the students improved a lot and in the 'Post' 70.7%, 59.8%, 83.7% consecutively got it right. 31.5%, 14.1%, 33.7 consecutively of the students put the tonic syllable on *of, it, is, I, or would* in the 'Pre', this percentage has been reduced to 7.6%, 9.8%, 16.5 consecutively in the 'Post'.

The above sentences reflect that the students' knowledge about structure words and content words has improved. Moreover they improved in their recognition of the tonic syllable even if it is not the last content word, or if the content word is not the last word.

**Table. Identifying the tonic syllable in a structure word: in the sentences 10<sup>th</sup> "That was a loud noise."**

Word	Pre		Post	
	Frequency	Percentage %	Frequency	Percentage %
That	6	6.5	6	6.5
Was	11	12.0	39	42.4
A	5	5.4	0	0
Loud	41	44.6	36	39.1
Noise	30	32.6	10	10.9
Total	92	100.0	92	100.0

The tonic syllable for the 10<sup>th</sup> sentence is on **was** 12% of students got it right in the 'Pre'. The performance of the students improved a lot and in the 'Post' 42.4% got it right. 5.4% of the students put the tonic syllable on **A** in the 'Pre', this percentage becomes 0% in the 'Post', this reflects that the students' knowledge about structure words and content words has improved. However, this was a problematic sentence for the students because the tonic syllable is placed on a structured word that is **was**, this is why 39.1% of the students still placed it on **loud**. But still teaching of intonation raised the percentage of students understanding on recognizing the place of the tonic syllable even if it is not in a content word.

The percentages of students' performance have improved a lot this is reflected in the ten sentences. The percentages of the right answer of the ten sentences from 21-30 in the 'Pre' are: 42.4%, 43.5%, 18.5%, 51.1%, 43.5%, 48.9%, 66.3%, 12%, 58.7%, and 62% consecutively, while in the post the percentages are: 67.4%, 70.7%, 45.7%, 75%, 59.8%, 70.7%, 83.7%, 42.4%, 79.3%, and 79.3% consecutively, this reflects that the teaching of intonation raised the percentage of students understanding on recognizing the place of the tonic syllable.

Students have acquired new knowledge that structure words are usually de-emphasized to contrast with the focus words. They learnt the difference between content words and structure words regarding intonation, this knowledge has been reflected in their performance, thus in the post test they have an inclination not to choose the structure words as a tonic syllable. This is quite obvious in the second sentence, "of course it is broken" in the 'Pre' 21.7% of the students have chosen **of** as the tonic syllable, while in the 'Post' only 1.1% of the students have chosen **of**. Also the last sentence "have you finished" in the 'Pre' 25% of the students have chosen **have** as the tonic syllable, while in the 'Post' only 7.6% have chosen **have**.

## Conclusion

Regarding single words after been taught intonation it has been recognized that the students understanding of the tone *fall* has improved and they became much better in identifying it. When considering the tone *rise* the students understanding of it improved, but not as much as

they did in their understanding of the tone *fall* and many confuse tone *rise* with the tone *fall*. When looking into the *fall-rise* and *rise-fall* tones, it is clear that the students' standard in recognizing them has improved. Before being exposed to the teaching material there was no consistency with the tones they confuse them with, but after having the knowledge of intonation most of them started to mix them together.

Regarding the level of sentence it has been recognized that the students understanding of the tone *fall-rise* has improved and they became much better in identifying it after being taught intonation. When considering the *rise* and the *fall* tones the students have mistaken them together even after being taught intonation.

Regarding the tonic syllable it is obvious that students have acquired new knowledge that structure words are usually de-emphasized to contrast with the focus words. They learnt the difference between content words and structure words regarding intonation, this knowledge has been reflected in their performance, thus in the post test they have an inclination not to choose the structure words as a tonic syllable.

### About the Author:

Areig Osman Ahmed Mohamed holds M.A. in E.L.T. She has taught E.A.P. and E.S.P. in Sudan and Saudi Arabia, as well as phonology and listening and speaking in Sudan.

### References

- Aoyama, K. & S. Guion. (2007). Prosody in second language acquisition: Acoustic analyses of duration and FO range. In O.-S. Bohn & M. Munro, eds. *Language experience in second language speech learning. In honor of James Emil Flege*, John Benjamins.
- Best, 1995, C.T. (1995) A direct realist view of cross-language speech perception. In W. Strange (ed.) *Speech Perception and Linguistic Experience: Theoretical and Methodological Issues in Cross-Language Speech Research* (pp.171-206). Timonium, MD: York Press.
- Braun, B. Kochanski, G. Grabe, E. and Rosner, S. (2006) Evidence for attractors in English intonation, *Phonetics Laboratory, University of Oxford, 41 Wellington Square, Oxford OX1 2JF, United Kingdom*
- Gimson, A.G. (1967), *An Introduction to the Pronunciation of English*, Bristol, T.W. Arrowsmith Ltd.
- Jackson, H. (1982) *Analyzing English, An introduction to descriptive linguistics*, Oxford: Pergamon Press.
- Nancy, L. Leech, K. Barrett, G. (2005) *SPSS for Intermediate Statistics: Use and Interpretation*, 2<sup>nd</sup> ed. New Jersey, Lawrence Erlbaum Associates, Publishers: 63.
- O'Connor, J.D. (2007) *Better English pronunciation*, 7<sup>th</sup> edition, Cambridge, Cambridge University Press.
- Pike, K.L. (1972) General Characteristics of Intonation. In: *Intonation*, Dwight Bolinger (ed.), pp. 58–82. Penguin Books.
- Roach, P. (2005), *English phonetics and Phonology*, 8<sup>th</sup> printing, Cambridge, Cambridge University Press.
- Rogerson, P. (2011) *English Phonology and Pronunciation Teaching*, Chennai, Continuum International publishing group :180.
- Soltani, M. (2007) *Contrastive Analysis of English – Persian Intonation*- available at [Http://www.isba.ir/e-book/soltani1.pdf](http://www.isba.ir/e-book/soltani1.pdf).

Appendices  
**Appendix A**  
Perceptive test

The words and sentences of this test are taken from Roach 2005. Students are going to listen to these sentences from the CD attached with the book.

Listen carefully to each section; while you are listening try to answer the following questions:

**Question one:** Identify the tone you hear by choosing the appropriate tone:

Words/ tones	Fall	Rise	Fall-rise	Rise-fall
One				
Two				
Three				
Four				
Five				
Six				
Now				
You				
More				
Us				

**Question two:** Identify the tonic syllable in each of the following sentences by underling it:

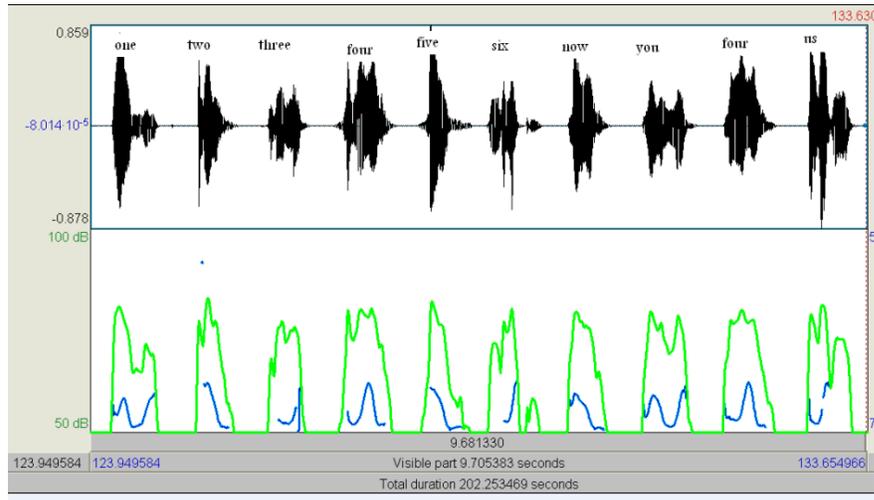
1. We could go by bus.
2. Of course it's broken.
3. The car was where I'd left it.
4. How much is the biggest one.
5. I know it would go wrong.
6. It was too cold.
7. Here it is.
8. That was a loud noise.
9. We could go from Manchester.
10. Have you finished?

**Question three:** What are the tones of the underlined tonic syllables of each of the following sentences choose the right tone:

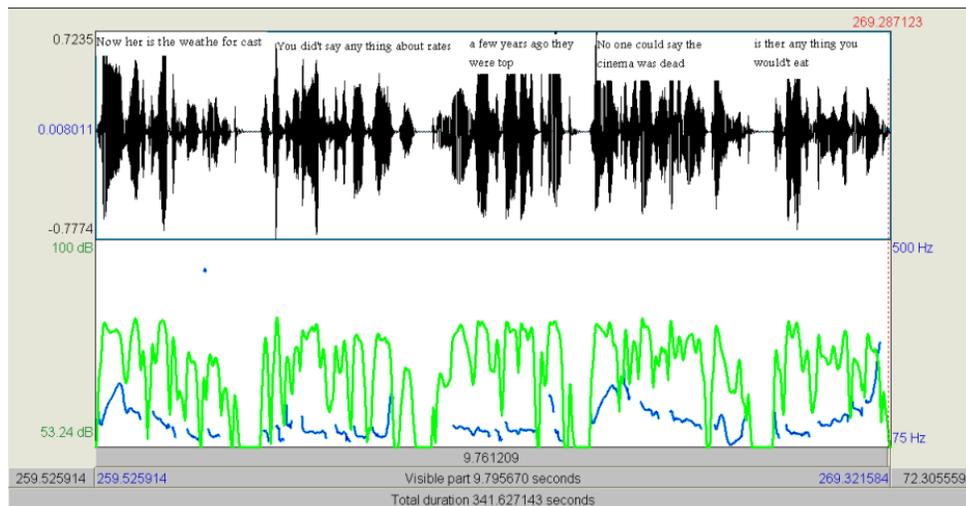
Sentence / tone	Fall	Rise	Rise-fall
Now here's the <u>weather</u> forecast.			
You didn't say anything about <u>rates</u> .			
A few years ago they were <u>top</u> .			
No one could say the cinema was <u>dead</u> .			
Is there <u>anything</u> you wouldn't eat.			
Have you ever considered <u>writing</u> ?			
That was what he <u>claimed</u> to be.			
We try to do our shopping in the <u>market</u> .			
But I <u>never</u> go there now.			

It wouldn't be difficult to find out.

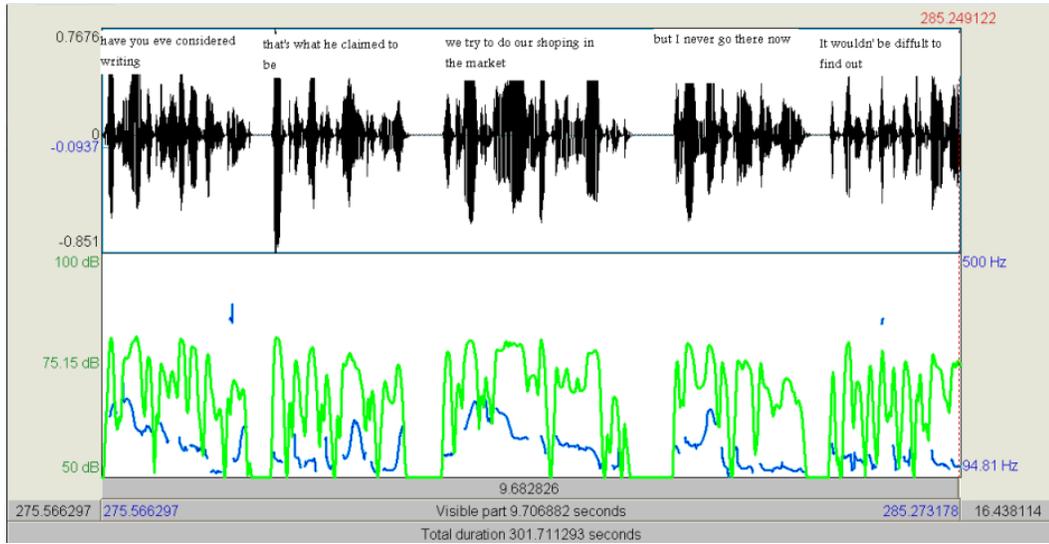
### Appendix B All words in the test



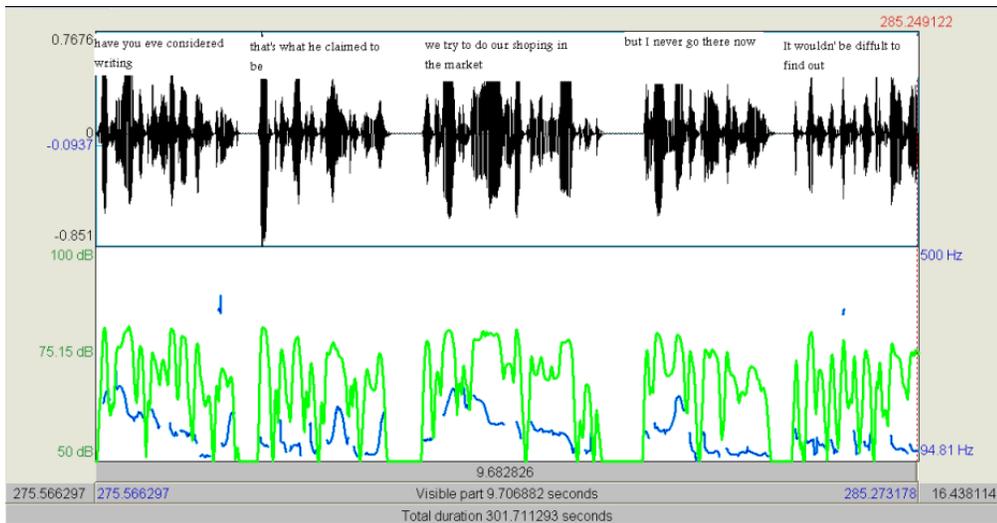
### Appendix C First five sentences in the test



**Appendix D**  
**Second five sentences in the test**



**Appendix E**  
**First five tonic syllables in the test**



### Appendix F Second five Tonic syllables in the

