

**The Islamic University of Gaza
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Difficulties Facing English Department Juniors at IUG in Learning Intonation

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of the Requirement for the Master Degree in Curricula and
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Dedication

I dedicate this work to:

My father and mother for their support and encouragement and for the endless love they have offered me through my life and my study.

My brothers, sisters and all my relatives,

My wife, daughters and sons; without their help I would not have completed my study, and all those who love me.

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Praise and thanks to Almighty God, Who is always there providing me with His blessing and guidance for accomplishing this work.

I wish to express sincere appreciation and gratitude to my major supervisor, Dr. Khader T. Khader for proposing the idea of this study to me in the first place; for guiding me through the course of this work; and for having faith in my ability to accomplish the task. I would like also to record my gratitude to my supervisor Prof. Abed Almoty Alaga for his supervision, advice and guidance from the very early stage of this research and for giving me extraordinary experience throughout this work, without their guidance and help this thesis would not have been possible.

My deepest appreciation is to Dr. Walid Amer, Dr. Jaber Abu-Shawish, Dr. Asad Abu-Sharkh, Dr. Izo Afana and Dr. Jamal Al'shareef for their support and encouragement all the time. I would like to thank all the people in Palestine and Norway who contributed in, one way or another, to the completion of this study, especially those who helped me in collection and calculating the data needed for the study.

My thanks and gratitude's are also due to English Department Juniors for their co-operation in applying the tools of the study.

Finally, I extend my thanks to the Islamic University of Gaza's library staff for their help and cooperation.

Abstract

The purpose of the present study is to explore the difficulties that face IUG students in learning intonation in written and spoken contexts. Based on literature review, related studies thought to be important for the present study have been reviewed. The researcher applied two valid and reliable tools: a diagnostic test and an observation cards. The diagnostic test was basically designed to measure intonation learning difficulties in written contexts, while the observation cards was developed to measure intonation learning difficulties in spoken contexts.

Two samples were chosen randomly to conduct at the current study. They consisted of 99 male and female junior students: Forty four (44) subjects were exposed to the diagnostic test. While fifty five (55) subjects were chosen for the observation cards. They previously attended the course "Phonetics and Phonology". The researcher adopted the descriptive and analytic method. The data were tested by Frequencies and Percentages, One sample t-test, Two Independent Sample t-t-tests and Cooper Coefficient method. Having analyzed the data, the following results were obtained:

On applying a diagnostic written test, it is found that English junior students at IUG face areas of difficulties when learning intonation in the written contexts. During observation, it is noticed that English junior students at IUG face more serious difficulties when learning intonation in spoken contexts. In addition, it was found that students' awareness regarding the intonational functions in written contexts was better than their awareness in spoken contexts, and their awareness regarding the simple intonation pattern (Falling, Rising) was higher than that of the complex intonation pattern, (Falling-Rising, Rising-Falling). Their awareness regarding the intonational attitudal function was weak.

ملخص الدراسة

الدراسة موسومة ب: الصعوبات التي تواجه طلبة المستوى الثالث في قسم اللغة الانجليزية في الجامعة الإسلامية- غزة عند تعلم النغمة في اللغة.

أجريت هذه الدراسة لاستكشاف التالي:

1. الصعوبات التي تواجه طلبة المستوى الثالث في الجامعة الإسلامية- غزة عند تعلم النغمة في السياق الكتابي.
2. الصعوبات التي تواجه طلبة المستوى الثالث في الجامعة الإسلامية عند تعلم النغمة في السياق الكلامي.
3. مدى استيعاب ومعرفة الطلبة لوظائف النغمة في اللغة الانجليزية.

ولتحقيق أهداف الدراسة أنفة الذكر، قام الباحث بتطبيق أداتين محكمتين على عينة الدراسة، وهما: اختبار تشخيصي يهدف إلى استكشاف الصعوبات التي تواجه الطلبة عند تعلم النغمة في السياق الكتابي، وبطاقة ملاحظة تم بتطبيقها لاستكشاف الصعوبات التي تواجه الطلبة عند تعلم النغمة في السياق الكلامي.

لقد تم اختيار عينة عشوائية مكونة من (44) طالبا و طالبة لتطبيق الاختبار التشخيصي. وعينة عشوائية أخرى مكونة من (55) طالبا و طالبة لتطبيق بطاقة الملاحظة. هذه العينة عبارة عن طلبة المستوى الثالث في قسم اللغة الانجليزية والمسجلين في الفصل الدراسي الثاني للعام الدراسي 2010/2011، والذين من المفترض أنهم درسوا مادة الصوتيات مسبقا.

باستخدام الطريقة الوصفية وتحليل المحتوى، إضافة إلى التكرارات و النسب المئوية وت المحسوبة للعينة المستقلة ومعامل كوبر، وذلك لاختبار أدوات الدراسة. بناء على ما تقدم توصل الباحث إلى النتائج التالية:

1. الصعوبات التي تواجه طلبة المستوى الثالث عند تعلم النغمة في السياق الكتابي: بتطبيق الاختبار التشخيصي وجد أن متوسط الدرجات =60,16، حيث أن درجة النجاح هي 60%. هذا يعني إن الطلبة تواجههم صعوبات عند تعلم النغمة. علما بأن درجة الصعوبة للدرجات الأقل من 60%.

2. الصعوبات التي تواجه الطلبة عند تعلم النغمة في السياق الكلامي: من خلال تطبيق بطاقة الملاحظات وجد أن متوسط الدرجات =58.51، أي أقل من درجة النجاح 60%. هذا يعني أن الطلبة تواجههم صعوبات أكثر عند تعلم النغمة في السياق الكلامي.

3. مدى معرفة واستيعاب الطلبة لوظائف النغمة اللغوية:

- عموما تواجه الطلبة صعوبات متفاوتة بخصوص مدى المعرفة، والاستيعاب للوظائف اللغوية للنغمة. فمعرفتهم واستيعابهم لوظائف النغمة في المساق الكتابي أفضل منه في السياق الكلامي، حيث كانت الدرجة المئوية 60.16% و 58.51% بالترتيب.
- أداء الطلبة في حالة استخدام النمط الوظيفي البسيط للنغمة (منخفض، مرتفع) كانت درجته المئوية 65.64%، بينما تنخفض الدرجة إلى 51,23% عند استخدام النمطية المركبة للنغمة (منخفض- مرتفع، مرتفع- منخفض)، وتنخفض الدرجة المئوية إلى

50.25% عند الجمع بين النمطين في سؤال واحد (منخفض، مرتفع، منخفض-مرتفع، مرتفع-منخفض).

4. قامت الدراسة بالكشف عن مدى معرفة واستيعاب الطلبة للوظيفة السلوكية (الموقف) للنغمة حيث وصل أداء الطلبة إلى 55.25%، وهو أقل من نسبة النجاح 60%.

5. عند سؤال الطلبة بتمييز المقطع اللفظي ذو النغمة العالية في (الكلمات) المعطاة كانت النسبة المئوية 65.23%، بينما في (الجملة) انخفضت إلى 53.91%.

6. عندما سؤال الطلبة لإعطاء المعنيين المحتملين لكل جملة عند أدائها بنغمتين مختلفتين، كانت النتائج 69.45% في حالة المساق الكتابي، و 65.60% في حالة المساق الكلامي.

7. للتحقق من مدى معرفة الطلبة للوظيفة النحوية (كقاعدة)، النسبة المئوية كانت 63.27%.

8. لقد تم التحقق من أن هذه الصعوبات لا تتأثر بتغيير النوع ذكر كان أم أنثى.

يمكن الاستنتاج أن الطلبة تواجههم صعوبات عند تعلم النغمة في اللغة الانجليزية، ومعرفة وظائفها اللغوية، هذه الصعوبات تتفاوت طبقاً لوظيفة النغمة، ونمطيتها كما أسلفنا سابقاً.

وبشكل مختصر تنحصر مدى معرفة ووعي الطلبة للوظائف اللغوية للنغمة بين الدرجتين المئويتين 50.25% و 69.49% علماً بأن نسبة النجاح هي 60%. حيث أن درجة الصعوبة

للدرجات الأقل من 60%.

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List of abbreviation

IUG	Islamic University of Gaza
TBU	tone-bearing unit
PH	pre-head
H	head
TS	tonic syllable
T	tail
IPA	International Phonetic Alphabet
EFL	English for Foreign Language
L1	First language (mother tongue language)
L2	Second language
CPH	Critical Period Hypothesis
NNS	None Native Speaker
NSs	Native Speakers
L	Low tone
H	High tone
DI	Discourse Intonation
RP	Received Pronunciation
CI	Contour Interaction
TS	Tone Sequence
RVE	Rhonda Valleys English
BrE	British English
PBUH	Peace Be Upon Him
NS TAs	North American teaching Assistants
ITAs	International Teaching Assistants
ESL	English as a Second Language
ELT	English Language Teaching
DA	Damascene Arabic
EFA	Egyptian Formal Arabic
ECA	Egyptian Colloquial Arabic
SPSS	Statistical Package for the Social Sciences
K-S test	Kolmogorove-Smirnov test
WESSAE	White English speaking South African English

Chapter I

- 1.1. Background**
- 1.2. The need of the study**
- 1.3. Statement of the problem**
- 1.4. Research questions**
- 1.5. Purpose of the study**
- 1.6. Significant of the study**
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- 1.9. Definition of terms**
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Chapter I

1.1. Background:

One of the aims of English language teaching (ELT) in the Arab world is enabling students to communicate. That means to understand what is said or written and be understood by others, when speaking or written. When people speak they combine sounds into groups or syllable to form words and sentences in term of utterances. The utterances varies in its pronouncing, some tends to be more strongly than others. In addition, the voice rising and falling effected the meaning and the massage one intend to convey. Voice variation has several functions: grammatical, attitudual, discorsal, accentual, personal and interpersonal.

It is clear that teaching pronunciation is an important aspect of foreign language methodology. It plays a crucial role in making learners comprehend the spoken language. It is essential, therefore, to start teaching the sounds and intonational patterns of English from the first day of learning the language. This procedure will foster good habits of pronunciation in young learners. However, the teaching of pronunciation which involves individual sounds, liaison between these sounds, stress, rhythm and intonation, may run into problems. These include the availability of a competent teacher, authentic materials, adequate exposure to good models and constant practicing. Bernard Shaw's sarcastic comment on the irregularities of English spelling has been overquoted. Shaw said that the word "fish" could have been spelt as "ghoti", since the first sound is represented by "gh" in words like enough, the second sound by letter "o" in words like women, and the last sound by the letter "ti" in words like nation, Kharma and Bakir (2007:72). The teachers and students must have a basic understanding of how the sound system of English works. Moreover, they should know the problems which may affect the learning process

such as the substitution of the phonemes which are often pronounced by an Arab learners.

This contrastive knowledge will help the teacher to identify problem areas and to handle them more effectively. To fulfill this goal, the teacher has to design learning activities that will elicit pupils' responses, requiring the use of vocabulary items or grammatical structures which contain the target sounds he/she wishes them to practice. In this way the teacher contextualizes pronunciation practice and ensures meaningful communication, which is the central purpose of the language study. The main concern of this research is intonation which is one of main supersegmental features. Wasala and Gamage (2007) explain that the stream of speech is composed of two kinds of phonological units: segmental sounds and suprasegmental sounds. Segmental sounds are those which can be segmented into distinct, discrete units, such as vowels and consonants. The features of speech like variation of pitch (intonation), stress and accent are called suprasegmentals. These features, however, are artificial distinctions, made only in order to study the spoken language. They are usually present in any utterance, and the native speaker is quite unconscious of them. Since they are often phonemic, they produce differences in meaning, learners should be given sufficient training in them. Because of their vital role in understanding or uttering spoken English adequately and intelligibly.

Looking at the intonation made by two speakers (native and non-native), it is easy to find there is a different kinds in each phase. Listening to it again from one who knows its functions and roles comparing with another who just deals with its grammatical function, the difference will be very clear. Therefore, when one wants to learn, deal and understand intonation features and functions, he/ she must take in considerations its functions as a whole. In addition, to be aware of intonation

variation and the overlap between its functions make it easy to the teacher and to the learner to grasp its importance in communications between people.

Teaching intonation has been one of the most neglected areas in English language teaching at Palestinian schools and universities, which lays major emphasis on reading and writing skills. When surveying Palestinian English text books, it is easy to find that intonation treatment largely takes the grammatical approach rather than attitudinal or discourse, and the teachers' view on intonation treatment is almost in line with that of the textbooks, though they rarely teach intonation in lessons individually.

The former introduction leads to the importance of carrying out such a study in order to identify these difficulties faced when learning intonation, and the proposed strategies that students can use to learn it more effectively. When revealing the difficulties, it becomes easy to know the reasons beyond them and to remedy these difficulties by an effective way.

1.2. The need of The Study:

The rationale of the study are fourfold:

Firstly, Arab students tend to adopt Arabic intonation patterns when they speak English, and this affects everything that they say Kharma and Hajjaj (1989:32).

Secondly, English and Arabic intonation patterns are quite similar. Thus, however, does not mean that Arab learners do not have difficulties in using English patterns. As it is known, intonation implies not only the attitude of the speaker but also the grammatical structures. These grammatical structures are not the same in the two languages kharma and Hajjaj (1989:32).

Thirdly, Arab learner are often unaware of the attitudinal role of intonation in speech and there are various patterns of intonation showing various meaning depending on

the intention of the speaker (polite and friendly, asking to repeat, ditched and reserved, reassuring, etc.) this is why Arabs may sound abrupt and commanding when speaking English Kharma and Hajjaj (1989:32).

Fourthly, the learner of English cannot master the language if she/he did not master the intonation system of this language. Of course, the intonation of English differs from its counterpart in the native language of the learner. For that reason, the learner should learn the types of intonation and the meanings of English tones because they are so important Amer (2010: 39).

1.3. Statement of the problem:

The problem of this study can be stated in the following main question:

1- What are the difficulties facing English Junior students at IUG when learning intonation?

1.4. Research questions:

1- What are the difficulties that Junior students at IUG have when learning intonation in written contexts?

2- What are the difficulties that English Junior students at IUG have when learning intonation in spoken contexts?

3- To what extent are student's awareness to the intonational functions?

1.5. Purpose of the study:

1. This research study aims at providing some insights into the special difficulties that IUG English junior students face when learning intonation in written and spoken situations.
2. It intends to reveal why English junior students at IUG face those difficulties when learning intonation.
3. On the basis of the results and the finding, students and teachers should encounter the nature of the difficulties and attempt to outline a roadmap for

improving learning intonation effectively, in both spoken and written contexts.

1.6. Significant of the study:

This study is significant for:

A - Teachers:

- It helps teachers in the Palestinian universities to be aware of the difficulties that their students may face when learning intonation.
- It helps teachers in diagnosing the point of weakness in their students' learning of intonation in written and spoken context.
- It clarifies the reasons beyond these difficulties, and how to minimize them.

B - learners:

- It provides students awareness about the basic functions of intonation.
- It can be considered as a reference that students to use when learning intonation.
- It helps Arab speakers to avoid the difficulties that hinder their learning of English intonation.
- It may make learning intonation process easier.

1.7. Limitations of the study:

The scope of the study is limited in terms of the following aspects:

- This study was applied on English Department juniors who are enrolled at the academic year 2010- 2011 at IUG.
- The current study aims to point out the difficulties that English junior students at IUG may face when learning just one of the suprasegmental features, namely, the intonation.

- The tools are used to fulfill the aim of the study: diagnostic written test and observation cards.

1.8. Procedures of the study:

The following procedures were followed:

- 1- Reviewing literature and previous studies related to intonation learning.

to get an idea about:

- The difficulties that learners face when learning intonation in written and spoken contexts,
- The reasons that cause such difficulties when learning intonation,
- The results of these studies regarding the procedures, samples tools and recommendations.

- 2- Designing the tools of the:

- Diagnostic test
- Observation cards

- 3- Consulting a number of experts and specialists to verify the tools validity and reliability. See Appendix (E).

- 4- Getting permission from IUG to carry out this study. See Appendix (F).

- 5- Applying a descriptive analytical method in collecting and analyzing the data.

- 6- Using percentages, frequencies, and (statistic package that suits the research).

- 7- Presenting pedagogical suggestions and recommendation in the light of study results.

1.9. Definition of Terms:

- Intonation:

According to *Longman Dictionary of Contemporary English* (2009) is defined broadly as: " the way in which the level of your voice changes in order to add meaning to what you are saying, for example by going up at the end of a question".

Linguistically, David Crystal (2006: 252) in his dictionary defines intonation as: "A term used in the study of suprasegmental phonology, referring to the distinctive use of patterns of pitch, or melody. The study of intonation is sometimes called intonology".

Cook (1996) defines intonation in the introduction of his book "*Active Intonation*" as "the rise and fall of the voice during speech". Similarly Kharma and Hajjaj (1989: 31) define intonation as "the distinctive use of pitch, or melody in a sentence". Intonation or intonation tones were defined by Robins (1989: 117) as "a regular sequence of pitch differences coextensive with a whole sentence or with successive parts thereof, and constituting an essential feature of normal spoken utterances". Celik (2001) gives another name of intonation. He names it as (tone), and he claims that it is " a unit of speech bounded by pauses and has movement of music and melody associated with the pitch of voice. This certain pattern of voice movement is called tone".

Finally, Khader (2010: 123) writes "intonation is created mainly throughout the variation in pitch movement that goes frequently ups and down. This phenomena takes place according to the meaning that speaker wants the listener to receive".

The researcher operational definition is "intonation refers to the use of changing pitch to convey syntactic information, and convey attitude behavior between the speaker and the listener".

- Juniors:

Juniors in the current study refers to both male and female students at IUG who will graduated the coming year. In addition, they are previously took the course: "Phonetics and Phonology" and currently registered in the second term (2010-2011).

- Difficulties:

Difficulty is the state or quality of being difficult. In general usage, difficulty level refers to the relative difficulty of completing a task or objective (*dictionary30.com*). In the present research the difficulty level refers to all students who are participated in the research tools and they got less than 60%. This research study highlighted the types of difficulties that English Department Juniors IUG have when learning intonation.

1.10. Summary:

In this chapter, the researcher provided a relevant background to the importance of intonation in language learning. The researcher introduced the need of the study, the statement of the problem and the research questions. The researcher also presented the purpose, the significant, the limitations and the procedure of the study. He also provided a list of definition of terms related to the subject.

Chapter II

A: Theoretical Framework

- 2.1. Introduction**
- 2.2. The syllable**
- 2.3. Suprasegmental features**
- 2.4. Tone**
- 2.5. Intonation**
- 2.6. Intonation functions**
- 2.7. Intonation Contours**
- 2.8. Types of English intonation patterns**
- 2.9. The analysis of Pitch-patterns in intonation systems**
- 2.10. Linguistic function of intonation**
- 2.11. Contour interaction theories versus tone sequence theorie of intonational description**
- 2.12. Intonation in Arabic and English**

B: Previous Studies

- 2.13. Studies related to difficulties that learners face when learning intonation**
- 2.14. Difficulties related to the functions of intonation**
- 2.15. Difficulties related to Intonation patterns**
- 2.16. Other types of difficulties**
 - **Conundrum for pedagogy**
 - **Language transfer or Interlingual factors**
- 2.17. Intonation in Arabic and English**
- 2.18. Summary**

Chapter II

A: Theoretical Framework

2.1. Introduction:

Language is a complex medium of communication; it consists of segmental (consonants and vowels) sounds and suprasegmental features: stress, juncture and intonation. The other components are word, structure and meaning. All these elements interact together as a number of linked systems to great a language functions such as: personal, interpersonal, directive, referential, metalinguistic and imaginative, which reflects people identity as 'human'.

What does the following Quranic verse mean: "He (God) taught Adam the names of all things" *وَعَلَّمَ آدَمَ الْأَسْمَاءَ كُلَّهَا* (1: 31). Does not mean that Man was favored with a unique means of communication, that is a language. The next question should be asked ourselves: "Is there a concrete substance or a medium that language employs?" here we have to state the fact that languages were spoken, probably for millions of years, before man started to invent pictures, and, later, other written signs, to indicate what was spoken. Historically, it can safely be stated that language basically employs sound for its purposes. Written symbols are later addition, and are not an exact replica of the sound or vocal symbols used in speech. Let us just remember one thing in this context: the different between the pronunciation and the spelling of so many words in English Kharma and Bakir (2007: 12).

Fromkin (1993: 216) argues that, when a child acquires his mother tongue, he also acquires the phonological knowledge about that language. This knowledge "permits a speaker to produce sounds which form meaningful utterances, to recognize a foreign accent, to make up new words, to add the appropriate phonetic segments,

to form plurals and past tenses, to know what is or is not a sound in one's language and to know the different phonetic strings that may present the same meaningful unit." Within phonology, two main areas are recognized: segmental and supra-segmental, this study relates mainly to the second branch of phonology, namely, suprasegmental. It focuses on one of the suprasegmental feature- Intonation. It aims to point out the difficulties that English department Junior students at IUG face when learning Intonation. To fulfill the aim of the study, this part will discuss theoretically a number of related essential ideas that serve providing full understanding about the matter under investigation. These ideas are: syllables, suprasegmental, grammatical, attitude, discursal functions of intonation and intonation in English and Arabic.

2.2. The syllable:

The people do not generally use individual sounds to express any meaning in human language, as animals do. Man combines consonants with vowels to form larger units which have meanings in different speech communities. The larger unit next to individual sounds is the syllable.

A syllable is defined as "a unit of pronunciation consisting of a vowel alone or a vowel with one or more consonants. A vowel is the nucleus (peak) and a consonant is a marginal element in the syllable, that is, a consonant is either at the beginning (onset), or at the end or a syllable (code) Khader (2011: 91).

- Onset:** Initial segment of a syllable.
- Rhyme:** Core of a syllable, consisting of a Nucleus and coda.
- Nucleus:** Central segment of a syllable.
- Coda:** Closing segment of a syllable.

Syllable Constituents

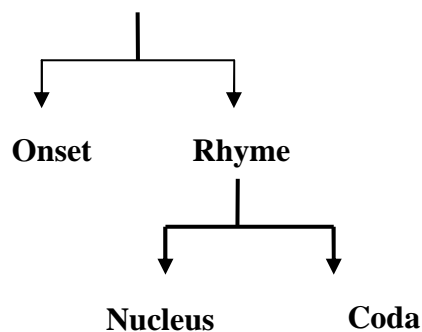


Figure (01):Source: After Khader (2011: 92)

Roach (2001: 70) writes syllable can be defined both phonetically, and phonologically. Phonetically, "Syllables are usually described as consisting of a center which has little or no obstruction to airflow and which sounds comparatively loud; before and after this centre, there will be greater obstruction to airflow and/or less loud sound". Phonologically, syllables can be defined as a term of the possible combinations of a language is called phonotactics". It means that any vowel in a certain syllable may be preceded by one or two consonants, and also it can be followed by other one or two consonants.

2.3. Suprasegmental features:

According to Crystal (2008: 466), suprasegmental is "a term used in phonetics and phonology to refer to sound segment in an utterance, such as pitch, stress or juncture pattern. In its contrast with "segmental", it is seen as one of two main phonological units that can be divided".

Ball and Rahilly (1999) ensure the importance of prosodic aspects of speech. They pointed out that prosodic aspects of speech (suprasegmentals), have communicative and linguistic relevance and that prosody has paralinguistic importance.

Grice and Bauman (2007) argue that suprasegmental features encode rich information structure that helps the listener locate emphasized words, phrase boundaries, speech acts (statements, questions, continuations, etc.) as well as the speaker's attitudes and emotions. Therefore, suprasegmental features (stress, pitch, juncture, and intonation) are very important for giving the language its appearance, and they are central to the communication of meaning. Consonants and vowels constitute the basic speech units. But when people use language to express their thought, they do not use these segment in isolation. Instead, people combine them in certain patterns to form larger speech units. In addition, language users enrich their

utterances by making certain syllables stronger than other, stress certain syllables and words, producing certain syllables at a louder pitch, raising their voice at certain intervals during their speech, etc. The features that speakers superimpose on certain syllables are called prosodic or suprasegmental features.

Intonation also is one aspect of suprasegmentals. Every language has melody, however, no language is spoken on the same musical tone all the time. The voice goes up and down and the different tones of the voice combine to make tunes. However, in English, the tone belongs not to the words but to the word group. If the English word "No" is said in different tunes it is still the same word, nevertheless tone plays an important part in English (O'Connor (1980: 108).

2.4. Tone:

In normal speech, the pitch of our voice goes on changing constantly: now going up, now going down and sometimes remaining level or steady. This means that some words are uttered at a higher or lower tone than others. The tone on which a sound is said is the pitch of the sound. Pitch refers to the rate of vibration of the vocal cords (Hyman 2007). Thus sounds are either said with a high pitch or a low pitch.

An important question raises "What is tone?". Hyman (2007: 484) finds two early definitions:

- a. "... having significant, contrastive, but relative pitch on each syllable" Pike (1948: 3)
- b. "... in which both pitch phonemes and segmental phonemes enter into the composition of at least some morphemes" Welmers (1959: 2).

While Pike originally saw tone as a contrastive feature on each syllable or other tone-of tone: tone is not a property of syllables, as expressed by Pike, but rather of morphemes. Welmers pointed out that not all morphemes need to have a tone,

some may be toneless. Similarly, not all morphemes need to have a tone-bearing unit (TBU), TBU—they may be “tonal morphemes”.

2.4.1. Tone group (Tone unit):

Sethi and Dhamija (2004: 179) define tone group: "a stretch of speech over which one pattern of pitch variation, or contour of pitch, extended is called a tone group (or a tone unit). A tone group may consist of one syllable or more than one syllable". A short utterance quite often forms a single tone group, while a long one is made up of two or more. While speaking, we divide long utterances into small, manageable groups of words, between which we pause. So a tone group may also be defined as a stretch of speech between any two pauses. Very often, punctuation also helps in determining tone groups in a particular utterances.

The following examples should make the tone group clear. The tone group boundary is indicated by an oblique (/).

1. Yes.
2. I'll come tomorrow.
3. Why don't you help?
4. I'm not afraid of them.
5. The door has been open.
6. I want to finish this work / before he returns.
7. Please do it now / if you have time.
8. If he comes back by tomorrow, / we can manage the show.
9. Do you know / that he is planning to write a book / on the controversial subject of higher education?
10. They have plenty of time, / but we haven't / in spite of the holidays.

Sentences 1-5 consist of one tone group each. There is no pause anywhere between them, and they are all said with one pattern of pitch which changes coterminous (that is beginning and ending) with each tone group. Sentences 6-8 contain two tone groups each and sentences 9 and 10 contain three each.

2.4.2. Tonic syllable:

Within a tone group comprising more than one syllable, there is one syllable that stands out from amongst the rest of the syllables because it initiates a major change in pitch direction. This kind of syllable is called nucleus of the tone group, or the tonic syllable Sethi and Dhamija (2004: 180). Look at the following sentences.

11. The 'postman 'didn't come 'yesterday.

12. 'Have you 'met my 'brother be'fore?

In sentence (11), the syllable *y*- is more prominent than *post*- and *did*-, and in sentence (12), the syllable *-fore* stands out from *Have*, *met* and *bro*-, because both (*y*- and *-fore*) initiate on themselves a major change in the direction of the already varying pitch. Those two syllables are said with moving or kinetic tones, the other accented syllables in these two sentences are said with level (unmoving) or static tones. The kinetic tone is also sometimes called the nuclear tone, as its placement determines the location of the nucleus of the tone group. Generally, the choice of the nucleus is determined by the meaning that the speaker wants to convey. The examples that follow illustrate this (the nucleus being italicized in each case).

13a- 'Ali 'generally 'leaves at 'seven in the '*morning*. (*morn*- is the nucleus here. The speaker possibly wants to say that Ali leaves at seven in the morning, and not in the evening.)

13b- 'Ali 'generally 'leaves at 'seven in the 'morning. (*se*- is the nucleus here. The speaker wants to say that Ali leaves at seven o'clock, and not earlier or later than seven.)

13c- 'Ali 'generally 'leaves at 'seven in the 'morning. (by placing the nuclear tone on leaves, the speaker wants to say that he is talking about Ali's leaving, and not getting up, etc.)

13d- 'Ali 'generally 'leaves at 'seven in the 'morning. (Here gen- is the nucleus. The speaker wants to convey that there may be occasions when Ali fails leave at seven.)

13e- 'Ali 'generally 'leaves at seven in the 'morning. (Ali is made the nucleus here, because the speaker wants to say this about Ali, and not Omar or Samer).

In the above, one tone-group utterance, the speaker can make any part of it prominent, depending upon what he/ she intends to say. The tonic syllable in each case is the focus of the information which is being conveyed. As the focus shifts from one syllable to another, a different kind of information is conveyed.

2.4.3. The structure of the tone-unit:

Like the syllable, the tone-unit has a fairly clearly defined internal structure, but the only component that has been mentioned so far is the tonic syllable. The first thing to be done is to make the role of the tonic syllable more precise in the tone-unit. Most tone-units are a type that we call simple, and each simple tone-unit has one and only one tonic syllable; this means that the tonic syllable is an obligatory component of the tone-unit (Roach (2001: 164). The following will show what the other components are.

a. The head

Consider the following one-syllable utterance:

\those

we can find the same tonic syllable in a long utterance (still of one tone-unit):

'give me \those

The rest of the tone-unit in this example is called the **head**. Notice that the first syllable has a stress mark; this is important. Ahead is all of the part of a tone-unit that

extends from the first stressed syllable up to (but not including) the tonic syllable. If the follows that if there is no stressed syllable before the tonic syllable, there cannot be a head.

In the above example, the first two syllable (words) are the head of the tone-unit. In the following example, the head consists of the first five syllable.

'Bill 'called to 'give me \underline{these}

As was said a little earlier, if there is no stressed syllable preceding the tonic syllable, there is no head. This is the case in the following example:

In an \underline{hour}

Neither of the two syllable preceding the tonic syllable is stressed.

The syllables 'in an' form a **pre-head**, which is the next component of the tone-unit to be introduced.

b. The pre-head

The pre-head is composed of all the unstressed syllable in a tone-unit preceding the first stressed syllable. The pre-heads are found in two main environments:

- i) when there is no head (i.e. no stressed syllable preceding the tonic syllable) as in this example: in an \underline{hour}
- ii) when there is a head, as in this example:
in a 'little 'less than an \underline{hour}

In this example, the pre-head consists of 'in a', the head consists of 'little less than an', and the tonic syllable is 'hour'

c. The tail

It often happens that some syllable follow the tonic syllable. Any syllables between the tonic syllable and the end of the tonic-unit are called the tail.

In the following examples, each tone-unit are called a tail.

divide the word 'forest' into two parts, 'for' and 'est'. this example shows clearly how the units of phonological analysis can sometimes be seen to differ from those of grammatical analysis Roach (2001: 165-166).

2.5. Intonation:

This part of the thesis provides mainly a deep background about intonation which is the core of this study. Out of this section, the researcher will deal with the following:

- The nature of intonation.
- The important of intonation
- Intonation and non-native speakers of English
- Acquiring Intonation.
- Intonation functions.
- Types of English intonation patterns.
- The analysis of Pitch-patterns in intonation systems.
- Contour interaction theories versus tone sequence theories of intonational description.
- Linguistic function of intonation.
- Intonation in Arabic and English.

2.5.1. The nature of intonation:

It is important to explain the nature of intonation in English and Arabic, as an effort to enable both teachers and students to better understanding which helps them to avoid, or correct mistakes. Cruttenden (1986: 9) seems to equate intonation specifically with pitch movement while Coulthard (1992: 96) has identified it with prosody in general which would therefore include pitch movement but also loudness, length, speed, and even voice quality.

In describing pitch, Cruttenden (1986) describes it as the perceptual correlate of fundamental frequency, which is the continuous variation in the sounds people perceive as a result of the vibration of the vocal cords. Intonation, then, can be defined as the movements or variations in pitch to which we attach familiar labels (F0) describing the pitch levels (e.g. high/low) and tones (e.g. falling/rising), etc.

There is another important component which is called prominence. According to Roach (2008: 86), it is the tendency for speakers to make some syllables more noticeable than others. This is accomplished by pronouncing them louder and longer, by assigning them a different pitch, or by articulating the phonemes (especially the vowel) more distinctly. Prominence is also sometimes referred to as emphasis, focus, main stress, nucleus or tonic accent. In the same context, pitch level, pitch movement and prominence are all relative values. Cauldwell and Allen (1997: 6) observe that “one speaker’s ‘mid’ pitch would be another speaker’s ‘low’ pitch” and values vary from speaker to speaker and with the context of the situation. This relativity is important in distinguishing intonation from melody or music, to which it is often compared.

2.5.2. The importance of intonation:

The researcher himself traveled to more than 24 different countries, and lived in Europe for 12 years. It results through practicing intonation during talking to native speakers that once a native speaker asks whether you are a native or from outdoors. So intonation "It is not what you say, it is how you say it!".

Considering the characteristics of the language: language is the means by which results of human thought and action are passed on, Language is a system of rules, language is learned behavior, language is an arbitrary system of vocal symbols used to communicate ideas and express feeling among the members of a certain social

community. From the previous characteristics of language the conclusion is, suprasegmental feature, specially intonation, is the flavor which makes spoken language has sense of meaning, which reflects the speaker and the listener thought and feeling. It is that part of language which completes the purpose of communication, quantitatively and qualitatively. Intonation makes language more tasteful, easy to be interpret and which makes a certain language more musical.

It is obvious that intonation choices made by speakers carry linguistics information and in the same time its elements are seen to perform a variety of functions. Therefore, the way we say something can be as important in conveying a message as the words we use to say. Crystal (1995: 249) identifies six intonational functions: emotional, grammatical, informational, textual, psychological and indexical, whereas Roach (2008: 163) pointes out four; namely attitudinal, accentual, grammatical and discourse.

It seems that all languages share these functions by one or other and using one of these functions alone is rare. To convey the message by the best way, these functions always be used not separately, or the communication will failed on one stage or another.

2.5.3. Intonation and non-native speakers of English:

Concerning the case of non-native English speakers, how much does intonation performance contribute to successful communication?. Roach (2008: 168) suggests that reports of miscommunication are overestimated, and that when nonstandard English creates misunderstanding or causes offence, the root of the problem is on “very few occasions” found to be intonation. On the contrary, there are many who argue against Roach suggestion such as: Pickering (2001), Clennel (1997) and Wennerstrom (1994), who working in ESL environments, by showing the problems

that intonational miscues can cause between native and non-native speakers.

Clennel (1997: 118) illustrates these as follows:

- 1- The prepositional content (essential information) of the message may not be fully grasped.
1. The illocutionary force (pragmatic meaning) of utterances may be misunderstood.
2. Interspeaker cooperation and conversational management may be poorly controlled.

To point out what is important and peripheral in intonation for nonnative speakers interacting with each other in EFL situations, Jenkins (2002: 87), argues that while tones are non-vital, mistakes of prominence or “nuclear stress” are one category of phonological error which can cause breakdowns in communication.

The researcher tends to Wennstrom, Pickering and Clennel opinions, and from his experience, he believes that intonation is an integrated part, not only in language level, but also it indicating the integration within the society.

It is clear that the intonation of non-native English poses serious intelligibility problems to native speakers of the language, as reported by Tiffen (1974) on Nigerian English and Bansal (1976) on Indian English. Concerning the use of sentence stress and intonation in Indian English Bansal (1976 :21) writes:

The sentence stress in Indian English is not always in accordance with the normal RP pattern and the characteristic rhythm is not maintained. The division of speech into sense groups and tone groups is sometimes faulty and pauses are made at wrong places. The location of the intonation nucleus is not always at the place where it would be in normal English. The rising tone sometimes used at the end of statements must sound unusual to the RP-speaking listeners.

From the previous evidence, "it becomes clear that English intonation is restricted to English. It is not the same as any of other's language intonation. Therefore, it is wrongly to believe that intonation is the same in all languages. For that reason, the

learner should learn the types of intonation, the functions and the meaning of English tones" Amer (2010: 39).

2.5.4. Acquiring Intonation:

Al-Sibai and Saleh (2004) assure that there is some evidence that intonation is perhaps the earliest acquired of all language features, and there are a lot of books and previous studies have suggested that intonation development in infants and toddlers reflects an interaction between physiological and linguistic influences. This may account for our comparative unawareness of it and how it functions. According to Ioup and Weinberger (1987), many researchers have noted that fluency in syntax seems much more attainable for adult learners than a native-like pronunciation. Lenneberg (1967) contends that although adults can communicate in a foreign language, foreign intonation cannot be overcome easily after puberty. Lenneberg posits a critical period for language acquisition that terminated at puberty, he thought, to the completion of "hemispheric lateralization and the end of cerebral plasticity", which Brown (2000: 53) defines as "a biologically determined period of life when language can be acquired more easily and beyond which time language is increasingly difficult to acquire." Another expert, Scovel is one of L2 researchers to account for such difference. Scovel (2001: 334) thought that neurological maturation was responsible for adult L2 performance. This phenomenon is believed to be related to the fact that phonological output is Intonation dependent on a "neurophysiological mechanism". Although Scovel gives no scientific evidence to support this view, he concentrated much of his work on the case of Joseph Conrad who acquired English as a young adult. Although Conrad went on to become a major English writer, his pronunciation of English never lost its characteristic non-native accent.

Scovel, who believes that it is based on neurological factors, Krashen (1974) however, argues against this view, on the ground that language lateralization is

complete by the age of five and therefore cannot be responsible for the end of the critical period at puberty. According to Krashan, biological determinants should not be used to explain the foreign pronunciation of older children because the right-ear advantage for language stimuli continues to increase until the age of five, at which point children begin to act like adults.

It seems the trend in L2 research has been to turn away from neurological explanations for the age differences found in pronunciation ability and to develop instead interpretations based on sociological variants. Among the first to do so was Guiora et al. (1972b) who suggest that the sound system is tied intimately to self-identification and, thus, cannot be altered to adapt to different phonological settings, and young children are very egocentric and do not recognize a separation between themselves and the world around them. Peck is another Intonation expert of sociological variables, who concentrating on native, non-native interactions, Peck, in Ioup and Weinberger (1987) stresses that children learning a second language engage in more sound play when interacting with other children than they do when interacting with adults. The reason beyond children gain a better command of intonation and phonology can be the focus on and manipulation of sounds that characterize child-child discourse.

The researcher point of view regarding the acquiring of suprasegmental, particularly, intonation are considering the following:

The age is very important; the earliest learners start learning intonation the faster they master it.

- 1- Practicing a particular language with native speakers at schools and in everyday life foster a good habit of acquiring intonation very well.
- 2- Learners race and background has no effect with acquiring intonation.

- 3- Awareness intonation rules help a lot of acquiring intonation, besides, avoiding interference between mother tongue intonation tone and the acquired of intonation language.
- 4- Finally, pronunciation knowledge gives more confident which surely lead to master both, language accuracy and fluency acquiring as well.

2.6. Intonation functions:

Knowing the definition of intonation (see p. 6), and why it is important.

A question is worth to be raised: What are the functions of intonation?

Following Roach (1991) and Thompson (1995), Ranalli (2002) categorizes these functions into four groups.

- **Linguistic form-based:** i.e. grammatical (the intonation of *Yes/No* or *Wh*-questions) or lexical (intonation on modifiers like *really* or *absolutely*);
- **Attitudinal or Interpersonal:** e.g. sounding enthusiastic, interested, polite; showing disbelief;
- **Accentual:** especially in contrasts, e.g. ‘special stress’, emphasizing, correcting;
- **Conversation management-related:** asking someone to repeat something, disagreeing strongly.

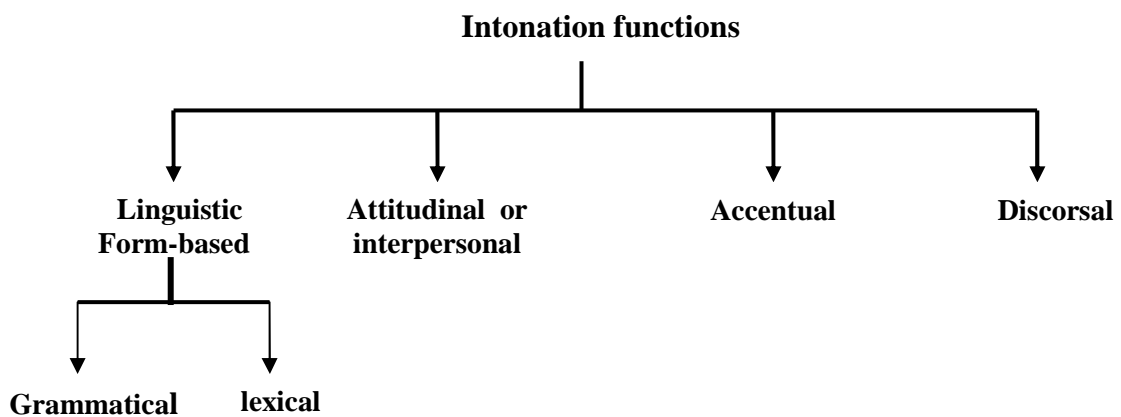


Figure (02): Following: Thompson (1995), Ranalli(2002) and Roach (2008).

It is important to mention that two or more of these categories are often combined into a single focus, for example, attitudinal and grammatical by "expresses a feeling

of genuine gratitude or showing reservation on the part of the speaker" or accentual, conversation management and interpersonal ("correcting politely") Roach (1991).

Kharma and Hajjaj (1989:31) present three main functions and purposes for using intonation. The first purpose is that intonation is used as a signal of grammatical structure, where it has a role similar to punctuation in writing. Also, it can be used to show grammatical contrast for example; the difference between statements and questions, and the last reason is to convey attitude of the speaker.

Crystal (1995: 249) proposed six functions: grammatical, informational, psychological, textual, Indexical, and attitudinal/emotional. Roach (1991: 163-180) assumes only four namely attitudinal, grammatical, accentual, and discourse; and mentions that the last two could be grouped into one. While Halliday (1994: 296-299) suggests three functions: grammatical, informational, and attitudinal. It is obvious that there are three basic intonational functions are suggested by the most researcher namely, attitudinal, grammatical, and informational or discourse researchers. The last three functions will be discussed and showing their praise as well as criticism.

2.6.1. Attitudinal Intonation:

"Intonation is perhaps the chief means by which the speaker conveys his attitudes and emotions" Sethi and Dhamija (2004: 185). The grammar of an utterance does not reveal in any noticeable way whether the speaker's attitude is one of politeness, assertiveness, incredulity, etc. In other words, intonation makes distinctions of 'meaning' (attitudinal nuances) to which grammar most often gives no structural clues. Thus we can say the intonation also performs an attitudinal function. The following pairs of sentences will show how intonation signals the speaker's attitude and emotions.

- 1a** 'When can you ' come? (L tone) normal question neither polite nor impolite.
- 1b** 'When can you ,come? (H tone) it expresses politeness, even deference.
- 2a** He is 'very ' good. (L tone) it is a plain statement.
- 2b** He is 'very ~good. (LH tone) expresses reservation on the part of the speaker: it means something like 'but you don't know the other side'
- 3a** ' Thank you. (L tone), expresses a feeling of genuine gratitude.
- 3b** ,Thank you. (H tone), sounds rather casual.
- 4a** He'll ' fall. (L tone), indicates that the speaker is uninterested.
- 4b** He'll ~fall. (LH tone), expresses the speaker's concern for He.

According to Roach (1996: 45) "...we use intonation to express our attitudes is fundamentally wrong". On the other hand, Roach seems to believe that there is a place for attitude after all. "Emotions", he says, "typically make themselves evident in spite of the speaker's attempts to control them...while attitudes are usually deliberately displayed". Additionally, Roach (2008) states that the notion of "expressing an emotion or attitude" itself a more complex one than is generally realized. First, an emotion may be expressed involuntarily or voluntarily; if I say something in a "happy" way, this may be because I feel happy, or because I want to convey to you the impression that I am happy. Second, an attitude that is expressed could be an attitude towards the listener (e.g. if I say something in a "friendly" way), towards what is being said (e.g. if I say something in a "skeptical" or "dubious" or "disapproving").

It is seen by many phonologists that the main function of intonation is conveying attitudes. O'Connor and Arnold's in Taylor (1993) present the classical discussions of English intonation. While it is undeniable that intonation does convey

attitudes and that there is a strong and important relationship between intonation and attitude, it is very difficult to say anything sensible about it, simply because there is no general consensus on how to describe or define attitudes. This is an extremely subjective issue. Similarly, there is no agreement on how to associate particular intonation patterns with particular attitudes. There seems to be no consistent relationship. While many of the examples given by O'Connor and Arnold are quite convincing, it seems impossible to draw any general conclusions. Too much depends on individual circumstances.

Taylor (1993) states that in part, the reason for such difficulties lies in the fact that intonation is not the sole factor involved in conveying attitude. Many other factors, such as loudness, quality of voice, speed of delivery, facial and bodily gestures, etc., also contribute significantly to the conveying of attitude. Taylor argues that we cannot really say anything constructive about intonation and attitude. Hence, it is far better to deal with intonation in terms of information structure, grammar, and discourse, especially when it comes to teaching and learning. It has a long tradition to relate phonological choices (e.g. pitch, contour, type, etc.) to attitudinal meanings in intonation research. According to this tradition, attitudinal meanings are assumed to be the result of the choice of nuclear tones or composite pitch contours in conjunction with sentence types.

Differently, Halliday (1994) claims that a 'wh - question' with a rising tone is 'tentative', while a 'yes/no - question' with a falling tone is 'peremptory'. Hence, a statement ending with a rise can be "challenging, aggressive, defensive, or indignant". For O'Connor and Arnold, on the other hand, 'wh - questions' with a 'high drop' are said to sound "brisk, businesslike, considerate, not unfriendly, lively, or interested". However, it becomes clear that the profusion of meanings frequently

ascribed to one and the same contour serves only to show that the contour itself 'means' none of them. When one know intuitively that such meanings can be generated, so the current challenge is not only to describe them but to explain how they arise.

Wichmann (2002) suggests when investigating intonation contours of 'please- requests', that they can be classified into two categories, 'private' and 'public'. For the most part, the first category deals with conversations between equals in informal settings (relatives, friends, colleagues, etc.). On the other hand, situations classified as 'public' mostly represent unequal encounters in formal settings (employer/employee, physician/patient, etc.). The 'please-requests' in public situations are nearly all uttered by the more powerful of the participants to the less powerful. These requests, whether in the form of modal interrogative or positive imperative, almost invariably end with a low tone (L%). Requests in private situations, however, almost always end with a high boundary tone (H%). Thus, intonation contours have a consistent pattern for both imperatives and modal interrogatives according to the attitudes of the speaker in a given situation.

Chun (1998) points out the utterance 'Let's go' can first be said as a relatively neutral imperative, then as an impatient command, and finally as an attempt to cajole or persuade. The differences in intonation curves are apparent, and learners can first be asked to practice producing these different patterns. They can then be presented with different situations or scenarios and asked how they would respond. For example, they could do role-plays of: (a) saying 'Let's go' to a friend, (b) saying 'Let's go' as a sports coach would say to a team, or (c) saying 'Let's go' as a polite request to a superior. In these examples, the impatient command has a higher peak on 'go' and a steeper falling pitch curve. The cajoling utterance shows a more

sustained, level pitch and does not fall at the end. In brief, Chun (1998:67) says, speakers do make real assessments of what attitude or intention they wish to convey by means of intonation.

The importance of intonation is also clear in the Quranic verse " *وَلَتَعْرِفَنَّهُمْ فِي لَحْنِ الْقَوْلِ* " "(but surely, you will know them (hypocrites) by the tone of their speech)", the Holy Quran (47: 30). It is a message which is surely indicated, from the speaker's intonation, the attitude which judges him to be a hypocrite. The above verse insures that intonation not only conveys an external attitudinal function "*Shadow attitude*", but also endorses and reveals the inner feeling, thinking and attitude "*Root attitude*".

2.6.2. Grammatical Intonation:

Some utterances can have two possible meanings. Intonation can help resolve the potential ambiguity of such utterance. Crystal (1995: 249) mentions that it helps to identify grammatical structure in speech, performing a role similar to punctuation in writing. It may also identify clause and sentence units and contrasts questions/statements.

According to Halliday (1994: 296-299, 302-303) grammatical intonation relates to grammatical mood (question/statement, etc.) as well as to modality (possibility, validity, etc.). Roach (2008) believes that:

“grammatical intonation helps language speakers and learners to recognize the grammar and syntactic structures, e.g. boundaries between phrases, clauses, and sentences. It also facilitates our knowledge of the differences between questions and statements as well as the intricacies of grammatical subordination”.

It is obvious that grammatical intonation has got extensive research and has been the subject of several investigations and experiments parallel with attitudinal intonation. According to Fry (1974) the results of some studies are not as informative as they might have been simply because there seems to have been little

effort to differentiate between grammatical and attitudinal intonation. It is unwise to treat, for example, the differences between ‘statements and questions’, and between ‘sorrow and anger’ as though they involved points on the same continuum. The first is clearly a matter of grammatical intonation and therefore part of a functional system common to many speakers and listeners, while the second is a much more individual matter (attitudinal). Fry (1974) maintains that in experimental work, it is better to treat them separately and so to keep the interaction to a minimum.

Secondly, intonation performs this grammatical function in another way. It is intonation which helps speaker divide longer utterances into smaller grammatical relevant word group (in this case, tone group), each carrying a different pattern of pitch change and indicating for the listener whether a particular tone group is a complete or incomplete utterance. Gimson (2008) calls it Intonational Phrasing.

- When you , come here, (incomplete)/ I'll 'get you what you want. (complete).

Thirdly, intonation signals the precise kind of grammatical subordination of a relative clause to its main clause. The relative clause functions as a defining clause if it forms part of the same tone group as its antecedent, whereas it functions as a non-defining clause if it forms a separate tone group.

- Bill's wife *who lives in Delhi*/ has been convicted. (defining clause)
- Bill's wife, */who lives in Delhi/*, has been convicted. (non-defining clause).

Here, the former sentence means that Bill has more than one wife, and the one who lives in Delhi has been convicted. The latter sentence, means that Bill has only one wife.

There are many phonologists strongly endorse grammatical intonation. Sethi and Dhamija (2004) say intonation distinguishes different types of sentence.

- He is ar'riving ' late. (statement)
- He is ar'riving ,late? (question)
- 'Shut the ' door. (command)
- 'Shut the ,door. (request)

On the contrary, several of phonologists believe that this function is in capable by itself to provide adequate account for certain intonational patterns. For example, Blum (2001) suggests that there is a strong tendency to have rises in 'yes/no questions' and falls in 'wh-questions', but they are by no means the only patterns possible. These conventional intonation contours, or as Blum calls them "defaults", may be overridden by various contextual factors and, hence, the interrogative intention must be inferred from other elements present in the utterance. The speaker's attitude, such as incredulity, amazement, a high level of interest or lack of it, etc., may also influence the contour and, in particular, the pitch height of the utterance. On the other hand, observations that oppose or contradict this type of grammar-based explanation are variously present in the writings of Brazil, Cruttenden, McCarthy, Roach, and others. Such observations are believed to pose serious challenges to the validity of the grammatical approach to intonation.

McCarthy (1991: 106) for example, admits the popularity of the utilization of grammatical intonation, especially among teachers who widely believe that there are 'correct' intonations for sentence structures, such as declarative sentences, questions, tag questions, etc. Most common, are the (yes/no questions) which have rising tones, and the (wh-interrogatives) which have falling tones. Despite his admission, however, McCarthy goes on to declare that there seems to be little hard evidence that this prevailing conviction is true and, on the contrary, there is much evidence to suggest that there is no one-to-one relationship between sentence-type and tone.

Cruttenden (1997: 88) also refuses to adopt the grammatical meaning, suggesting that there are typical tones associated with syntactic structures. Such an argument is maintained on the ground that it is not difficult to find examples of almost any tone combined with any syntactic type. For example, 'yes/no questions' such as: "Are you going OUT tonight?", "Are you turning OFF the light?", or "Is Carol GETTING married?" can be answered with almost any tone known to the English language.

Finally, Roach (2008: 197) illustrates that there is overlap between attitudinal and grammatical function, and in some grammatical function could reasonably be said to be as much attitudinal as grammatical. Here Roach 'who is not enthusiastic' to intonational attitude function, admits that this function in some cases can be important to convey the message as the grammatical one. This improve that these functions, by one way or another, are melts together when people communicate with each other with the respect that every function has it job separately.

2.6.3. The accentual function of intonation:

In this domain, the writer will adopt Roach point of view in general. With reference to Roach (2008: 193), the term accentual is derived from "accent", a word used by some writers to refer to "stress". When writers say that intonation has accentual function they imply that the placement of stress is something that is determined by intonation. It was said that "intonation is carried entirely by the stressed syllables of a tone-unit". This means that in presentation so far it has been implied that the placing of stress is independent of and prior to the choice of intonation. However, one particular aspect of stress could be regarded as part of intonation: this is the placement of the tonic stress within the tone-unit. It would be reasonable to suggest that while word stress was independent of intonation, the placement of tonic stress was a function (the accentual function of intonation). Some older pronunciation handbooks refer to this area as "sentence stress", which is not an

appropriate name: the sentence is a unit of grammar, while the location of tonic stress is a matter which concerns the tone-unit, a unit of phonology Roach (2008).

The location of the tonic syllable is of a considerable linguistic importance. The most common position for this is on the last lexical word (e.g. noun, adjective; verb, adverb) as distinct from function words of the tone unit. For contrastive purposes, however, any word may become the bearer of the tonic syllable. It is frequently said that the placement of the tonic syllable indicates the focus of the information. In the following pairs of example, (i) represents normal placement and (ii) contrastive.

i) / I | want to | know | where he \traveling to /

(The word 'to', being a preposition and not a lexical word, is not stressed.)

ii) (I 'dont want to 'know where he's 'traveling from)

/ I | want to | know | where he's | traveling | to /

i) / She was 'wearing a 'red \dress /

ii) (She 'wasn't 'wearing a green .dress) / She was 'wearing a \red .dress /

Similarly, for the purpose of emphasis one may place the tonic stress in other positions; in these examples, (i) is non-emphatic and (ii) is emphatic:

i) / It was 'very \boring /

ii) / It was \very .boring /

i) / You 'mustn't 'talk so \loudly /

ii) / You \mustn't .talk so .loudly /

However, it would be wrong to say that the only cases of departure from putting tonic stress on the last lexical word were cases of contrast or emphasis. There are quite a few situations where it is normal for the tonic syllable to come earlier in

the tone-unit. A well-known example is the sentence 'I have plans to leave'; this is ambiguous :

i) / I have 'plans to leave / (I am planning to leave.)

ii) / I have plans to .leave / (I have some plans/diagrams/drawings that I have to leave.)

Version (ii) could not be described as contrastive or emphatic. There are many examples similar to (ii); perhaps the best rule to give is that the tonic syllable will tend to occur on the last lexical word in the tone-unit, but may be placed earlier in the tone-unit if there is a word there with greater importance to what is being said. This can quite often happen as a result of the last part of the tone-unit being already "given" (i.e. something which has already been mentioned or is completely predictable); for example:

i) / 'Here's that book you .asked me to .bring /

(The fact that you asked me to bring it is not new.)

ii) / I've |got to |take the dog for a .walk /

('For a walk' is by far the most probable thing to follow 'I've got to take the dog'; if the sentence ended with 'to the vet' the tonic syllable would probably be 'vet'). Placement of tonic stress is, therefore, important and is closely linked to intonation.

Finally, Sethi and Dhamija (2004) conclude from the foregoing functions:

"that intonation is by no means merely ornamental or decorative in value. It is extremely important in that it performs a linguistic function in very much the same way as grammar does. In the organization and communication of meaning, it is complementary to grammar: no sentence, however carefully constructed grammatically, can convey the desired message unless it is said with appropriate intonation. In all the three functions it performs, grammatical, attitudinal, and accentual. It conveys meaning in one sense or another".

2.6.4. Discourse (Informational) Intonation:

According to Corbett (2004), discourse relays what new information is to be given as it signals what kind of response is to be expected. More often than not and within the paradigms of normal daily communication discourse, intonation is introduced at sentence level. Since people communicate over a stretch of language, it only follows that intonation should be examined at discourse level. Recent phonological research tends to define intonation as a speaker's way of organizing and relating meanings throughout the discourse. Perhaps more importantly, this approach does not label but interprets various meanings that are based on the choices of the speaker.

Ranalli (2002) suggests that almost all intonation choices are tied to the context in which they occur. In contrast to the linguistic universality of grammar-based descriptions, it is impossible in the discourse approach to isolate a stretch of speech from its context and, hence, make reasonable generalizations about intonational meaning. Brazil in Ranalli (2002) declares that discourse intonation proposes a simple and flexible system with a small and finite number of choices. First and foremost is the tone unit, which is the basic building block of speech and which is used widely as a unit of phonological analysis in most theories of intonation.

Additionally, Brazil in Ranalli (2002) proposes a unit which is distinguished by a single complete pitch pattern and consists of proclitic, tonic, and enclitic segments. As such, discourse intonation provides a manageable tool as there are four options associated with tone units: prominence, tone, key, and termination; each of which adds a different type of information. Prominence is a syllable on which there is a major pitch movement. Tone pitch movements are distinguished by their particular direction or contour. Brazil suggests five movements: falling, rising, fall-rise, rise-

fall, and level. Key is the relative pitch level chosen by speakers for each tone unit. Three choices are proposed: low, middle, and high. These choices can be recognized in reference to the key of the immediately preceding tone unit. Termination, on the other hand, is a low, middle, or high pitch level choice made by speakers at the beginning or end of a tone unit.

Equally important is the increasing evidence that out of the four most common intonational functions (attitudinal, grammatical, accentual, and discourse) there is a noticeable movement towards adopting the discourse view of intonation (DI), particularly in teaching new language learners. This seems to be the case because according to Hewings (1995: 61), (DI) tends to view speech as:

“a purpose-driven activity where speakers and hearers cooperate to reach the desired goal of shared understanding. It also refers to the common ground that exists between speaker and hearer as the area in which their world views converge.”

Hence, assigning a falling tone to a tone unit projects the content as world-changing in that it will expand the common ground; assigning it a rising tone projects the content as something which is already part of the existing common ground. Brazil in Ranalli (2002) points out, this close relationship means that “Intonation signals play a key role in listening, as well as speaking, as they signal a speaker’s assumptions and intentions with regard to the shared ground” (DI) is also credited with a new approach to an old idea, that of the distinction between new and old or given information to which a speaker has already referred. Taylor (1993) observes that this approach is primarily based on the ability to distinguish between 'proclaiming tones' and 'referring tones'. Proclaiming tones usually introduce 'new' information and, thus, consist of either falling tones or rising-falling tones. Referring tones, however, point to the information that is already mentioned or present in some way in the total context of the utterance (e.g., 'old' or 'given' information) and, hence,

consist of either rising tones or falling-rising tones. Furthermore, this innovative approach means that intonation is dealt with not as attitudinal or grammatical function mode but as a communicative value of the interaction between the speaker and the hearer.

According to Roach (2001: 197-200) "if we think of linguistic analysis as usually being linked to the sentence as the maximum unit of grammar, then the study of discourse attempts to look at the larger context in which sentences occur". For example, consider the four sentences in the following:

A: Have you got any free time this morning ?

B: I might have later on if that meeting's off.

A: They were talking about putting it later.

B: You can't be sure.

Each sentence could be studied in isolation and be analyzed in terms of grammatical construction, lexical content and so on. But it is obvious that the sentences form part on some larger act of conversational interaction between two speakers; the sentences contain several references that presuppose shared knowledge ('that meeting' implies that both speakers know which meeting is being spoken about), and in some cases the meaning of a sentence can only be correctly interpreted in the light of knowledge of what has preceded it in the conversation (You can't be sure).

It seems that studying intonation in relation to discourse makes it possible to explain much more comprehensively and encourage the use of the recent learning methodology such as the communicative approach. Practically all the traditionally and separate intonation functions can be used in the discursal approach. Roach (2001) claims :

"It is still too early to say how useful the discourse approach will be, but even if it achieves nothing else, it can at least be claimed to have shown the inadequacy of attempting to analyse the function of intonation on the basis of isolated sentences or tone-units, removed from their linguistic and situational context,."

Consider how intonation may be studied in relation to discourse, It is favored to identify two main areas: one of them is the use of intonation to focus the listener's attention on aspects of the message that are most important, and the other is concerned with the regulation of conversational behavior. In the case of "attention focusing", the most obvious use has already been described: this is the placing of tonic stress on the word that is not in some sense the "most important", as in:

/ She 'went to \Scotland /

Sometimes it seems more appropriate to describe tonic stress placement in terms of "information content"; the more predictable a word's occurrence is in a given context, the lower its information content is. Tonic stress will tend to be placed on words with high information content, as suggested above when the term focus was introduced.

i) / I've ɪgot to ɪtake the \dog for a .walk /

ii) / I've ɪgot to ɪtake the ɪdog to the \vet /

The word 'vet' is less predictable (has a higher information content than 'walk'). However, we still find many cases where it is difficult to explain tonic placement in terms of "importance" or "information".

For example, in messages like:

Your coat's on fire

The wing's breaking up

The radio's gone wrong

Your uncle's died

probably the majority of English speakers would place the tonic stress on the subject noun, though it is difficult to see how this is more important than the last lexical word

in each of the sentences. The placement of tonic stress is still to some extent an unsolved mystery; it is clear, however, that it is at least partly determined by the larger context (linguistic and non-linguistic) in which the tone unit occurs.

There are two other ways in which intonation can assist in focusing attention. The tone chosen can indicate whether the tone-unit in which it occurs is being used to present new information or to refer to information which is felt to be already possessed by speaker and hearer. For example, in the following sentence:

/ Since the last time we met / when we had that hug dinner/ I've been on a diet /

The first two tone-units present information which is relevant to what the speaker is saying, but which is not something new and unknown to the listener. The final tone-unit, however, does present new information. Writers on discourse intonation have proposed that the falling tone indicates new information while rising (including falling-rising) tones indicate "shared" or "given" information (Roach 2008).

Another use of intonation is connected with the focusing of attention is intonational subordination; the signal that a particular tone-unit is of comparatively low importance and as a result give correspondingly greater importance to adjacent tone-units. For example:

i)/ As I expect you've heard/ they're 'only ad 'mitting e\ emergency .cases/

ii)/ The 'Japa nese / for 'some 'reason or other / 'drive on the \ left / like \ us/

In a typical conversational pronunciation of these sentences, the first tone-unit of (i) and the second and fourth tone-units of (ii) might be treated as intonationally subordinate; the prosodic characteristics marking this are usually:

i) a drop to a lower part of the pitch range ("low key");

ii) increased speed;

iii) narrower range of pitch; and

iv) lower loudness, relative to the non-subordinate tone-unit (s).

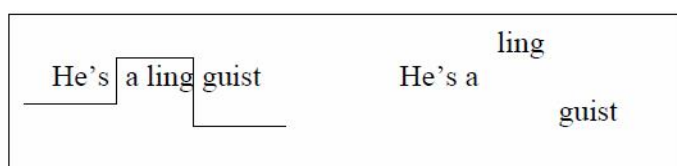
The use of these components has the result that the subordinate tone-units are less easy to hear. Native speakers can usually still understand what is said, if necessary by guessing at inaudible or unrecognizable words on the basis of their knowledge of what the speaker is talking about. Foreign learners of English, on the other hand, having in general less "common ground" or shared knowledge with the speaker, often find that these subordinate tone-units with their "throw-away", parenthetical style cause serious difficulties in understanding.

Turning to the second main area of intonational discourse function: the regulation or conversational behavior. It has already seen how the study of sequences of tone-unit in the speech of one speaker can reveal information carried by intonation which would not have been recognized if intonation were analyzed only at the level of individual tone-units. Intonation is also important in the conversational interaction of two or more speakers. Most of the research on this has been on conversational interaction of a rather restricted kind – such as between doctor and patient, teacher and pupil or between the various speakers in court cases. In such material it is comparatively easy to identify what each speaker is actually doing in speaking for example, questioning, challenging, advising, encouraging, disapproving, etc. it is likely that other forms of conversation can be analyzed in the same way, it can be seen that speakers use various prosodic components to indicate to others that they have finished speaking, that another person is expected to speak, that a particular type of response is required and so on.

2.7. Intonation Contours:

According to Kreidler (1989), there are two approaches which linguists adopt when describing intonation patterns in English; namely the levels approach and the contour approach. The levels approach uses a scale which is similar to a musical

scale. This approach is based on a set of various pitch levels. Linguists who use this approach maintain that there are four different levels which are numbered from 1 to 4 - from lowest to highest pitch - and are named: Low, Mid, High, and Extra High. The intonation of an utterance can be graphically represented with lines at four levels in respect to the line of print. The following is a sample provided by Wolfram and Johnson (1982: 37):



Alternatively, Kreidler (1989: 182) states that the intonation of an utterance can be shown with letters or numbers interspersed in the line of print. Thus, the utterance “I’m going home,” might appear in one of these forms: *I’m 'going 'home* *²I’m 'going ³home* *¹ m I’m 'going h home 1* . These three examples indicate an utterance which begins at the speaker’s middle range, rising to a high note at the beginning of the word “home”, and dropping to low during the pronunciation of that word.

On the other hand, the most important aspect in the contour approach to describing intonation patterns is tone patterns (particular patterns of pitch). This seems to be more in line with the way people actually perceive intonation patterns. As such, Taylor (1993) believes that it is necessary to distinguish between the two terms ‘intonation’ and ‘tone’. Phonologists agree that almost all languages use both intonation and tone, but in accordance to each language’s cultural needs and characteristic ways. It should be noted, however, that the term ‘tone language’, is reserved for those languages whereby word meanings may be distinguished by means of ‘tone’. A good example of a ‘tone language’ is Chinese, where “ma”, for example, may have four different meanings, distinguished by four different tones.

English does not utilize 'tone' in this manner. Although tones are used, they are utilized as part of the characteristic intonation patterns of the English language.

Celik (2001) observes that there are extensive variations in the area of English tone and intonation. He also cites Cruttenden who believes that this is an area where most analysts vary in their judgments of what constitutes a major difference of meaning and, thus, in the number of tones which are set up. Cruttenden goes on to explain that intonational meanings are often so intangible that it is difficult to see how anyone can make a wholly convincing case for any specific set of tones. This argument is somewhat strengthened by the variety and number of tones being proposed. For example, Crystal and Ladefoged in Celik (2001) identify four basic tones: rise, fall-rise, fall, and rise-fall. O'Connor and Arnold propose only two: rise and fall. Brazil and Roach endorse five tones: fall, rise, rise-fall, fall-rise, and level. Cruttenden himself recognizes seven tones: high-fall, low-fall, high-rise, low-rise, fall-rise, rise-fall, and mid-level.

In recent years a rather different way of analysis intonation, sometimes referred to as autosegmental. Roach (2008: 179) says, it has become quite widely used, especially in American work. In this approach, all intonational phenomena can be reduced to just two basic phonological elements: H (high tone) and L (low tone). A movement of pitch from high to low (a fall) is treated as the sequence H L. Individual stresses ("accented") syllables must all be marked as H or L, or with a combination marking a pitch movement. In addition to this process, H and L tones are associated with boundaries. A major tone-unit boundary is given the symbol %, but it must also given H or L tone. Roach takes an utterance like 'It's time to leave', which might be pronounced:

it's 'time to \underline>leave (using Roach usual transcription)

In a simple version the alternative transcription will look like this:

H HL%
it's time to leave

Instead of marking a falling tone on the word 'leave', the high-pitched part of the word shown by the H and the low part by the L associated with the boundary %. Roach (2008) mentions another boundary (corresponding to the minor tone-unit boundary)¹ which is marked with -, and again this must be marked with either a H or a L. There must always be one of these boundaries marked before a % boundary. So, the following utterance would be transcribed like the system roach used.

We looked at the ,sky and 'saw the \underline>clouds

And in this way using autosegmental transcription:

L LH- H HL-L%
We looked at the sky and saw the clouds

Generally speaking, the building blocks of English intonation involve three basic tones--high, mid, and low. Celik (2001) states that what makes a tone 'rise' or 'fall', or otherwise, is the direction of the pitch movement on the last stressed (tonic) syllable. If the tonic syllable is in non-final position, the glide continues over the rest of the syllables. A fall in pitch on the tonic syllable renders the tone as 'fall'. A 'rise' tone is one in which the tonic syllable is the start of an upward glide of pitch. This glide is of two kinds; if the upward movement is higher, then it is 'high rise'; if it is lower, then it is 'low rise'. Fall-rise' has first a pitch fall and then a rise.

To make it easier, Kharma and Hajjaj (1989) in their book refer to the most common English intonation patterns. These are "rising intonation" when the pitch of the voice rise and "falling intonation" when the pitch falls.

2.8. Types of English intonation Patterns:

The beholder of the above sees that the phonologists have a different opinion when analyzing the types of intonation. This variation and differentiation comes from the variety of the intonational pattern (grammatical, attitudinal, discourse...etc.) The researcher is attempted to deal with the following patterns:

2.8.1. Falling Intonation Pattern:

This pattern is marked with a fall of the voice from a high pitch to a relatively very low pitch on the last stressed word. It is typical of the following:

1. Short sentences intended to convey information

Example: I like coffee. Ali is a journalist

2. Wh- questions

Example: What is your name?

3. Imperatives

Example: Sit!

1. Exclamations

Example: What a nice dress!

2. Question tags

Example: You like coffee, don't you? (when the speaker expects a positive reply).

2.8.2. Rising Intonation Pattern:

This pattern is indicated by a rise in the voice from a very low note to a relatively very high note on the last stressed syllable or the syllable following it.

This pattern is typical of the following:

1. Statements intended to encourage the listener

Example: Come on, you can make it.

2. Yes - no question

Example: Do you like coffee?

3. Questions showing sympathy

Example: What are you going to do?

4. Question Tags (when the speaker expects a negative reply)

Example: You liked that book, didn't you?

5. Incomplete Sentence (when the speaker intends to continue)

Example: When I went out ...

Two types of rising intonation can be recognized:

- **Low – Rise.** The low- rise pattern is typical of yes – no questions, especially when one expects confirmation or denial of his information, as the following example: Will you graduate next year?
- **High – Rise.** The high – rise pattern is typical of elliptical questions (questions in which some elements are deleted). Here is an example:

Coming? (Are you coming?)

Taxi? (Do you want a taxi?)

2.8.3. Falling – Rising Intonation Pattern:

According to Roach (2008: 157) the fall-rise is used a lot in English and has some rather special functions. These functions could be described as "limited agreement" or "response with reservations" Here, there is a fall of the voice from a high note to a very low one, and then a rise from the low note to a very high one again. This pattern can fall on one word or several words, with the fall of the voice on one word and the rise on the following word.

This pattern is used for the following:

1. Correcting Other People

Example: You surely want the briefcase for you.

Oh no. It's for my son.

2. Showing Differences of Opinion

Example: This a cheap watch.

Oh no. It's very expensive.

3. Implying something else

Example: The worker left angrily. (The speaker implies that the worker may not turn up the next day).

2.8.4. Rising – Falling Intonation Pattern:

This pattern is less common than the previous ones, the voice first rises from a low note and then falls from a very high note. This is used to convey rather a strong feeling of approval, disapproval, surprise and to express certainty as opposed to doubt, as in saying:

His name is Ali. (If I am certain about the person's name.)

Here are some examples on Rise-Fall yes, no:

A: You wouldn't do an awful thing like that, would you?

B: no

A: Isn't the view lovely!

B: yes

A: I think you said it was the best so far.

B: yes

2.9. The analysis of Pitch-patterns in intonation systems:

Intonation is mainly created throughout the variation in pitch movement that goes frequently ups and down. Laver (1994) states that pitch is used phonologically in an intonational function when significant melodic patterns of pitch-movement are distributed over units larger than the single word. The pitch patterns of English intonation have received more detailed study than those of any other language, particularly by phonologists.

2.9.1. Basic concepts in intonational analysis:

It is very important to recognize when any one wants to analyze the intonation that it consists of frequency contour of the speaker's utterance. Regarding to Laver (1994) this counter is quasi-continuous, and the fundamental-frequency contour has to be speaker-normalized before further analysis, to allow comparability between the intonational patterns of different speakers. In other words, The object of attention in intonation analysis is hence a somewhat idealized or established a standard concept that may be followed when it needs to analyze of pitch movement over the full duration of the given utterance. In the same content Laver declares that there are several different ways in which the intonational pattern represented by such an idealized contour could be analyzed. One (**holistic**) way would be to identify the whole 'tune' of the pitch sequence as one of a small set of intonational tunes recognized as associated with that language. The second (**atomistic**) way would be to apply the standard linguistics notions of structure and system to the overall contour, in a perspective where the speaker exercised communicative options of choice at relevant points in the intonation of the utterance. The first of these can be called the **tune-based approach to intonation**, the second the **tone-based approach to intonation**. The two approaches will be explored.

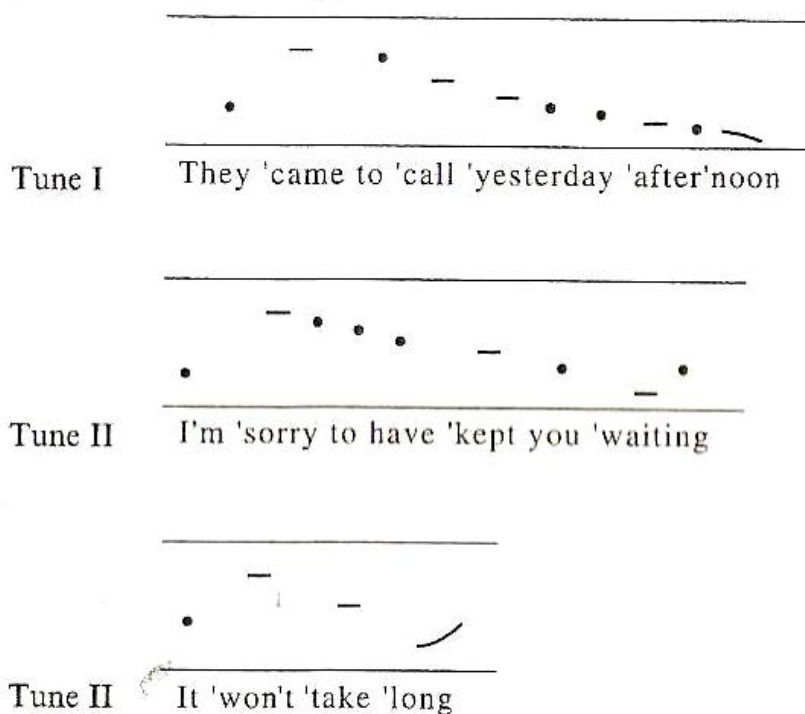
2.9.2. Tune-based analysis of intonation:

Along-established tradition of intonational analysis, particularly identified originally with Jones (1962) and Armstrong and Ward (1931) for English. Jones and his colleagues on English specified the intonation of English in terms of two holistic tunes, 'tune I' and 'tune II', which differ chiefly in the pitch tendencies on the final syllable of the utterance. Couper- Kuhlen (1986: 69) characterized these tunes as follows:

Whereas in tune I the pitch of the voice *fall* to a low level at the end, in Tune II the voice *rises* on any unstressed syllables that follow the last stressed syllable. If there are none, the rise occurs within the last stressed syllable... Although admittedly 'there are other varieties and greater wealth of detail than are here recorded'.

Armstrong and Ward claim that for all practical purpose, English intonation can be reduced to these two tunes, one with final falling, one with final rising pitch movement. Variations for emphatic sentences include increased stress as well as widened, or narrowed and lowered pitch range.

Couper- Kuhlen (1986: 69) gives the following illustrations of the two tunes (with dashes and dots representing the pitch of stressed syllables and unstressed syllables respectively):



Laver (1994) admits that the aim at this tune-based approach was largely pedagogic, teaching English to foreign learners, and distinguishing between unemphatic declarative sentences and other types. Additionally, It was attempt to limit the location of relevant pitch- behavior to the final part of each tune, effectively setting up a contrast between two terminal tendencies, falling versus rising. The

objective using of holistic pitch counters, throughout a constrained pedagogic, was to characterize intonation retains a certain influence.

2.9.3. Tone-based analysis of intonation:

The remainder of this presentation of intonation will be couched in terms of a tone-based perspective. In order to introduce some basic concepts for the description of intonational phenomena in such a perspective, Laver (1994) writes it will be helpful to begin with a brief discussion of some aspects of intonational phenomena in English (RP), and use this as the background for making comparative comments about tone-based intonational data in other accents of English and other languages. Cruttenden (1986: 59-60) illustrates five different patterns of pitch on an English 'Yes/No' question. In Cruttenden's diagrams of these patterns, reproduced here in adapted form as figure (03), the upper and lower limits of the speaker's pitch-span are depicted by parallel upper and lower horizontal lines. The pitch-pattern (temporal, prosodic, metrical analysis)

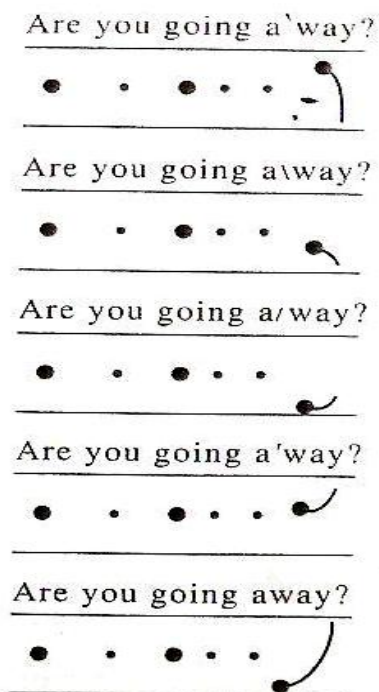


Figure (03): Five possible intonation patterns on a 'Yes/No' question in English (Received Pronunciation) (after Cruttenden 1986: 59-60)

Associated with each syllable is separately analyzed, level pitch is shown by dots, the heavier dots represent syllables which are stressed, and moving pitch is indicated by a line of changing height. Declination effects are disregarded.

Laver (1994) recognizes that there are a number of properties of the pitch-patterns in figure (03) can be isolated which are relevant to possible linguistic functions, with the assumption that the analysis implicit in the diagrams reflects the broad consensus that exists at this level of observation between researchers investigating intonational phenomena from a tone-based perspective. First: the patterns of pitch are temporally aligned with the segmental, syllabic and lexical units of the utterance, but are nevertheless also free to make their own distinctive coterminous (by definition) with voiced segments, but they are free to vary in pitch-value. This partial independence of the phonetics phenomena of intonation from the segmental strand of performance raises issues of integration shared with other suprasegmental strands of phonology.

Second: the pitch-pattern for the first five syllables *Are you going a-* in each of the utterances is identical, and the intonational discrimination of the five utterances from each other rests on the pitch behavior associated with the last syllable *-way*, with respect to the rest of the pattern. This suggests that intonational behavior is analyzable in structural terms, like many other phonological entities.

Third: the figure (03) represents differences between the component syllables which are thought to correspond to their different grades of perceptual prominence for the listener, with unstressed syllables being the least prominent, stressed syllables being slightly greater in prominence, and the syllable marked as showing moving pitch being the most prominent. This suggests that one function of intonation may be to signal that particular parts of an intonational structure are in some way more

pivotal for the interpretation of the meaning of the intended message than other less prominent parts. Another facet of the organization of graded prominence in speech is that the prominence signals relevant to intonation have to be co-ordinated with those relevant to the metrical organization of stress and rhythm. Since pitch is exploited by very many languages as a realization of word-stress, the local contribution of word-stress to a given pitch-contour has to be distinguished from the global role of the contour as a realization of a given intonational unit.

Fourth: although the five phrases are syntactically identical, their intonation is heard as conveying intended differences of interpretation. This suggests that syntax and intonation can be to some extent decoupled, and that each can make its own contribution to the overall interpretation of the composite message.

Finally, the actual patterns of pitch on the final most-prominent syllable vary. This is reminiscent of the way that a paradigm of minimally contrasting word-structures can vary by commutation of one element, and suggests that a categorical system of intonational choices can be made at this point in the intonational structure concerned. It also suggests that differences of interpretation can be attached to the different choices of pitch-pattern made at this most-prominent syllable.

Taken together, these five properties of pitch-patterning support the idea that intonation can be treated as a linguistic form of behavior, capable of phonological analysis in structural and systemic terms, with a communicative role to play in association with (but partially independent of) lexical and syntactic levels of language. Couper-Kuhlen (1986: 118-19) suggests a partly different set of criteria for recognizing intonation as potentially linguistic in nature. With some reservation, she would regard intonation as linguistic to the extent that is :

- Systematic (displaying paradigmatic systems and syntagmatic structures);

- Conventional ('determined by cultural tradition rather than by human physiology alone');
- Purposive (used for conscious communication);
- Arbitrary (with a linkage between sign and meaning that is free of necessity);
- Discrete (with units that are categorical rather gradient);
- Language-specific (differing in pattern and realization from one language to another).

According to Laver (1994), accepting intonation as linguistic in nature, the phonological unit of intonational structure will for convenience of reference be called an intonational phrase, and the most prominent syllable within the intonational phrase will be called the intonational nucleus. The phonological system of pitch-patterns operating at the nuclear place in the structure of the intonational phrase will be called the system of nuclear tones. Any legitimate utterance of English is made up of one or more intonational phrase, and each intonational phrase contains one intonational nucleus at which one of the possible nuclear tones is chosen. In English, the intonational phrase is often but not always coterminous with the syntactic clause. Any material in the intonational phrase before the nucleus can be called the pre-nucleus, and any after the nucleus can be described as the post-nucleus. Every utterance in English which can be regarded as intonationally complete must contain an intonational nucleus, but pre-nuclear and post-nuclear material are optional elements Cruttenden (1986: 75).

A question remains to be answered which is as much phonetic as phonological in nature: what properties of prominence achieved through modification of pitch quality for nuclear intonational status? The answer will vary from language to language, but in English there are two properties of pitch that have to be taken into account in deciding on the intonationally relevant pitch-prominence of a stressed syllable. The first, which is visible in the examples in figure (04), is an intonationally

significant dynamic change in pitch, giving either a fall or a rise in pitch, or a change which reverses direction either once, giving a fall-rise, or a rise-fall, or twice, giving a rise-fall-rise, or fall-rise-fall. The use of the term 'intonationally significant' here means that the change in pitch must be more prominent than that produced by word-stressed alone, since stressed syllables in English tend to be not only longer in duration and louder in intensity, but also generally more prominent in pitch than their unstressed counterparts, as indicated in the earlier comments in this section.

The second means of achieving intonationally significant prominence does not necessarily involve a dynamic change in pitch, but is based on a step in the relative pitch-difference between adjacent syllables. Figure (04) illustrates these two ways of making a syllable prominent.

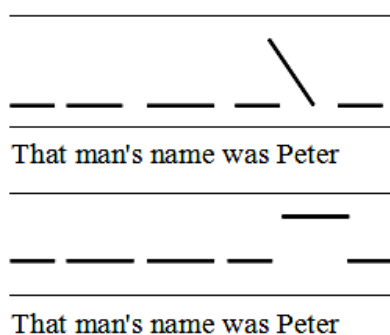


Figure (04). Two different types of pitch prominence in English (Received Pronunciation), showing a fall from high to low pitch versus a step down from a high-level pitch to a low-level pitch. Source: Laver (1994: 493).

In the first utterance, the first syllable of *Peter* has a falling pitch from high to low in the pitch span. In the second utterance, the first syllable of *Peter* is said with a high level pitch, having stepped up from the low level pitch on the preceding material. The pitch then steps down to a low level on the second syllable of *Peter*. This is a reflection of the more general principle that Bolinger (1958: 112) enunciated when he suggested the what is responsible for provoking the perception of intonational prominence is pitch obtrusion – 'a rapid and relatively wide departure from a smooth

or undulating contour' (obtruding in either direction from the local trend-line of pitch). Bolinger (1958) proposed the term 'pitch-accent' for the configurations of pitch that give rise to the impression of prominence. He also insisted that pitch and lexical stress collaborated in defining such prominence, neither alone being sufficient to make a syllable sound accented. Commenting on Bolinger's work, Couper-Kuhlen (1986: 30) states that:

[When] we learn the lexicon of our language, we learn that some syllable shun pitch accents. Consequently, when these 'unaccentables' do appear with pitch prominence, our foreknowledge prevents us from hearing them as accented. Thus it is the interaction of our knowledge of lexical stress patterns, *stress* being understood as potential for pitch accent, together with (primarily) pitch obtrusion, which accounts for perception of accent.

One can adopt the term Pitch-accent for any pitch configuration that makes a syllable prominent, whether the pitch obtrusion involved is phonetically dynamic (rising, falling, rising-falling, falling-rising) or phonetically stepping (from or to a given value) in nature.

2.10. Linguistic function of intonation:

Any utterance in English will reflect choices made by the talker about how many intonational phrases should be divided into, throughout the prosodic structure of that utterance Laver (1994: 494). The thinking of where in each phrase the nuclear tone should be placed, and which nuclear tone should be selected at the nucleus of each intonational phrase. The purpose is to ask what the communicative function of such choices might be. This goes well beyond the limits of phonetics description, into phonological matters of discourse structure and pragmatics.

The two concepts of the linguistic functions of intonation which aims to convey are 'focus' and 'pre-supposition'. Jackendoff (1972: 230) refers to the effect that focus 'denotes' "the information in the sentence that is assumed by the speaker

not to be shared by him and the hearer", while pre-supposition 'denotes' "the information in the sentence that assumed by the speaker to be shared by him and the hearer". The prime function of intonational focus is to signal the location of new information, and the chief pre-supposition assumed in intonational performance to concern the identification of given information.

Following Halliday (1963), there are three different phonological systems at work in the intonation of English, namely 'tonality', 'tonicity' and 'tone', whose use enables the speaker to signal focus and pre-suppositions to the listener. Tonality is the system of options for dividing the utterance into units of intonational phrases.

Halliday called the intonational phrase a 'tone-group'. Tonicity is the system of option for the location within the intonational phrase of the intonational nucleus. Halliday called the syllable carrying the intonational nucleus the 'tonic syllable'. Nuclear tone is the system of choices of the type of pitch-pattern made on the intonational nucleus. Halliday's term for the nuclear tone system was simply the 'tone' system.

Normally, every utterance in English must consist of at least one intonational phrase, which means that every intonationally complete utterance must make a selection from the system of nuclear tone on at least one syllable in the utterance. Halliday suggests that the nuclear tone system is made up of five principal tones. At an initial level of analysis (several of the nuclear tones having a number of sub-types), the pitch-patterns that make up the manifestations of these five tones are shown in Figure (05).

Pitch patterns on tonic syllables in English.


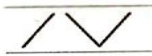

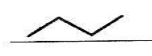
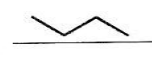
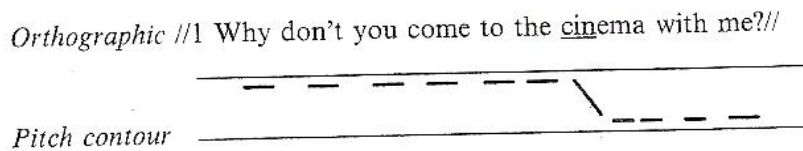
<i>Name of tone</i>	<i>Pitch pattern</i>	<i>Contour name</i>	<i>Terminal tendency</i>
Tone 1		fall	low
Tone 2		rise or fall-rise	high
Tone 3		rise	mid
Tone 4		rise-fall-rise	mid
Tone 5		fall-rise-fall	low

Figure (05). Source: After Hallidy (1963, 1967, 1970)

Using the symbol '// ' to signal the boundary of each intonational phrase, and underlining to identify the syllable carrying the intonational nucleus, then a typical contour for the pitch pattern over one intonational phrase might be:

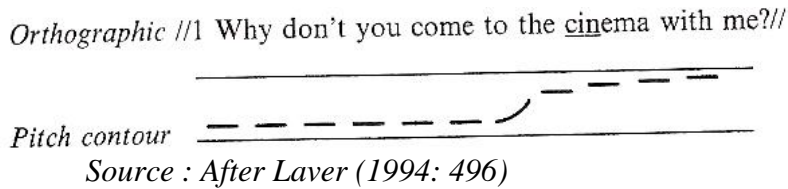


Source: After Laver (1994: 495)

In this illustration, *why don't come to the-* is the intonational pre-nucleus. The nuclear tone has been selected on the ci- of *cinema*, and is identified as an instance of tone 1 by the prefacing '1' symbol after the initial intonational phrase-boundary symbol. The remaining part of the utterance, *-nema with me*, is the intonational post-nucleus.

The choice of pitch-counter shown by the pre-nuclear is contextually somewhat limited by the nature of the choice of nuclear. Tone (1) has the widest choice of different pre-nuclear patterns that can precede the nuclear tone. Tone 1 has the widest choice of different pre-nuclear patterns that can precede the nuclear tone. The post-nuclear choice of pitch-pattern however is completely mechanical in this accent of English, in that a choice of nuclear tone with a low terminal tendency can only be followed by a low level post-nuclear element, as in the above example. Any

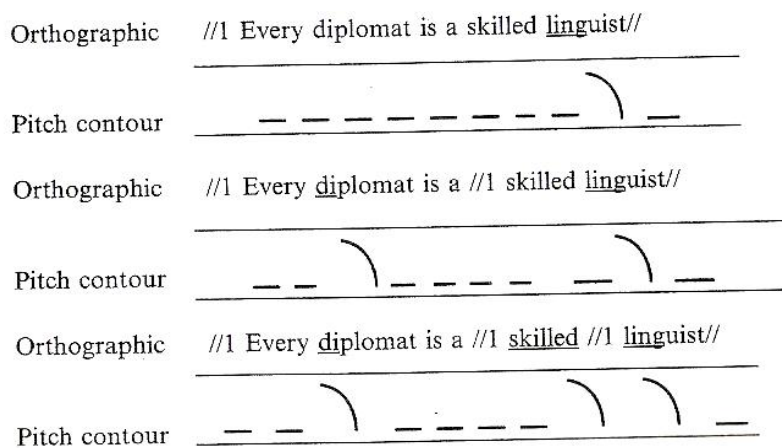
nuclear tone with a rising, non-low terminal tendency can be followed within the same intonational phrase by a post-nuclear pattern that continues the rising tendency of the nuclear tone, Laver (1994). An example of this is:



The fully predictable nature of post-nuclear pattern in this accent means that no extra information is carried by this element in the structure of the intonational phrase, over and above the information conveyed by the nuclear tone.

The system of tonality, where a choice is made about the number and location of intonational phrase boundaries, is illustrated in Figure (06) (with the syllables bearing the nuclear tone being underlined in all three cases).

Figure (06) Choices of tonality on an English utterance

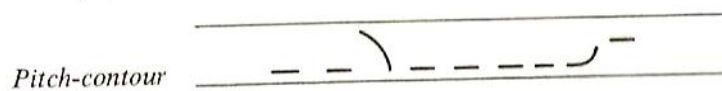


Source: After Halidy (1963,1967,1970)

One of the function of tonality is to signal the number of 'information points' carried by the utterance, with one such information point per intonational phrase. It has been said that pitch prominence is a generalized 'pay attention' signal to the listener Ladd and Cutler (1983: 7), and the choice of tonality is a demaractive indication of the informational 'chunking' of the utterance. In the above examples,

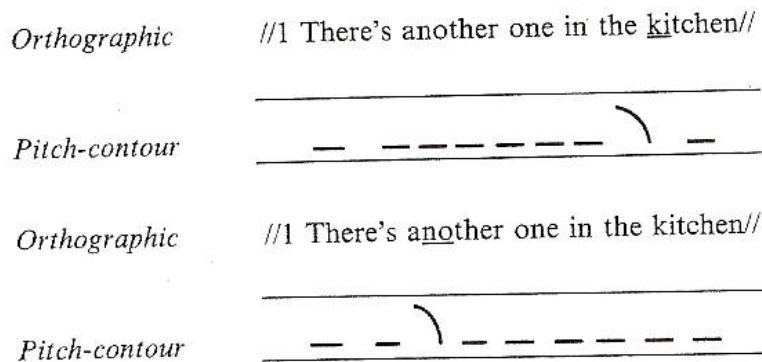
each intonational phrase carries one major information point. But Halliday also allows the concept of an intonational phrase with a double intonational nucleus in certain cases of combined nuclear tones, with the second nucleus identifying information of importance which is seen by the speaker as subordinated to the information signaled by the first. In this case, both information points are new, but the first is of more major and the second of more minor importance. The two instances in RP English where this is possible are sequences of tone 1 followed by tone 3, and tone 5 followed by tone 3. An example is the major information point (*there's another one*) and the minor information point (*in the kitchen*) carried by the following utterance:

Orthographic //13 There's another one in the kitchen//



Pitch counter
Source: After Laver (1994: 497)

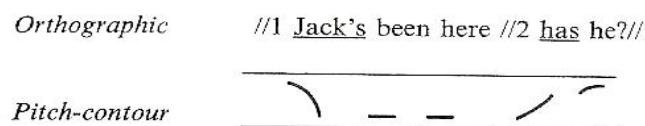
The system of tonicity, which chooses the placement of the nuclear tone within the intonational phrase, can signal either the information is thought to be new to the listener, or is pre-supposed to be knowledge already held by the listener, or is meant to be contrastive with such knowledge. This is analyzed in the following way. Tonicity in English is held to neutral, and to signal that the information in the intonational phrase is considered to be new information for the listener, if the nuclear tone is placed on the stressed syllable of the last lexical item in the intonational phrase. If the nuclear tone is 'non-neutral', by being placed elsewhere, then the information conveyed is held to be given that is, already known by the listener, or is meant to be conveyed contrastively. These different possibilities can be seen in the following examples:



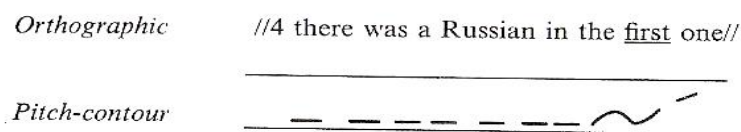
Source: After Laver (1994: 497)

The first example in the previous figure is a case of neutral tonicity, and the information is assumed to be all new to the listener. In the second case, the intonational phrase carries non-neutral tonicity, and *kitchen* is thereby marked as given information that the listener is thought already to possess.

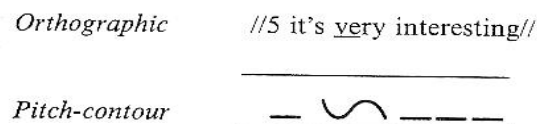
Haldy also cites a range of more narrowly linguistic functions fulfilled by intonation. They include the identification of the 'mood' of clauses affirmative, interrogative, imperative and moodless- and the support of contextual sentence functions such as 'statement', 'question', 'command', 'answer' and 'exclamation'. More subtle function are also supported, such as 'echo statements', as in:



and 'answer with reservation', as in



and 'committal answer', as in



Source: After Laver (1994: 498)

2.11. Contour interaction theories versus tone sequence theories of intonational description:

Laver (1994) claims and enunciates that the important of the presentation offered above on intonational and (tonal) phenomena in language is close related to matters of phonetics understanding. This leads to the importance to allocate functional uses of intonation, such as (declarative statement) to the patterns discriminated, and to relate the description of the contours used to a concept of a 'neutral' pattern which is opposed to some 'contrastive' pattern. It is important to take into consideration the more abstract phonological perspective on tone and intonation has gathered pace in the last years, partly as a companion to advances in autosegmental and metrical phonology. Ladd (1984: 722) worked in this more abstract perspective and states:

Assume a fairly traditional view of intonation, which we may call the CONTOUR INTERACTION (CI) theory. In this view, the basic units of intonation (at least in the European languages) are taken to be phrase or utterance-level contours: approximate over-all shapes that are correlated with grammatical meaning like 'declarative' and 'continuation'. Other factors affecting F₀ (such as emotional colouring, syntactic boundaries, accent emphasis, and segment-related effects) are thought of as independent components overlaid on the phrase contour, generating their own local F₀ configurations which interact with the phrase contour's basic abstract shape.

Ladd (1984) criticizes the contour interaction (CI) approach as assuming too strict a division between grammatical and expressive uses of intonation, over-simplifying the possibility of a distinction between 'neutral' and 'contrastive' patterns of intonation, and above all as being concerned with the communicative function of intonation, at the expense of specifying its phonological form. Ladd (1984: 723) discusses the more phonological, more abstract approach as growing partly from the intonational work; of the Dutch researcher 't Hart and his colleagues. Ladd characterizes this approach as a tone sequence (TS) view, in the following terms:

Unlike CI model, which treats intonation' as a phonological primitive in itself, the TS theory treats intonational tunes as sequences of simpler tonal elements or pitch accents. The difference between the two views thus revolves around their conceptions of the relationship between accent and intonation. The CI model assumes that the individual accent-related pitch movements are specified by a separate component, and then *interact with* an overall tune: the TS view assumes that those pitch movement are simply concatenated to *make up* the tune, so that 'sentence intonation' is merely the sum of its accent-related parts.

Ladd refers to 't Hart and Collier (1975) and Pierrehumbert (1980) for 'well developed arguments for the TS model, emphasizing in particular its formal simplicity and theoretical restrictiveness'. And the advantage that the TS model of intonation allow is better unification of treatment, at least at the phonological level, of both tonal and intonational prosodic phenomena.

2.12. Intonation in Arabic and English:

Intonation occupies an important place in Arabic, particularly in literature and reading of the Holly Quran. Ibn Taymiyya who lived between (1263 – 1328) classifies, in his text *On the Necessity of the Straight Path (kitab iqtida al-sirat al-mustaqim)*, Arabs regarding to their mother-tongue to three categories:

- a. People who speak Arabic, pronouncing it and master its intonation,
- b. People who speak Arabic, pronouncing it without its intonation,
- c. Finally, people who do not speak it, or just speak a little. (p.146)

Ibn Taymiyya refers to the people who speak Arabic and master its intonation: those whose their mother tong are Arabic, they are sons of Arab people (tribes) or/ and they who lived in Arab land (Arabian peninsula). While he refers to the people who speak Arabic without mastering its intonation, those people whose their tone, tune and/ or melody are changed. He located these people in different places , such as: Egypt, Iraq, North Africa and Al'Sham (Levant: which includes in now days Palestine, Syria, Jordan and Lebanon). He also joined, in that time, Andalusia (Spain and Portugal),

Persia and Khorasan (Afghanistan and Pakistan) people. While the people who don't speak Arabic or speak just a little as in Turkey, Armenia and Azerbaijan. In the same context, it is worth to mention what prophet Muhammad (PBUH) said " O people, the God is One (Allah), the father is one (Adam), the religion is one (Islam), to be an Arabian it does not mean your father and mother must be Arabians, but it is the tongue (the language), one speaks Arabic so he/ she is an Arabian" (Ibn Taymiyya: P.148). Looking to the intonation patterns in Arabic, they are quite similar to English in contour and meaning. However, Arabic speakers use rising tones rather than structural markers to denote questions, suggestions and offers far more frequently than English-speakers, and this practice is often carried over into the spoken English of Arabic speakers Kharma and Hajjaj (1998: 32). When reading aloud however, as opposed to talking, the Arabic speaker tends to intone or chant, reducing intonation to a low fall at the ends of phrases and sentences Swan and Smith (2001: 199). Kharma and Hajjaj in Amer (2010: 34) detect two differences between English and Arabic intonation pattern. These differences are:

(a) Tag question. It is clearly notices that the grammatical structure of the tag question in English is varied and depends on what preceded it. In Arabic, there is a fixed grammatical structure for the tag-question, it is [أليس كذلك?] [alya kathalek?] which means (isn't it so?). Second, the intonation pattern of the tag-question in Arabic is always rising, the same as that of other question without a question word. But this rising intonation in English means that the speaker is expecting agreement from listener, whereas if he is denoting agreement, he uses falling intonation. The tow writers observed that "speakers use falling intonation in Arabic tag-question for the same purpose as it is used in English, and the main distinction is the use of different grammatical structure". In Arabic, the Arabic speakers use the common spoken

expressions [صحيح أو غير صحيح "sahih? Or ghayr sahih?"] (right or wrong?).

(b) Calling on persons. In English, calling someone has two cases:

(i) If the name is stressed on the last syllable, e.g. Marie, Monroe, Eugene, Bernie it may take the high intonation pattern.

(ii) If the name is stressed on the first syllable such as: Harry, Jane etc. may take the high fall pattern. The latter often used for threatening attitude.

In Arabic, the most commonly-used pattern is the latter. In addition, using the first case when there is a long distance between the one who calls and the one who is called. In this case, the speaker uses a high rise intonation to be heard clearly Amer (2010: 44). Another issues must be taken in consideration:

- 'One that would normally expect to find more primary contours in an Arabic utterance than in an English utterance of comparable length, because of the greater abundance of primary stress in Arabic utterances' Nasr (1980: 37),
- The tonic syllable may contain the whole sentence not just one word,
- The focus and the prominent syllables may be found at the all words in a sentence,
- Beside, the rise or high-rise tone takes place in the all words of a sentence.

The following example demonstrates the four cases above:

ALSHa3b / YORed / ISqaD ALneZam // (People WAnt to TopPLE THE ReGime)

الشعب يريد إسقاط النظام

* ALSHa3b (People) all the people not a part of.

* YORed (WAnt) decided not thinking.

* ISqaD (TopPLE) not negotiate or discuss with.

* ALneZam (The Regime) not just the government.

The previous sample demonstrates what is Nasr (1980) announced that Arabic utterance has more primary contours than English one, see the underlined one's

(AISH, YOR, IS, AI). In addition, the tonic syllables are consisted of all the words which form the sentence, and the focus or (prominent) are appeared at all the words throughout the meaning which aim to convey. In addition, the high-rise tones are used frequently at the all words, specially at the beginning (the underline one's), at the beginning and at the end of ISqaD, additionally at the beginning and at the middle of ALneZam.

Taken another issue, intonation planning time, is a problematic area in Arabic. In Palestine, some words and phrases varies in their intonation timing depending on the length in general. For example, the word 'Wallah' "I swear" and 'roht 3l madrasa' "I went to school", varies in timing. While the majority of the Palestinians uttered it 'Wallah', Hebron's (El'Khalil) people (who are living in Hebron town- West Bank) use more time in uttering such words or sentences by saying ' Waallaah'; 'roht 3lmaadrasaa' as statement or 'rooht 3l maadrasaa?' as question. In contrary, Jabalia people (who are living in Jabalia town- North Gaza) use shorter time. They say 'Wall' instead of 'Wallah' and 'ball' instead of 'ballah' "swear by God". This is match with what levis (2001: 49) describes intonation planning time a "major limitation for learner".

B. Previous Studies:

The researcher has reviewed the chosen studies which dealt with intonation learning difficulties, and then classified them into five categories:

1. Intonation learning difficulties,
2. Difficulties related to the functions of intonation,
3. Difficulties related to intonation pattern,
4. Other types of difficulties, and
5. Intonation in Arabic and English.

2.13. Studies related to difficulties that learners face when learning intonation:

2.13.1. English Language Variety.

English is the predominant language in Great Britain (England, Scotland, Wales), Ireland, USA, Canada, Australia, New Zealand, south Africa and other countries. English is also spoken as a second language in some parts of world. Furthermore, there are the "Englishes" called mixed languages, which resulted from the contact between English and other languages, such as: pidgin, creoles and register. This is caused several national varieties of English spread all over the world, this variety appears in different dialect, accent and phonology.

Regarding to Hirts (1998) English accents from Northern Britain, particularly Belfast, Liverpool, Birmingham, Glasgow and Tyneside are notorious for the fact that they commonly make use of an intonation pattern with high or rising final pitch in what native speakers perceive as perfectly ordinary statements. Knowles (1984) describes these rising pitch movements should in fact be interpreted as falls for the Irish (he calls them "Irish" falls which, perversely, go up) and concludes that the existence of such pitch contours shows up a major

weakness in most current systems of analysis which classify patterns according to predetermined phonetic characteristics.

Walters (2003) analyses the intonation of South Wales 'Rhondda Valleys', sixty males were interviewed they were divided into two age groups, (1) aged (60) years and above, and (2) in their 30s and early (40s). All were born in the Rhondda, of their parents, 70% had been born in the Rhondda, 17% in other parts of Wales and 13% elsewhere, mostly in the west of England. They were of working-class socio-economic status and members of Workmen's Clubs. The recordings were made in back rooms of the Clubs. The informants were in pairs with fellow members of the Club. The thirty conversations are each between ten and twenty minutes in length. All were graded throughout for 'quality' (audibility, interactiveness, etc.) synopses were made and episodes transcribed orthographically. There are two features of accent-contour configuration that contribute markedly to the melody of Rhondda Valleys English (RVE). Firstly, most pitch obtrusions are downwards. Even more frequently and strikingly, the initial pitch movement from the stressed syllable is rising. Several other features of accent-contour realization contribute towards the melody: the stressed vowel can be markedly shortened and succeeding consonant markedly lengthened; the post-stress syllable can possess not only higher pitch but as great duration and intensity as the stressed syllable. This is particularly noticeable where the nuclear accent is with penultimate stress, the effect being to add considerable force to the normal final-syllable lengthening. Another prominent melodic feature of accent contours is that a dip can be heard in the pitch of the stressed vowel before the subsequent rise. Many different accent contours (over twenty) have been identified in the data so far analyzed, involving almost every possible permutation of L, 0 and H.

From Hirts and Knowles descriptions to intonation variation, it seems that intonation is restricted (on one reason or another) to the location of people. This gives evidence there are English, Irish, Scotch...etc intonations. While Walters study obtains there are several accent contour appears in Rhondda Valleys English. This makes Al-Sibai (2004) to ask " Is it intonation variation or intonation change?".

2.13.2. Does Intonation Meaning Come From Tones Or Tunes?

One important question in prosodic research is whether each tone contributes individually to the interpretation of an utterance, or whether intonational meaning can be determined only by examining a tune in its entirety.

Dainora (2002) investigates the previous issue by focusing on the interaction between pitch accents and boundary tones. The aim is to evaluate the contribution to meaning of individual tones versus whole tunes. The researcher takes in consideration the compositional approach to intonational meaning which is exemplified by Bartels (1997) who assumes that "the overall meaning of a tune is built up from the meaning of its smallest meaning-bearing constituents, that is, tonal morphemes". Pierrchumber and Hirshberg (1990) propose that pitch accents, phrasal tones, and boundary tones each contribute to the meaning of the intonational tune. Pitch accent signal how the speaker intends the hearer to interpret information about the referents, modifiers, and predicates that correspond to the accented lexical items in the discourse. Phrasal tones and boundary tones convey whether an intermediate or intonational phrase is interpret as a related unit with respect to the preceding and following intermediate or intonational phrases. The data that is used in this study is taken from the Boston University Radio New Corpus. The results show that:

1. The nuclear accent is a significant determined of the boundary tone.

2. The pitch accent may also play a role in the likelihood of a high or low phrasal tone, but here the evidence is mixed.
3. If the phrasal tone is low, we can say very little about which boundary tone will occur, but if the phrasal tone is high we can state with some confidence that boundary tone will be low.
4. It appears quite clear that a phrase's nuclear pitch accent is an important determinant of the boundary tone i.e. high boundary tones are far more likely subsequent to certain pitch accent than they are to others.
5. The phrasal tone can be an important predictor of boundary tone, but only in the less common case of a high phrasal tone. Consistent with this, the mutual shared between them is moderate.

Finally, Dainora (2002) from the results suggests that a tonal approach might better account for the range of intonational meaning than a compositional approach. And the strong interrelations among tones suggest that the meaning of a tune is more than the sum of its tones. Tones are behaving not like numbers but like phonemes in that they combine in predictable patterns. Knowing the identity of certain phonemes in a word allows for more accurate prediction of subsequent phonemes.

2.13.3. Difficulty distinguishing tones.

Rinalli (2002: 12) emphasizes that the difficulty of teaching intonational tones rises from the challenge of even identifying them. Saying, if even native speakers have trouble identifying tones in a recorded transcript, so imagine the difficulties learners will face not only in distinguishing but also producing them. In the case of (Elisa), the student Rinalli privately tutored, she was still having difficulty distinguishing a fall-rise from a falling tone after ten hours of instruction and practice. Her attempts to produce these tones were often less than successful.

To investigate the tone differences in English and several other languages Hyman (2007) covers some of the conceptual and analytical problems one faces in approaching the study of tone throughout analyzing several studies. The professor exhibits that: *Tone can do everything that segmental or metrical phonology can do, but the reverse is not true*, arguing that tone is both quantitatively and qualitatively different from segmental features and from the other two traditional suprasegmentals (length and stress). Additionally, Hyman (p. 517, 518) says the following about tone:

(i) *Tone is the most "syntagmatic"*: this means tone shows the greatest tendency either to wander from its original or to have effects with other tones at great distance.

(ii) *Tone is the most "paradigmatic"*: Despite the highly syntagmatic nature of tone, tone can also be highly paradigmatic, especially in languages in which monosyllabic languages contrast multiple tone levels and tonal contours on monosyllabic words.

(iii) *Tone is the most "ambiguous"*: Tone appears to offer a wider range of reasonable analyses and interpretations than other phonological features. In different languages (including English), a two-level tone system is best analyzed as /H, L/, /H, θ), /θ, L/. Similarly, the three-level system can be a lowered H, a raised L, an independent third tone /θ/, and can be [+upper, - raised] or [-upper, +raised]. Additionally, there are more options if one succumbs to the temptation to treat tones as "accent".

(iv) *Tone is the most "abstract"*: In many cases the relation between input and output tones is a very abstract or indirect one. For example, in the case of two-level tone system, this is in part due to the considerable possibilities for spreading, shifting, deletion and insertion. In addition, underlying systems can be realized with more levels in the output than they started with.

(v) *Tone is the most "arbitrary"*: while much of tonology is phonetically grounded in a transparent way, many tonal alternations appear arbitrary from a synchronic point of

view. This occurs both in morphology as well as at the phrase level. This means that one tone pattern simply corresponds arbitrarily to another.

(vi) *Tone is the most "autosegmental"*: Compared to segmental features, tone is far more likely to float as a lexical or grammatical tone, to show stability effects, to undergo dislocation, or to interact with like features at a distance. Tone sequences are much more likely to be treated as contours which can be manipulated as units or as "melodies.

Gut (2001) describes Nigerian English prosody. Five speakers of Nigerian English, four female and one male, were recorded. The participants were chosen as speakers of Nigerian English Standard on the grounds of their education and linguistic history. All were born and educated in Nigeria and hold university degrees. All participants read a story of (268) words for which they had as much time for preparation as they wanted. Subsequently, they were asked to retell the story in their own words. The data were analyzed and the results were compared to the speech of a southern British English speaker. The results of this study suggest that contour tones on syllables are very rare in Nigerian English and only occur in very restricted environments, mainly on pre-pausal syllables. Rather, words of particular grammatical categories seem to be associated with specific tones. Nigerian English prosody is thus close to those tone languages that have tones associated with a grammatical rather than lexically contrastive function than to the use of tone in intonation languages.

Diez (2005) identifies and typifies errors relating to onset and nucleus assignment in the interlanguage of a group of learners in their second year of Bachelor. Two samples were used: one made up of (3) native speakers of English, who were English assistants at the University of Murcia and were speakers of

Standard English; another sample was made up of (15) Spaniards who were learners of English in their second year of Bachelor (high school). A short narrative text, with some descriptive elements, extracted from the students' official textbook, was used in the study. A first corpus was obtained by recording the reading aloud of an English text by all (3) Anglophone informants. A second corpus was obtained by recording the reading aloud of the same text by the non-native informants. The results in the next table prove that the (15) non-native informants produced (925) tone units, which means almost 8 times the number of tone units produced by the native informants (119).

Onsets on unstressed syllable	Onsets on stressed syllable	Tone units with onset	Tone units without onset	Total number of tone units	
–	108	108	11	119	Native informants
74	457	459	466	925	Non-native informants

Taking into account the (5-to-1) proportion of non-native informants (15) as against the native ones (3), the number of tone units produced by the former should have been no larger than (5) times the number of those produced by native informants. Another result is that, while almost all the native informants' tone units have an onset (108 tone units out of 119, in fact), only half of the tone units produced by the non-native informants do have an onset (in fact, only 459 tone units out of 925). Conversely, while the (3) native speakers produced (11) tone units without an onset, the (15) learners produced (466), it is over (42) times the amount produced by the native informants. The greater the number of tone units in a text, the smaller the number of stressed words per tone unit and, therefore, the smaller the overall number of onsets. Many of the learners' tone units contain only one rhythmic stress, which, by

rule, must bear the nucleus, thus leaving no room for an onset. This result seems, therefore, linked to the students' lack of fluency.

The results that have been obtained from Gut and Diez investigation improved what is Hyman argued about tone difficulties such as: tone is the most ambiguous, abstract and arbitrary. This makes EFL learner to produce either very rare tonic syllable as the Nigerian English; see Gut (2001) or to produce 8 times more tone units than native speakers; see Diez (2005).

2.13.4. Planning time.

A serious and related problem is the need for planning time. Levis (2001: 49) calls it a “major limitation for learner”. When and/or where speakers engaging in real-time communication have to make decisions as they go about which information to highlight, while at the same time responding to what they hear. For someone interacting in a second language, the burden of intonational may overwhelm one’s processing capacity.

Braun et al. (2006) test five males and five females native speakers of Standard Southern British English. All had normal hearing and were between 19 and 30 years old, by asking subjects to mimic a block of 100 randomly generated intonation contours and then to imitate themselves in several successive sessions (Method of Serial Reproduction). Concerning timing, the result shows that intonation contours are dramatically extended in time (p.32).

Knight and Nolan (2006) investigate the effect of pitch span on intonational plateau. This experiment utilized recordings made for a separate experiment on pitch equivalence in intonation described in Nolan (2002). A replication task was used to ensure subjects produced utterances in different pitch spans. Two phoneticians used as stimuli, one male and one female, recorded template utterances in a sound-treated

booth. The male speaker would produce a token of utterance A in one of three impressionistically defined pitch spans, hereafter referred to as neutral, compressed (narrower than the neutral span) and expanded (wider than the neutral span), and the female speaker would attempt an exact replication of the token in her own. The male speaker would then produce a token of utterance B in the same pitch span as utterance A and the female speaker would again replicate it. This procedure was repeated twice more for each pitch span. Then twelve native speakers of British English participated in the experiment. There were (8) females and (4) males whose ages ranged from (21-29) years. All were students at the University of Cambridge with some training in phonetics and intonation. Subjects were recorded individually in a sound-treated booth. Stimuli were presented through headphones, and after each utterance (A or B) had been played, an on-screen message prompted subjects to repeat it exactly, aiming to produce an intonationally equivalent utterance in their own voice. Regarding the timing of the peak (the time in milliseconds between the beginning of the syllable and the peak) is significantly affected by the pitch span. The peak is timed earlier in compressed and neutral spans than in the expanded span. The start of the plateau is closer to the beginning of the syllable when a compressed span or neutral span is used than when an expanded span is used and the correlation analysis shows this is true for all speakers. The end of the plateau is nearer to the beginning of the syllable in the compressed span and in the neutral span than in the expanded span and the correlation results show that this is true for seven speakers. The low tone is timed earlier in compressed and neutral spans than in expanded spans and again the correlation analysis shows this to be the case for seven speakers.

2.13.5. Prominence.

For Dalton and Seidlhofer (1994: 81) prominence is “maybe the most important function of intonation, and almost certainly the most teachable one” Several researchers seem to support this claim. Wennerstrom in Ranalli (2002) conducted a study which found that non-native speakers tend to give “relatively equal prominence to items, regardless of their importance to the information structure of the discourse”. Jenkins in Ranalli (2002) cites data from her own research (2000, 2002) which shows that mistakes of prominence (or “nuclear stress”) are responsible for serious breakdowns in communication between non-native speakers. In terms of learn ability, Jenkins investigated the prominence case of the student Elisa. Elisa found the sections on prominence to be the most illuminating, as they contradicted rules she had learned at school (namely that prominence is always placed on the lexical words in a sentence). She seemed to grasp the new concepts quickly and her ability to use prominence selectively according to context appeared to have improved somewhat by the end of the course. It would seem that prominence can be taught even at lower levels (as happens in the Headway materials). Jenkins (1998: 122) has noted how “learners seem to acquire [prominence] relatively quickly for receptive purposes but do not acquire it productively until considerably later, if at all”.

Rocca (2007) aims to experiment new trends on the teaching of intonation of foreign languages throughout the experiments English intonation for Brazilian speakers. Eight undergraduate students of the English language took part in the experiment that compared the achievement of two groups: the experimental group, which exercised the intonation contours with the speech technology, and the control group, which received the same training in the traditional language laboratory. The corpus focused on two frontier tones L% (Low) and H% (High), the

falling movement of the pitch being represented by declarative, imperative and wh-interrogative emissions and the rising movement exemplified by Yes/No questions. The Production Recording Data were submitted to the perceptual analysis of (40) native speakers of English. Bilinguals and language teachers were not accepted as evaluators. The results showed that the Brazilian learner faces several problems with the Yes/No questions of English. In addition the pitch range employed by native speakers of English is larger than the one employed by Brazilian speakers of English, who have difficulty in keeping a continuously rising F0 contour when a single pitch accent occurs at the beginning of the emission. They also present different degrees of difficulty when the prominent syllable is carried by the last word of the emission. In general, Brazilian speakers do not produce pitch variation inside a single vocalic nucleus as in the native speaker's emission represented.

Megdad (2011) conducts a small-scale research to investigate students awareness regarding intonation pattern and function at Al-Quds Open University (Al-Q.O.U.) in Gaza, Palestine. Using the descriptive analytical method; the population of the study consists of all English department male and female students who previously took the course "Introduction to Linguistics" and "Phonetics and Pronunciation", they were 19 participants, 8 female and 11 male students. As regards prominence, by using diagnostic test and asking the participants to underline the syllable which is uttered with arising pitch. The result shows that the wrong responses are 63.5%. Thus, students have serious difficulties regarding this section.

Ranalli (2004) attempts to argue that the "thorough, systematic teaching" of prominence advocated by Jenkins could best be achieved through a combination of consciousness raising for receptive purposes, followed by more production-oriented exercises like those in the Headway materials.

The results of the previous studies gave evidence that L2 learners intonation contours are, by one way or another, extended dramatically in time. The reason that makes Levis (2001) says "planning time is a major limitation for learner' comes from that L2 learners failed to planning the suitable time when utter a phrase or a sentence. For example, "thank you" may be said in two ways: in the first, the voice starts high and ends low, and this shows real gratitude; while in the second way the voice starts low and ends high (notice the change in timing), and this shows a rather casual acknowledgment of something not very important (see Amer 2010: 40). Additionally, mistakes of choosing prominence (nuclear stress) are responsible for serious breaking in communication. This makes the listener not to grasp what is the speaker want to emphasis and causes the overlap between the new and the old information.

2.14. Difficulties related to the functions of intonation:

2.14.1. Grammatical and Lexical.

One of the sources of the difficulty of English intonation for the foreign learner is in teaching its structural analysis. Intonation is in fact part of the grammar of a language (Halliday 1967: 10). Any change in intonation represents changes in the semantics of the final message, not only regarding speakers' attitude, but also the structure of information as perceived by interlocutors.

Verdugo (2003) intends to describe the extent to which the intonation systems are used by non-native speakers (Spanish) may affect the information structure and meaning of their messages. By using a cross-linguistic computer corps of learner and native English. The corpus is composed of (40) short conversations between (20) (ten female, ten male) non-native and ten (five female, five male) native speakers. However, the analysis aims to reflect not only 'errors' but also the learners'

possible interlanguage. The research focuses on speech functions in the area of giving and demanding information: statements, answers, Wh-questions, polar questions, multiple questions, and question tags. The status, organization and management of information expressed by the intonation patterns are discussed below.

1. *Giving /demanding information: Statements:*

Native speakers' statements are expressed by neutral tonality and tonicity systems. The intonation unit corresponds to a unit of information. The tonic corresponds to the major new information as the narrow focus of the conversation. The contrast in the status of information is also expressed by the tone system: new, asserted information is expounded by a falling pitch, while given or presupposed information is expounded by a low rising pitch. The falling pitch as the neutral tone of a statement speech function expresses dominance and certainty on the part of the speaker.

On the other hand, non-native speakers do not express this distinction between asserted and presupposed information in their speech functions, but use a falling tone for both types of information. In non-native speakers' statements there is a tendency to divide the tone group into more feet than in the case of native speakers. The tonicity system does not coincide either. Non-native speakers tend to use marked tonicity with the focus on presupposed or given elements. Native speakers express the difference in the status of information between major and minor by the tone pattern, using a falling (tone 1) for new, major and a low rise (tone 3) for old, minor information.

2. *Answers:*

The results from the analysis of answers coincide with those from statements. Native speakers use neutral tonality and tonicity in answers as well. When the speech

function is expressed by a compound tone group, the tonic with a falling pitch (tone 1) indicates new, asserted information; while the tonic with a low rising pitch (tone 3) represents the minor, given information. The contrast between new and given information is not clearly expressed. The message conveyed seems to be different from the one expressed by native speakers. Therefore, the same wordings with different intonation systems denote a different management of information.

3. *Wh-questions:*

The analysis of Wh-question speech functions gives the following results. In general, the tone system used by non-native speakers seems to be close to that used by native speakers (primary falling). However, a more detailed analysis reveals certain differences. Native speakers use neutral tonality and the intonation unit corresponds to one unit of information. The tonicity, pattern choice is neutral as well: the last new lexical item has the tonic prominence and the focus is narrow. A falling pitch helps to expound the status of information: major and asserted. The tone system also corresponds to the neutral tone used for Wh-questions indicating knowledge or certainty about something. In non-native Wh-questions, the tonicity pattern is frequently marked. Besides native and non-native speakers present differences regarding the falling and rising movements and the range of pitch in each foot. Within the tonicity system, native speakers clearly distinguish the focus of information. The difference in the tonic pitch range is always wider with respect to the rest of salient syllables. In the case of non-native speakers, the tonic pitch range is not as clearly differentiated from the rest of the salient syllables.

4. *Yes – no questions:*

In general, in short yes-no questions both groups of speakers tend to use similar intonation patterns: neutral tonality, tonicity and neutral tone, though with some differences regarding secondary tones. However, the difference in pitch range is very obvious, and there is a tendency to distinguish the tonic from the rest of the salient syllables by the pitch range and height in native speakers' utterances. Therefore, the tonic may not be so easily identified as in native speakers' utterances. On the other hand, when the utterance is longer, the choice of the tonicity pattern differs in both language groups. In native speakers, there is a tendency to devote a relatively longer time to uttering the tonic than to the rest of the feet within the intonation unit.

5. *Multiple questions:*

Both language groups produce similar results in the intonation patterns of short multiple questions, such as:

Do you/ feel a/ hundred/ Mr/ Kent//

6. *Statement-question tag:*

According to Halliday (1970: 13), a tag cannot have a pre-tonic. This is perhaps one of the reasons why the tonic in the tag question is always placed in the auxiliary. Native speakers read it using a neutral tone: a falling tone both in the statement and in the question tag with the polarity changed, 'expressing certainty or demanding an admission. In contrary, non-native speakers use different tonality, tonicity and tone. First, the division of the tone group in the statement and tag is different from that of native speakers. The tonic is located differently, showing different information management and consequently different meaning. The last word within the tag, usually a pronoun or adverb, receives the main

prominence. As a result, the tag in non-native speakers' utterances has a pre-tonic.

This is not possible in English according to Halliday (1970: 13).

Finally, Verdugo (2003) comments:

"it is obvious that canonical English tag questions are sensitive to three main factors: the choice of auxiliary and pronoun, polarity (negation), and intonation pattern. Additionally, tag questions closely interact with syntactic, semantic, and pragmatic information this extended the complicity of this pattern".

Regarding lexical, learners often have difficulty with intonational tone placement, especially in polysyllabic words. Studying the epistemic modality and degree at the case of really Carita Paradis (1997) adopts from Stenström (1986: 151)

- (1) this question is really surprising
- (2) this is a really surprising question
- (3) this is really a surprising question
- (4) this really is a surprising question
- (5) really this is a surprising question

The difficulty rises from the following questions:

- What type of evidence, on the cline from factual to subjective, is provided by really?
- What types of representations does really take scope over and how do they constrain the readings of really?
- Are there any intonational differences among the readings of really in terms of focalized use and attitudinal meaning?

From the former studies, the difficulty appears from the overlap between the grammatical, discorsal and attitudinal which formed the intonation functions in general.

2.14.2. Attitudinal function.

Despite the argumentation between linguistics about the importance of the attitudinal function, it becomes clear that this function has a major role in learning intonation, particularly to L2 learners. Osgood et al. in Al-Sibai (2004) is tried to arrive at the attitudes underlying the use of a number of intonational patterns. The technique consisted of asking subjects to rate each pattern on a seven point scale, while linking a contrary attitude such as: ‘bored - interested’, ‘rude - polite’, ‘timid – confident’, etc. An analysis of the responses was then carried out in order to discover the relative weight of the emotional factors which underlie one’s judgment. The researchers found out that patterns with a narrow range of frequency variations were the most unpleasant, while smooth changes in one direction were generally less pleasant than broken curves. They also found differences in the judgments according to the grammatical category of the sentence; statements could be pleasant with either a final rise or fall while questions and commands were pleasant only with a final rise.

Kumaki (2003) outlines the work done by Cauldwell and Allen citing some of the descriptions from ‘Nine ways of saying yes’ by Crystal. The two researchers point out the problems of pinning down the attitudinal meaning of tone choices as follows:

- a. The imprecision of the descriptions. It is difficult to be precise about emotional nuances. For example it is difficult to say what the difference is between the meaning ‘detached, unemotional statement of fact’ (which Crystal associates with a low fall) and ‘routine, uncommitted comment; detached and unexcited’ (which he links to a mid fall).
- b. Crystal allows a tone to mean something (e.g. the low fall’s unemotional) or its (near) opposite (e.g. the low fall’s dramatic) depending on the context.

This is tantamount to saying that any tone can mean anything, depending on the context. This is a serious problem for a systematic description.

- c. Crystal's description is not a purely linguistic description. He indicates that the meaning of an intonation choice may depend on associated gestures or facial expressions. This is almost the case, but this makes it very difficult to systematize the description (as cited in Kumaki, 2003: 11).

McCarthy, in Kumaki (2003), also supports this critical view when claiming that almost any emotion can be accompanied by any tone. He goes on to suggest that without lexical or contextual information or other vocal clues, it is impossible to reliably label a tone contour as displaying a particular attitude or emotion. Kumaki goes on to state that Crystal himself writes of an experiment which demonstrates that native speakers find it virtually impossible to agree when matching attitudinal labels with intonation contours.

Generally speaking, discussions of the function of intonation in English often center on the relation between intonation and attitudes. In fact, the main function of intonation is seen by many phonologists as conveying attitudes Al-Sibai (2004: 8).

Scherer et al. (1984) in (Ladd, 1996) developed a 'configuration' model which found that emotional meanings could be generated by the conjunction of contour and sentence type. This situation made it possible to suggest that 'yes/no questions' with final fall, and 'wh – questions' with final rise could be judged as less agreeable and less polite than the 'normal' association of 'yes/no questions' with final rise and 'wh-questions' with final fall. With these findings one may simply conclude that the conjunction of utterance types and phonological choices plays an important part in conveying attitude and emotion. Corbet (2004) who is not a big enthusiast of attitudinal intonation, argues that, this type of intonation isolates intonation tones and

gives them labels, such as 'surprise, agreement, disagreement etc.,' thus defining many emotions at the time of speaking. Corbett (2004) gives an example showing the usefulness of attitudinal intonation:

Student A: Did you know that Marco Polo discovered China?

Student B: Really!

Commenting, there is no real context for Student B's surprise. Such encounters are often criticized for lack of context and their need of lexical and contextual information to make sense.

Chen, et al. (2002) examine two equivalent groups of listeners with Dutch and British English language backgrounds regarding on the scales emphatic vs. not emphatic and surprised vs. not surprised. Since the difference in sentence mode may interact with the meaning of intonation contours, the researchers designed three pairs of sentences, where the members of each pair differ in that one was a syntactic question and the other of a syntactic statement. In their perception of 'emphasis' and 'surprise', Dutch and BrE listeners behave differently. Two types of language dependence were found:

- a difference in degree to which the meanings are perceived as a function of variation in pitch span and pitch register,
- a difference in the direction of the correlation between perceived meaning and pitch register.

The idea is that Dutch speakers allow themselves less F₀ space to express the same range of information (degree of emphasis, degree of surprise) than BrE speakers, and that listeners adjust their interpretative policies accordingly.

These studies rely on that the relation between intonation and attitude is essential, but there are some obstacles which need to be taken in consideration:

- It is not possible to speak without one's speech having some degree or type of pitch range, loudness, speed and voice quality.
- It is very likely one's will have used different facial expressions, gestures and body movements. These factors are all of great importance in conveying attitudes and emotions (see Roach (2001: 187).

2.14.3. Accentual function.

Yan and Vaseghi (2000) present acoustic speech features in the comparative study of two major English accents: British English and American English. The participants were (149) male and (134) female. Prosody is made up of Intonation-groups, Pitch Event and Pitch Accent. Intonation-groups are composed of a sequence of pitch events within phrase. Pitch Event is a combination of a pitch rise and fall. Pitch accent, either a pitch rise or a pitch fall, is the most elementary unit of intonation. The result shows that British speakers possess much steeper pitch rise and fall pattern and lower average pitch in most of vowels. This means British speakers tend to speak with lower pitch but higher pitch change rate, especially in the rise accent.

Jun and Maria (1996) examine the intonation structure of Seoul Korean and its realization by American English speaker. Four male English speakers of Korean, differing in proficiency, and two male Korean speakers participated in the experiment. 40 sentences were designed by varying the number of syllables within a word. They found that not all surface tones were produced equally well. Speakers were in general good at pronouncing AP- final H tones and rising tone patterns for short APs (L H, L L H, L H H), but they were not good at producing the second tone in a long AP (H1 in L H1, L H2), nor were they proficient at producing AP-initial H tone due to segment type. Additionally, when the subject phrase has (6) syllables,

both of the native speakers produces a L H, L H pattern as predicted, but the advanced Speaker and the Intermediate Speaker produced an ambiguous tonal pattern, and the Beginner produced two clear APs (from 40 sentences which consists of 328 words).

Anufryk (2007) investigates prosodic variation as realized by L2 German speakers of varying pronunciation aptitude in comparison with native speakers of English. Data consisted of English read speech samples from the classical text 'The North Wind and the Sun', and produced by (30) native German speakers, whose pronunciation aptitude had been initially defined as excellent, average and below average. Apart from that, a control group of native English speakers was recorded for the comparison of the experimental results. The results of the study confirm that :

1. There is a correlation between prosodic variation and language ability.
2. On the phonetic level the rising F0 contour (the high boundary), had a much wider distribution in German realization than it was employed by the native speakers. The frequency was highest for the average group, followed by below-average speakers.
- 3 . Another peculiarity concerned the distribution of the 'rising' pitch accent L H* in pre-boundary position shows what is typical of the German samples, with the highest percentages for the average and below-average groups and the lowest for the native speakers.

To investigate whether pitch accent type convey information status in yes-no questions Grice and Savino (2007) examine the intonation of polar questions. Such questions may elicit an affirmative or negative reply concerning information which is totally new, they may also refer to old information throughout dialogue context. The corpus analyzed consists of task-oriented dialogues between six pairs of Bari Italian speakers. The researchers found that pitch accent type reflects the degree to which the

speaker believes whether the current questions contains shared material. Where the speaker is lacking in confidence as to whether the material is old or not, therefore, the speakers do not use pitch accent type to distinguish between totally new and possibly new material. On other hand, they do distinguish between those cases and ones where they are reasonably confident that material is old.

Finally, Grice et al. (2000) state three main problems with the notion of phrase accent, especially in Pierrehumbert's analysis (H^*+L followed by a $L\%$ boundary tone). First, the phrase accent is said to occur between the nuclear pitch accent and final boundary tone at the end of the intonation phrase, but it is unclear what exactly determines its timing. Second, English phrase accents extend over a longer stretch comparing with other languages as a Swedish phrase accents which are marked by a clear peak, therefore the obscuration corresponding to English L - phrase accents being particularly difficult to detect. Third, considering H - phrase accents, the analysis of rising tones predicts a difference between the sequences L^*H- and $L^*+H H-$. This distinction is difficult to maintain, since the phrase accent $H-$ takes the same value as the trailing H of the L^*+H pitch accent, making the presence of the phrase accent after the trailing H tone impossible to detect empirically.

The accentual function of intonation, in this study, refers to the placement of stress. Surveying the previous studies showed the difference between the British English and American English regarding the pitch event (combination of pitch rise and fall) and the pitch accent. Additionally, foreign accent in L2 production are caused by interference from the phonological system and phonetic realization of the speaker's (L1), including both segmental and prosodic features. Therefore, placement of tonic stress is important and is closely related to intonation. (See Roach 2001: 195).

2.14.4. Discoursal function.

The successful use of discourse intonation contributes to effective cross-cultural communication; failure to make use of the appropriate pragmatic discourse features of English intonation jeopardizes effective communication, possibly resulting in serious communication breakdown between native speakers (NSs) and non-native speakers (NNSs). A failure to appropriately use the English prosodic features persists even in speakers of advanced levels of proficiency Pickering (1994, 2004). In addition, the fundamental contribution of intonation to communicative competence and proficiency has largely been neglected in foreign language classrooms (Chun, 1988; Thompson, 1995).

Intonation discoursal difficulties also varies, there are number of studies focus on intonation in native speaker discourse, Meanwhile, number of studies attempt to describe characteristics of discourse intonation of NNSs. Juffs (1990) explores how Chinese-speaking learners of English had difficulties with the English phonological system. The (19) participants were university students of the People's Republic of China. A recording was made of each student reading a 105-word passage taken from an English textbook. The errors made in word stress were higher than those in pitch accent. The explanation that the researcher offered was that pitch accent is semantically determined, whereas word stress depends on the syllable structure. The errors were speculated to be due to largely, if not entirely, influences from the native language.

Hewings (1990), for instance, attempts to describe intonation choices occurring in natural speech produced by Algerian speakers. Given four pictures as prompts, eight upper intermediate Algerian learners' monologues were recorded. By investigating the intonation surrounding three types of discontinuity (repetition,

correction, and retrospective redrafting), the learners had difficulty in planning and producing continuous speech, resulting in faltering speech. Hewings concluded that the foreign intonation choices resulted from, among other things, lack of linguistic ability rather than cross-linguistic interference.

Hewings' (1995) subsequent study compared the English intonation of two native speakers and four Indonesian participants. The participants were asked to read a dialogue in pairs as naturally as possible. After the first reading, roles were reversed and the reading was repeated. Each pair of participants was either British or Indonesian. Results showed that the Indonesian participants produced shorter tone units, more level tones, and selected falling tones in contexts where NSs selected rising tones.

A more recent work by Pickering (2004) investigates the structure of intonational paragraphs and their relationship to topic development in the teaching discourse of North American teaching assistants (NS TAs) and Chinese international teaching assistants (ITAs). Coextensive sequence chain and transaction boundaries lab sections from an NS TA presentation are used. To ensure that the extracts involved equivalent presentations of the same material, the researcher recorded the opening 2–4 min of each presentation by the NS TAs and ITAs from the same subject area on the same day or in the same week. Six male North American NS TAs and six male Chinese ITAs. The communications skills to Mandarin Chinese indicate to be “somewhat to generally effective”. In comparison with the parallel NS data, the study showed the Chinese TAs' weaker control of intonational structure and inability “to make the fine distinctions between key choices needed for the pitch sequence structure”. These speakers were unable to consistently manipulate key and tone choices to create intonational

paragraphs. Also contributing to the lack of clear pitch sequence structuring was the overall narrower pitch range established for this group by instrumental analysis. Finally, identification of prosodic units was also made more difficult by the presence of a large number of prominent constituents, which made salient key and termination choices difficult to appraise.

Wennerstrom (1994) examines the intonation of ESL intermediate-level learners. The participants (N=30) were from three L1 backgrounds: Spanish, Japanese, and Thai (N= 10 for each group). The focus was on how NNSs used intonation to signal meaning in the structure of their discourse. The speech data were elicited by three tasks: oral reading, free speech in L1, and free speech in English reflecting a range of tasks from not so natural to natural, which makes this study particularly interesting. The sessions were tape-recorded and analyzed on a Visipitch machine to measure how pitch and intensity were used contrastively to show relationships in discourse. Based on the model of intonational meaning developed by Pierrehumbert and Hirschberg (1990), pitch accents, phrase accents, boundary tones, and paratones were measured. Results show that the NSs made significant use of pitch contrasts to signal meaning. In contrast, the NNSs did not consistently use pitch to signal meaning in many of the same environments. The Spanish speakers seemed to be the nearest to native-like and the Thai participants were the farthest. The non-native like intonation produced by Thai speakers in particular could be attributed to many reasons, including cross-linguistic interference, limited exposure to English spoken input in Thailand (9-10 years of English with Thai teachers), and/or minimal length of residence in the U.S. (less than three weeks).

Budsaba (2005) aims to determine if Thai speakers who have lived in the U.S. for a longer period of time, and have been constantly exposed to English spoken input, would produce speech in closer approximation to native-speech. In addition, the study attempts to find out the description of the characteristics of the intonation patterns used by advanced learners of English, particularly how they deviate from the NSs' intonation and how these deviations can be accounted for. Five Thai male completed their Bachelor's degree or Master's degree in Thailand and came to the U.S. to pursue their advanced studies in various disciplines. A control group of five male native speakers of American English graduate students in linguistics at an American university, provide a description of English produced by NSs. These two groups of participants were not aware of the purpose of the study. Thai participants were asked to perform three tasks in a specific order and in one session: read a passage in English, describe a picture in English, and describe the picture in Thai. The NSs participated in the first two tasks only. The purpose of the first task was to elicit specific intonation morphemes. The second task was expected to elicit high and low pitch accents, phrase accents, and boundary tones. Finally, the third task was to elicit information about the Thai participants' pitch range. The results shows: Thai participants still had difficulty giving a higher pitch on the contrastive or informative element and deemphasizing the old or uninformative one. Thai speakers failed to assign stress on the correct syllable. In addition, they failed to reduce unstressed vowels. Therefore, Thais' deviations from the NSs both regarding the wrong stress placement in multi-syllabic words and the inability to reduce the final unstressed vowel are thus possibly caused by the lack of control for the interplay between tone and stress when producing English. This study also indicates that any pitch comparison of the two words without taking

into account the stress placement (and vowel quality) might lead to a misleading interpretation of the finding. Lastly, the picture prompt used in free speech might be problematic to elicit information on intonation. Particularly, the Thais apparently experienced difficulties in describing the picture. Budsaba (2005) concludes, "As opposed to a traditional model of intonation based on ascribing attitudinal and grammatical functions to pitch movement, discourse intonation prioritizes the communicative function of intonation."

Young (1982) proves that spoken English discourse produced by Chinese speakers evidenced a discourse-level topic-comment structure that native English speakers find difficult to follow. One hundred fifteen subjects rated four versions of the Chinese-produced English discourse presented in Young's study for comprehensibility. Results indicated that the effect of discourse miscues on comprehensibility was highly significant ($F = 70, p < .0001$).

2.14.5. Problems with discourse and writing.

A problem appears with students' written work is the lack of or misuse of discourse markers, these markers in the current study refer to intonational features and functions. Crewe et al. (1985: 61) suggest that many linkers are "abstract and opaque text organizers and not fixed, concrete lexical items". In theory, writers may make any links between the stages of their writing as long as it makes sense to them. But, what happens when the expectations of the reader and the writer do not coincide? As Crewe says "there is a communication breakdown on the grounds of 'illogicality'" (Crewe 1990: 316) says "we could quite easily resolve an incomprehensible link by simply ignoring it or by replacing it". Some of the problems students have with discourse markers are outlined by Crewe (ibid)"students often confuse discourse markers".

Higuchi (2000) examines the intonation in EFL teaching by reviewing the treatment of intonation in a course book, Cambridge English of Schools (4). The intended students are Japanese native speakers aged (18 to 20), who study at a junior college (a higher two-year educational institution). They have learned English for (6-7) years and their English skills are estimated as being at a lower-intermediate level. Applying grammatical and attitudinal approaches the authors instruct students that the intonation of yes/no questions usually goes up at the end, putting an arrow. Several similar sentences patterns are provided in the workbook and each is pronounced using rising tone. However, when the researcher listen to the students conversation from which are extracted, are pronounced using falling tone. And where the authors instruct about intonation with an attitudinal approach concerning whether a speaker utters a sentence enthusiastically or unenthusiastically. They put an arrow, which indicates to go up over the odd one. This problem occurred in many sentences patterns and rather significant frequency appeared when pronouncing yes/no questions. Students toiled to correct their pronunciation and some could still not pronounce intonation patterns after attempting to do so many times. Finally, the researcher suggests that the discourse intonation approach should be given to intermediate students too in order not to make their problems irremediable, since intonation generally becomes quite hard to correct and remedy after spending years of learning.

Megdad (2011) investigates students awareness regarding the intonation functions by using a written diagnostic test. The test consists of (4) question, the (4th) one aims to measure students ability to explain the two possible meaning of the utterances as implied by the use of brackets. Students wrong response were 61.5%

which means that students have difficulty to interpret the sentences real meaning which lay between brackets.

The major importance of discoursal function is in social interaction. Its importance emerges in three main functions:

1- Turn-talking: which means giving the floor to another person taking turn in a conversation.

2- Information structure: the major stress items in the sentence pick out the most important words in the sentence.

3- Distinguishing the meaning: different meanings can be carried by changes of pitch or stress in the sentence. Amer (2010: 39).

All the former factors contribute to effective social interaction and the results from the studies, related to discoursal function, showed that the failure to use the suitable patterns, the tonic syllable and the pitch stress caused the serious communication breakdown. Concerning writing discoursal intonation, it is important that the text clarifies the intonation features and functions by using several methods such as:

- Using intonation markers: rising, falling, rising-falling, falling-rising,
- By using intonation boundaries,
- Capitalizing, marking or/and plotting the tonic-tone, the focus and the prominence one.

2.15. Difficulties related to Intonation patterns:

It is obvious that intonation pattern varies depending on the function of the intonation and the message that needs to convey. A combination of observational and experimental data from recent research into the intonation pattern highlights generational differences and difficulties related to this issue.

Levis (2002) seeks to answer two questions: Firstly, do listeners distinguish meaning differences between the L*L H%, H*L L%, and H*L H% contours? In other words, do the three contours evoke three distinct interpretations given the same context? Secondly, do the L*H H% (wide low-rise) and H*H H% (high-rising) contours evoke distinct interpretations given the same context?. This research used judgments of intonational meaning to provide evidence for distinctions between low-rise and other intonational contours, and by extension, between H* and L* pitch accent. Judgments of intonational meaning were measured using paraphrases of the message conveyed by the utterance. Dialogues were created primarily using examples from previous intonational research. Dialogues were recorded by two male acting students, two other male readers (teachers, not acting students). Forty-seven subjects took part in the study, all were native speakers of standard American English from the Midwest of the USA. Both readers and subjects were from the same dialect area. The test took approximately 45 minutes. The results indicate that listeners assign little distinctions between L* L H% and H* L H%. Differences for all contours were most likely to be evident with declaratives and WH questions, while listeners did not appear to easily assign distinct meanings to the different contours with yes/no questions. While intonation differences were expected to be important for declaratives, it was surprising that intonation differences affected meaning most strongly on WH- questions. Readers of the stimuli had many difficulties producing L* L H%, imitating it, and giving it a specific meaning. Additionally, the results indicates that the H* H H% and L* H H% may not be distinctive in this variety of English. Subjects simply did not seem to interpret the meanings of these contours differently.

Toivanen (2001) investigates the Fall-rise intonation usage in Finnish speakers of English. Highly proficient Finnish speakers of English (English majors) were chosen. The speech data was collected in connection with MA thesis seminar sessions where the speakers, Finnish university students of English, discussed research methodology. The speech data was collected; altogether there were eleven participants (all females). The speech data was digitally recorded with DAT and a high-quality microphone. The result shows that the subjects do not use fall-rise tone in ways that are assumed to be typical of spoken RP English.

Fletcher et al. (2005) analyzed the Rises in Australian English throughout a dialogue act. Generally, Australian English uses the simple high rise which has been assumption in earlier studies Guy and Vonwiller (1989). The result shows that the eight General Australian English speakers in this study produced far more simple and complex high-range rises than low rises, although all speakers produced all types of rise. That is to say, it was not the case that speakers only produced low-range or high-range fall-rises. The result also shows some paradoxes for the conventional interpretations of rising intonation in English. For example, it may appear odd that low-onset high rises occurred with acknowledgements, answers, and instructions on the other.

Jowitt in Atoye (2005) after an examination of the form and the frequency of intonation patterns in educated Nigerian spoken English concludes that "certain patterns having a high frequency, constitute a system in Nigerian usage differing in important respects from native-speaker systems, though lacking of stability".

Finally, intonation patterns difficulties seem to be a universal problem, the difficulties emerge from that L2 learners do not use the intonation patterns to be typical of spoken RP English even between English native countries as Australia. The misuse of

intonation pattern affect the meaning most strongly which lead to interpret the meaning of intonation contours differently. Additionally, the main intonation patterns in English are rise and fall and the difficulties are affected strongly when using these patterns.

2.16. Other type of difficulties:

2.16.1. Conundrum for pedagogy.

Concerning English-language pedagogy, Dalton and Seidlhofer (1994: 73) point out a conundrum: even supposing that the features of intonation are “particularly important in discourse ...at the same time they are particularly difficult to teach”. In ELT, intonation is widely regarded as slippery and attempts to describe it in ways amenable to instruction have proved elusive. Roach (1991: 168) says that “of the rules and generalizations that could be made about conveying attitudes through intonation, those which are not actually wrong are likely to be too trivial to be worth learning”. Bradford (1992: 1) suggests that part of the difficulty arises from the fact that intonation patterns are planned at a deeply subconscious level, so even native speakers may be unable to describe and analyze the patterns they themselves use with precision. While Brazil (1994: 6) advocates an intonation pedagogy which highlights tones, concedes that these phenomena are difficult even for native speakers to analyze and agree on.

Sabina (2002) reveals the difficulties that Hong Kong native Cantonese speakers face when learning intonation and the reason beyond that. Two groups of subjects were recruited. Group (1) subjects were all Cantonese LI speakers, learning English as a second language. They were (18) male and 25 female subjects (age range 17-37, mean age 25.98) who invited to participate in the study. Group 2 subjects were (10) native speakers of English. Data was collected from four sources:

a self-perception of intonation task; an auditory perception task; a questionnaire and a group interview. Both groups of subjects completed the self-perception of intonation task and the auditory perception task. All Group one subjects were required to fill in a questionnaire concerning their previous pedagogical training on intonation. Regarding pedagogical and learning difficulties, the subjects commented that in their previous education, the teachers mainly focused on English grammar but not on intonation. Therefore, basically, the marking of the intonation variables very much depended on their previous book knowledge, that is, from their knowledge. Only eighteen subjects reported that they had been taught intonation in school. Similarly, there were seventeen subjects (not exactly those who reported having training at school) who had self-learning intonation experience. For the remaining (23) subjects who had not learnt intonation by themselves, they felt that they had no time and no opportunity to learn. Some found that learning intonation was too difficult. Some reflected that they did not know what intonation was and some found that intonation was unimportant. Lastly, some commented that they knew of the existence of intonation but thought there was no need for them to learn about it. They thought that a successful communication concerned getting across the ideas only but not how to use intonation.

2.16.2. Language transfer or interlingual factors.

Comparing intonation with all the prosodic aspects of English, appears to be a fertile area for language transfer. Odlin (1989: 118) describes intonation transfer as “one of the crucial forms of language transfer which foreign language teaching strategies seem not to have taken seriously”.

Ueyama and Jun (1996) adopt the phonological model of English intonation proposed by Pierrehumbert and her colleagues to compare the phonological characteristics of English intonation produced by native speakers

of English with those of English intonation produced by Japanese and Korean speakers. The model they used calls “continuous”, where intonation contours are analyzed as sequences of underlying H and L tones. Two native speakers of American English participated as the control group, and three Japanese learners of English and four Korean learners of English formed the experimental groups. All the speakers were females in their (20s) or early (30s). Test sentences were designed and the researchers constructed two data sets. In Set 1 the length of a noun phrase varied from three words to six words while the location of focus was kept constant at the beginning of a sentence. In Set 2 the location of focus varied while the sentence length was kept constant. Analyzing how does the L1 intonation system affect L2 intonation pattern among Korean and Japanese learners? The result shows that the L1 intonation system affects L2 intonation patterns, irrespective of the L1 source. However, not all L1 features directly shape L2 intonation. Rather, they appear to interact with universal constraints on speech production, such as the tendency to avoid dramatic fluctuations in the high pitch range, and with constraints on L2 speech learning, such as the tendency to reduce phrase sizes at the beginning stages of L2 learning (universal).

To give more evidence, Swerts and Zerbian (2010) investigate prosodic transfer in Black South African English. The researcher have two goals: First, it presents a comparative study of English and Zulu to seek further evidence for the alleged differences in prosodic functions. Second, it explores to what extent differences in the prosodic patterns between those languages are reflected in the prosody of L2 English of speakers who have Zulu as their first. Controlled speech data were recorded from (10) native speakers of White English speaking South African English (WESSAE) and (10) speakers of South African English who have Zulu as their

mother tongue (Zulu English). The WESSAE speakers did the task in English, thus serving as a control group for prosodic focus marking in the native variety of South African English. The speakers of Zulu repeated the elicitation paradigm both in their home language and in English. Participants described a row of pictures which was presented to them in a PowerPoint presentation. The data were collected from volunteer native speakers of the respective languages. All participants were students at the University of the Witwatersrand, Johannesburg, and thus between (19-29) years old. The data were recorded in a quiet office. The result claims that the degree of prosodic transfer is related to the level of English: L2 speakers who are proficient display fewer traces of their home language in the way they produce prosody, than L2 speakers who are less proficient. Additionally, whereas the use of boundary tones for signaling finality or continuity appears to be similar across different language varieties, the use of prominence patterns as markers of focus is very different. This difference is likely to be related to the fact that the home language of the L2 speakers does not systematically exploit intonational features as markers of discourse information as is the case in English.

Language transfer or interlingual seems to be a universal problem as it is showed in the previous studies and the Arab students are not an exceptions. They tend to adopt Arabic intonation patterns when they speak English, and this affects everything that they say. See Kharam and Hajjaj (1989: 32).

2.17. Intonation in Arabic and English:

Dilbert (2009) conducts a description study of contour realization in four syntactic categories: declaratives, continuatives, yes/no-questions and wh-questions of colloquial Damascene Arabic (DA) Intonation. The researcher used the British

nuclear framework, describing the nucleus and three optional elements (pre-head, head and tail). The speech material was collected from two Damascene informants who read a series of prompts. The analysis of contour elements shows the following:

- Declaratives showed global down drift, with stressed syllables higher and unstressed syllables lower. Declarative exhibited a pre-head with mid pitch, falls on the nuclei, and utterance final fall in the tail.
- Continuatives followed a global rising pattern throughout the utterance. Continuatives usually showed a greet rise at the first stressed syllable, followed by Low in the middle of the utterances, ending with a local High pitch. That final High pitch was realized either as a rise, or as a High-level pitch. Additionally, final lengthening was common. DA nuclei in continuatives displayed considerable variation, which seemed to be linked to the position of the nucleus in the utterance.

The Following example shows continuative utterance with final nucleus exhibiting High level pitch: *Source: Dilbert (2009:2)*

w 'kaan b əstə 'baal ir- ra ˀ?IIS

[↑ ↓< ↓ ↑ ↓< →]

He was waiting the president. وكان يستقبل الرئيس.

- Wh-questions also exhibited an onset to the nucleus, followed a fall. Nuclei almost always occurred on the wh-question words. Tails showed a final elevation of pitch, either as a final rise, or an elevated mid-level pitch. Also, final lengthening was very common (shown on the following example). The features of final elevated pitch and lengthening resembled continuatives tails. In some instances, more than one syllable was heavily stressed (often the utterance initial wh-question word, and an utterance-final content word).

ʔad ʔDE sar lak ʔam ·tə dros ·ʔarabi ·hooon?

[↑ ↓ ↑ ↓ ↑]

أديش سارك عم تدرس عربي هون؟ How long have you studying Arabic here?

Source: Dilbert (2009:2).

It is known that Arabic has two spoken forms, namely, formal ('fusha') and colloquial ('aammiyya'), and in general, the phonological (and phonetic) properties of spoken formal Arabic are transferred from the speaker's colloquial dialect. The question which rises here: Will of spoken formal ('fusha') and those of the mother tongue dialect of the speaker ('aammiyya') display the same intonational properties?

Hellmuth and El Zarka (2007) explore this hypothesis between Egyptian Formal Arabic (EFA) and Egyptian Colloquial Arabic (ECA). Target stressed syllables elicited were of three types: short open (CV), short heavy (CVC) and long heavy (CVV). All target words contained the vowel [a] as the stressed vowel. The material were read three times each in EFA and then, after a break, three times each in ECA, by two speakers ('A' and 'B'), yielding a parallel corpus of (126) tokens in EFA and (129) tokens in ECA.

The following table contains sample target words (register/syllable type).

CVC	CVV	CV	
malHa 'salty'	maalik 'owner'	malik 'king'	ECA
tamalmul 'nervousness'	maalik 'owner'	malik 'king'	EFA

Source: Hillmuth and El Zarka (2007: 2)

The following phrase were read by the participants.

ECA token (speaker A):

ʔufna-l walad illi gambina fi-l metro. شوفا الولد الى جامينا في المترو.

we-saw-the boy that next-us in-the metro.

EFA phrase boundary token (speaker A):

laqad wagadna-l walada fi-l hadiiqati. لقد وجدنا الولد في الحديقة

we-found-the boy in-the garden.

The results show the same broad phonological categories used in both EFA and ECA, with the clearest differences being at the global level, in greatest use of phrasing boundaries in EFA. There is some indication of a possible alignment of tonal difference (L and H pitch targets) where H peaks may align earlier in EFA (within the stressed syllable) than in ECA, which the two researchers suspect reflects pattern of speech used by 'professional speakers' in both ECA and EFA. The results provides evidence which earlier studies suggested, such as El Zarka (1997) and Hellmuth (2006).

De Jong and Zawaydeh (1998) present the expression of word-level prosody in Ammani-Jordanian Arabic dialect, which has a stress pattern identical to Palestinian Arabic. Van De Vijver, (1996) says, in this dialect, stress is said to usually fall on either the penultimate or the antepenultimate syllable. It will fall on the penultimate if the penultimate syllable is heavy, as shown in (1); otherwise it will fall on the antepenultimate syllable, as shown in (2). The one complication to this pattern is that final syllable will bear stress if they contain a long vowel or have a final consonant cluster, as shown in (3). (Bold indicates stress).

(1) Penultimate stress

sha ark	he participated'
? ur don	'Jordan'
mak tab ha	'her desk/office'
binsaameh	'we forgive'
saam hat na	'she pardoned us'

(2) Antepenultimate stress

Ma ^ʕ all amak	'he didn't teach you'
Fa barada	'he got cold'
^ʕ all amatak	'she taught you'

(3) Final stress

darast	'I studied'
fakatabt	'so I wrote'
ʔallamt	'I taught'
raaseen	'two heads'
hammaameen	two bathrooms'
kilmiteen	'two words'

Also the following conditions of target words are presented

<u>Prosodic condition</u>	<u>Example</u>	<u>Gloss</u>
1. Isolation	fabarada.	'he got cold'
2. Statement/Target in phrase-final	jaaʔa fabarada.	'he got hungry so he cold' got'
3. Question/Target is Phrase-Final	jaaʔa fabarada?	'he got hungry so he got cold?'
4. Statement/Target is not Phrase-Final	fabarada huna.	'He got cold here'
5. Question/Target is not Phrase-Final	fabarada huna?	'he got cold here?'

Source: After De Jong and Zawaydeh (1998: 4).

Four female native speakers participated in the experiment. Each of the subjects were college educated and multi-lingual in Arabic, English and French.

The results show the most consistent aspects of the intonational pattern are the final markers, most speakers using L L% contours for statements and L H% for question marking. Also, high pitch accents commonly occur in statements. Additionally, many word-level prosodic effects which are very similar to those found in studies in English. It found extensive word-final lengthening effects, on the order of 60% for word (and phrase) final, to 100% for utterance final syllables. The study also revealed a very consistent but small increase in vowel duration in penultimate positions. The result is similar in quality to that found for English as well.

Analysing of F0 patterns suggest that the intonational system utilizes optional pitch marks on stressed syllables and register and contour difference after the stressed

syllable. This intonational structure is also similar to that of English. Regarding to the two researchers, it does seem that the Arabic system shows both similarities and differences with that of English with regard to tonal usage. Similar are typical appearance high pitch accents with declarative reading and an increased incidence of low-started pitch accents in morphologically covert questions.

Both in English and Arabic, like in many other languages, question intonation is indicated by sentence-final rising contour. Nasser and Rajouani (1999) analyze and synthesized the interrogative intonation in Arabic. They found, in Arabic, the question takes an initial monosyllabic interrogative marker or uses an inverted word order, whereas in English, the question takes an auxiliary verb such as a form of 'do' or 'be'. In both languages, a yes-no question can also be realized as a declarative sentence with rising tone intonation.

Barrett and Hata (2002) investigate Yes-No question intonation in Arabic and English. The data contains fifty-five question sentences in Arabic uttered by a Lebanese female speaker and forty in English uttered by an American English female speaker. These include simple yes-no questions (which are composed of three to six words) with an interrogative marker, or without an interrogative marker in inverted word order (for Arabic only) or with a rising intonation for non-inverted word order. The results shows: First, the F0 rise rates of the yes-no questions in Arabic speaker was more gradual than it was for the English speaker. The difference in F0 rise rates between Arabic and English was statistically significant. Second, the location of the F0 rise onset are also different in these two languages. in Arabic the F0 rise onset tends to coincide with the beginning of an accented syllable, /ta:/ of /kita:'bu/ ('book'), whereas in English it tends to occur in the beginning of the final, unaccented syllable of /rInjuəl/ ('renewal'). Thus, the F0 rise in Arabic starts

earlier than in English, at accent syllable, and it takes more time to accomplish the rise. Finally, the difference between questions and declaratives is statistically significant in terms of F0 rate, both in rise and fall.

2.18. Summary:

The researcher is reviewed many books and studies in order to reveal the nature of the difficulties that face Palestinian students when learning intonation. Almost all the reviewed studies provided evidences that intonation is a problematic for EFL learners. It seems that Palestinian learners share several difficulties in learning intonation with other nations, to what is called, a universal problem. These difficulties arises due to the overlap between the intonation functions, the prominence, the focus, intonation pattern variations...etc. Thus, one can say that the current study draw a clear road map not only the types of difficulties that the EFL learners or teachers expect to find, but also, the reason beyond them. Surveying in several literature reviews gave clear evidence of the importance of intonation learning, acquiring and mastering EFL. All this may open the main gate to both teachers and learners to use suitable tools and methods when acquiring and learning intonation within EFL society or when studying or immigrating to other countries.

Chapter III

Methodology

- 3.1. Introduction
- 3.2. Research methodology
- 3.3. Tools contents
- 3.4. Pilot Study
- 3.5. Validity of the tools
- 3.6. Reliability of the tools
- 3.7. Research procedures
- 3.8. Statistical Styles Used

Chapter III

Methodology

3.1. Introduction:

This chapter introduces a description of the methodology of the study in terms of data collection process, the sample, the instrumentations, test content, the pilot study and the statistical package used when analyzing the data. The following Figure illustrates the methodology of the research flow chart

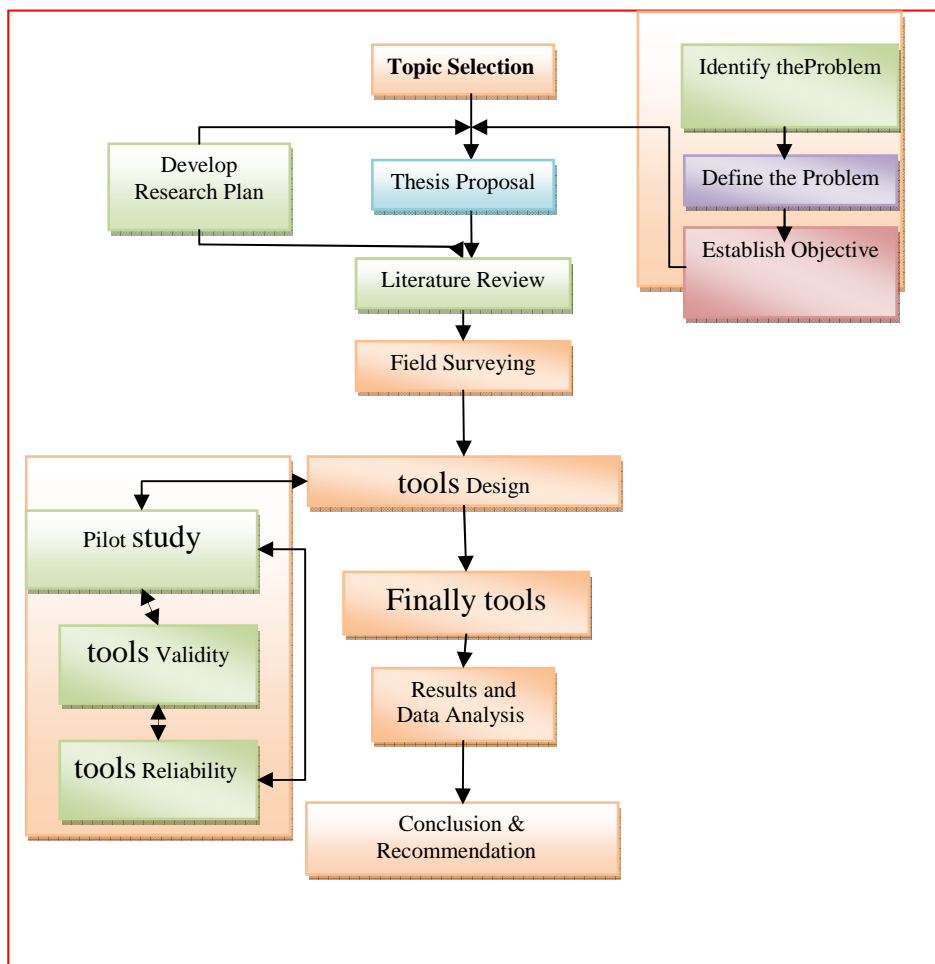


Figure (07): Illustrates the methodology of the research flow chart.

3.2. Research methodology:

3.2.1. Data Collection process.

In order to collect data needed for this research, the researcher used secondary resources such as: books, journals, statistics and web pages. In addition to

the preliminary resources through distributing two tools to the study sample in order to diagnose the areas of difficulties that English junior students at IUG face when learning intonation. The research curriculum used in the present study is the descriptive analytical curriculum. Rodgers (2002: 117) defines descriptive research as "A research that describes group characteristics or behaviors in numerical terms". Accordingly, the researcher believes that the provided numerical terms help in determining the percentage of those difficulties.

3.2.2. The sample size.

The sample of the study consists of ninety nine (99) male and female junior students at IUG who previously took the course "Phonetics and Phonology". Forty four (44) subjects were exposed to the diagnostic test. They were (13) male and (31) female students. While fifty five (55) subjects were chosen for the observation cards. They were (15) male and (40) female students. The subjects of the study were selected randomly. Both tools are distributed to the research sample and the whole tools is received and corrected. See table (01).

3.2.3. The instruments.

The researcher used two different tools to achieve the purpose of the study: diagnostic test and observation cards. The aim of the diagnostic test is to diagnose the areas of difficulties that face junior students when learning intonation in written contexts. Whereas the observation cards aims to reveal the difficulties in spoken contexts. The researcher himself and two other MA colleagues were the observers, they conducted and collected the responses by using tape-recorder. The following tables illustrated the properties of the samples regarding to the instruments and Gender:

Table (01)
The properties of the samples regarding to the instruments and gender

Tools	Gender	No.	Percentage	Total
Diagnostic test	Male	13	29.5	100
	Female	31	70.5	
Observation Cards	Male	15	27.3	100
	Female	40	72.7	

3.3. Tools contents:

The tools were provided with a covering letter explaining the purpose of the study, the way of responding and the aim of the research. The tools included multiple choice questions, underlining the tonic syllable (or/and) boundaries, giving the two possible meaning and utter the appropriate intonational pattern. The variety in these questions aims first, to meet the research objectives, and to collect all the necessary data that can support the discussion, results and recommendations in the research. Second, to verify the objectives of this research by diagnosing the areas of difficulties that English major students at IUG face when learning intonation.

The sections in the tools consist of five questions in the diagnostic test and five questions in the observation cards and the grads for each item equal (5) marks (see Appendix (A) and Appendix (B)).

3.3.1. The Resources of Constructing the content of the tools.

The researcher used two different tools to achieve the purpose of the study. Those were: diagnostic written test and observation cards. The resources of constructing the content of both tools, depends on the following:

1. Roach's (2008),
2. Gimson's (2008),
3. El-Faramawy and Gamal (1992),

4. Interviewing university doctors about the areas that should be tested,
5. previous studies and theoretical framework in general.

3.3.2. The description of the format and the tools contents.

Table (02)
Distribution of the diagnostic test questions:

The Question	ITEMS	THE MEASURED AREAS
Question 1	10	It measures the students' ability to identify the kind of simple tones intonational pattern.
Question 2	10	It measures the students' ability to identify the kind of complex tones intonational pattern.
Question 3	10	It measures the students' ability to underline the syllable which is uttered with a rising pitch.
Question 4	10	It measures the students' ability to decide the most suitable place for tonic stress.
Question 5	10	It measures the students' ability to identify how the meaning of the sentence changed according to the change of intonation placement.

Table (03)
Distribution of the observation cards activities:

THE QUESTION	ITEMS	THE MEASURED AREAS
Question 1	10	It measures students ability to divide the intonational phrase into its constitute clause/ clauses.
Question 2	10	It measures students ability to underline the syllable which is pronounce with a high/ rising pitch in the words.
Question 3	10	It measures students ability to give different tones within the very limited context of words 'yes' and 'no' said in isolation
Question 4	10	It measures students ability to uttered an appropriate tone to each underlined syllable in the sentence.
Question 5	10	It measures students ability to explain the two possible meaning of each of the utterances as implied by the use of brackets.

3.4. Pilot Study:

A pilot study for the test was conducted before collecting the results of the sample. It provides a trial run for the test, which involves testing the wordings of question, identifying ambiguous questions, testing the techniques used to collect data, and measuring the effectiveness of standard investigation to respondents. In order to achieve these purposes, two different instruments were used: diagnostic test and observation cards. To ensure these tools validity and reliability, the researcher randomly chose two different samples, each one consists of (25) subjects. The following table shows the number of each sample in accordance with the tool used:

Table (04)

Numbers of the samples in accordance with the tools:

Tools	Gender	No.
Diagnostic test	Male	9
	Female	16
Observation Cards	Male	11
	Female	14

3.5. Validity of the Tools:

The validity of an instrument can be defined as a determination of the extent to which the instrument actually reflects the abstract construct being examined. "Validity refers to the degree to which an instrument measures what it is supposed to be measuring". High validity is the absence of systematic errors in the measuring instrument. When an instrument is valid; it truly reflects the concept it is supposed to measure. Achieving good validity required the care in the research design and sample selection . The amended test was verified and evaluated by the two supervisors and six experts who teach phonetics, methodology and statistics in the

Palestinian university in Gaza. The experts agreed that the test was valid and suitable enough to measure the purpose it is designed for. See appendix (E) .

3.5.1. The Content Validity of the Tools.

The content validity of tests was conducted by consulting two groups of the same experts. The first was requested to evaluate and identify whether the test agreed with the scope of the items and to what extent these items reflect the concept of the research problem. The other group was requested to evaluate the instrument used is valid statistically and whether the test was designed well enough to provide relations between the variables. The two groups of experts did agree that the test was valid and suitable enough to measure the consisting with some amendments.

3.5.2. Statistical Validity of the tools.

To ensure the validity of the test, two statistical tests should be applied. The first test is Criterion-related validity test (Pearson-test) which measures the correlation coefficient between each item in the question and the whole question. The second test is structure validity test (Pearson test) that is used to test the validity of the test structure by testing the validity of each question and the validity of the whole test. It measures the correlation coefficient between one question and all the question of the test.

3.5.3. Criterion Related Validity (Internal consistency).

First : Diagnostic test:

Internal consistency of the test is measured by a random sample consisting of twenty five (25) students, through measuring the correlation coefficient between each item and the whole question for diagnostic written test. Tables (05-09) below show the correlation coefficient and p-value for each question items. As shown in the tables the p- Values are less than 0.05 or 0.01, so the correlation coefficient of these

questions is significant at $\alpha = 0.01$ or $\alpha = 0.05$, so it can be said that the items of these questions are consistent and valid to measure what it was set for.

Table (05)

**The correlation coefficient between each item in the question and the whole question
(Question One: Identify the appropriate kind of international pattern)**

Items	Pearson coefficient	p-value
1- He met he president?	0.523	0.007
2- Could you tell me where you live?	0.531	0.006
3- What a pity!	0.442	0.027
4- Look at the blackboard.	0.506	0.010
5- I'm hungry.	0.551	0.004
6- Will you please come with me?	0.496	0.012
7- What are you going to do? (showing sympathy)	0.444	0.026
8- You enjoy phonetics?	0.454	0.023
9- She's gone to the market.	0.645	0.000
10- I'm going to Jerusalem next week. Are you?	0.415	0.039

Table (06)

**The correlation coefficient between each item in the question and the whole question
(Question Two: Identify the appropriate kind of intonational pattern)**

Items	Pearson coefficient	p-value
1- I have to work this MORning?	0.473	0.017
2- CERTainly. (How could I refuse?)	0.421	0.036
3- My health is Always good.	0.637	0.001
4- The AMERican CAPital's Washington.	0.503	0.010
5- What was THAT NOISE?	0.610	0.001
6- My essay is marked EXcellent.	0.722	0.000
7- I THINK I could start	0.553	0.004
8- You MAY be right. (doubt, uncertainty)	0.548	0.005
9- I read that book a YEAR ago.	0.585	0.002
10- You were FIRst. (surprised, impressed)	0.481	0.015

Table (07)

**The correlation coefficient between each item in the question and the whole question
(Question Three: Underline the syllable which is uttered with a rising pitch)**

Items	Pearson coefficient	p-value
electrical	0.481	0.015
photography	0.422	0.036
evaluation	0.484	0.014
feature	0.677	0.000
geographic	0.491	0.013
insult (v)	0.441	0.027
permit (n)	0.662	0.000
syllabic	0.701	0.000
beautiful	0.660	0.000
opportunity	0.553	0.004

Table (08)

**The correlation coefficient between each item in the question and the whole question
(Question Four: decide the most suitable place for tonic stress)**

Items	Pearson coefficient	p-value
1- I hear you're offering to do the shopping for someone	0.625	0.001
2- What was the first thing that happened	0.590	0.002
3- Was the theory explained by students	0.528	0.007
4- Tell me how the theory was presented	0.496	0.012
5- I think it starts at ten to three	0.668	0.000
6- I think it starts at quarter past three	0.415	0.039
7- I think it starts at ten past four	0.744	0.000
8- You mustn't talk so loudly	0.433	0.031
9- I want to know where he's traveling to	0.525	0.007
10- It's regrettable that he wrote the letter	0.751	0.000

Table (09)

**The correlation coefficient between each item in the question and the whole question
(Question Five: Explain the two possible meanings)**

No.	Items	Pearson coefficient	p-value
1	1. a. [She didn't go to school] because of her timetable 1.b. She didn't go to school [because of hertimetable].	0.634	0.001
2	2.a. [Rebellious men and women] were arrested. 2.b. [Rebellious men] and women were arrested	0.399	0.048
3	3. a. [Flying planes] can be dangerous. 3. b. [Flying] planes can be dangers	0.735	0.000
4	4. a. [Who did you see, John?] 4.b. [Who did you see], John?	0.583	0.002
5	5.a. [I have plans to leave]. 5.b. I have [plans] to leave	0.667	0.000

Second : Observation cards:

Internal consistency of the tool is measured by a random sample which consists of twenty five (25) students , through measuring the correlation coefficients between each item and the whole question for observation activities test. Tables (10-15) below show the correlation coefficient and p-value for each question items. As shown in the tables the p- Values are less than 0.05 or 0.01,so the correlation coefficients of this question are significant at $\alpha = 0.01$ or $\alpha = 0.05$, so it can be said that the items of these questions are consistent and valid to measure what it was set for.

Table (10)

**The correlation coefficient between each item in the question and the whole question
(Question One: Identify the tone group boundaries)**

Items	Pearson coefficient	p-value
1.The man John was talking to gave him the book	0.546	0.005
2. I've got to take the dog to the vet	0.490	0.013
3. I deny the whole thing usually	0.639	0.001
4. I like him but I loath and detest his friend Jack	0.534	0.006
5. I ran into Jane last week by the way did you know she has three children? And she said....	0.409	0.042
6. Since the last time we met when we had that huge dinner I've been on a diet.	0.438	0.028
7. Four plus six divided by two equals five	0.560	0.004
8.The Japanese for some reason or another drive on the left like us	0.706	0.000
9. As I expected you've heard they're only admitting emergency cases	0.450	0.024
10- They are coming on Tuesday aren't they?	0.446	0.025

Table (11)

**The correlation coefficient between each item in the question and the whole question
(Question Two: Underline the syllable which is uttered with a rising pitch)**

No.	Items	Pearson coefficient	p-value
1	dishonest	0.614	0.001
2	settlement	0.420	0.036
3	familiarize	0.521	0.008
4	international	0.636	0.001
5	agree	0.502	0.011
6	overwork	0.536	0.006
7	England	0.504	0.010
8	manufacture	0.603	0.001
9	geographic	0.672	0.000
10	phonology	0.457	0.022

Table (12)

**The correlation coefficient between each item in the question and the whole question
(Question Three: A: Pronounce the word "yes" regarding the given meaning)**

Items	Pearson coefficient	p-value
The answer is yes.	0.736	0.000
Did you say yes?	0.446	0.025
Please go on, I'm listening to you.	0.673	0.000
I'm doubtful.	0.443	0.026
I'm certain.	0.516	0.008

Table (13)

The correlation coefficient between each item in the question and the whole question (Question Three: B: Pronounce the word yes/ no by using the appropriate intonational pattern)

Items	Pearson coefficient	p-value
A: Have you seen Ann? B: No (as invitation to A to explain why she's looking for Ann).	0.536	0.006
A: Have you seen Ann? B: No (no interest in continuing the conversation).	0.497	0.011
A: I've heard that it's a good school? B: Yes (not completely agree with A).	0.434	0.030
A: (wishing to attract B's attention): Excuse me B: Yes	0.608	0.001
A: you wouldn't do an awful thing like that, would you? B: No (strong felling of disapproval or surprise)	0.712	0.000

Table (14)

The correlation coefficient between each item in the question and the whole question (Question Four: Repeat the following sentences, indicating the appropriate intonational tone patterns)

Items	Pearson coefficient	p-value
1. John is it you?	0.468	0.018
2. You like coffee, don't you?	0.587	0.002
3. His name is Ali. (I'm certain about the person name)	0.647	0.000
4. A: This is a cheap watch. B: <u>Oh no. It's very expensive</u>	0.421	0.036
5. What a nice dress!	0.504	0.010
6. I don't think so.	0.742	0.000
7. Coming?	0.724	0.000
8. What was the noise?	0.448	0.025
9. I heard him say...	0.675	0.000
10. you play golf, don't you? (expecting disagree)	0.430	0.032

Table (15)

The correlation coefficient between each item in the question and the whole question (Question Five: Read the following utterances, explain the two possible meanings of each as implied by the use of brackets)

No.	Pearson coefficient	Person coefficient	p-value
1	1.a. [I can't stand old men and women.] 1.b. [I can't stand old men] and women.	0.641	1
2	2.a. [She didn't go to school] because of her timetable. 2.b She didn't go to school [because of her timetable.]	0.608	2
3	3.a. [Those who sold quickly] made a profit. 3.b.Those who sold [quickly made a profit]	0.409	3
4	4.a. [I have plans to leave.] 4.b. I have [plans] to leave.	0.658	4
	5.a [The conservatives who like the proposal] are pleased. 5.b.The conservatives [who like the proposal] are pleased.	0.598	5

3.5.4. Structure Validity of the tools.

Structure validity is the second statistical test used to test the validity of the test structure by testing the validity of each question and the validity of the whole test. It measures the correlation coefficient between each question and all the questions of the test that have the same level of scale.

As shown in table (16), the significance values are less than 0.05 or 0.01, so the correlation coefficients of all the fields are significant at $\alpha = 0.01$ or $\alpha = 0.05$, so it can be said that the fields are valid to be measured what it was set for to achieve the main aim of the study.

Table (16)
Structure Validity of the tools

Question	Diagnostic test		Observation cards	
	Pearson correlation coefficient	p-value	Pearson correlation coefficient	p-value
One	0.637	0.001	0.619	0.001
Two	0.637	0.001	0.399	0.048
Three	0.530	0.006	0.787	0.000
Four	0.789	0.000	0.611	0.001
Five	0.581	0.002	0.671	0.000

3.6. Reliability of the Tools:

The test is reliable when it gives consistent result if it is reapplied in the same conditions Brown and Rogers (2002: 241). The researcher piloted the tools to calculate the reliability of the diagnostic test and the observation activities.

3.6.1. Reliability of the Diagnostic test.

- **Half Split Method.**

This method seeks for finding Pearson correlation coefficient between the means of odd rank questions and even rank items of each question of the test. Then, correcting the Pearson correlation coefficient can be done by using Spearman Brown

correlation coefficient of correction. The corrected correlation coefficient (consistency coefficient) is computed according to the following equation :

Consistency coefficient = $2r/(r+1)$, where r is the Pearson correlation coefficient.. The normal range of corrected correlation coefficient $2r/(r+1)$ is between 0.0 and + 1.0. As shown in table (17), and the general reliability for all items equal 0,843 for (Diagnostic written test), and the significant (α) is less than 0.05, so all the corrected correlation coefficients are significance at $\alpha = 0.05$. It can be said that according to the Half Split method, the dispute causes group are reliable.

Table (17)
Split-Half Coefficient method

Diagnostic written test			
Question	person- correlation	P-Value	Spearman-Brown Coefficient
One	0.724	0.000	0.840
Two	0.714	0.000	0.833
Three	0.695	0.000	0.821
Four	0.750	0.000	0.862
Five	0.759	0.000	0.863
Total	0.729	0.000	0.843

3.6.2. Reliability of the Observation cards.

- **Cooper Coefficient method.**

The aim of using this method is to find the agreement in the observation points by using the following formula:

$$G = \frac{2M}{N1 + N2}$$

G = reliability coefficient.

M = agreement in the observation points.

N1+N2= the total observation points which equal 45.

The researcher (A) conducted the observation cards and asked two MA colleagues (B) and (C) to observe this tool. Table (18) shows the agreement percentages.

Table (18)
Observation cards reliability coefficient

The observers	Agree	Disagree	Agreement percentages
A and B	39	6	86.7%
A and C	40	5	88.9%
B and C	36	9	80%

The results show a high degree of reliability coefficient which its average equals 85%.

3.7. Research Procedures:

1. The first phase of this research was, thesis proposal which included defining the problems, establishment objective of the study and development research plan.
2. The second phase of the research included a summary of the comprehensive literature review.
3. The third phase of the research included a field survey designed in order to diagnose the areas of difficulties that English junior students at IUG face when learning intonation by designing the tools (diagnostic test and observation cards).
4. The fourth phase of the research focused on the modification of the tools design, through distributing the them to pilot study. The purpose of the pilot study was to test and prove that tools questions are clear to be answered in a way that help to achieve the target of the study. The tools was modified, based on the results of the pilot study.
5. The fifth phase of the research focused on distributing the tools. Both tools was used to collect the required data in order to achieve the research objective.
6. The sixth phase of the research was data analysis and discussion. Statistical Package for the Social Sciences, (SPSS) was used to perform the required analysis.
7. The final phase includes the conclusions and recommendations.

The following figure shows the methodology of the research flowchart, which leads to achieve the research objective.

3.8. Statistical Styles Used:

To achieve the research goal, the researcher used the statistical package for the social science (SPSS) for manipulating and analyzing the data. Statistical styles are as follows:

- 1- Frequencies and Percentages,
- 2- One Sample t-test,
- 3- Two Independent Samples t-test,
- 4- Cooper Coefficient Method
- 5- Mann-Whitney test.

Chapter IV

Results of the study, Analysis and Discussion

4.1. Introduction

4.2. Answer of the first question

4.3. Answer of the second question

4.4. Answer of the third question

4.5. Discussion of the Results

Chapter IV

Results of the study, Analysis and Discussion

4.1. Introduction:

This chapter will present the results of students' responses to the instruments of the research: the diagnostic and the observation activities. Besides, it will deal with the statistical analysis of the results, answers of research questions and discussion of the results. Additionally, it attempts to reveal students awareness to the intonational functions. To achieve this purpose, the researcher stated the problem of the study in the following main question:

4.2. Answer of the first question:

"What are the difficulties that Junior students at IUG would have when learning intonation in written contexts?"

To answer the previous question, the researcher conducted diagnostic written test which consists of five questions. One sample t-test was used to test if the responses to the items were positive or negative. If the mean was greater than 3.0, the weight mean greater than "60.0%", and the p-value was less than 0.05, that means the response was positive. In other hand, if the mean was less than 3.0, the weight mean less than 60%, and the p-value was less than 0.05, that's means the answer of the item was negative. Generally, it is important to mention that students have serious difficulties when learning intonation in written contexts, but these difficulties are varies in percentage. In accordance with the table (19) the results in the diagnostic test shows the following:

Table (19)
Results of whole diagnostic test questions

No.	Items	Mean	standard deviation	Weight mean	t-value	P-value	Rank
5	Five	3.47	0.461	69.45	6.806	0.000	1
1	One	3.28	0.789	65.64	2.370	0.022	2
3	Three	3.26	0.785	65.23	2.207	0.033	3
4	Four	2.70	0.678	53.91	-2.982	0.005	4
2	Two	2.56	0.719	51.23	-4.045	0.000	5
	Total	3.01	0.373	60.16	0.144	0.886	

Critical value of t at df "43" and significance level 0.05 equal 2.02

1- While the students can identify the kind of (simple) intonational pattern (rising, falling) which has weight mean (only) 65.64% they still have a gap of difficulty (because this result is closed to the pass result which equals 60%). See (q.1 p. 154).

2- The difficulty becomes more serious when students are asked to identify the kind of complex intonational pattern (rising-falling, falling-rising). The weight mean becomes 51.23%. See (q. 2 p. 154).

3- When students were asked to underline the syllable which is uttered with a rising pitch, the weight mean equals 65.23%, it is assign that students have difficulty even the pass degree is 60%. See (q.3 p.155).

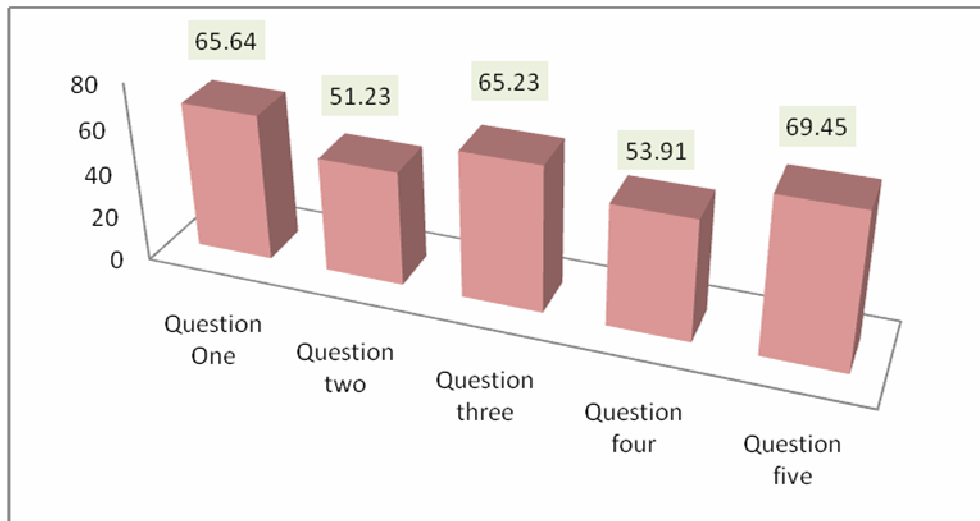
4- When the subjects was been asked to underline the suitable tonic-syllable. The results determines serious difficulty at weight mean 53.91%. See (q. 4 p. 155).

5- To measures students' ability to identify how the meaning of the sentence changed according to the change of intonation placement, the weight mean equals 69.47%. This indicates that students can explain the two possible meanings where implied by the use of brackets, but still have difficulty to reveal the tonic syllable, tone boundaries and intonatioal semantic function. See (q. 5 p. 156).

To sum up, diagnostic written test results show that students have serious and crucial difficulties to identify the kind of complex tones intonational pattern and to decide the most suitable place for tonic stress. The difficulties become moderate when

students have been asked to underline the tonic syllable which uttered with a rising pitch; to identify the kind of simple tones intonational pattern and to identify the meaning of the sentence according to the change of intonational placement. See diagnostic test results Appendix (C).

The following figure (08) shows the degree of whole diagnostic test questions:



The current study does not attempt to investigate the difficulties that students at IUG face due to gender, but genderlect data where illustrated in table (20) showed that p-value equals 0.058 which is greater than 0.05 and the Z value= 1.892, which is less than critical value (2.02) . Thus, there are no statistical differences of the diagnose the areas of difficulties that English junior students at IUG face when learning intonation in written context due to gender at significant level $\alpha = 0.05$.

Table (20)

Mann-Whitney Test for difference answers about the diagnose the areas of difficulties that English juniors face when learning intonation due to gender

Field	Gender	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Z	P-value
Diagnose the areas of difficulties that English juniors at IUG face when learning intonation in written context.	Male	13	2.853	0.308	128.00	-1.892	0.058
	Female	31	3.073	0.383			

4.3. Answer of the second question:

"What are the difficulties that English Junior students at IUG would have when learning intonation in spoken contexts?"

To answer the second question, the researcher applied observation cards which consists of five questions see Appendix (D). The results are recorded in table (21).

Table (21)

Results of whole observation cards questions

No.	Items	Mean	standard deviation	Weight mean	t-value	P-value	Rank
1	One	3.16	0.486	63.27	2.496	0.016	2
2	Two	3.10	0.663	62.00	1.119	0.268	3
3	Three	2.73	0.530	54.51	-3.840	0.000	4
4	Four	2.51	0.531	50.25	-6.802	0.000	5
5	Five	3.28	0.537	65.60	3.867	0.000	1
	Total	2.93	0.288	58.51	-1.913	0.061	

Critical value of t at df "54" and significance level 0.05 equal 2.0

By looking deeply in the table above, it is noticeable that students have difficulty with learning intonation in spoken, and the following results are noticed:

1. While students can identify the tone group boundaries, they still have difficulty to some extent (weight mean= 63.27), which is very closed to the pass mean, which equals 60. See (q. 1 p. 157)
2. Student can underline the syllable which is uttered with a rising pitch, and the weight mean= 62.00 which is closed to pass result too. There is, without doubt, shows the difficulty is still found. See (q.2, p. 158).
3. The result of third question has a weight mean= 54.51, that's mean students has a series difficulty when pronouncing the word (yes/ no) by using the appropriate intonational pattern which has weight mean=54.51. See (q.3, p.158)
4. This difficulty increases dramatically in question four where the weight mean becomes 50.25. Hence, students have a great difficulty when they have been

asked to repeat sentences and indicate the appropriate intonational tone patterns (falling, rising, falling-rising, rising-falling). See (q. 4, p. 159).

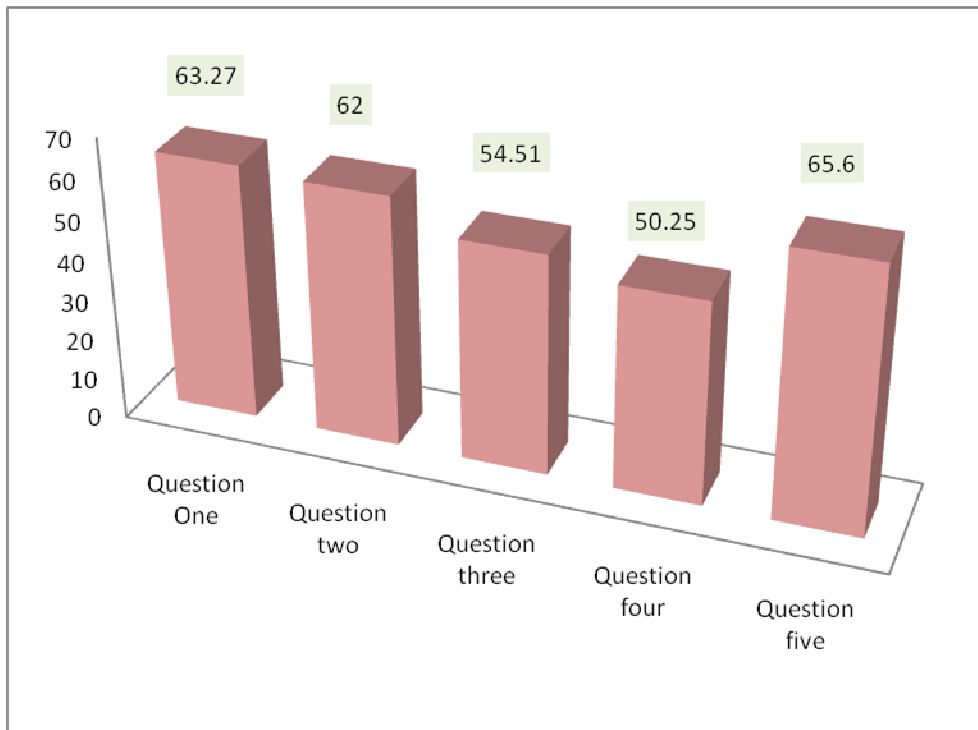
5. Finally, the best results accrued in question five where the weight mean= 65.60. That means students can explain the two possible meanings of each sentence regarding to its tonic syllable. But the result also implies facing difficulty. See (q. 5, p. 159).

To summarize the results regarding the difficulties that English juniors face when learning intonation in spoken contexts, the researcher calculated the percentage of each question in the observation cards. The results of the whole observation cards questions presented in table (21) showed the following:

- Students have difficulty to identify the tone group boundaries as shown in question one.
- Students have difficulty too when have been asked to underline the rising pitch syllable (question two results).
- Students have a serious difficulty when pronouncing the appropriate intonational patterns (question 3).
- Students have a serious difficulty too when repeated the sentences by using a complex intonation patterns. (question 4).
- While students have knowledge to give the two possible meanings of the same sentence regarding to the change of its tonic syllable, but the result is still closed to the pass degree. See question 5.

Accordingly, the English major students at IUG face areas of difficulties when learning intonation at significant level $\alpha=0.05$. See observation activities results, figure (09) and Appendix (D).

Figure (09) shows the degree of whole observation cards questions:



It is worth to mention the results illustrated in table (22) showed that the p-value equals 0.060 which is greater than 0.05 and the Z value= 1.882, which is less than critical value (2.02). Thus, there are no statistical differences about the diagnose the areas of difficulties that English junior students at IUG face when learning intonation due to gender at significant level $\alpha = 0.05$.

Table (22)
Mann-Whitney Test for difference answers when observe the areas of difficulties that English juniors at IUG face when learning intonation due to gender

Field	Gender	N	Mean Rank	Sum of Ranks	Mann-Whitney U	Z	P-value
To observe the areas of difficulties that English juniors at IUG face when learning intonation in spoken context.	Male	15	21.37	320.50	200.5	-1.882	.060
	Female	40	30.49	1219.50			

4.4. Answer of the third question:

"To what extent are student's awareness regarding the intonational functions?".

To answer this question, it is requested to look deeply at the results of both diagnostic test and observation cards, then analyzing them regarding to the intonational functions. It is important to mention in this context that the intonational functions are overlapped, therefore the researcher will do the best to reveal students' awareness from the both tools, diagnostic test and observation cards.

First: Grammatical function:

- While students to some extent were able to identify the kind of simple intonational pattern (Rising- falling) in written context, they failed to identify the kind of complex pattern (rising-falling, falling-rising). See table (19: q. 1, q. 2).
- In the spoken context, while students managed to identify the tone group boundaries and underline the syllable which is uttered with a rising pitch, they failed to repeat the sentences to indicate the appropriate intonational tone patterns (falling, rising, falling-rising, rising-falling). See table (21: q. 1, 2, 3).

Second: Attitudal and Discoursal functions:

- Students have serious difficulty regarding these two functions. This is appeared from the results which showed that students cannot pronounce the word yes/ no by using the appropriate intonational pattern in the spoken contexts. Additionally, they failed to decide the most suitable place for tonic stress after they read the "opening sentence". See table (21: q. 3, 4).

Third: Accentual function:

- When the students listened to English native speaker (by cassette recorder) to underline the ton-syllable which is uttered with a rising pitch to decide the

most suitable place for tonic stress, they are asked to replay the cassette more than three times. This made the researcher utter the words by his own, one more time. See table (21: q. 2).

Fourth: Focus and/ or Prominence:

- From the results, it is clear that student could not decide the most suitable place of the stress after reading the " opening sentences (page 147), see table (19: q. 4). They also failed to pronounce the word yes/ no by using the appropriate intonational pattern in the spoken contexts, see table (21: q.3).

This determined that students have little awareness on the intonational functions.

4.5. Discussion of the Results in Terms of Intonation Difficulties:

The diagnostic test and observation cards was conducted to reveal the difficulties that IUG junior students face when learning intonation in written and spoken contexts respectively. The results showed the following:

1. Students face serious difficulties when they have been asked to identify the complex intonational pattern, this match with the results of the studies that investigated by Toivanen (2001), Levis (2002), Fletcher et al. (2005) and Jowitt in Atoye (2005).
2. When they uttered the tonic syllables or/and to decide the suitable place for tonic stress. The results provided what Rinalli (2002), Hyman (2007), Gut (2001) and Diez (2005) investigated and emphasized that the difficulty of teaching intonational tone rises from the challenge of identifying them.
3. The difficulties still emerged when the students have been asked to underline the syllable which uttered with a rising pitch. This seems to be echo to what

Yan, Vaseghi (2000) presented, Jun, Maria (1996) and Grice, Savino (2007) examined, Anufryk (2007) investigated and Grice et al. (2000) stated.

4. The difficulties became moderate when asking students to identify the kind of simple intonational pattern and/or to divide the intonational phrase into its constituent clause/ clauses. This provides the thinking that intonation still learned by focusing on its grammatical function rather than discorsal and communicative function. The results still giving signal that difficulties also found regarding intonation grammatical function which agree with Verdugo (2003), Paradis (1997) and Stenstrom (1986).
5. The best results were given when students explained the two possible meaning of each sentence regarding the use of brackets or utterances. The results do not mean students have no difficulties, but the difficulties became more moderate.
6. It is worth to mention that the difficulties increased in spoken contexts more than written one. This provide that Intonation treatment in the authorized English textbooks for Palestinian schools and universities largely takes the grammatical approach rather than attitudinal or discourse.

Finally, the researcher believes that " the teachers' view on intonation treatment are almost in line with that of the authorized textbooks, though they rarely taught intonation in lessons". This discussion leads to, intonation teaching at Palestinian schools and universities have still conformed to the traditional grammatical approach (Halliday, 1967, 1970, 1994) and remained little change.

Chapter V

Summary of the results, Findings, Conclusion and Recommendations:

5.1. Introduction

5.2. Summary of the results

5.3. Findings

5.4. Conclusion

5.5. Recommendations

5.6. Suggestion for further research

Bibliography

Appendices

Chapter five

Summary of the results, Findings, Conclusion and Recommendations:

5.1. Introduction:

Intonation has been described as the most difficult aspect of a foreign language to acquire and is held responsible for numerous instances of miscommunication between native and non-native speakers. This study sheds the light on the English intonation which is considered to be one of the crucial topics in the field of Phonetics and Phonology. Intonation varies regarding to its functions: grammatical, attitudinal, discorsal and accentual. Obviously, these functions are overlapped in general. The researcher attempted to outline a roadmap to reveal the difficulties that face IUG major students, specifically, and Arab learners, in general when learning intonation. To fulfill the purpose of the study, the researcher applied two tools, namely, diagnostic test and observation activities. When one diagnoses the problems and the difficulties, it becomes more easy to cure and remedy it as soon as possible by using the best strategy and technique. This chapter includes a summary of the research, discussing the results gained when applying the tools. Moreover, a brief conclusion and recommendation were given at the end of the chapter.

5.2. Summary of the results:

The results of this research study proved that there are difficulties facing IUG junior students when learning intonation. The results indicated that these difficulties varies and the weight means differ regarding the intonation function or/and pattern. In the following, the researcher summarizes these results:

1. The level of difficulties that English department juniors at IUG have when learning intonation in the spoken contexts.

Applying a diagnostic written test, it is found that the weight mean equals 60.16 % which is greater (.16) than the pass level which= " 60% ". It means that the English junior students at IUG face areas of difficulties when learning intonation in the written context at significant level $\alpha=0.05$ See table (19) (p. 121).

2. The level of difficulties that English department juniors at IUG have when learning intonation in the spoken contexts.

Through using observation cards, it was noticed that the weight mean was equal 58.51 % which is less than " 60% ". Thus, English junior students at IUG face more serious of difficulties when learning intonation in spoken contexts at significant level $\alpha=0.05$ See table (21) (p. 123).

3. To what extent students' awareness are regarding the intonational functions?

The results gained from both tools are shown the following:

- a. Generally, students have difficulties regarding the intonational functions, and their awareness varies regarding the functions too.
- b. Students' awareness regarding the intonational functions in written context was better than their awareness in spoken context, the weight means equal 60.16% and 58.51% respectively, as shown in table (19) and (21).
- c. Their awareness regarding the simple intonation pattern (Falling, Rising), the weight mean was equal 65.64 %, which was higher than the complex intonational pattern, (Falling-Rising, Rising Falling), the weight mean was equal 51.23 %. While the weight mean decreased more and was equal 50.25% when using both simple and complex intonational pattern (falling, rising, falling-rising, rising-falling). See table (19) and (21).

- d. To underline the tone-syllable which is uttered with a rising pitch, the weight mean was 65.23%, while in the sentences the weight mean decreased to 53.91% (table 20).
- e. To explain the two possible meanings (lexical and semantic function), the weight mean was equal 69.45 % in written contexts and 65.60 % in the spoken contexts. See tables (19) and (21) questions (5).
- f. To identify the tone group boundaries, the weight mean was equal to 63.27%.
- j. The awareness regarding the intonational attitudal function, when pronouncing the word (Yes/No) regarding the given meaning, the weight mean was equal 54.51 % which was less than " 60%". That means this function was too problematic for students and that lead to misinterpretations between the intonation patterns and the expression of attitudes. Table (21) question (3).

By looking and analysis the results, it is clear that students total awareness is 60.16% in the written contexts and 58.51% in the spoken contexts, while the pass level is 60%. This reinforces what has been said previously, that both male and female junior students at IUG have difficulties when learning intonation.

5.3. Findings:

The current study had set an initial attempt to investigate the difficulties that facing English IUG Junior students in learning intonation. The findings of the present study give answers to the research questions set in Chapter one that IUG Junior students have difficulties when learning intonation. At the same time, the findings show that those difficulties varied regarding the intonation patterns or/and functions. It might be due to a lack of understanding of the use of tone contours and a confusion of placement of prominence. In response to their research questions, the findings from analyzing the responses show that the English IUG students have their own view of the meanings and functions of intonation in written and spoken English.

Owing to the fact that Palestinian students receive minimal training on intonation in their previous education, their pre-conception of intonation was stemmed from primary education or transfer from their experience of speaking Arabic (their LI). The transfer effect affects their views on and understanding of the values and meanings of intonation, and this all match with what Kharma and Hajjaj (1989: 32) argued. The researcher point of view that the subjects do not treat intonation as a communicative tool but they believe speech with correct grammar is more important. The subjects mainly describe the values and meanings of intonation as to express subjects' attitudes and to indicate grammatical structure. They are not concerned with the discourse function of intonation as suggested by several famous philologists. Despite the importance of intonation in communication, it continues to be neglected in the teaching of the English language Brazil et al. (1980).

From the results of the current investigation, the Palestinian English students do not fully understand the values and meanings of English intonation. Even though they approach the functions of English intonation from the angles of expressing attitudes or indicating grammatical structure, the scope is too narrow. As a consequence, they cannot apply it appropriately. To enhance the EFL learners to have a better understanding of the role of intonation, the teachers should have a well-planned syllabus.. Some textbooks only mention some intonation rules without providing the underlying meaning of why those intonation patterns are used. This forces the students to memorize the rules only without a full understanding of meanings of intonation.

Among the subjects who have participated in the current study, some of them have high English proficiency especially in grammar but they do not perform noticeably better than the others. This group of subjects may lack a native-like

accent because of a lack of understanding of the intonation system. This gives evidence that Palestinian university teachers ,in general , still use the grammatical approach and neglected the communicative approach. The insufficiency of attention paying on pronunciation teaching and learning leads to poor acquisition of second language phonetics and phonology. Therefore, a good syllabus for teaching intonation is especially beneficial to EFL learners; this lines with Kumaki (2003) finding too.

5.4. Conclusion:

Based on the findings derived from the results of this study, the following conclusions were drawn:

1. English junior students at IUG have various difficulties in learning intonation. These difficulties are of five areas:
 - a. To identify the appropriate kind of intonational patterns, specially a complex and compounding one,
 - b. To underline the words and sentences tone-syllable which uttered with rising pitch,
 - c. To identify the tone group boundaries in the sentences,
 - d. Intonation attitudal function remains to be very difficult,
 - e. Finally , to explain the two possible meanings to the given sentence.
2. The major and serious difficulty facing English department juniors at IUG in learning intonation is when asking them to indicate the appropriate intonational tone patterns in simple and complex contexts at the same exercise (falling, rising, falling-rising, rising-falling). Secondly, when asking students to explain the two possible meanings of each sentence proved to be the least area of difficulty when learning intonation.

3. Students encounter more difficulties regarding the intonational functions in spoken context than in written context.
4. In addition, students face difficulties when they are asked to repeat the sentences which implies the tonic syllabic. They repeated them randomly.
5. When listening to native speaker (by using a tape-recorder), students misused the placement of the tonic syllable and the prominence. That made the researcher and the observers to repeat the sentences.

5.5. Recommendations:

In the light of the findings and conclusions of the present study, the following recommendations are suggested. Those seem to be pertinent to EFL students, English teachers and university stakeholder:

1. Arousing students' awareness about the importance of the intonation.
2. EFL students in Palestine are recommended to develop their language skills and to give more attention to the suprasegmental features.
3. EFL teachers in Palestine have to use intonation in real communication. It is very important to teach intonation naturally, especially through dialogue and situational-based texts designed for role play, Amer (2010: 45).
4. Teachers should encourage students to use internet and communicate with English native speakers and expose students to different authentic materials.
5. Teachers should inform their students about the different types of intonation patterns and functions. And then, students have to practice producing them.
6. Intonation is highly recommended to be included in the English curriculum in Palestine. Palestinian education policy should recommend students to learn English from a communicative approach instead of learning it as a system (structural approach).

7. Songs, rhymes, and chants are wonderful means of teaching stress and intonation patterns of English, Cakir in Amer (2010: 46).
8. Another way to approach intonation is to emphasize the 'simple' pitches- fall, rise and sustained- before introducing the compounding forms – high fall, rise fall, etc. Kharma and Hajjaj (1989: 35).
9. Attitudinal intonation should be introduced in context so that the learners may be able to associate an attitude with the intonation pattern used to realize it.
10. In any case, it is perhaps most necessary to practice intonation after a native English speakers model. In this case, the voices of different people should be introduced Kharma and Hajjaj (1989).

5.6. Suggestion for further research:

The present study suggests the following points for further research:

- Conducting training programs for developing intonation awareness to both students and teachers.
- Investigating the difficulties of teaching another suprasegmental features: stress, juncture and pause.
- Establishing standard rules to help in learning intonation.
- Investigating suprasegmental features in both Arabic and English.
- Revealing the errors in English intonation among Arabic speakers: analyzing and remedy these errors.
- Conducting an experimental thesis, applying different learning methods and techniques to choice the best one.
- To propos and to apply some learning strategies to tackle suprasegmental learning difficulties.

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Appendix (A)

Diagnostic test

This test is designed in order to diagnose the areas of difficulties that English junior students at IUG face when learning intonation in written contexts:

- **Biodata:**

1. Name (Optional):

2. Gender: **Male** **Female**

3. University level:

- **Have you taken a course in phonetics and phonology before:**

Yes **No**

Question One: (10 marks)

Identify the appropriate kind of intonational pattern (Falling "F" or Rising, "R") for the following:

Items	Answer	Marks
1- He met the president?		
2- Could you tell me where you live?		
3- What a pity!		
4- Look at the blackboard.		
5- I'm hungry.		
6- Will you please come with me?		
7- You don't?		
8- You enjoy phonetics?		
9- She's gone to the market.		
10- I'm going to Jerusalem next week. Are you?		

Question Two: (10 marks)

Identify the kind of intonational pattern (Falling- Rising and Rising-Falling) appropriate for the following sentences:

Items	Answer	Marks
1- I have to work this MORning?		
2- CERTainly. (How could I refuse?)		
3- My health is Always good.		
4- The AmERican CAPital's Washington.		
5- What was THAT NOISE?.		
6- My essay is marked EXcellent.		
7- I THINK I could start		
8- You MAY be right. (doubt, uncertainty)		
9- I read that book a YEAr ago.		
10- You were FIRst. (surprised, impressed)		

Question Three:(10marks)

Underline the syllable which is uttered with a rising pitch in the following words: the first word is underlined:

phonology

electrical

photography

evaluation

feature

geographic

insult (v)

permit (n)

syllabic

beautiful

opportunity

Question Four: (10 marks)

In the following exercise, read the "opening phrase" and then decide the most suitable place for tonic stress placement. The first one is done.

Items	Opening phrase	Marks
1- I'd like you to <u>help</u> me	(right) can I do the shopping for you	
2- I hear you're offering to do the shopping for someone	(right) can I do the shopping for you	
3- What was the first thing that happened	first the professor explained her theory	
4- Was the theory explained by students	no first the professor explained her theory	
5- Tell me how the theory was presented	first she explained her theory	
6- I think it starts at ten to three	no ten past three	
7- I think it starts at quarter past three	no ten past three	
8- I think it starts at ten past four	no ten past three	
9- You mustn't talk so loudly	sorry I mustn't talk so loudly	
10- I want to know where he's traveling to	Well you want to know where he's traveling to	
11- it's regrettable that he wrote the letter	He wrote the letter sadly	

Question Five: (10 marks)

Explain the two possible meaning of each of the following utterances as implied by the use of brackets.

1. a [She didn't go to school] because of her timetable.

1.b She didn't go to school [because of her timetable].

2.a [Rebellious men and women] were arrested.

2.b [Rebellious men] and women were arrested.

3. a. [Flying planes] can be dangerous.

3. b. [Flying] planes can be dangers.

4. a. [Who did you see, John?]

4.b [Who did you see], John?

5.a. [I have plans to leave].

5.b. I have [plans] to leave.

Appendix (B)

Observation cards

The following activities are going to be used for the sake of observation. Through these activities, the researcher aims to determine the difficulties that IUG English Junior Students may face when learning intonation in spoken contexts.

- **Biodata:**

1. **Name (Optional):**

2. **Gender:**

Male

Female

3. **University level:**

- **Have you taken a course in phonetics and phonology before:**

Yes

No

Question One: (10 marks)

Identify the tone group boundaries in the following sentences. Use the stroke sign (/) to set off one group boundaries. The first one is done.

Items	Answers	Marks
I like apples oranges and peaches.	<i>I like apples/ oranges/ and peaches</i>	
1.The man John was talking to gave him the book.		
2. I've got to take the dog to the vet.		
3. I deny the whole thing usually		
4. I like him but I loath and detest his friend Jack..		
5. I ran into Jane last week by the way did you know she has three children? And she said....		
6. Since the last time we met when we had that huge dinner I've been on a diet.		
7. Four plus six divided by two equals five.		
8. The Japanese for some reason or other drive on the left like us.		
9.The Japanese for some reason or other drive on the left like us.		
10. As I expected you've heard they're only admitting emergency cases.		
11- They are coming on Tuesday aren't they?		

Question Two: (10 marks)

Underline the syllable which is uttered with a rising pitch in the following words.

Items	Answers	Marks
dishonest		
settlement		

familiarize		
international		
agree		
overwork		
England		
manufacture		
geographic		
phonology		

Question Three: (10marks)

A. Pronounce the word "yes" regarding the given meaning.

Items	Meanings	Answers	Marks
1. Yes	The answer is yes.		
2. Yes	Did you say yes?		
3. Yes	Please go on, I'm listening to you.		
4. Yes	I'm doubtful.		
5. Yes	I'm certain.		

B. Pronounce the word yes/ no by using the appropriate of intonational pattern (falling, rising, falling- rising, rising-falling), regarding to the given meaning.

Items	Answer	Marks
A: Have you seen Ann? B: No (as invitation to A to explain why she's looking for Ann).		
A: Have you seen Ann? B: No (no interest in continuing the conversation).		
A: I've heard that it's good school? B: Yes (not completely agree with A).		
A: (wishing to attract B's attention): Excuse me B: Yes		
A: you wouldn't do an awful thing like that, would you? B: No (strong felling of disapproval or surprise)		

Question Four:(10marks)

Repeat the following sentences, indicating the appropriate of intonational tone patterns (falling, rising, falling-rising, rising-falling).

Items	Answer	Marks
1. John is it you?		
2. You like coffee, don't you?		
3. His name is Ali. (I'm certain about the person name)		
4. A: This is a cheap watch. B: <u>Oh no. It's very expensive</u>		
5. What a nice dress!		
6. I don't think so.		
7. Coming?		
8. What was the noise?		
9. I heard him say...		
10. You play golf, don't you? (expecting disagree)		

Question Five:(10marks)

Read the following utterances, explain the two possible meanings of each as implied by the use of brackets.

Items	Marks
1.a. [I can't stand old men and women] 1.b. [I can't stand old men] and women	
2.a. [She didn't go to school] because of her timetable 2.b She didn't go to school [because of her timetable]	
3.a. [Those who sold quickly] made a profit. 3.b.Those who sold [quickly made a profit]	
4.a. [I have plans to leave] 4.b. I have [plans] to leave.	
5.a [The conservatives who like the proposal] are pleased 5.b. The conservatives [who like the proposal] are pleased	

Appendix (C)
Diagnostic test Results

Results of question One : Identify the kind of (simple) intonational pattern

No.	Items	Mean	standard deviation	Weight mean	t-value	P-value	Rank
10	I'm going to Jerusalem next week. Are you?	4.30	1.519	85.91	5.659	0.000	1
1	He met the president?	4.27	1.561	85.45	5.410	0.000	2
2	Could you tell me where you live?	4.18	1.632	83.64	4.803	0.000	3
8	You enjoy phonetics?	3.45	1.970	69.09	1.530	0.133	4
6	Will you please come with me?	3.39	1.967	67.73	1.303	0.200	5
4	Look at the blackboard.	3.30	1.983	65.91	0.988	0.329	6
9	She's gone to the market.	3.18	2.015	63.64	0.599	0.553	7
5	I'm hungry.	2.66	1.976	53.18	-1.144	0.259	8
3	What a pity!	2.18	1.846	43.64	-2.940	0.005	9
7	What are you going to do? (showing sympathy)	1.91	1.696	38.18	-4.268	0.000	10
	Total	3.28	0.789	65.64	2.370	0.022	

Critical value of t at df "43" and significance level 0.05 equal 2.02

Results of question two: Identify the kind of intonational pattern (Falling- Rising and Rising-Falling)

No.	Items	Mean	standard deviation	Weight mean	t-value	P-value	Rank
2	CERTainly. (How could I refuse?)	4.43	1.388	88.64	6.845	0.000	1
1	I have to work this MORning?	3.82	1.808	76.36	3.002	0.004	2
5	What was THAT NOISE?	3.80	1.837	75.91	2.872	0.006	3
4	The AmERican CAPital's Washington.	2.61	1.967	52.27	-1.303	0.200	4
3	3- My health is Always good.	2.09	1.802	41.82	-3.346	0.002	5
10	You were FIRst. (surprised, impressed)	2.02	1.745	40.45	-3.714	0.001	6
8	You MAY be right. (doubt, uncertainty)	1.89	1.617	37.73	-4.568	0.000	7
9	I read that book a YEAR ago.	1.75	1.557	35.00	-5.325	0.000	8
6	My essay is marked EXcellent.	1.73	1.561	34.55	-5.410	0.000	9
7	I THINK I could start	1.48	1.285	29.55	-7.862	0.000	10
	Total	2.56	0.719	51.23	-4.045	0.000	

Critical value of t at df "43" and significance level 0.05 equal 2.0

Results of question three : Underline the ton-syllable which is uttered with a rising pitch

No.	Items	Mean	standard deviation	Weight mean	t-value	P-value	Rank
6	insult (v)	4.30	1.391	85.91	6.179	0.000	1
8	syllabic	3.95	1.642	79.09	3.857	0.000	2
7	permit (n)	3.52	1.874	70.45	1.850	0.071	3
1	electrical	3.43	1.810	68.64	1.583	0.121	4
2	photography	3.41	1.808	68.18	1.500	0.141	5
5	geographic	3.36	1.844	67.27	1.308	0.198	6
4	feature	3.05	1.867	60.91	0.161	0.872	7
9	beautiful	2.73	1.847	54.55	-0.979	0.333	8
10	opportunity	2.48	1.811	49.55	-1.915	0.062	9
3	evaluation	2.39	1.755	47.73	-2.319	0.025	10
	Total	3.26	0.785	65.23	2.207	0.033	

Critical value of t at df "43" and significance level 0.05 equal 2.02

Results of question four : read the "opening" and then decide the most suitable place for tonic stress (underline the syllable) in the response

No.	Items	Mean	standard deviation	Weight mean	t-value	P-value	Rank
6	I think it starts at quarter past three	4.39	1.385	87.73	6.642	0.000	1
10	It's regrettable that he wrote the letter	4.09	1.696	81.82	4.268	0.000	2
7	I think it starts at ten past four	3.57	1.922	71.36	1.961	0.056	3
3	Was the theory explained by students	3.09	2.021	61.82	0.298	0.767	4
5	I think it starts at ten to three	2.36	1.881	47.27	-2.244	0.030	5
1	I hear you're offering to do the shopping for someone	2.18	1.846	43.64	-2.940	0.005	6
8	You mustn't talk so loudly	2.09	1.802	41.82	-3.346	0.002	7
2	What was the first thing that happened	1.86	1.637	37.27	-4.606	0.000	8
4	Tell me how the theory was presented	1.86	1.637	37.27	-4.606	0.000	9
9	I want to know where he's traveling to	1.45	1.190	29.09	-8.613	0.000	10
	Total	2.70	0.678	53.91	-2.982	0.005	

Critical value of t at df "43" and significance level 0.05 equal 2.02

Results of question five: Explain the two possible meanings

No.	Items	Mean	standard deviation	Weight mean	t-value	P-value	Rank
2	2.a.[Rebellious men and women] were arrested. 2.b.[Rebellious men] and women were arrested.	3.86	0.824	77.27	6.954	0.000	1
1	1. a.[She didn't go to school] because of her timetable. 1.b She didn't go to school [because of her timetable].	3.68	1.253	73.64	3.609	0.001	2
3	3. a.[Flying planes] can be dangerous. 3. b.[Flying] planes can be dangers.	3.61	1.125	72.27	3.618	0.001	3
4	4. a.[Who did you see, John?] 4.b [Who did you see], John?	3.25	1.184	65.00	1.401	0.168	4
5	5.a .[I have plans to leave]. 5.b. I have [plans] to leave.	2.95	0.776	59.09	-0.388	0.700	5
	Total	3.47	0.461	69.45	6.806	0.000	

Critical value of t at df "43" and significance level 0.05 equal 2.02

Appendix (D)

Observation Cards Results

Results of question One : Identify the tone group boundaries

No.	Items	Mean	standard deviation	Weight mean	t-value	P-value	Rank
1	The teacher gave many assignments to his students	3.73	1.394	74.55	3.870	0.000	5
2	The man John was talking to gave him the book	1.98	1.147	39.64	-6.586	0.000	11
3	I've got to take the dog to the vet	2.04	1.732	40.73	-4.127	0.000	10
4	I deny the whole thing usually	2.76	1.753	55.27	-1.000	0.322	8
5	I like him but I loath and detest his friend Jack	2.95	1.079	58.91	-0.375	0.709	6
6	I ran into Jane last week by the way did you know she has three children? And she said....	3.82	1.140	76.36	5.323	0.000	3
7	Since the last time we met when we had that huge dinner I've been on a diet	3.84	1.118	76.73	5.547	0.000	2
8	Four plus six divided by two equals five	2.45	0.959	49.09	-4.219	0.000	9
9	The Japanese for some reason or another drive on the left like us	2.84	1.302	56.73	-0.932	0.355	7
10	They are coming on Tuesday aren't they?	4.60	1.047	92.00	11.333	0.000	1
10	As I expected you've heard they're only admitting emergency cases	3.80	1.095	76.00	5.416	0.000	4
	All items	3.16	0.486	63.27	2.496	0.016	

Critical value of t at df "54" and significance level 0.05 equal 2.0

Results of question two: Underline the syllable which is uttered with a rising pitch

No.	Items	Mean	standard deviation	Weight mean	t-value	P-value	Rank
8	manufacture	3.85	1.339	77.09	4.733	0.000	1
4	international	3.78	1.524	75.64	3.805	0.000	2
10	phonology	3.36	1.809	67.27	1.491	0.142	3
2	settlement	3.25	1.554	65.09	1.215	0.230	4
7	England	3.25	1.713	65.09	1.102	0.275	5
9	geographic	3.22	1.512	64.36	1.070	0.289	6
6	overwork	2.76	1.478	55.27	-1.186	0.241	7
5	agree	2.67	1.754	53.45	-1.384	0.172	8
3	familiarize	2.47	1.752	49.45	-2.232	0.030	9
1	dishonest	2.36	1.747	47.27	-2.702	0.009	10
	Total	3.10	0.663	62.00	1.119	0.268	

Critical value of t at df "54" and significance level 0.05 equal 2.0

Results of question three: Pronounce the word "yes" regarding the given meaning/ by using the appropriate intonational pattern

No.	Items	Mean	standard deviation	Weight mean	t-value	P-value	Rank
A: Pronounce the word "yes" regarding the given meaning							
2	Did you say yes?	3.02	1.683	60.36	0.080	0.936	1
5	I'm certain.	2.93	1.345	58.55	-0.401	0.690	2
3	Please go on, I'm listening to you.	2.69	1.609	53.82	-1.425	0.160	3
4	I'm doubtful.	2.69	1.489	53.82	-1.539	0.130	4
1	The answer is yes.	2.13	1.689	42.55	-3.831	0.000	5
	All items	2.69	0.638	53.82	-3.592	0.001	
B: Pronounce the word yes/ no by using the appropriate intonational pattern							
2	A: Have you seen Ann? B: No (no interest in continuing the conversation).	3.65	1.756	73.09	2.765	0.008	1
4	A: (wishing to attract B's attention): Excuse me B: Yes	3.38	1.716	67.64	1.650	0.105	2
1	A: Have you seen Ann? B: No (as invitation to A to explain why she's looking for Ann).	2.73	1.694	54.55	-1.194	0.238	3
5	A: you wouldn't do an awful thing like that, would you? B: No (strong feeling of disapproval or surprise)	2.22	1.150	44.36	-5.043	0.000	4
3	A: I've heard that it's a good school? B: Yes (not completely agree with A).	1.82	1.321	36.36	-6.637	0.000	5
	All items	2.76	0.777	55.20	-2.291	0.026	
	All items for part A and B	2.73	0.530	54.51	-3.840	0.000	

Critical value of t at df "54" and significance level 0.05 equal 2.0

Results of question four : Repeat the following sentences, indicating the appropriate intonational tone patterns (falling, rising, falling-rising, rising-falling).

No.	Items	Mean	standard deviation	Weight mean	t-value	P-value	Rank
7	Coming?	3.78	1.792	75.64	3.236	0.002	1
1	John is it you?	3.69	1.835	73.82	2.793	0.007	2
4	A: This is a cheap watch. B: <u>Oh no. It's very expensive</u>	3.47	1.904	69.45	1.842	0.071	3
8	What was the noise?	3.18	1.935	63.64	0.697	0.489	4
5	What a nice dress!	2.09	1.602	41.82	-4.209	0.000	5
3	His name is Ali. (I'm certain about the person name)	1.91	1.351	38.18	-5.989	0.000	6
6	I don't think so.	1.82	1.140	36.36	-7.688	0.000	7
2	You like coffee, don't you?	1.76	1.186	35.27	-7.733	0.000	8
9	I heard him say...	1.75	1.364	34.91	-6.822	0.000	9
10	you play golf, don't you? (expecting disagree)	1.67	1.156	33.45	-8.518	0.000	10

Critical value of t at df "54" and significance level 0.05 equal 2.0

Results of question five: explain the two possible meanings of each as implied by the use of brackets

No.	Items	Mean	standard deviation	Weight mean	t-value	P-value	Rank
1	1.a. [I can't stand old men and women.] 1.b. [I can't stand old men] and women.	4.20	0.730	84.00	12.186	0.000	1
2	2.a. [She didn't go to school] because of her timetable. 2.b She didn't go to school [because of her timetable.]	3.49	1.215	69.82	2.996	0.004	2
3	3.a. [Those who sold quickly] made a profit. 3.b.Those who sold [quickly made a profit]	3.20	0.989	64.00	1.500	0.139	3
4	4.a. [I have plans to leave.] 4.b. I have [plans] to leave.	3.04	1.053	60.73	0.256	0.799	4
5	5.a [The conservatives who like the proposal] are pleased. 5.b.The conservatives [who like the proposal] are pleased.	2.47	1.016	49.45	-3.850	0.000	5
	Total	3.28	0.537	65.60	3.867	0.000	

Critical value of t at df "54" and significance level 0.05 equal 2.

Appendix (E)


List of Referees (Experts)

No.	Referee's Name	Position
1.	Dr. Walid Amer	Associate Prof. English Department –IUG
2.	Dr. Asaad Abu Sharekh	Assistant Prof. English Department AL-Azhar Uni.
3.	Dr. Jaber Abu Shawish	Assistant Prof. English Department AL-Q.O.U.
4.	Dr. Jamal Al'Sharif	Assistant Prof. English Department AL-Azhar Uni.
5.	Dr. Ezzo Afana	Prof. of Methodology- IUG
6.	Dr. Nafez Barakat	Assistant Prof. of Statistics- IUG

Appendix (F)

IUG permission to carry out the study

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

 **الجامعة الإسلامية - غزة**
The Islamic University - Gaza

هاتف داخلي: 1150 عمادة الدراسات العليا

الرقم: Ref
ج من غ/35
التاريخ: Date 2011/04/04

الأخ الأستاذ الدكتور/ نائب الرئيس للشئون الأكاديمية
حفظه الله،
السلام عليكم ورحمة الله وبركاته،

الموضوع / لن يهمله الأمر


تهديكم عمادة الدراسات العليا أعطر تحياتها، وترجو من سيادتكم التكرم بتسهيل مهمة الطالب/ بدر إسماعيل سعيد مقداد، برقم جامعي 120090912 المسجل في برنامج الماجستير بكلية التربية تخصص مناهج وطرق تدريس - لغة إنجليزية، وذلك بهدف تطبيق أدوات دراسته على طلبة بكالوريوس اللغة الإنجليزية (المستوى الثالث) لمساعدته في إعداد رسالة الماجستير والمعونة

بـ

Difficulties facing English Department Juniors at IUG in Learning Intonation

والله ولي التوفيق،،،

عميد الدراسات العليا
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