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INSTRUCTIONAL DIFFERENCES AND LEARNING OUTCOMES : A METHODOLOGICAL STUDY OF SYSTEMATIC INTONATION TEACHING TO THE LEARNERS OF ENGLISH AS A FOREIGN LANGUAGE

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Perception and Production Tests and served as a model on the Voiscope.

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ABSTRACT

It has been apparent for some time that little attention has been given to intonation teaching to the EFL learners. Teachers often suffer from the lack of appropriate instruction and instructional materials since they, generally, are not content with presenting intonation incidentally within daily calssroom activities.Besides, students who are learning the intonation system of the Target Language, need some provision for the presentation of the system, accurate and clear description and explanation of the concepts.

In recognition of this shortage, this study presents on observation of systematic versus incidental instruction in teaching intonation. The aim was to achieve subjects' awareness and understanding of intonation learning with the ability of correct production.

Although the subjects of the systematic instruction improved much more than the subjects of the incidental instruction, we also observed that intonation learning would be a gradual process when it was integrated with other skills

in language teaching.

However, we achieved our purpose by helping students to improve and practice their intonational skills while studying the difficulties which they actually encountered in learning intonation.

SYMBOLS and ABBREVIATIONS

(↑) Rising Tone

(↓) Falling Tone

(→) Level Tone

/#/ (↘) Falling Terminal Juncture

/‖/ (↗) Rising Terminal Juncture

/|/ (→) Sustained Terminal Juncture

Rising Pattern

Falling Pattern

n	Population of the samples
$\bar{x}$	Mean of the correct scores
Sd	Standard deviation
t	t-value
p	probability
df	degree of freedom
$\bar{D}$	Differences of the means
SE	Standard error
<	Smaller than
>	Greater than

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languages utilizing pitch in this way are labeled as "Intonation Languages" (Brosnahan & Malmberg,1970:152).

There are two fundamental ways in which pitch variations are used in different languages. In languages such as English, German, French and Turkish, pitch operates on whole utterances to make differences of meaning. For example in the utterance:

You ⌈ told ⌋ him.

The pitch falls from "told" to "him", and the effect is of a statement. If it rises, the effect is of a question:

You told ⌈ him ?

As it is illustrated above, the component words are the same, but when they are uttered with a different pattern of pitch the overall meanings of the two utterances are different. This use of pitch to distinguish whole utterances without interfering with the shape of the component words is known as "Intonation" (O'Connor,1973:190).

In another group of languages like Chinese, Thai or Vietnamese, pitch operates on words to change their shapes and alter their meanings. These languages are known as "tone languages" (Fromkin & Rodman,1978:94). For example, in Nupe:

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CHAPTER I

INTRODUCTION

Every speech sound during the production of which the vocal bands vibrate, every buzz, hum or tone has a fundamental pitch. Pitch, defined as "the frequency of speech" (Catford, 1977:111), is one of the qualities of speech sounds. Pitch variations - variations of frequency of voice - occur during speech in all languages. Normally no speech occurs without variations in pitch because no one speaks all the time in a monotone.

Languages differ in the way in which frequency variations are utilized linguistically. These variations are systematically related to the utterances or large grammatical units such as clauses or sentences. Thus, pitch patterns utilized in this way are called "Intonation" [Jones,1918:275;Carrell & Tiffany, 1960:261;Lado,1961:117;Gimson,1962:266;Heffner,1969:213]. In a number of languages, an utterance may be marked as statement, question, non-completed phrase, etc. solely or partly by means of the use of different levels of pitch. Therefore,

(high tone) bá means "to be sour"
(mid tone) bā means "to cut"
(low tone) bà means "to count"

However, the present study does not cover tone languages.

1.1. THE IMPORTANCE OF TEACHING INTONATION

The importance of intonation in foreign language teaching cannot be denied. Many linguists agree on the necessity of teaching intonation to foreign language learners.

Gilbert(1984:585) defines suprasegmentals (i.e. intonation, stress, rhythm and juncture) as phonological features that make it easier for a listener to understand what a speaker is trying to convey. Thus, the use of incorrect stress or intonation may seriously hamper communication at any level.

Finocchiaro (1964:7) states that language learning today should be primarily concerned with achieving understanding. However, if the learners of a foreign language do not react accurately to the intonation signals of the language, they may misunderstand or be misunderstood since it is felt that the intonation of an utterance contributes in a significant way to the meaning of the utterance (Roberts,see Dean & Wilson, 1959:178 ; Brown,1977:84). Due to the fact that an error in intonation may lead to a different interpretation of an utterance, native speakers, in general, do not make allowances

for the misuse of learner's intonation although they can forgive an error in the pronunciation of an individual sound which rarely affects communication (Fraenkel,1984:52).According to Fraenkel, if the learners' intonation makes them dogmatic, arrogant or hostile, a native listener believes that they really are so since intonation is used not only as grammatical signals but also to express personal emotions like anger, surprise, joy, etc.

The use of the appropriate intonation makes students' speech sound much less foreign,frequently compensating for other faults of pronunciation since the elements of the phonemic system have a striking effect on the articulation of segmental elements during the learning process. Thus, teaching an accurate intonation may be a higher priority than the teaching of individual sounds (Rivers & Temperley,1978:160).

Lado (1976:8) clarifies the importance of teaching suprasegmentals to foreign language learners as follows:

> "In the realm of language, the harm that we do our students by teaching them a foreign language as if it were just different words from those of our own language. Students understand that learning a language means to discriminate them. They will never be ready to struggle to pronounce things in different sound units, different intonation, different rhythm and stress, different constructions and even different units of meaning unless they realize that this is exactly what is involved in learning a foreign

> language, and that although learning those things will require effort, often dull and uninteresting, the rewards for the effort will be great".

For the reasons stated so far, in foreign language teaching, intonation deserves more serious attention than it has received. It should be regarded as an essantial area for practice by foreign language learners. As Hubbard et al (1983:276) claim, intonation -as a part of correct social behaviour- should be a part of a teaching programme and not the optional luxury that it often is.

1.2. BACKGROUND OF THE PROBLEM

Intonation, stress, rhythm and juncture, which are commonly known as suprasegmentals, are the important elements of the sound system which give a language its characteristic quality so that a listener can identify a language although he cannot distinguish individual words. Yet, they are the suprasegmental phonemes which constitute the major difficulty for students in learning a foreign language (Paulston & Bruder, 1976:91). The reason is that, for a language learner, only a few of the speech sounds will be completely diferent in the target language but the sound system -e.g. intonation, stress, etc., may be totally different (Dubin & Olshtain,1977: 47). In consequence, the phonemic system of a language is very important for the foreign language learner and vital in the teaching of English as a new language.

However, linguists agree that suprasegmentals have not been given sufficient attention in classroom teaching. That suprasegmentals involve linguistically very technical and difficult information may be a cause for the total neglect of the topic in schools (Paulston & Bruder,1976:106).

Furthermore, it is obvious that many successful general course books of English show a marked lack of orientation to the sound system of the language (Brazil et.al,1980:114). Most general course books include neither segmental nor suprasegmental aspects of the system [e.g. "Kernel Lessons" (O'Neill,1972) , "Mainline" (Alexander et.al.,1975) and "Strategies" (Abbs et. al.,1975), etc.]. In other words, these books have no exercises on pronunciation, stress or intonation.

There are some general course books that do include intonation in the language syllabus incidentally or systematically. The course books of the incidental approach present intonation as it arises from the material in the syllabus, which is primarly grammatical [e.g. "English 900" (1964), (Appendix A)]. In these books, students are allowed to follow a spoken text with intonation contours marked on and imitate the utterances by reading simultaneously.

On the other hand, the systematic approach prefers the use of seperate pronunciation units to that of practice drills. In other words, a completely systematic approach would seperate

out intonation from the rest of the language syllabus and would present it as a descriptive model. Nonetheless, the majority of course books use the incidental rather than the systematic approach.

The omission of instruction on intonation is a striking characteristic of general course books. It is omitted perhaps because writers assume that teachers already have access to supplementary materials for teaching the sound system, or the omission may stem from a belief that learners will absorb the phonology of the language inductively, without overt instruction, through exposure to speech data from speakers of English.

As opposed to the assumptions above, most linguists share the need for systematic integration of intonation into the language syllabus (Wilkins,1972:44 ; Brazil et.al.,1980: 128 ; Tench,1981:85). These writers do not believe that "the natural method" - explained as an exposure to the target language - will be sufficient for students to learn intonation. Nor is it enough to provide occasions for imitation, but there has to be some provision for the presentation of the system, for explanation of meanings and how they are realized. In some cases, the systematic presentation of formal linguistic descriptions may have implications on teaching in context.

In conclusion, many linguists agree on the fact that intonation is too important a part of spoken communication to

be ignored or neglected. Therefore, teaching intonation should be a component of a course of foreign language instruction, possibly taught in a systematic form.

1.3. PROBLEM

The question that will be looked into in this study may be stated as whether systematic teaching of intonation as a seperate activity in Foreing Language Teaching will enhance learning the intonation aspects of the Target Language.

1.4. PURPOSE OF THE STUDY

The general purpose of this study is to find an answer to the question stated in the problem section by applying a systematic intonationteaching to a group of subjects who are taught purposefully and compare them with the second group of subjects who receive information about the intonation of the Target Language incidentally in general classroom activities. In other words, the type of instructions observed in this study appears to be systematic (formal) instruction and incidental instruction.

This study attempts to provide answers to the following questions:

1. Is there a significant difference within the Experimental

Group in perceiving intonational differences before and after exposure to systematic instruction on intonation?

2. Is there a significant difference within the Control Group in perceiving intonational differences following an interval without any systematic instruction on intonation?
3. Is there a significant difference between the Experimental Group and the Cotrol Group in perceiving intonational differences at the beginning phase of this study?
4. Is there a significant difference between the Experimental Group and the Control Group in perceiving intonational differences after the Experimental Group is exposed to systematic instruction on intonation whereas the other is not?
5. Is there a significant difference within the Experimental Group in producing the intonation patterns of the Target Language before and after the group is exposed to systematic instruction on intonation?
6. Is there a significant difference within the Control Group in producing the intonation patterns of the Target Language when they are only exposed to natural intonation incidentally in classroom while the Experimental Group is being taught intonation systematically?
7. Is there a significant difference between the Experimental Group and the Control Group in producing the intonation patterns of the Target Language after the former group is exposed to systematic instruction whereas the latter is not?
8. Is there a significant difference within the Experimental Group in producing the intonation patterns of Target Language in 5 months period following the post-teaching?

1.5. IMPORTANCE OF THE STUDY

Although intonation appears to have a long and respectable association with English Language Teaching, it has still been the most neglected area by language teachers. Intonation teaching has been assumed too comlex to deal with. Therefore, teachers avoid insisting on perfect intonation. This ignorance comes into being partly because teachers' inadequate knownledge about intonation or their doubt about how to teach it.

Thus, this study is hoped to illuminate those who believe intonation has an important role in language teaching but have some problems in teaching it.

1.6. LIMITATIONS

This research is limited to

1. The second year students of the Education Faculty at Anadolu University.
2. The Intonation of Question Patterns in English (i.e. General Questions, Particular Questions, Alternative Questions, Statement Questions and Question Tags)
3. The Grammatical and the Attitudinal Functions of Intonation
4. Rising (↑) and Falling (↓) tones in utterances, regardless of other tones (e.q. rising-falling, falling-rising,etc.)

1.7. ASSUMPTIONS

1. In this study, the experimenter, a non-native speaker of English whose native language is Turkish, is assumed to know intonation well enough to teach about it.
2. The subjects of this study are assumed to have the same knowledge in English since they share the same teaching conditions.

CHAPTER II

LINGUISTIC ASPECTS OF INTONATION

Speech is a continous event and can be divided into discrete segments like the consonants, vowels, semi-vowels of the written language. It is the task of phonetics to study the physical aspect of human speech sounds, their production and the signs used to represent them.

Phonology, on the other hand, specifies the interaction of these segments through the operation of phonological rules. Thus, phonology is the study of the ways in which speech sounds form systems and patterns in human language.

Some elemets of the spoken language cannot be reduced into segments; they are commonly known as suprasegmental phonemes which include intonation, stress, pitch, juncture and rhythm. Many analysts prefer to regard them simply as prosodic features. For that reason, the examination of the suprasegmentals is known as prosodic analysis (Demirezen, 1986:107).

2.1. FORM OF INTONATION

When the variations of pitch are studied, it is observed that pitch remains at a constant level or it changes from one level to another. In short, a one-syllable word can be said with either a level tone or a moving tone. Tone, briefly, is the overall behaviour of the pitch. Moving tones may be a falling tone or a rising tone. Speakers select the tone according to how they want the utterance to be heard. For example:

John ! (falling tone) - a stament
John ? (rising tone) -- a question

2.1.1. TONE UNIT

The intonation of a sentence is created by the pattern of pitch changes which occur within that sentence. The part of a sentence over which a particular pattern extends is called a "tone unit" (Ladefoged,1975:94). A short sentence often forms a single tone group, while larger ones are made up of two or more.

The 'girl gave the 'money to her 'father

A tone group is a unit of information which is the important information point in the sentence. That is to say,

intonation has the function of dividing an utterance up into information units - which is known as its discourse function (Jackson,1980:48).

2.1.2. TONIC SYLLABLE

Within the tone group (tone unit), there is usually a single syllable that stands out because it carries the major pitch change. This is called "tonic syllable". Some writers use the terms "nucleus" or "nucleur syllable" for "tonic syllable" (Ladefoged,1975:93-97). In the following sentence:

The 'girl gave the 'money to her 'father

The first syllable of "father" is the tonic syllable. It is said to receive the tonic accent. To predict which syllable will be the tonic syllable depends on what the speaker considers to be important. All the intonation patterns start on the topic syllable and continue until the end of the tone group:

His name is 'Peter (Question with a rising tone)

His name is 'Peter (Statement with a falling tone)

His name is 'Peter (Rising-falling tone used for conveying certainity as opposed to doubt)

2.2. FUNCTIONS OF INTONATION

Intonation has more than one linguistic funtion as Gimson (cited in Quirk,1962:323) explains in the following:

> "Intonation gives prominence to an accented syllable but at the same time, the type of pitch change may provide information about the speaker's mood or attitude and is capable of distinguishing sentence types and sometimes word meaning"

As it is understood from the above statement,intonation has accentual fuction, attitudinal function, grammatical function and discourse function. With the exception of attitudinal function, the others are given the collective name of "syntagmatic functions of intonation".

2.2.1. THE ACCENTUAL FUNCTION OF INTONATION

The term "accentual" is derived from accent, a word used by some writers to refer to what is called "stress", although most of the time linguists employ the terms interchangeably.

"Accent" is defined as the syllable which is actually highlighted in a sentence to show the importance of its words and "stress" is applied to the particular syllable in the word that gets the accent if the word is important enough to get

one [Bolinger(1964), see Emig, Fleming and Popp,1966:236].

Bolinger (1964) suggests that teachers should explain to their students that "accent" is a "pitch movement involving a departure from a reference line"; it is the only efficient method of showing a student how to give one syllable prominence over another so that he/she can pitch one of the prominent syllables higher than the rest.

Some linguists (i.e. Armstrong and Ward, see Liberman, 1967:178) assert that the determination of the prominent syllable is done by a change in intonation by which they mean "the pitch movement" in accordance with Bolinger's views stated above. For example, the following sentence:

He is my brother

is a simple statement of fact; it means: "You wanted to know who he was and I told you" but if the primary stress is shifted, different meanings may be obtained:

He is my brother (not the other fellow)

He is my brother (Why do you deny it?)

He is my brother (not Sam's)

As seen in this example, primary stress [sometimes called "special stress" or "emphatic stress" (Demirezen,1986: 112)] brings prominence to particular words and distinguish meanings in each sentence but does not change the pattern of the intonation linguistically (Fries,1952:27).

Broadly speaking, when emphasis of cetain parts of the sentence is carried out with the help of pitch variation, it is said that the speaker is utilizing musical accent or so called intonation (Malmberg,1963:80).

2.2.2. THE GRAMMATICAL FUNCTION OF INTONATION

In English, intonation may be grammatical in two senses; the first is simply known as the distinction of sentence types or word meaning. In other words, a change of speech melody is likely to change the meaning of thesentence as a whole in much the same way as punctuation does in the written language (Abercrombie,1967:105).

Broadly speaking, "the function of a sentence may be modified by intonation to achieve a meaning that could have been achieved by giving the sentence a different grammatical form (Wilkins,1972:42)". For example, two English utterances which could be written as:

a) He often mows the lawn (↓) and

b) He often mows the lawn (↑)

are the same except for their pitch patterns yet they have clearly a different meaning as sentences - the differences in meaning are conveyed grammatically (or more precisely, syntactically) rather than lexically.

The first one is, grammatically, a declarative sentence and is here functioning as a statement, whereas the second one is also grammatically declarative but is here fuctioning syntactically as a question in just the same way as the grammatically interrogative sentence:

Does he often mow the lawn? (↑)

This is a normal question form. There are clues to the meaning, such as the use of "Does", which shows that it is a question even if the intonation pattern is not produced correctly but

He often mows the lawn? (↑)

is a perfectly acceptable way of asking the question in the spoken language. The clue "Does" is no longer there, but the intonation pattern would be the only clue left to suggest a statement or a question.

In short, in intonation languages, the speech melody pattern may determine the sentence type such as declarative

or interrogative, command or request, etc.

Furthermore, it may be said that intonation helps to prevent ambiguity in sentences. This is the second sense in which intonation may be grammatical. As Wilkins (1972:42) asserts, "it may happen that a sentence is grammatically ambigious and only by means of intonation can we be clear of what grammatical structure we should give the sentence and thereby disambiguate it". For example, a sentence like:

You're coming, aren't you?

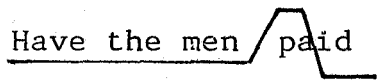
may be ambigious in terms of intonation unless it is given in an appropriate context. The reader cannot decide whether it is a question or a statement. Such utterances with identical words can be differentiated by tone alone. The tag "aren't you" can be spoken with a falling tone and it expresses a statement, but with a rising tone, a question. There is a clear change of meaning since the difference between the statement tag and the question tag is purely a matter of intonation (Tench,1981:92).

Another example may be given from Fries (1952:147) in order to clarify the idea:

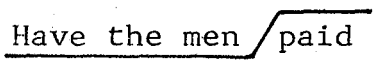
Have the men paid

is an ambigious sentence without a context. As it stands

(with the common 2-4 intonation curve-in Fries' notation it is a high-fali pattern)it can be either a question or a request, because it is entirely possible to make the sentence above an unmistakable question by the intonation pattern of a rising contour:



(request)



(question)

Thus, it is the intonation which provides the only formal clue to distinguish a non-question from a question, a request from a question or an exclamation from a question.

2.2.3. THE ATTITUDINAL FUNCTION OF INTONATION

It is not particularly difficult to assign meaning to intonation patterns in the functions so far described. Accuracy is more difficult to achieve when intonation has an attitudinal function. In this case, intonation is not changing the grammatical function of the sentence, nor is it disambiquating its structure. It is rather adding something to the meaning already conveyed by grammar and lexis. Typically,what is added involves the attitudes and emotions of the speaker towards his subject matter, towards the hearer and even towards himself. By selecting the place of the nucleus, the type of pitch movement and the overall contour of the sentence, the speaker displays emphasis, doubt, surprise, determination,

shock, sarcasm, incredulity and so on in varying degrees and within a variety of nuances, which are not often difficult to understand but usually very difficult to describe exactly (Wilkins,1972:43). Consider the different ways of saying a mono-syllabic word "Yes" :

Yes ↘	That's so	--	I agree (statement)
yes ↝	Of course, it is so	--	Definetely Yes (emphatic)
Yes →	Yes,I understand that please continue	--	I'm listening..
Yes ↗	Is it really so?	--	Did you say "Yes"? (asking for repetition)
Yes ↘	That may be so	--	Possibly yes (doubtful)
	(Jones,1972:277)		(Ladefoged,1971:85)

As it is seen, the total meanings are not the same and we do not use them in exactly the same situations. If you imagine the different contexts in which each may occur, it is understood how difficult it is to generalize about the meaning of a particular intonation pattern (O'Cannor, 1973:264). Besides, it can be seen that the interpretations of the writers mentioned above are not even the same for the same utterance.

Jackson(1980:51) also agrees that part of the difficulty is that the same intonation pattern may have different meanings or signal different attitudes in different contexts . Jackson finds thisaspect of intonation probably the most difficult of all to characterize since it seems that there is not a handy

or agreed list of labels to apply to different attitudes. For example, it may be difficult to characterize the differences between the folowing utterances:

That's ˋfine (falling)-? matter of fact

That's ˏfine (rising)-? encouraging

That's ˇfine (falling-rising)-? What have you been worrying about.

In short, as Wilkins(1972:43) asserts, it would be safer to say that the meaning of an English intonation can only be determined accurately when taken with the sentence with which it is used and indeed with the entire linguistic and situational context.

In some cases, both grammatical meaning and attitude are conveyed by the intonation pattern alone as seen in the following example (Hubbard et.al.,1983:220):

A : I'd like a drink

B : a) You ⌈ would?

(simply a conversation oiler, that has the additional function of asking for confirmation of the statement. Besides, it may imply the speaker's surprise to what s/he hears)

B : b) You ⌊ would?

(Here annoyance and criticism is conveyed. The implication is: "Well, that's just typical of you. You always want a drink".

In determining the attitudional function of intonation the role of nucleus, especially the type of nucleus, is great. The type of nucleus may be falling, rising-falling, or vice versa, falling, or low-rising, etc. which are briefly known as "tune movements". For example, if GOOD MORNING is uttered by a high-falling nucleus it means a bright cheerful greeting whereas it is a routine, perfunctory greeting if it is uttered by a low falling nucleus.

Roach (1983:139) explains his views on this function as in the following:

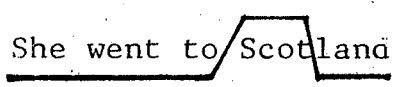
> "The notion of "expressing an emotion or attitude" is more complex than is generally realized. Firstly, you will use different voice qualities for different attitudes, your pitch movements will be appropriate, it is very likely that you will use different facial expressions and even gestures and body movements. These factors are all of great importance in conveying attitudes and emotions besides using a suitable nucleus"

As it is clarified above, the attitudinal use of intonation is something that is best acquired through talking with and listening to English speakers. It may take time to teach it but the learners may be trained at least in order to make them more aware and sensitive to the way native English speakers use intonation.

2.2.4. DISCOURSE FUNCTION OF INTONATION

How intonation may be studied in relation to discourse can be identified in 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 one is concerned with the regulation of conversation behaviour.

I) Highlighting the Focus of Meaning: Attention focusing can be achieved by placing the nucleur stress on theappropriate syllable of one particular word in the tone unit to demonstrate that it is the most important unit of the sentence as seen in the following sentence:



Thus, it seems more appropriate to describe nucleur stress placement in terms of "information content" (Roach,1983:148) or "information structure" (Halliday cited in Lyons,1970: 162). As Halliday defines, this is an aspect of the textual organization of language which refers to the organization of a text in terms of the function "given" and "new". That is, the emphasis on the focus word highlights the contrast between new and old information. All languages may have one or more ways to show this difference but English relies on intonation (Gilbert,1984:28). Intonation can signal to the listener what is to be taken as "new" information and what is already "given"; can suggest when the speaker is indicating some sort of contrast

or link with material in another tone unit; and in conversation, can convey to the listener what kind of response is expected.

As a conclusion, learning to hear the emphasis on the focus word is both difficult and important. Students miss spoken signals of contrast with something said or assumed previously. When they learn to notice this intonation signal and recognize the implications, they make a major step forward in listening comprehension.

II) The Regulation of Conversational Behaviour: Intonation is important in the conversational interaction of two or more speakers. Intonation is used 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, in short, to regulate the conversational behaviour. For example, the difference between falling and rising intonation on question tags is supposed to indicate to the listener what sort of response is expected.

2.3. INTONATION CONTOURS

Lado (1961:117) states that the human hearing and speaking mechanism is highly sensitive to differences in pitch. Demirezen (1986:117) explains the situation as follows:

> "Pitch is the capture of speech by the human hearing mechanism in fluctuations of ups and downs of vibrations

which create relative pitch that gives four differentiations in the formation of words":

/1/ Low pitch phoneme
/2/ Normal pitch (or mid pitch) phoneme
/3/ High pitch phoneme
/4/ Extra high pitch phoneme

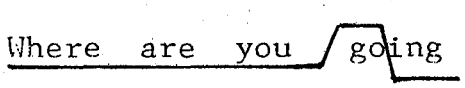
These four different levels of pitches,otherwise known as relative pitches,are heard in a movement of rise and fall as different configurations of the vocal tract. The pattern of the pitch change over the word group is usually termed on INTONATION TUNE or CURVE or CONTOUR (Brosnahan & Malmberg, 1970:153).Intonation contour are widely used in languages to mark or assist in marking different categories of word groups.

In the question below, pitch phonemes are given numbers rather than names:

2 3 1
Where are you going ?

This would indicate that the sentence begins on the second pitch level (normal pitch), rises to the third (high) on the first syllable of GOING and falls to the first (low) on the second syllable of GOING.

Some linguists (e.g. Roberts cites in Dean and Wilson, 1959:183) find it a little easier to show pitch by lines rather than numbers for general purposes:



Thus, the pitch movement in the same question can be represented

in a way which is more iconic (Abercrombie,1967:131).

As it is illustrated above, four levels of pitch are marked in different ways by different linguists, some use 1 for the lowest pitch, some use 1 for the highest pitch. Some use lines, some use arrows or some use both lines and numbers together to reinforce lines, but this is merely a matter of naming and one way is as good as another from this point of view (Pike,1958:25 ; Finocchiaro,1964:22 ; Darbyshire, 1967:86).

These four relative levels serve as the basic building blocks for intonation contours and they are enough to distinguish all of the Contours which have differences of meaning (Pike, 1958:25). However, the absence of a standard notation and the lack uniformity in symbols used for intonation has tempted many linguists to devise a personal notation which best fits their analysis. Yet, Carrell and Tiffany (1960:264) suggest that some system of notation seems desirable to help a student in learning English as a foreign language.

2.4. PITCH TERMINALS

As it is defined above, linguists recognize "intonation contours" by referring to four pitch levels (low, mid, high and extra high) and to three directions in which pitch may move at the ends of sequences of pitches - (1) falling, (2) rising and (3) level (Darbyshire,1967:86).

Therefore, it is important to consider not only the pitch level of each syllable but also the inflection which is used to describe the end of the utterance. Inflection may be indicated by the symbols [↗] , [↘] or [→] depending upon whether the voice at the end of the rises in pitch, falls off in pitch or remains level.

These symbols are given different names by linguists. Paulston and Bruder (1976:93) call them "clause terminals" while Pyles and Algeo (1970:65)address them as "pitch terminals'. They are named as "clause boundries" by Hall (1964:115) and defined as "terminal junctures" by Ertunç (1976:94).

There are three types of terminal junctures which differ from one another in the way the voice is cut off at the end of a word group or an utterance.

a) When the pitch falls at the end of a word group and the voice fades off into silence, the terminal pause is called a FALLING TERMINAL JUNCTURE. The terminal ↘ seems to tell the hearer "this is the end of at least this part of what I have to say". Hence ↘ often (though not always) comes at a place where a period is written in our conventional punctuation; it is often called "period juncture" or (from the shape of the symbol / # / double-cross juncture. (Hall,1964:115-116)

^{2}Stop ^{3}talking^{1} #

$_{2}$Where is the $_{3}$pen^{1} ↘

As it is seen above, this terminal is often used with /231 ↓ / pattern.

b) When the pitch rises just before the end of a word group, the terminal pause is called RISING TERMINAL JUNCTURE and is represented by / ‖ / or /↗/. It is also called "double bar juncture" from the symbol or "question mark juncture" because mark indicates "I want you to say someting in reply".

$_{2}$Is he a $_{3}$teacher^{3} ‖

This terminal is often used with / 233↑ / pattern.

c) When the pitch stays level at the end of a word group, the terminal pause is called a SUSTAINED TERMINAL JUNCTURE or SINGLE BAR JUNCTURE from the symbol /|/ used to represent it some linguists use [→] to indicate it and it is often termed "comma juncture" because it frequently corresponds to a comma in punctuation and seems to tell the hearer: "there is something more coming".

$_{2}$Mr. $_{3}$Black$_{2}$ | $_{2}$the $_{3}$boss$_{2}$ | $_{2}$wants to $_{3}$see $_{2}$you$_{1}$ #

As it is seen above, this terminal is often used with / 232→/ pattern.

2.5. INTONATION PATTERNS

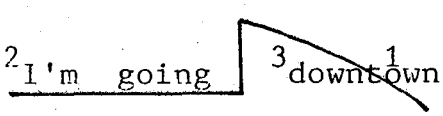
The intonation patterns of English utterances are describable in terms of sequences of relative pitch levels organized into intonational contours, each followed by one of the three terminal junctures. Hence, by definition, it is said that "a sequence of pitch phonemes and a terminal juncture is called an "INTONATION CONTOUR or PATTERN" (Ertunç,1976:94). As a result, every word group in an utterance has an intonation contour.

Native speakers of English make use of a relatively large number of intonation contours of which there are two main intonation patterns which beginner and intermediate level learners are advised to concentrate on in learning English.The following are the most commnly used patterns (Finocchiaro, 1964:23):

2.5.1. RISING - FALLING INTONATION

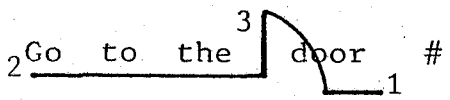
/ 231 /,/ 3 - 1 /,/ 232 / or / 221 / which is not very common

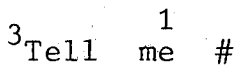
a) Statements (Affirmative or Negative)



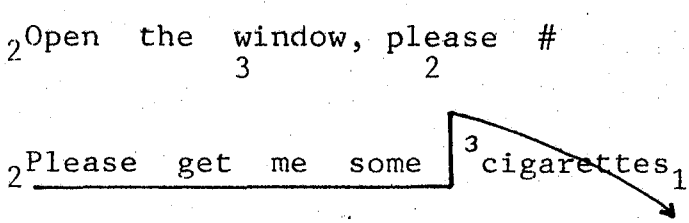
^{2}I'm ^{3}fine, thanks ^{2} #

b) Commands



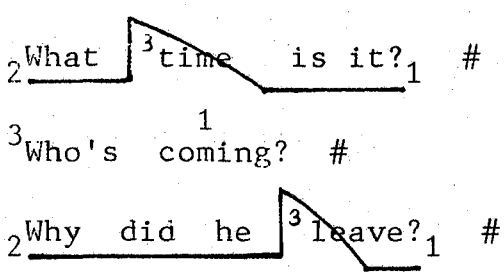


or Requests



c) Question Word Questions (Wh. Questions)

(Questions which begin with a question word such as: What, Who, Which, Whose, When, Where, etc.)



As it is seen in the last pattern, when the word on which there is stress, is the last word in sentence and is a one-syllable word, a diagonal line is used to show that the voice glides from one position to another (Paulston and Bruder, 1976).

d) Attached Questions (When we are not asking for information)

$_2$He didn't ^{3}go ^{3}did he $_1$ #

2.5.2. RISING INTONATION /233 ‖ / or /23/

a) Yes/No Questions (Questions which can be answered by Yesor No)

^{2}Do you ^{3}remember ^{3}me ‖

^{2}Are you going ^{3}home^3 ‖

$_2$Is he ^{3}there

In sentences with rising intonation, everything that follows the rise (the stressed syllable) is also pronounced on the high pitch or level.

b) Questions Constructed Like a Statement

^{2}She went to ^{3}school today ‖

^{2}This bus goes to ^{3}town ‖

$_2$You're not ^{3}ready ‖

$_2$It's time for ^{3}class ‖

c) A Subordinate Clause Preceeding a Main Clause (When the speaker wishes to create suspense)

$_2$When ^{3}you ^{3}come ^{3}back ‖ ^{2}I'll ^{3}go ^{1}home #

d) Alternatives with OR (Rising Intonation Contour is used for all except the final alternative)

$_2$Do you want ^{3}tea ‖ ^{2}or ^{3}coffee^1 #

$_2$Do you want an ^{3}apple^3 ^{2}or a ^{3}pear^1 ↓ (Choose one!)

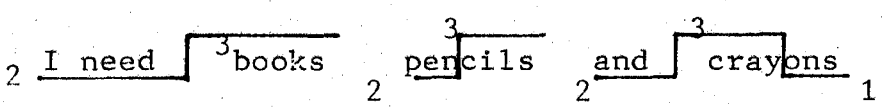
$_2$Do you want an ^{3}apple^2 ^{2}or a ^{3}pear^3 ↑ (Yes or No)

The last choice is also possible because the intonation contour stated here are by no means strictly to be followed since there are still other chocies to be adopted.

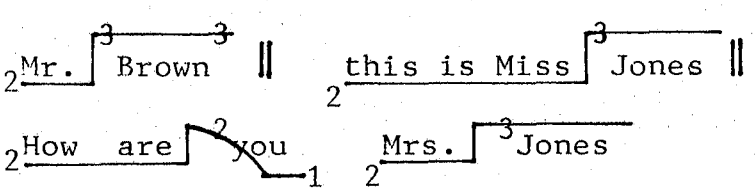
e) Series with AND

All the members of the series except the last are pronounced with the rising intonation pattern. The indication in expressing series of things: /223 ↑ /

$_2$He can speak $_3$English$_3$ ‖ $_3$French$_3$ ‖ $_2$and $_3$German$_1$ #



f) In direct address and in introductions



g) Tag Questions (when the speaker asks for information)

$_2$He's a ^{3}teacher^2 $_2$isn't he^3 ‖

$_2$He didn't ⌈^{3}go $_2$did ⌈^{3}he ‖

h) Mother's special calls for children /322↓/ or /223↑/

$_2{}^{2\ 3}$Mary ↑ $_3{}^{3\ \ 2}$Stephen ↓

or

$_2{}^{2\ 3}$Jason ↑ $_2{}^{2\ \ 3}$Stephen ↑

2.5.3. LEVEL INTONATION /232/ ⟶

It signals incompleteness and is generally followed by a pattern /231↓/

a) Initial grammatical unit

$_2$In ^{3}sum^2 ⟶

$_2$Since ^{3}1985^2 ⟶

$_2$If you ^{3}wait^2 ⟶

b) Statements wherein the speaker intends to say something like (but)

$_2$She's a nice ^{3}girl^2 ⟶ (but ....)

$_2$You may think^{3}so^2 ⟶

c) Word groups preceding an address

$_2$This is my $_3$friend$_2$ ⟶ ^{3}mother$_2$

d) A subordinate clause preceding a main clause

$_2$If you leave $_3$now$_2$ $\longrightarrow$ $_2$you can $_3$see him$_1$ #

e) The part of a compound sentence preceding the conjuction

$_2$Ali is $_3$clever$_2$ $\longrightarrow$ $_2$but he is $_3$lazy$_1$

CHAPTER III

REVIEW OF THE LITERATURE

In the first chapter of this study, howintonation teaching was important in foreign language learning was explained inaccordance with some linguists' views. However as it was illustrated in the second chapter, the linguistic aspects of intonation were rather complex in use for the learners and teachers of the Target Language. For that reason, it was aimed to design this chapter mainly by the suggested methods and techniques for teaching intonation to the foreign language learners. The lastpart of this chapter will cover the instrumental or observal studies, experiments or a number of research into the perception and production of intonational sentences in the process of language teaching.

3.1. SUGGESTED TECHNIQUES FOR TEACHING INTONATION

In this part of the study, some of the techniques used in intonation teaching so far will be presented.

Lado (1964:80-84) says that teaching intonation begins with a model for perception since the goal is to teach the students to hear and speak through a foreign sound system. Teaching perception precedes teaching meaning. Lado warns teachers against teaching the entire intonation system and suggests them to select a problem and teach it. He wants teachers to be aware of not distorting the system in the attempt to simplify it. They may prefer grading the material by selection rather than by distorting.

Hill (1967:77) claims that a student cannot absorb intonation and stress merely by random listening to his teachers or to his fellow students. Also, a teacher cannot teach intonation unless he goes about the task purposefully and systematically. According to Hill, a teacher must have full control of his own stress and intonation so that he is consistent in his use of patterns. Otherwise, students will naturally be confused and will never learn correct and natural intonation or stress.

Brown (cited Allen & Corder,1974:56) agrees with Hill and reminds that the teacher must be careful about teaching intonation. That is, a teacher who is demonstrating to the students must speak at normal speed and with normal intonation. If he disturbs the natural speed of intonation, students will learn wrong habits from the very beginning. Students copying such a slowed down version of English will learn an extraordinary brand of English which is never spoken by native speakers.

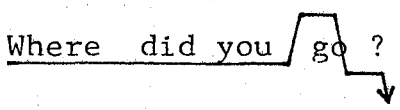
For that reason, Brown suggests that the problem may be overcome by the use of tapes of native speakers at normal speed.

Dubin and Olshtain (1977:86) share the similar opinion about teaching intonation. They propose that sentence intonation and rhythm are best practiced as parts of the grammatical structures taught at each point or throughout the course. Care must be taken to present and practice new grammatical structures with a natural intonation without slowing down or overnunciating elements in the structure.

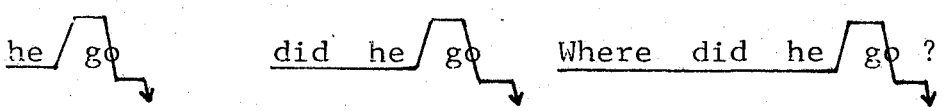
Of course the teacher is an important model in the process of teaching intonation. Moreover, the following techniques proposed by many writers will provide teachers insights on the present subject.

Finocchiaro (1964:56) believes that intonation should be taught by imitation of many similar sentences. She recommends that teachers deal with only two basic intonation patterns, the rise-fall intonation and the rising intonation. In her opinion, it may be desirable to indicate intonation lines on the board; or numbers 1-4 or to use an upward arm gesture to show rising intonation and a downward arm movement to show falling intonation; to place up or down arrows (↑↓) at the end of the utterance; or to place curved arrows (↗↘) over the words having the highest or the lowest pitch or whatever helps the students. She concludes by saying that any of the techniques for indicating intonation will help. Combinations of the techniques are even more helpful.

Robinet is also one of the others who are in favor of imitation in intonation teaching. In her book "Teaching English to Speakers of Other Language" (1978:103) she offers imitation as the most successful technique for teaching intonation. She does not deny the help of mimicry and the use of gestures (arm movements) which are the reinforcement of mimicry She explains her technique by giving examples. In one of them, she suggests using cumulative "backward build up" if -for example- falling intoantion is difficult for students to imitate. Especially, in Wh-questions;



Students can be asked to produce the question working backwards:



Furthermore, she proposes that teachers should not dismiss students from the classroom until that which has been practiced is produced in normal conversational style and students should be given the opportunity to produce the material in mormal intonation.

Peter Mac Carthy(1978:47) feels sorry that there are not enough observations on the subject of intonation and emphasizes that even native speakers of English need to direct their attention to this important parameter of a spoken

language. He offers a straightforward imitation model for intonation learning. He doesnot deny mechanical repetition through recorders.

Besides, he suggests that teachers should deal mainly with typical intonation patterns of the foreign language that the learner fails to reproduce from imitation and any characteristic usages that the learner brings from his mother tongue which sound wrong when introduced into the foreign language. However, as conclusion, he covers his suggestions by saying that he is, infact, in favour of copious ear training practice by the help of visual signs.

Hubbard et.al(1983:221-26) are positive about the use of gestures, arm movements and blackboard in teaching intonation as he conducts a choral structure drill. The use of blackboard is also suggested for the non-text stage. For the text stage, the teacher may use a sign system over the text, either on the blackboard or on a stencilled handout with exercises for intonation.

The teaching of intonation in the early stage, as for Hubbard et.al., should concentrate on the grammatical and not the attitudional function.

As it was explained above, Hubbard et.al. (1983) think it isappropriate to teach intonation in two stages: non-text and text stage. On the other side, Paulston and Bruder (1976:106)

try to teach intonation in three steps: presentation, recognition and production. During these steps, the main aim is that the students understand exactly what the teaching point is and that they have the necessary linguistic information for meaningful practice.

At the presentation and recognition stage, Paulston and Bruder (2976) offer theories about using tape recordings, graphic symbols and some contrastive exercises for understanding the discrimination between different intonation patterns.

At the production stage; they propose some kind of dialogue material in which the suggested technique focuses on intonation to convey the meanings and the rise and fall of the voice. At advanced levels, the students can be given dialogues marked for the emotion to be conveyed and later unmarked dialogues for which they must deducethe intonation patterns from the contrast and context as suggested by Higgins and Lewis (cited in Paulston & Bruder,1976:109).

Brita Haycraft is one the writers whose suggestions are put into application by many of her fellows. In her book "The Teaching of Pronunciation" (1971), she not only explains the importance of intonation in language teaching but also presents may techniques, exercise types for every level learners of intonation, Some of her techniques were used and described within the scope of this study.

Tench (1981:96) assumes that many teachers do not deal with intonation since they feel that intonation is unteachable because of its complexity or intangibility. He considers that most teachers are unaware of its forms and fuctions and, consequently, are unaware of its importance. For that reason, in his book, he presents an introduction to the structure of intonation, its functions and a quide to teach it.

In his opinion, intonation is systematic and should be handled systematically. A teacher should bear three principles in mind with respect to intonation. Firstly, he should try to establish accurate imitation of intonation right from the beginning. Secondly, a teacher should use the more normal intonation forms in initial practice and leave the refinements till later. The third principle is that a teacher should introduce a new intonation form carefully and deliberately and not randomly or accidentally. In other words, the teaching of intonation should be as planned as every other part of language teaching. The teacher should try to introduce new intonation forms only where he begins a new chapter or dialogue.

Tench also approves a kind of ear-training exercise used in intonation teaching by which the teacher can practice the same/different identification in intonation.

Roberts (1983:213) is in favour of teaching intonation with functional materials. He is not content with the texts

in some of the course books which render inappropriate attitudinal stress and intonation options. Indeed, the objective of these course books must be to give learners opportunities of producing attitudinally appropriate utterances. For that reason, Robert's wish is the co-operation of the teacher and the course books to provide practice in recognizing and manipulating variations related to attitude. In this method learners appreciate the factors that affect language use in social contexts. All students, thus, have to be helped to recognize that there is a connection between function and attitude.

Brazil et.al. (1980:101) also share Robert's ideas in the use of functional materials. They say that it is important for a teacher to use recordings, or, it is recommended, producing the context sentence or dialogue himself, to be aware of the relationship between context and the model sentence and of the meaning-changing significance of different key selections, other wise, a teacher is likely to increase rather than reduce the students' confusion.

Tumposky (1982:111-115) suggests some teaching clues of intonation and classroom activities prepared especially for an in-service training course for Itailan state-school teachers of English. Although these activities were developed for a very specific learning environment (with consideration for the students' age, nationality, intersts, needs, hours per week,

availability of text-books and tapes etc.), she suggests that these activities should be used in other countries or in different learning situations.

Tumposky, besides giving suggested activities for teaching stress, is also concerned with intonation teaching. She recommends teaching intonation by keeping the same principles in mind as when teaching grammar or vocabulary. According to these principles she advises teachers to present intonation in meaningful context.

She also emphasizes the use of a tape recorder in class. If a tape is available, it is a good idea to record students performing a brief dialogue; students can record, listen and rerecord with better intonation.

As a conclusion, she says that errors in stress and intonation are more likely to impede communication and teachers must give high priority to these features of the spoken languages.

3.2. STUDIES AND EXPERIMENTS ON TEACHING INTONATION

Watanabe (1977), a university teacher in Japan, tries to apply the systematic teaching of English stress and intonation which, he believes, is lacking in Japan. He accepts that teachers of English in Japan have not, in the past, done full justice to the teaching of stress and intonation. For that reason, intonation is almost disregarded in oral reading, although pupils are given far more opportunities to listen to

native speakers' English. As a result, Watanabe writes about the techniques of teaching intonation at university level which he has put into practice during the last few years. His article (1977:159) tells of a course offered to students who wanted to improve their flow of speech in English. How he taught stress and intonation-starting fromteaching tones to the relation between tones and grammatical patterns- is presented in the article.

Currie and Yule (1982:228) complain that the teaching of intonation is not often taken to be one of the primary responsibilities of the English language teacher. In many teaching situations, the assumption is that if the syntax and lexisare mastered, then aspects of the phonology will follow. On the other hand, there are some institutions which try to improve the spoken English of their students and include the teaching of intonation in their programs. However, Currie and Yule think that teachers are unfortunate since the models of intonation such teachers have to work with are those of Crystal and Halliday. These models are neither simple nor easily accessible, and involve very lenghty explanations.

As a conclusion, Currie and Yule propose a basic model for the teaching of intoantion and they present examples about how a system of intonation based on a recognition of stressed versus unstressed syllables can be used as a teaching model (Pike,1946:35). They believe that "a return to fundamentals

in the system is not only theoretically advisable, but will be welcomed by many teachers who may have found themselves doubting their own intuitions when trying to apply some of the extremely complex models available".

Currie and Yule argue that a practical basic model of intonation needs not to be complex at all. The model can be used by teachers of grammar and vocabulary but also by anyone who wants to give their students a basic contour system. For more advanced students, the model can be developed to show how the intonation system serves many functions and correlates with syntactic and discourse functions.

On the other hand, de Bot (1981) challanges the traditionally distinguished two levels in the teaching of English intonation. In his paper he also attempts to show audio-visual feedback is effective in intonation learning (1983:331).

Firstly, he defines the two levels of which the teaching of English intonation was conserned so far: the first level aims at improving the auditory perception of the second language learner by which he learns to perceive pitch in speech, especially when the pitch patterns of second language differ fundamentally from first language patterns.

The second level, which is particularly associated with names like Kingdon, Palmer and Halliday, aims at describing and teaching English intonation by means of "tones; parts of sentencesconsidered as whole for grammatical and/or perceptual reasons.

de Bot asserts that, over the last few years, a number of methods and devices have been developed with the aim of facilitating intonation learning and teaching. These devices aim at presenting the learner with specific information on intonation patterns in speech. The information that is fed back can be presented auditorily and visually. These devices developed so far supply visual feedback about intonation.

In order to test the availability of such a device in intonation teaching, de Bot carried out an experiment to assess the relative influence of visual versus auditory feedback on the learning of intonation. 63 students of the Dutch Department and Department of Education of the University of Nijmegen participated in this experiment having pre-test and post-test at the end. There were 6 groups, some of them have only the tests, the others have tests beside instruction and the rest have tests, instruction and practice either by audio-visually or only auditorily. The results show a significant effect of audio-visual feedback over auditory feedback, whereas practice time does not seem to be a major factor. It would appear that feedback modality influences learning behaviour.

de Bot and Mailfert's other article concentrates on the "Teaching of Intonation" (1982:71). In that study, they carry out two lines of research : in the first, one group of researchers tries to determine the most relevant aspects of intonation in order to inform learners about what is redundant and what is not. The second group aims at developing devices to make the perception of intonation easier. The work of this group results in several devices that provide auditory and visual feedback of intonation (listed by de Bot,1980 ... One of them is used by de Bot (1981) in the experiment described above.

In the first resarch, a group of researchers finds that most language learners without a linguistic background have no idea what is meant by intonation. So, they provide the learners with the relevant information about intonation. Their results show that four aspects of pitch change (direction/ range/speed/place) are perceptually relevant.

Experiments using visual feedback is designed later, (A full description of these experiments is given in de Bot, 1981) and show that training in the perception of intonation results in a statistically significant improvement in the production of English intonation patterns.

The materials used for the experiment are then adapted for the different teaching situations and applied in Kodak-Pathe's Incompany English Courses in France. Results tend to confirm the Dutch findings.

However, for increasing sensitivity to pitch changes; hand signals, larger body movements, slide whistles, echoing, and visualization with aid of some very expensive hardware are found to be more useful by the subjects who joined to the experiment.

According to de Bot and Mailfert, it is unfortunate that the great majority of teachers are unable to exploit the potential of electronic feedback devices which compare the learner's attempt at production with a model.

Berkovits (1984) undertook a perceptual study on intonation. He had two groups: one of English dominant subjects and a second of Hebrew dominant subjects who are timed on their responses to tones at the end of complete and incomplete sentences in both languages. They identified each utterance as either "finished" or "unfinished".

Berkovits (1980) investigation includes two experiments which differ in the extent to which attention is drawn to intonation. In Experiment -I, subjects identify sentences as either "finished" or "unfinished" in a forced-choice decision whereas no explicit attention is called to intonation in the second.

In summary, the study explained above, examines the relationship between syntactic and prosodic cues in the perception of sentence final intonation. The result indicate

that few errors are made in identifying sentences as "finished" or "unfinished" in Experiment-I and this would seem to imply that perception of sentence final intonation is not a function of language dominance. In Experiment-II, the subjects reported nothing unusual about the sentences but respond more slowly to incomplete sentences.

Another of Berkovits' experiment is also on the perception of intonation in native and non-native speakers of English (1980). This was to investigate if non-native speakers of a language were sensitive to intonational cues. Groups of native and non-native speakers of English listened to recordings of constituent structure ambiguites read with intonation patterns appropriate to either the more probable or less probable interpretation. The subjects of Experiment-I undertook a paraphrase/translation task in which attention was called neither to the ambiguity nor to the intonation.In Experiment-II, subjects were warned of both these variables and were asked to identify which of the two readings they heard. The results indicated that native and non-native speakers can make use of intonation if they explicitly listen for it, though prosodic features are generally ignored when other cues (e.g. semantic and pragmatic) are available.However, this experiment does not preclude differences in the perception of other aspects of intonation.

Uldall's paper (1960:324) describes experiments in which Osgood's "semantic differential" -the attitude measuring technique-

is used to measure the attitude of listeners to a variety of intonation patterns. This experiment consists in presenting the same sentence, with differing 16 pitch contours imposed upon it synthetically to a set of subjects. These differing contours are applied by synthesis to recordings of four sentences; a statement, a "yes or no" question, "a question word" question and a command. Then, listeners are asked to rate the patterns with respect to ten scales of the type BORED/INTERESTED-POLITE/RUDE and so on. Synthesized speech is essential in order to be quite sure that all features expect the intonation remain thesame while the intonation varies. No attempt is made to provide a context of situation for any of the sentences. From the results, it is possible to draw some conclusions about some general features of the intonation patterns which have particular weight with respect to three factors: pleasant/unpleasant, interest/lack of interest, andauthoritative/submissive.

3.3. SUMMARY

It has been apparent that, for more than 20 years, many linguists have discussed and tried to improve the ways or teaching techniques for intonation learning. These techniques were put into application in the classroom but only some of them found to be practical, expedient and relevant to the circumstances in which most teachers worked.

Due to the consideration of wide variety of techniques used in intonation teaching, some writers appeared to be in favour of imitation, using gestures, mimicry or visual signs drawn on the blackboard [Finocchiaro (1964); Robinet (1978); Mac Carthy (1978)]. These techniques have been supported by mechanical repetition through recorders so as to improve perception of the learners.

However, there was another group of writers who claimed no success could be achieved unless teachers went about the task purposefully and systematically. They asserted that just listening and imitation could not be enough for teaching intonation but intonation had to be studied more functionally with an appropriate context. This technique suggested to be developed by classroom activities and various exercise types. [Haycraft (1971); Paulston & Bruder (1976); Brazil et.al.(1980); Tench (1981); Tumposky (1982); Roberts (1983); Hubbard et.al. (1983)].

Furthermore, in the second part of this chapter, many experiments were demonstrated which were performed to test the effectiveness of different techniques on teaching intonation.

CHAPTER IV

THE RESEARCH METHOD

4.1. RESEARCH DESIGN

This is an observational and comparative study. It reports on the results of an intonational study comparing two groups' perception and productionof"English Question Patterns".

The subjects -chosen randomly- were divided into two groups; an experimental group and a control group. The Experimental Group was exposed to a course of intonation teaching (Appendix- B for a course outline) while the Control Group had the absence of systematic instruction on intonation. However, the subjects of this group were also subjected to perception and production tests in order to provide data for the control condition.

Finally, all subjects were tested again after administering the experimental condition to provide data about the effect

of the experimental treatment. Perception and production tests were designed according to Lado's proposed "Techniques for the Testing of Intonation" (Language Testing,1961:123) in order to observe subjects' improvement in their perception of and production of the different intonation patterns presented. The production process was completed and recorded by voiscope.

4.2. VOISCOPE

One of the great problems of phonetic investigation is to measure the frequency of vibration of the vocal cords in speech.

People use intonation when they speak by a continous change in the rate of vibration and this is perceived as a pattern of pitch rise and fall, but it is difficult to derive the precise frequency at any instant by instrumental means from the acoustic signal or from pressure transducers applied to the body surface.

The voiscope is especially designed for speech teaching because the pitch patterns are displayed on an oscilloscope screen within four seconds as a complete and steady contour (Appendix- C). By this process speech production can be improved by correcting voice quality and prosody by the help of a visual display, the Voiscope.

Voiscope works with speech in two main ways; that is, two oscilloscope displays are used (Fourcin & Abberton,1973).

The first is the larynx closure waveform (Lx) which gives information about the presence or absence of voicing and about vocal register and phonation type.

The second is a stored logarithmic display of fundamental frequency (Fx) derived without smoothing from Lx.

These contours provide information about voice quality, clearly defined intonation contour results in a clear Fx line.

In this study, the voiscope was used to record the intonation patterns displayed on the screen during subjects' production test. The representation of patterns were maintained by two special electrodes placed on the neck of the subjects. These were connected to the voiscope and the Voiscope to an oscilloscope which displayed the laryngograph waveform. When the subject uttered the statement, a visual pattern appeared on the screen and then was recorded on as a hard copy within a minute.

4.3. SELECTION OF SUBJECTS

28 students of Anadolu University participated in this study. At the time of data collection, they were the second year

students in the English Department at the Faculty of Education. The majority of them were between the ages of 19 and 21. The subjects had taken a phonetic course in their first year in the faculty. Amoung 28 students, 14 subjects were randomly selected as an Experimental Group and the other 14 were designated to be the Control Group.

4.4. DATA COLLECTION AND DESCRIPTION OF TESTS

The main problem for students learning intonation is that they can not react readily or accurately to whether or not an intonation is the same as or different from another. Students may be tested on perceiving the differences in intonation through understanding of spoken sentences.

Lado(1961:123) suggests some perception techniques on three major levels:

a) through comparison of intonation with intonation without recourse to any specific meaning,
b) through identification of an intonation by means of some written representation,
c) through meaning.

Among them, the first perception technique was adopted in this study. The others were not applicable since the subjects have neither been required to learn writing intonation in English nor is this study primarily dealing with attitudinal meaning of intonation.

On the other hand, the second aim, to test subjects' intonation on a production level, that is, the general technique is to elicit utterances from the student and to determine by observation where the intonation fails. There are various ways to elicit spoken utterances and of grading the responses. As Lado(1961:134-135) proposes, the utterances may be deduced by some of these methods:

a) Conversational stimuli,

b) Picture stimuli with accompanying instructions,

c) Retelling something just read,

d) Reading aloud as an intonation test.

These suggested techniques depend on verbal stimuli but they have some disadvantages since their evaluation depends on the audio perception of the examiner. It is known that even a sharp, educated ear has difficulties to detect the intonational mistakes made by the subject (Selen,1985: 162). For that reason, it was decided to test subjects' production by Voiscope which is an objective measuring device for scoring the responses.

4.4.1. THE PERCEPTION TEST

The Perception Test, which was applied to both groups, consisted of two different processes one with the pair sentences and the other with the triplets.

In Perception Test-I, 17 pairs of sentences without any specific meaning given were selected from various reference books on intonation and repeated at least four times in order to measure subjects' consistency on perception. For that reason, in the Perception Test-II, 15 triplets of sentences were recorded with their alternative intonation tones by the repetition of each triplet six times at short intervals.

68 sentences in the first test and 90 sentences inthe second were recorded on a tape beforehand by a native speaker of English, Dr. Jonathan de Berkeley-Wykes, either by a rising or a falling tone.The utterances of both tests were especially chosen without any specific meaning in case that subjects might be affected by the emotional interpretation of them.

In the first test, the pair sentences were read by the same or different intonation. The examiner's voice presented two utterances and asked the students to state whether or not the utterances were the same as to intonation. Before the test started,as an oral instruction, it was emphasized that the comparison of the intonation was as distinct and seperate from the words and the segmental phonemes to prevent subjects limiting themselves to the sound segments. Subjects were, hence, warned against the utterances that had different segmental phonemes yet were the same in intonation, and for the utterances that were the same as to segmental phonemes but different in intonation. For example:

ITEM	EXPECTED RESPONSE
1) It's an animal ↑ He's a student ↑	Same
2) Was he mad ↑ Was he mad ↓	Different
3) What time is it ↓ It's two o'clock ↓	Same
4) What are you doing ↑ How old are you ↓	Different
5) It's an animal ↓ He's a student ↑	Different

Lado (1961:125) warns that this technique is linguistically sound but statisticallylimited to only two possible answers, with the result that wild guessing may affect the scores heavily. To overcome this statistical limitation, in the second Perception Test of this study, triplets were used instead of pairs.

Here, the subjects were asked to write the number of the sentences that were the same in intonation, regardless of the words. The triplets always had one utterance with a different intonation and it was hoped that this application might effectively reduce the influence of wild guessing.

For example:

	ITEM	EXPECTED RESPONSE
1)	a) What time is it ↑	
	b) It's ten o'clock ↑	A,B
	c) Is it ↓	
2)	a) Go to your room ↑	
	b) I'll go to my room and cry ↓	B,C
	c) Don't go ↓	
3)	a) What time is it ↑	
	b) It's ten o'clock ↓	A,C
	c) Is it ↑	
4)	a) The coffee is hot ↓	
	b) The coffee is hot ↑	B,C
	c) I'd like hot coffee ↑	
5)	a) Who's coming ↓	
	b) Are you coming ↑	A,C
	c) You're coming ↓	
6)	a) What time is it ↓	
	b) It's two o'clock ↓	A,B
	c) Is it ↑	

For the Perception Tests, two answer sheets -one for pairs,and one for triplets- were given to the subjects to mark out their responses after they have heard the presented utterances through a tape recorder-player. The answer sheets were prepared by the examiner before the test started. In order to increase the subjects level of alertness, a signal

was heard as an attention marker before each new pair or triplets. The interval between each pair or triplet was arranged as 4 or 5 seconds in order not to make the subjects get bored with the successive sequence of the utterances. (Sample answer sheets and the perception tests are given in Appendix D)

4.4.2. THE PRODUCTION TEST

In performing this test, the most important thing is that the production test must include the problems that are going tobe tested. Hence, the first thing to be done was to prepare anaccurate list of the problems of the subjects in learning intonation. Since main concern of this study was to test subjects' intonation of question patterns, questions of different types were selected from a practice book (Thomson, 1981).

The number of selected questions was 14. 5 were Yes/No Questions, 5 were Wh. Questions, 2 were Statement Questions and the other two were Question Tags. Some of the questions also included Alternative Questions.

These questions were not presented as isolated patterns but in short dialogues since our aim students' learning intonation not only in theory but also in use. So the subject might emancipate his/her emotions and use the melody of speech

as required. Also he/she might be able to guess the intonation of the questions according to the context (Appendix E).

28 subjects were called one by one and each time of performance, they were given seperate cards. On each card, the question they were going to produce was underlined in the dialogue presented. The seperate cards were especially prepared in order not to influence them by the intonation of the other questions.

Production test was performed through Voiscope. When the subject produced the question, he saw the pattern on the screen and at the same time, the machine recorded each pattern on a sheet of paper. The hard copy of the pattern produced by the subject in answer to the question was kept by the investigator (The copy of the questions of Production Test and some of the selected graphed forms of intonation contours will be presented in the Appendix). By this method the subjects of both groups were tested in order to be compared in terms of intonation.

4.5. PROCEDURE OF THE METHOD

14 subjects who participated the method class were the Experimental Group of this study. Although they had taken a phonetic course for a year it was observed that they were still not aware of what intonation was and what its functions

were when they wereput into use in a teaching/learning situation. When the subjects were asked about intonation, they gave examples signifying that they were confused with the terms of stress, intonation and even pronunciation.

The experimenter, a non-native speaker of English, and the subjects joined in the method class whenever they had time apart from their actual faculty courses. The whole course took 12 meeting; each lesson was at least 90 minutes. Each question group taught was presented individually. The consecutive sections reviewed the previously covered points before introducing the new one.

Each lesson was carried out with two tape recorder/ players; one for listening the intonation exercises and the other one for recording students' production. Subjects were handed sheets of dublicated exercises consisting of the new pattern they were expected to learn during that lesson. Also, these materials were supported by visual aids (e.g. blackboard drawings, pictures and some made-up situations).

The teacher controlled, prompted and praised the students throughout the practice as necessary, repeated the utterances several times with the subjects if the subjects had difficulties in producing the patterns. She didnot slow her speech in order not to distort the intonation of the patterns. She avoided concentrating too long on one student to correct him but always

returned to him again to check if he had improved. Sometimes, she undertook the correction with the help of recordings. She could not let all the subjects repeat the same item individually because of the time limitations and also because of the fact that individual incorrect productions might cause perception and production failures. She tried not to overlap with a new item before the subjects felt confident about the previous one.

In short, the teacher encouraged or praised the students' participation or polished their imitation in order to increase their interest in intonation exercises.

In this study, the techniques for teaching intonation as suggested by Haycraft (1971) were followed. Haycraft approached intonation teaching systematically in her book where she studied intonation for beginners (range from to years old to university students) and non-beginners (e.g. foreign teachers taking a refresher course) in two stages: the inital non-text stage and the initial text stage. In brief, the aim of the writer is to show that intonation can be easily taught by some suggested games or techniques without letting students to be discouraged by their incorrect use of intonation (Appendix F).

4.6. DATA ANALYSIS

In the first analysis undertaken, the data base was derived from two Perception Tests, formed of 68 pairs of sentences and 90 triplets of sentences in succession since the data was analysed in terms of correct scores, the highest a student might get was 68 points in the first Perception Test and 90 points in the second.

The scores of the Experimental Group for Perception Test-I are given in Table-I and for Perception Test-II are given in Table-III (Appendix G). The scores of the Control Group for Perception Test-I are given in Table-II and for Perception Test-II are given in Table-IV (Appendix G).

To determine whether the systematic instructions, applied to the Experimental Group, contributed to their perceiving intonational differences both group learners' pre-test and post-test scores were analysed by Student's t test (two tailed) and the results of the two groups were compared at the 0.05 p confidence level.

In the Production Task, the participants were given 14 questions to produce with their appropriate intonation. The scores of both groups for Production Test, before and after the Systematic Intonation Teaching are given to the

Experimental Group, were illustrated in Table-V and Table-VI (Appendix H). Comparing each response with the standard form or according to the deviation from the standard form, subjects were given 1 point for each correct response. Thus , they might get 14 points if they produced all the questions with an appropriate intonation. It has to be considered in mind that attitudinal function of intonation may have an effect on the production of some of the questions. So, it was hoped the subject might guess the intonation of the question from the given dialogue.

To investigate the instructional differences between two groups, student's t test (two tailed) was used to determine if the difference was significant at the 0.05 p level.

CHAPTER V

ANALYSIS OF RESULTS

The specific aim of this study was to compare the Experimental Group – exposed to systematic teaching of intonation and the Control Group which had the absence of systematic instruction,in their perceptive and productive achievement of intonation in English in order to determine if systematic teaching of intonation in Foreign Language Teaching will enhance learning the intonation aspects of the Target Language.

A number of null hypotheses were formulated below according to the questions stated in Chapter I.

5.1. RESULTS OF THE PERCEPTION TESTS

The first question to be answered was: Is there a significant difference within the Experimental Group in perceiving intonational differences before and after exposure to systematic instruction on intonation ?

This question was investigated by testing the following null hypothesis:

H_o = There will be no significant difference within the Experimental Group in perceiving intonational differences before and after exposure to systematic instruction on intonation.

In Perception Test-I (Two-Choice Test), in terms of correct scores, the highest score in the Experimental Group was 66 and the lowest was 46 out of 68 pairs of sentences. In the post-test which was given after the systematic instruction, the highest score was 68 whereas the lowest was 52.

The distribution of the differences between these tests given to the Experimental Group before and after the systematic teaching of intonation is summarized in Table-1.

Table-1
The Results of the t-test showing the Difference within the Experimental Group in perceiving intonational differences before and after exposure to systematic instruction on intonation (Two-Choice Test)

Condition	n	$\bar{x}$	$\bar{D}$	SE	t	critical value	level of significance
Testing Session-I (Pre-Teaching)	14	57.92					
			1.78	1.12	1.58	< 2.16	0.05p
Testing Session-II (Post-Teaching)	14	59.71					

As can be observed from the table above, the Experimental Group obtained a mean value of $\bar{x}$=57.92 in the Testing Session-I and the group reached a mean value of $\bar{x}$=59.71 in the Testing Session-II. The Standard error was calculated as SE=1.12. The t-test value, t=1.58 $p<2.16$ at the 0.05 p Level of significance, shows no significant difference between the Testing Sessions of the Experimental Group in the perception of rising and falling intonational sentences of English.

Thus, we failed to reject the null hypothesis set above. In other words, there did not appear to be any significant difference within the Experimental Group in the perception of intonation.

In Perception Test-II (Three-Choice Test), before systematic teaching of intonation was given, the Experimental Group achieved a score of 85 as the highest and 45 as the lowest out of 90 triplets of sentences. However, after systematic teaching, the group maintained 85 as the highest score and 52 as the lowest.

The distribution of the differences between these tests given to the Experimental Group before and after the systematic teaching of intonation is summarized in Table-2.

Table-2

The Results of the t-test Showing the Difference within the Experimental Group in perceiving intonational differences before and after exposure to systematic instruction on intonation (Three-Choice Test)

Condition	n	$\bar{x}$	$\bar{D}$	SE	t	critical value	level of significance
Testing Session-I (Pre-Teaching)	14	65.28					
			4.85	2.72	1.78	< 2.16	0.05p
Testing Session-II (Post-Teaching)	14	70.14					

As it is seen from the results in the above table, the Experimental Group reached a mean value of $\bar{x}$=65.28 in the Testing Session-I and a mean value of $\bar{x}$=70.14 in the Testing Session-II. The standard error was calculated as SE=2.72. The t value between Testing Sessions I and II was t=1.78, p<2.16 at the 0.05 p level of significance. This result indicates that there is no significant difference between the Testing Sessions of the Experimental Group in terms of discriminating the rising and falling tones of the given English statements. Accordingly, we failed to reject the null hypothesis set above.

The second question to be answered was: Is there a significant difference within the Control Group in perceiving intonational differences following an interval without any systematic instruction on intonation.

This question was investigated by testing the following null hypothesis:

H_o= There will be no significant difference within the Control Group in perceiving intonational differences following an interval without any systematic instruction on intonation.

Perception Tests I and II were given the Control Group in order to determine if the group improved their perception of intonational differences in the normal classroom environment during the period in which the Experimental Group was exposed to the systematic teaching of intonation.

Thus, in Perception Test-I (Two-Choice Test), in terms of correct scores, the highest score of the Control Group was 65 and the lowest was 52 out of 68 pairs of sentences. In Testing Session-II, the highest score was 67 and the lowest was 53.

The distribution of the difference between two Testing Sessions given to the Control Group is summarized in Table-3.

Table-3

The Results of the t-test Showing the Difference within the Control Group in perceiving intonational differences following an interval without any systematic instruction on intonation (Two-Choice Test)

Condition	n	$\bar{x}$	$\bar{D}$	SE	t	critical value	level of significance
Testing Session-I	14	58.92					
			1.92	0.98	1.95	< 2.16	0.05p
Testing Session-II (no teaching)	14	60.85					

Table-3 shows that , at the end of Testing Session-I, the Control Group reached a mean value of $\bar{x}$=58.92 and $\bar{x}$=60.85 at the end of Testing Session-II. The standart error is calculated to be SE=0.98. The t-test computed between Testing Sessions I and II within the Control Group, in which t=1.95 p < 2.16, also shows no significant difference between the tests at the 0.05p significance level. Thus, we failed to reject the null hypothesis set above.

In Perception Test-II (Three-Choice Test), the Control Group achieved the highest score 83 and the lowest 50 out of 90 questions in Testing Session-I and Testing Session-II, the group's highest score was 76 and the lowest was 48.

The distribution of the difference between the two Testing Sessions of the Perception Test-II within the Control Group is showed in Table-4.

Table-4

The Results of the t-test Showing the Difference within the Control Group in perceiving intonational differences following an interval without any systematic instruction on intonation (Three-Choice Test)

Condition	n	$\bar{x}$	$\bar{D}$	SE	t	critical value	level of significance
Testing Session-I	14	65.78					
			1.14	1.81	0.62	< 2.16	0.05p
Testing Session-II (no teaching)	14	66.92					

The results of Table-4 indicates that, in perception Test-II, the Control Group reached a mean value of $\bar{x}$=65.78 in the Testing Session-I and $\bar{x}$=66.92 in the Testing Session-II. The standard error was 1.81. The t-value between those two sessions was calculated as t=0.62 $p < 2.16$ at the 0.05p confidence level. The result indicates that there is no significant difference between Testing Sessions I and II within the Control Group. Hence, we failed to reject the null hypothesis set above.

The third question to be answered was : Is there a significant difference between the Experimental Group and the Control Group in perceiving intonational differences at

the beginning phase of this study?

This question was investigated by testing the following null hypothesis:

H_o= There will be no significant difference between the Experimental Group and the Control Group in perceiving intonational differences at the beginning phase of this study.

In Testing Session-I (pre-teaching), The Experimental Group achieved the highest score of 66 and the lowest 46 while the Control Group had 65 for the former and 52 for the latter out of 68 Questions.

The distribution of the difference between the Experimental and the Control Groups in terms of Perception Test-I (Testing Session-I) is shown in the Table-5.

Table-5

The Results of the t-test Showing the Difference between the Experimental and the Control Group in perceiving intonational differences at the beginning phase (Two-Choice Test)

Condition	n	$\bar{x}$	Sd	SE	t	critical value	level of significance
The Experimental Group I. Session (Pre-Teaching)	14	57.92	5.49	1.82	0.54	< 2.16	0.05p
The Control Group I. Session	14	58.92	4.06				

The results of Table-5 indicates that, at the end of Two-Choice Test -I, the Experimental Group reached a mean value of $\bar{x}$=57.92 and its standard deviation was Sd=5.49 whereas the Control Group's mean value was $\bar{x}$=58.92 with its standard deviation Sd=4.06. Calculated t-value between the tests of both groups was t=0.54 $p < 2.16$ at the 0.05p significance level. This shows that there is no difference between those groups at the beginning of the experiment and it hints that their perception is almost the same. Thus, we failed to reject the null hypothesis set above.

In the Perception Test-II (Three-Choice Test), subjects of the Experimental Group achieved the highest score of 85 and the lowest as 52. The subjects of the Control Group score 83 as the highest and 50 as the lowest out of 90 Questions.

Table-6 presents how Experimental and Control Groups differ from each other in the first Testing Sessions of the Perception Test-II.

According to the results shown in Table-6, in Pre-Perception Test-II, the Experimental Group reached a mean value of $\bar{x}$=65.28 with its standard deviation Sd=10.33. The Control Group reached a mean value of $\bar{x}$=65.78 with a standard deviation Sd=10.72. t-value between the two

Table-6

The Results of t-test Showing the Difference between the Experimental and the Control Group in perceiving intonational differences at the beginning phase (Three-Choice Test)

Condition	n	x̄	Sd	SE	t	Critical value	level of significance
The Experimental Group I. Session (Pre-Teaching)	14	65.28	10.33	3.98	0.12	< 2.16	0.05p
The Control Group I. Session (no teaching)	14	65.78	10.72				

groups found as t=0.12 p 2.16 at 0.05p significance level shown that there is no difference between the two groups in perceiving Three-Choice Intonation. Thus, we failed to reject the null hypothesis above.

The fourth question to be answered was: Is there a significant difference between the Experimental Group and the Control Group in perceiving intonational differences after the Experimental Group is exposed to systematic instruction on intonation whereas the other is not?

This question was investigated by testing the following null hypothesis:

H_o= There will be no significant difference between

the Experimental Group and the Control Group in perceiving intonational differences after the Experimental Group is exposed to systematic instruction on intonation whereas the other is not.

When two groups were compared in terms of perceiving intonational differences, it was observed that the Experimental Group's highest score was 68 and the lowest was 52 after the group was exposed to the systematicteaching of intonation.At that time, the Control Group's highest score was 67 and the lowest was 53 out of 68 pairs of sentences.

The distribution of the difference between the Experimental Group and the Control Group in Perception Test-I (Testing Session-II) is presented in Table-7.

Table-7

The Results of the t-test Showing the Difference between the Experimental and the Control Group in perceiving intonational differences after the Experimental Group is exposed to systematic instruction on intonation whereas the other is not (Two-Choice Test)

Condition	n	$\bar{x}$	Sd	SE	t	ciritical value	level of significance
The Experimental Group II. Session (Post-teaching)	14	59.71	4.39	1.55	0.73 <	2.16	0.05p
The Control Group (no teaching)	14	60.85	3.84				

Table-7 demonstrates that, in Perception Test-I, the Experimental Group obtained a mean value of $\bar{x}$=59.71 and the standard deviation was calculated as Sd=4.39 whereas the Control Group reached a mean value of 60.85 and its standard deviation was calculated as 3.84. The t-value bteween two groups was t=0.73 $p < 2.16$ at 0.05p significance level. This result shows that there is no significant difference between the Experimental and the Control Group in the Testing Session-II. Hence, we failed to reject the null hyptohesis set above.

In Perception Test-II (Three-Choice Test), the highest score in the Experimental Group was 85 and the lowest was 52 whereas in the Control Group, the highest score was 76 and the lowest was 48 out of 90 triplets of sentences.

Table-8 shows the difference between the Experimental and the Control Group in Perception Test-II (Testing Session-II).

Table-8
The Results of the t-test Showing the Difference between the Experimental and Control Group in perceiving intonational differences after the Experimental Group is exposed to systematic instruction on intonation whereas the other is not (Three-Choice Test) Test)

Condition	n	$\bar{x}$	Sd	SE	t	cirítical value	level of significance
The Experimental Group II. Session (post-teaching)	14	70.14	9.90	3.42	0.93 < 2.16		0.05p
The Control Group II.Session (no teaching)	14	66.92	8.11				

Table-8 illustrates that, in Perception Test-II, the Experimental Group reached a mean value of $\bar{x}$=70.14 and its standard deviation was calculated as Sd=9.90 whereas the Control Group reached a mean value of $\bar{x}$=66.92 with its standard deviation Sd=8.11. The t-value between the two groups was t=0.93 $p < 2.16$ at 0.05p level of significance. The result shows that there is no significant difference between the Experimental Group and the Control Group in Perception Test-II. Hence, we failed to reject the null hypothesis set above.

5.2. RESULTS OF THE PRODUCTION TEST

5.2.1. RESULTS OF t-TEST

In the first series of analysis in the Production Test **the fifth question to be answered was:** Is there a significant difference within the Experimental Group in producing the intonation patterns of the Target Language before and after the group is exposed to systematic instruction on intonation?

This question was investigated by testing the following null hypothesis:

H_o= There will be no significant difference within the Experimental Group in producing the intonation Patterns of the Target Language before and after

the group is exposed to systematic instruction on intonation.

Table-9 summarizes the distribution of the differences within the Experimental Group in Production Tests given before and after the systematic teaching on intonation. Intonation skills of the subjects were recorded on the Voiscope and scored as seen in Appendix H .

Table-9

The Results of the t-test Showing the Difference within the Experimental Group in producing the intonation patterns of the Target Language before and after the group is exposed to systematic instruction on intonation

Condition	n	df	$\bar{x}$	$\bar{D}$	Se	t	critical value	level of significance
Testing Session I (Pre-teaching)	14	13	6.07					
				4.5	0.54	8.29	> 2.16	0.05p
Testing Session II (Post-teaching)	14	13	10.57					

Table-9 indicates that the mean value of the Testing Session-I was $\bar{x}$=6.07 whereas it reached to $\bar{x}$=10.57 after the Experimental Group was exposed to systematic instruction on intonation. The mean of the differences within the group was $\bar{D}$=4.5 and the standard error was found as SE=0.54.Consequently, the t-test formula which was computed at the 0.05p significance level according to degree of freedom df=13, t=8.29 p>2.16

was considered as a significant result between the two Testing Sessions. Accordingly, the null hypothesis set above is rejected.

The sixth question to be answered was: Is there a significant difference within the Control Group in producing the intonation patterns of the Target Language when they are only exposed to natural intonation incidentally in classroom while the Experimental Group is being taught intonation systematically?

This question was investigated by testing the following null hypothesis:

H_o= There will be no significant difference within the Control Group in producing the intonation patterns of the Target Language when they are only exposed to natural intonation incidentally in classroom while the Experimental Group is being taught intonation systematically.

Table-10 outlines the distribution of the differences within the Control Group in Production Tests I and II which were given to the group for the purpose of observing if there would be any improvement in their producing the intonation patterns of the Target Language.

Table-10

The Results of the t-test showing the Difference within the Control Group in producing the Intonation Patterns of the Target Language when they are only exposed to Natural Intonation incidentally in classroom while the Experimental Group is being taught intonation systematically

Condition	n	df	$\bar{x}$	$\bar{D}$	SE	t	critical value	level of significance
Testing Session I	12	11	5.75					
				2.25	0.66	3.38 $>$	2.20	0.05p
Testing Session II (no teaching)	12	11	8					

As it is shown in Table 10, the mean value was found as $\bar{x}$=5.75 for the Testing Session-I whereas the mean value of the Testing Session-II was $\bar{x}$=8. The mean of the differences between the two sessions was $\bar{D}$=2,25 and the standard error was found as SE=0.66. In Consequence, the t-test formula, which was computed at 0.05p significance level according to df=11, t=3.38 p$>$2.20, was regarded as a significant result between the two sessions of the Production Test. Thus, the null hypothesis is rejected.

The seventh question to be answered was: Is there a significant difference between the Experimental Group and the Control Group in Producing the intonation patterns of the Target Language after the former group is exposed to systematic instruction whereas the latter is not?

This question was investigated by testing the following null hypothesis:

H_o= There will be no significant difference between the Experimental Group and the Control Group in producing the intonation patterns of the Target Language after the former group is exposed to systematic instruction whereas the latter is not

Table-11 summarizes the distribution of the differences between the Experimental Group and the Control Group in Production Tests which were given to both groups befor and after the Experimental Group was exposed to systematic instruction.

Table-11

The Results of the t-test showing the difference between the Experimental Group and the Control Group in producing the intonation patterns of the Target Language after the former group is exposed to systematic instruction whereas the latter is not

Condition	n	df	$\bar{x}$	Sd	SE	t	critical value	level of significance
Testing Session-I (The Experimental Group)	14		10.57	1.69				
		24			0.69	3.71	2.16	0.05p
Testing Session-II (The Control Group)	12		8	1.80				

Table-11 asserts that the Experimental Group reached a mean value of $\bar{x}$= 10.57 with a calculated standard deviation of Sd=1.69 whereas the Control Group reached a mean value of $\bar{x}$=8 with its standard deviation calculated as Sd=1.80. The standard error was found as SE=0.69 for both groups. The t-value between the two groups was t=3.71 > 2.06 at 0.05p significance level. This results indicates a significant difference between the groups in producing the intonation patterns of the Target Language. Therefore, the null hypothesis set above is rejected.

The last question to be answered was: Is there a significant difference within the Experimental Group in producing the intonation patterns of the Target Language in 5 months' period following the post-teaching?

This question was investigated by testing the following null hypothesis:

H_o= There will be no significant difference within the Experimental Group in producing the intonation patterns of the Target Language in 5 months' period following the post-teaching

Table-12 shows the distribution of the difference within the Experimental Group in Production Test which was given 5 months later than the post-teaching. This interval was provided in order to investigate the effect of time elapse on systematic teaching of intonation.

Table-12
The Results of the t-test Showing the Difference within the Experimental Group in producing the intonation patterns of the Target Language in 5 months' period following the post-teaching

Condition	n	df	$\bar{x}$	$\bar{D}$	SE	t	critical value	level of significance
Testing Session-II (Post-teaching)	14	13	10.57	0.07	0.70	0.10	2.16	0.05p
5 months later (no further teaching)	14	13	10.5					

Table-12 denotes that the mean value of the Testing Session-II was found as $\bar{x}$=10.57 and almost the same, as $\bar{x}$=10.5, 5 months later than the post-teaching. The mean of the differences between the two tests was $\bar{D}$=0.07 and the standard error was calculated as SE=0.70. The t-test computed between the given tests within the Experimental Group, in which $t=0.10 < 2.16$, demonstrates no significant difference between the tests at the 0.05p significance level. Thus, the null hypothesis set above can not be rejected.

5.2.2. ERROR ANALYSIS OF THE PRODUCTION TESTS

Error analysis was performed in terms of percents. The purpose was to classify subjects' errors during the production of intonation patterns before and after the systematic teaching of intonation.

5.2.2.1. ERROR ANALYSIS IN YES/NO QUESTIONS

Table-13 shows the distribution of the total scores and percent total scores of the Experimental Group in Yes/No Questions. This group of questions is expected to have a rising intonation. As a matter of fact, the last alternative question seems to have a falling intonation. However, it might be asked with a rising intonation if the hearer is asked to have milk, juice or something different. Thus, the subjects were expected to produce this question with a rising intonation according to the context given.

As can be observed from Table-13, within the Experimental Group, subjects' productive achievement of intonation in Yes/No Questions in English were examined before and after they were given a systematic teaching of intonation

Table-13

Distribution of Correct Scores and Percent Correct Scores of the Experimental Group (exposed to the Systematic Teaching of Intonation) in YES / NO QUESTIONS

YES / NO QUESTIONS	Production Test Scores before Intonation Teaching			Production Test Scores after Intonation Teaching			5 Months Later (no further teaching)		
	n	Correct Scores	Correct Scores %	n	Correct Scores	Correct Scores %	n	Correct Scores	Correct Scores %
1. Did you spend your summer holiday camping?	14	7	50	14	12	85.7	14	12	85.7
2. Yes, did you?	14	10	71.4	14	14	100.0	14	13	92.8
3. Would you like coffee?	14	3	21.4	14	4	28.5	14	13	92.8
4. Would you like tea?	14	4	28.5	14	4	28.5	14	13	92.8
5. Do you like milk	14	8	57.1	14	14	100.0	14	11	78.5
		6.4	45.7		9.6	68.5		12.4	88.5

Table-13 shows that percent correct scores among 14 subjects, for 5 questions,ranged from 21.4 % to 71.4 % before the systematic instruction of intonation whereas they ranged from 28.5 % to 100 % after the method was given. Besides, it was noticed that percent correct scores increased to 78.5 % to 92.8 % 5 months later than the subjects had systematic teaching of intonation.

The first question "Did you spend your summer holiday camping?" was scored correctly by 7 subjects where the percent correct score was calculated as 50 % in the Pre-Production Test. After systematic teaching of intonation, the number of correct scores increased to 12, a percentage of 85.7 % and remained the same 5 months later.

The second question "Yes, did you?" was scored correctly by 10 subjects where the percent correct score was 71.4 %. After they were given instruction about intonation, the number of correct scores was detected as 14, a percentage of 100 %. However, the number of subjects who knew the correct intonation decreased to 13, a percentage of 92.8 % 5 months later.

The third and fourth questions "Would you like coffee?" and "Would you like tea?" were scored correctly by 3 and 4 subjects in succession with the percentages of 21.4 % for the former and 28.5 % for the later. In the Post-Production Test, these questions were uttered with the correct intonation by

only 4 subjects, a percentage of 28.5 % 5 months later, unexpectedly, the number of correct scores increased to 13 for both questions where the percent correct score was calculated as 92.8 %.

The last question "Do you like milk or juice?" was scored by 8 subjects, a percentage of 57.1 % before they were exposed to systematic teaching of intonation whereas the question was scored by 14 subjects afterwards, a percentage of 100 %. However, 5 months later, the number of the subjects who uttered the question with the correct intonation reduced to 11, a percentage of 78.5 % .

The mean percent correct scores increased in three successive tests as 45.7 % for the Pre-Production Test, 68.5 % for the Post-Production Test and 88.5 % for the 5 months period following the systematic teaching of intonation.

Table-14 shows the distribution of the total scores and percent total scores of the Control Group in Yes/No Questions.

Table-14

Distribution of Correct Scores and Percent Correct Scores of the Control Group (which had the absence of any kind of instruction in learning intonation) in Yes/No Questions

	Production Test Scores I			Production Test Scores II		
YES/NO QUESTIONS	n	Correct Scores	Correct Scores %	n	Correct Scores	Correct Scores %
1. Did you spend your summer holiday camping?	12	7	58.3	12	7	58.3
2. Yes,did you?	12	8	66.6	12	10	83.3
3. Would you like coffee?	12	4	33.3	12	11	91.6
4. Would you like tea?	12	2	16.6	12	6	50.0
5. Do you like milk or juice?	12	8	66.6	12	10	83.3
		5.8	48.2		8.8	73.3

When Table-14 was analysed it was seen that percent correct scores among 12 subjects, for 5 questions, ranged from 16.6 % to 66.6 % in the Pre-Production Test for the Control Group but a great progress was achieved in subjects' producing Yes/No Questions since the percent correct scores range from 50.0 % to 91.6 % in Post-Production Test.

The first question was scored correctly by 7 subjects, a percentage of 58.3 % both in the Pre-Production and Post-Production Tests.

The number of correct scores for the second question were 8 (66.6 %) in the first test but the correct scores increased to 10, a percentage of 83.3 % afterwards.

4 subjects responded to the third question with the correct intonation, a percentage of 33.3 % while the number of correct scores were detected as 11 (91.6 %) in the Post-Production Test.

Subjects were not so successful in producing the fourth question; only 2 subjects responded to it correctly (16.6 %) and the number of correct scores increased to 6, a percentage of 50.0 %, when the subjects were tested finally.

For the last question, the Control Group scored 8 correct responses (66.6 %) and 2 more were added to the number of correct scores (83.3 %) in the Post-Production Test.

The mean percent scores are distributed as $\bar{x}$=48.2 % for the Pre-Production Test and $\bar{x}$=73.3 for the Post-Production Test. This result indicates a small trend in favour of the Control Group but since the difference between the Experimental Group and the Control Group is so small (4.8 %) that both groups may be regarded as having virtually the same performance in producing Yes/No Questions.

5.2.2.2. Error Analysis in Statement Questions

Table-15 shows the percentage distribution of the scores for the Experimental Group in Statement Questions, which are, in general, expected to have a rising intonation in this group.

When Table-15 was examined, it was noticed that 7 subjects out of 14 in the Experimental Group uttered the first question "She had a boy?" correctly, a percentage of 50.0 %. When the correct scores were revealed in the Post-Production Test, it was seen that 5 more were added to the subjects who succeeded to utter the question with the correct intonation, The percentage was 85.7 % . There was no change 5 months later; the number of correct scores and the percent of correct scores remained the same.

For the production of the second question "She's What?" subjects were found to be rather more successful, because 12 subjects gave the correct response, a percentage of 85.7 %. Aftersystematic teaching of intonation, the number of correct scores increased to 14 with the full percentage (100 %). 5 months later, there was no change in the number of correct scores and the percent of correct scores.

The mean value of the correct scores in the Pre-Production Test was $\bar{x}$=9.5 where the mean percent correct score was $\bar{x}$=67.8%

Table-15

Distribution of Correct Scores and Percent Correct Scores of the Experimental Group (exposed to the Systematic Teaching of Intonation) in STATEMENT QUESTIONS

STATEMENT QUESTIONS	Production Test Scores before Intonation Teaching			Production Test Scores after Intonation Teaching			5 Months Later (no further teaching)		
	n	Correct Scores	Correct Scores %	n	Correct Scores	Correct Scores %	n	Correct Scores	Correct Scores %
1. She had a boy?	14	7	50.0	14	12	85.7	14	12	85.7
2. She's what?	14	12	85.7	14	14	100.0	14	14	100.0
		9.5	67.8		13	92.5		13	92.8

After the method and even 5 months later, the mean value of correct scores and the percent of correct scores was found to be $\bar{x}$=13 and $\bar{x}$=92.8%.

Table-16

Distribution of Correct Scores and Percent Correct Scores of the Control Group (Which had the absence of any kind of instruction in learning intonation) in Statement Questions

	Production Test Scores I			Production Test Scores II (no teaching)		
STATEMENT QUESTIONS	n	Correct Scores	Correct Scores %	n	Correct Scores	Correct Scores %
1. She had a boy?	12	5	41.6	12	11	91.6
2. She's what?	12	6	50.0	12	9	75.0
		5.5	45.8		10	83.3

As can be observed from Table-16, 5 subjects out of 12 in the Control Group gave the correct intonation for the first question "She had a boy?" , a percentage of 41.6 %. However, intthe Post-Production Test, this question was given 11 correct scores, a rather more successful percent correct score 91.6 %.

For the second question "She's what?", 6 subjects from the Control Group gave correct responses which meant that 50.0 % of the subjects from the group knew the correct intonation. After a period in which systematic instruction

about intonation was given to the Experimental Group, The Control Group made progression in producing the question with the correct intonation because 9 subjects gave the correct response, a percentage of 75 % .

Consequently, the mean correct score of the Control Group was $\bar{x}$=5.5 and the mean percent correct score was $\bar{x}$=45.8 % when the group was first tested. Afterwards; the mean correct score $\bar{x}$=10 and the mean percent score $\bar{x}$=83.3 % was almost twice that of the Pre-Production Test.

5.2.2.3. Error Analysis in Wh -Questions

The distribution of the number of correct scores and the percent correct scores of the Experimental Group in Wh -Questions is summarized in Table-17. Wh -Questions, in general, are expected to have a falling intonation but if they are used for the purpose of "asking for repetition", then, Wh -Questions may have a rising tone. In the following group of Wh-Questions, the subjects were expected to produce the first,the second,and the third with a falling intonation whereas the fourth and the fifth ones were expected to be produced with a rising intonation.

When the subjects of the Experimental Group were observed in terms of their producing Wh-Questions, it was noticed that percent correct scores ranged from 14.2 % to

Table-17

Distribution of Correct Scores and Percent Correct Scores of the Experimental Group (exposed to the Systematic Teaching of Intonation) in Wh- QUESTIONS

Wh-QUESTIONS	Production Test Scores before Intonation Teaching			Production Test Scores after Intonation Teaching			5 Months Later (no further teaching)		
	n	Correct Scores	Correct Scores %	n	Correct Scores	Correct Scores %	n	Correct Scores	Correct Scores %
1. Why did you ask?	14	3	21.4	14	9	64.2	14	6	42.8
2. Where were you last night?	14	2	14.2	14	6	42.8	14	8	57.1
3. What do you mean?	14	10	71.4	14	9	64.2	14	14	100.0
4. Where does he come from?	14	7	50.0	14	14	100.0	14	8	57.1
5. Where was I last night?	14	8	57.1	14	14	100.0	14	12	85.7
		6	42.8		10.4	74.2		9.6	68.5

71.4 % before the subjects were given a systematic instruction of intonation whereas the scores ranged from 42.8 % to 100 % after the method. This showed a significant result in terms of producing Wh-Questions correctly. However, 5 months later the percent correct scores still ranged from 42.8 % to 100 % but the mean percent score decreased to $\bar{x}$=68.5 % when compared to $\bar{x}$=74.2 which was obtained after the systematic teaching of intonation.

Table-18

Distribution of Correct Scores and Percent Correct Scores of the Control Group (which had the obsence of any kind of instruction in learning intonation) in Wh -Questions

WH.—QUESTIONS	Production Test Scores I n	Correct Scores	Correct Scores %	Production Test Scores II (no teaching) n	Correct Scores	Correct Scores %
1. Why did you ask?	12	2	16.6	12	6	50.0
2. Where were you last night?	12	3	25.0	12	5	41.6
3. What do you mean?	12	8	66.6	12	10	83.3
4. Where does he come from?	12	8	66.6	12	4	33.3
5. Where was I last night?	12	5	41.6	12	3	25.0
		5.2	43.2		5.6	46.6

When Tables-17 and 18 were compared, it was observed that both the Experimental and Control Groups were almost the same in producing Wh - Questions at the beginning of the

research since the mean percent correct score for the Experimental Group was $\bar{x}$=42.8 % and $\bar{x}$=43.2 % for the Control Group. While the Experimental Group showed a great performance in Wh - Questions in terms of mean percent correct scores of $\bar{x}$=74.2 % , there was little change in the Control Group; the mean percent correct score was detected as $\bar{x}$=46.6 %.

The subjects of the Control Group seemed to be successful in giving correct responses, particularly for the fourth and fifth questions which required rising intonation. The percentages of correct scores for those questions were 66.6 % and 41.6 % in succession but in the Post-Production Test, the number of correct scores decreased to 4 and 3 with the percentages of 33.3 % and 25.0 % following each other.

However, the percent correct scores of the correct responses given to the first and the second questions indicated that the subjects were rather inefficient in applying the falling tone in Wh - Questions when compared to the other results obtained in the Post-Production Test.

5.2.2.4. Error Analysis in Question Tags

Table-19 present the distribution of the number of correct scores and the percent correct scores for the Experimental Group (exposed to the Systematic Teaching of Intonation) in Question Tags. As it is known, the use of

Table-19

Distribution of Correct Scores and Percent Correct Scores of the Experimental Group (exposed to the Systematic Teaching of Intonation) in QUESTION TAGS

QUESTION TAGS	Production Test Scores before Intonation Teaching			Production Test Scores After Intonation Teaching			5 Months Later (no further teaching)		
	n	Correct Scores	Correct Scores %	n	Correct Scores	Correct Scores %	n	Correct Scores	Correct Scores %
1. You went to Switzerland skiing, didn't you?	14	4	28.5	14	11	78.5	14	6	42.8
2. You don't like her, do you?	14	-	-	14	11	78.5	14	7	50.0
		2	14.2		11	78.5		6.5	46.4

intonation in Question Tags depends on the situation. If the hearer is asked to confirm or deny, the question is produced by a rising tone. If the speaker is confident that the hearer will agree with him, the question is produced by a falling tone. In the following group of question tags, the former is expected to have a rising intonation whereas the latter is expected to have a falling intonation.

When Table-19 was examined, it was seen that the Experimental Group held the weakest performance in Question Tags before they were given a systematic teaching of intonation. Only 4 subjects gave the correct response for the first question "You went to Switzerland skiing, didn't you?" with the percentage of 28.5 %. Moreover, no correct response was achieved for the second question "You don't like her, do you?"

However, in the Post-Production Test, subjects made great progress in producing the tags correctly. As it can be seen, 11 correct scores were given for both of the tags, a percentage of 78.5 %, but 5 months later, correct scores lessened to 6 (42.8 %) for the former and 7 (50.0 %) for the latter.

Thus, there was a considerable significance in mean correct scores and percent correct scores between Pre- and Post-Production Tests, because mean correct score increased from $\bar{x}=2$ to $\bar{x}=11$ and mean percent score from $\bar{x}=14.2$ % to

$\bar{x}$=78.5 % . These mean scores appeared to decline from $\bar{x}$=11 to $\bar{x}$=6 as mean correct score and from $\bar{x}$=78.5 % to $\bar{x}$=46.4 % as mean percent correct score.

Table-20

Distribution of Correct Scores and Percent Correct Scores of the Control Group (which had the absence of any kind of instruction in learning intonation) in Question Tags

	Production Test Scores I			Production Test Scores II (no teaching)		
QUESTION TAGS	n	Correct scores	Correct Scores %	n	Correct Scores	Correct Scores %
1. You went to Switzerland skiing, didn't you?	12	2	16.6	12	6	50.0
2. You don't like her do you?	12	1	8.3	12	2	16.6
		1.5	12.4		4	33.3

Table-20 indicated that the Control Group was not good at producing Question Tags neither in Pre-Production nor in Post-Production Test.

In Pre-Production Test, two subjects out of 12 in the Control Group uttered the first question with the correct intonation, a percentage 16.6 %. For the second question,the number of correct score was only 1, a percentage 8.3 %.

However, in the Post-Production Test, the number of correct scores increased to 6 (50.0 %) for the first question

but there was still little change for the production of the second question. Only 2 subjects responded correctly, a percent correct score of 16.6 %.

The mean correct scores and the mean percent correct scores were distributed as $\bar{x}$=1.5, $\bar{x}$=12.4 % for the Control Group in the Pre-Production Test and $\bar{x}$=4, $\bar{x}$=33.3 in the Post-Production Test. These results demonstrated that the Experimental Group achieved a better performance compared to the Control Group in producing Question Tags.

The general mean percentage distribution for the four question groups on the Experimental and the Control Group is shown in Figure-1 and Figure-2.

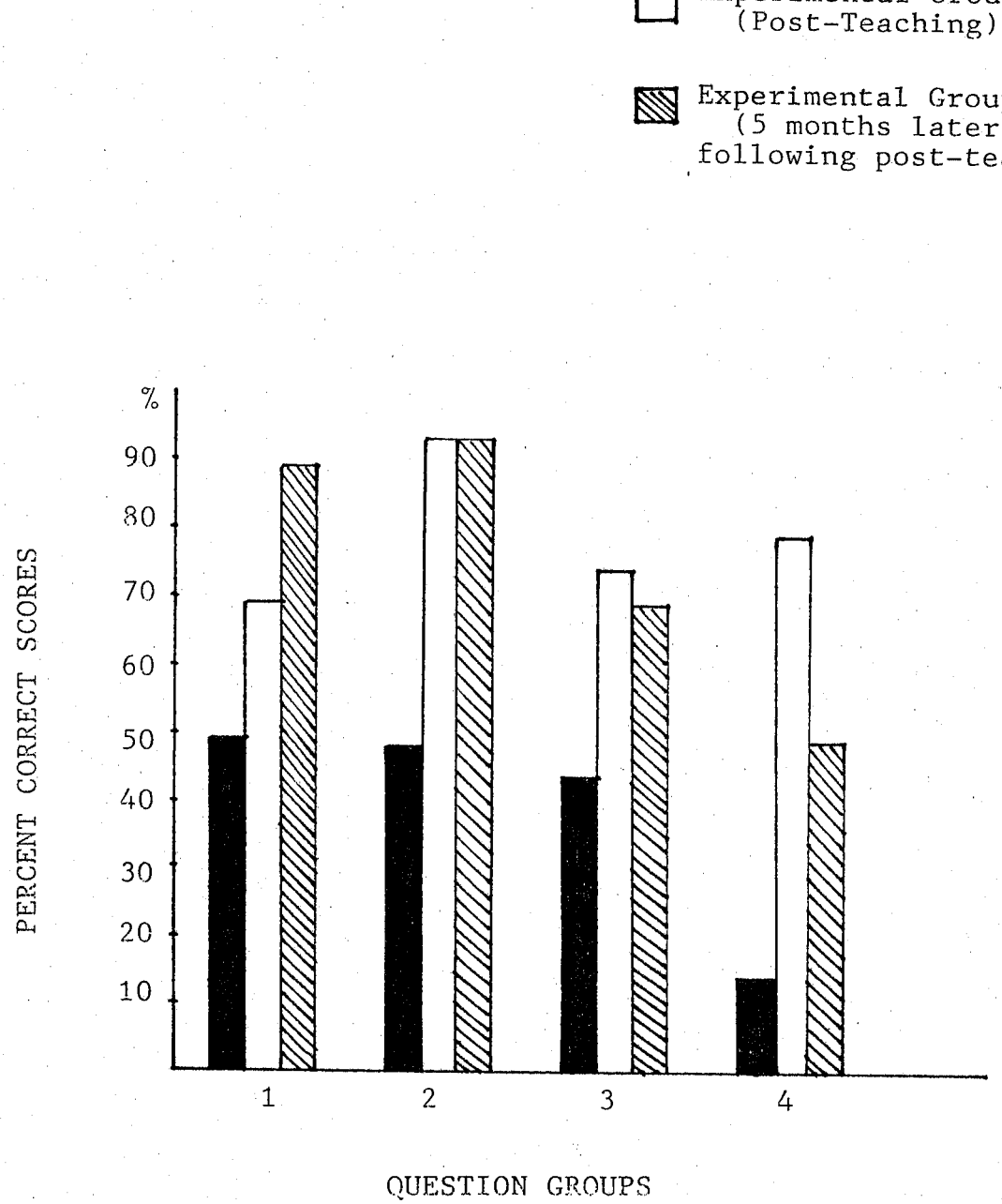


Figure-1 Percentage distribution in the Experimental Group for Yes/No Questions (1),Statement Questions,(2), Wh-Questions (3) and Question Tags (4)

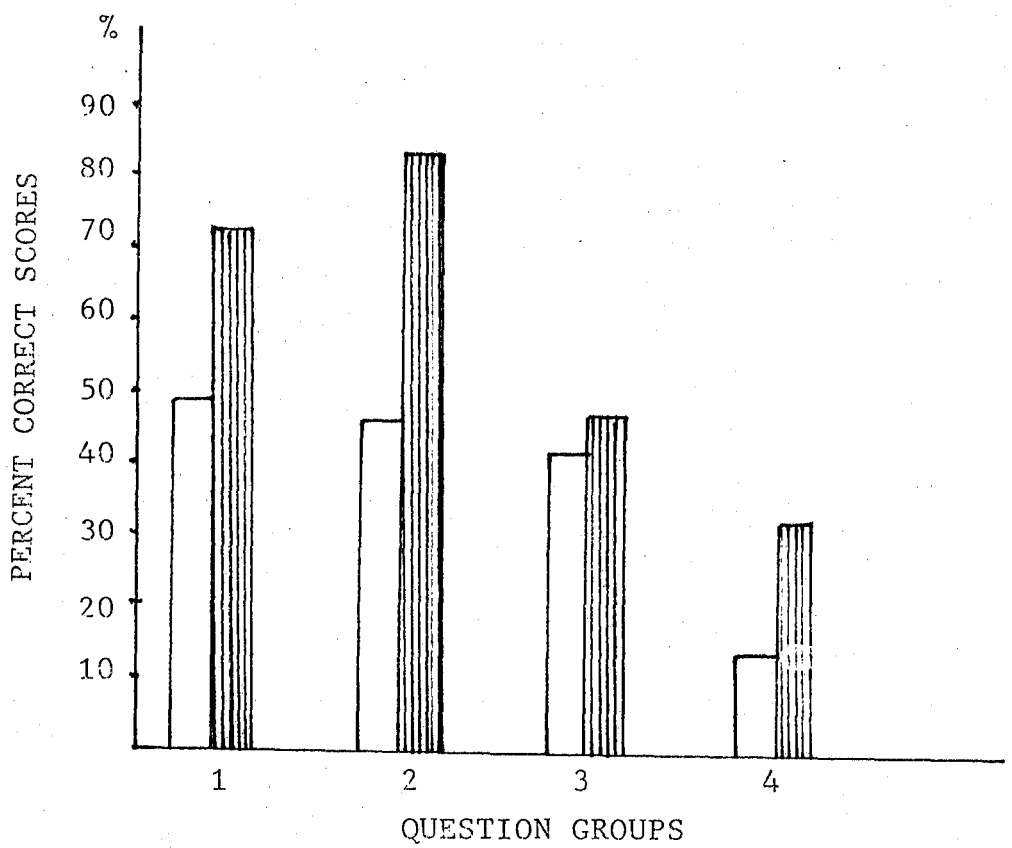


Figure-2 Percentage Distribution in the Control Group for Yes/No Questions(1), Statement Questions (2), Wh-Questions (3) and Questions Tags (4)

CHAPTER VI

DISCUSSION AND SUGGESTIONS

6.1. DISCUSSION

The analysis of experimental results indicated that neither the Experimental Group, which were exposed to systematic teaching of intonation, nor the Control Group, which had the absence of any kind of instruction in intonation teaching, showed a significant difference in perceiving intonation. Thus, we failed to reject the null hypotheses formulated in previous pages.

On the other hand, a significant difference was achieved within the Experimental Group in producing the intonation patterns correctly after the subjects had been exposed to some systematic instruction about intonation. Moreover, the Control Group also illustrated a remarkable significant difference in producing the intonation patterns by receiving infomation about intonation incidentally in the classroom environment.

At the beginning of this study, it was implied that students would learn intonation better when they were taught intonation more systematically. In other words, this presumed an expectation that the subjects who were given systematic instruction of intonation would perform better in perception and production tasks compared to the subjects who were exposed to incidental learning of intonation in the classroom.

When the results of Perception Test-I and Perception Test-II between the Experimental Group and the Control Group were compared after the systematic instruction on intonation, the t-values resulted in a non-significant difference. However, when the mean values within both groups were examined, a small amount of trend in favour of improvement in production was observed. On the other hand, when the mean-values were studied between the groups after the method, small tendency was noticed in favour of the Control Group in Perception Test-I (pairs of sentences) and the Experimental Group in Perception Test-II (triplets of sentences)

Nevertheless, these values were so slight that t-values demonstrated no significant difference between the test conditions.

That there was no change within and between the groups in perceiving differences in intonation would not entail that systematic instruction about intonation did not promote the subjects to improve their perceptual abilities. On the

contrary, when the scores were evaluated for the Experimental Group which had the systematic teaching of intonation, it was observed that the highest score was 66 in the first Perception Task and 68 in the second out of 68 questions. Besides, the highest scorewas 85 in both Perception Task -I and Perception Task -II out of 90 questions. Consequently, departing from the results cited above, it can be said that the subjects had already access to sufficient scores in the Perception Tasks.

When the results of Production Tests were examined, a significant improvement was observed within and between both groups in producing the questions with the correct intonation. However, the Experimental Group performed much better than the Control Group when they were compared in terms of t-values. According to this comparison, there existed a significant improvement in favour of the Experimental Group after the subjects were exposed to the systematic teaching of intonation. In addition, the Experimental Group kept the same consistency in producing the given patterns with suitable intonation 5 months later -following post-teaching. However error analysis was carried out in order to get slight differences in question groups. The results of the percentages that were obtained in comparison to the Pre-Production and Post-Production outcomes are discussed as follows.

In Yes and No Questions, both the Experimental Group and the Control Group exhibited almost the same performance

before and after the method given only to the Experimental Group. This indicated that systematic instruction of intonation teaching did not rectify their production to any great extent when they were compared with the Control Group which performed as well as Experimental Group without being exposed to specific instruction.

The Statement Questions were responded to correctly by most of the subjects of the Experimental Group before and after the method, even though there were some subjects who uttered these questions with a falling tone . This might have ccured partly because they presumed the Statement Questions as Affirmative Sentences since both kinds of sentences start without a question word but only differ by means of intonation.

The subjects of both groups showed a clear tendency to use a rising tone in producing Wh.-Questions. As a matter of fact, many linguists (Prator & Robinett,1972:46;Robinett, 1978:103) agree that these types of questions may cause considerable difficulty at first in pronouncing Wh.-Question due to the fact that the non-native speakers of English may be inclined to produce these questions in a questioning manner (i.e. with a rising intonation).

The use of rising-falling intonation is applicable to Wh.Questions unless they are produced attitudinally. Otherwise,

they are produced with a rising tone. This can be seen in the following example:

1) A: She's to leave there on June eight
   B: How (falling intonation)
   A: By bus

2) A: They will send her the tickets and instructions through the Express Company
   B: How (rising intonation)
   A: Through the American Express Office in Detroit

(Fries,1952:156)

Thus, in accordance with the opinions put forward by the linguists, the subjects of both groups were more successful in producing Wh -Questions which require rising intonation. The number of the correct intonation for the Wh -Questions with falling tone increased as well the ones with rising intonation after the subjects of the Experimental Group were instructed on intonation. Yet, a slight decrease was observed in either tones 5 months later.

Despite the success in Wh -Questions achieved in the Experimental Group, the Control Group could not show any improvement in producing these types of questions.

Both the Experimental Group and the Control Group showed the weakest performance in producing the Question Tags. Especially, the Experimental Group uttered completely incorrect

Tag Questions before systematic instruction. They had a tendency for using a rising tone where a falling tone was expected. This might have occured partly because subjects' presumption of Question Tags as General Questions (uttered with a rising tone) since they both have auxiliary verbs in their structures.

Infact, the use of correct tone in Question Tags depends on the context in which the question is used. For example:

a) You want a chair, don't you? (rising tone)

The sentence is a genuine question, which means that the speaker is not sure whether or not the hearer wants a chair and that the hearer is asked to confirm or deny the idea, to answer "Yes or No".

b) You want a chair, don't you? (falling tone)

The whole sentence is to be interpreted as a "statement of fact" and indicates that the speaker is cofident that the hearer will agree with him.

The Experimental Group showed a great improvement in using the appropriate tone while producing Question Tags after the subjects had the systematic teaching of intonation. On the

other hand, no enhancement was observed within the Control Group while uttering the Question Tags with the required tone. However, the Experimental Group lessened the number of correct scores in percentage to a considerable extent 5 months later.

Finally, with reference to the last hypothesis formulated, the Experimental Group reduced the number of correct scores while producing the patterns of Wh -Questions and Question Tags. However, when the results were evaluated in terms of t-values, there did not appear any significant difference within the Experimental Group after a 5 months' period following the instruction on intonation.

6.2. CONCLUSION

Recently, there have been different suggested approaches to teaching intonation in classroom. Some writers (e.g.Newmark, 1964 cited in Brazil et.al.,1980:129) recommend a "natural teaching" method in which language is learned as a whole in relation to a meaningful context. They believe that formal linguistic descriptions have nothing to contribute to the language learning process. Due to this view, intonation cannot be taught formally, otherwise it may be incompatible with the acquisition of native language.

Some other writers (e.g. Allen(1974) cited in Brasil et.al.,1980:130) regard those views unnecessarily pessimistic and explain that student expects structure and regularity in the language s/he wants to learn. For that reason, these writers insist on combining teaching-in-context with the systematic presentation of formal grammatical relations. Besides, they argue against the supporters of "natural method" that there is a difference in learning strategy between an infant acquiring his first language and an adult second language learner who needs English.

Consequently, what is approved by most linguists is that "the natural method" does not seem to be a sufficient condition for students to learn intonation by themselves. It is suggested that attending systematically to this important aspect of language behaviour within a self consistent conceptual framework helps to point out some rather badly neglected features of intonation.

In this study, a systematic model of teaching intonation was applied to the subjects in order to test an instructional objective: "The Subjects of the Systematic Method (the Experimental Group) will learn intonation better than the subjects who were exposed to natural method (the Control Group)". It was ensured that recognition and conscious awareness would result in good production.

After the method had been applied, following the perception and the production tests, the results were evaluated to determine the fate of the method. Measuring the learners' progress toward objectives was the phase of evaluation of this study which determined if the method was available to those who wished to use it. The role of the intonation tests in the assessment of achievement couldnot be ignored.

However, the fact that the subjects make progress during a period of instruction does not enable one to conclude that this resulted from the program or the methodology adopted. The subjects may learn independently of the method [Long(1983) cited in Richards,1985:9-15].

Thus, to determine the degree to which the method was responsible for the results, the analysis of the process was carried out by t-test values and percentage ratios. When the results were examined, it was noticed that the subjects of the Experimental Group were successful in producing the questions with correct intonation. However, the subjects of the Control Group were observed to be promising independently of the method in accordance with Long's ideas stated above.

The subjects of the Experimental Group might have performed much better if there had not been some factors affecting the success of the systematic teaching. However, adopting a new approach brought its own problems (involved considerations of factors) that went beyond the mere

presentation of the method. The probable reasons can be summarized as follows.

Students have attended to the intonation course with different learning habits that might crucially affect how well they performed in the language course. Firstly, they differed with respect to the abilities they brought to the task. Some subjects had a good ear and picked up intonation tones quickly. Some others required much great effort to achieve the appropriate results in producing the patterns. Learners also differed in how they went about the task of learning. Some subjects were ear-oriented and someworried when they did not understand the tones and looked for patterns to be drawn on the blackboard. Some were shy about making errors in producing utterances and avoided production.

The biggest problem was to reduce subjects' bad habits of hearing and producing the intonation patterns, even to alter fixed inappropriate tones in production and to establish new tones in their places. Subjects' faulty generalizations and previous learnings about intonation had become a positive hindrance.

The subjects were not certain about the intonation of Wh -Questions and Question Tags. They were not able to choose the appropriate tones but generalized all questions as to be asked with a rising intonation. These results were

due to their not being infomed about the intonation patterns systematically or their receiving incongruous tones. Even after they had been taught about intonation, most subjects could not manipulate their voices in producing the required tones. Accordingly, they exaggrated the tones or just uttered them with a level tone. That the time was limited for overcoming those obstacles and reaching the objectivewas a real handicap affecting the success of the method applied.

On the basis of data presented and results discussed, what is concluded from this study is that success will not be remote if intonation is placed into the language syllabus more systematically. Besides, it may be integrated as far as possible with practice in other language skills. However, this area of language will remain an "optional extra" unless writers of general coursebooks integrate intonation practice routinely into their materials.

6.3. SUGGESTIONS FOR FURTHER RESEARCH

- Younger students as outset of learning English might be considered as a factor in learning and/or acquiring the intonation of the Target Language.
- In order to gain further insight into the problem of recollecting the learned behaviour in a foreign language class, investigation period can be lengthened.

- The effect of visual feed-back in teaching prosody can be investigated by using devices like Voiscope developed to observe variations in speech.
- Total immersion in an English speaking community might be studied as a factor that may influence on acquiring and/or learning the intonation of the Target Language.
- The interference of the mother tongue on learning the Target Language in terms of intonation might be studied as a further research.

REFERENCES

ABERCROMBIE, D. (1967) Elements of General Phonetics, Edinburg University Press.

BERKOVITS, R. "Perception of intonation in native and non-native speakers of English", Language and Speech (1980 July), 23/3:271-280.

_____ "A perceptual study of sentence-final intonation", Language and Speech (1984), 16/1:291-308.

BOLINGER, D.L. "Around the edge of language: intonation" in Emig, J.A, J.T.Fleming, H.M. Popp (1966) Language and Learning, New York: Harcourt, Brace and World.

BROSNAHAN, L.F and B. Malmberg. (1970) Introduction to Phonetics, Cambridge: Heffner and Sons.

BRAZIL, D., M. Coulthard and C.Johns. (1980) Discourse Intonation and Language Teaching, London: Longman.

BROWN, G (1977) Listening to Spoken English, London: Longman.

_____ Practical phonetics and phonology in ALLEN, J.P.B. and S.P. Corder (1974) (eds) Techniques in Applied Linguistics, V:3, Oxford University Press.

CARRELL, J and W.Tiffany (1960) Phonetics: Theory and Application to Speech Improvement, U.S.A.: McGraw Hill.

CATFORD, J.C.(1977) Fundamental Problems in Phonetics, Edinburg University Press.

CURRIE,K.L. and G.Yule. "A return to fundamentals in the teaching of intonation", IRAL (1982 August), 20/3:228-232.

DARBYSHIRE,A.E.(1967) A Description of English, London: Edward Arnold.

DEMIREZEN, M (1986) Phonemics and Phonology-Theory through Analysis, Ankara.

de BOT,K. Visual feedback of intonation-I:effectiveness and induced practice behaviour, Language and Speech, (1983),26/4:331-350.

de BOT,K. and K. Mailfert. The teaching of intonation: fundamental research and classroom applications, TESOL (1982 March),16/1:71-77.

DUBIN, F. and E. Olshtain (1977) Facilitating Language Learning, A Guidebook for the ESL/EFL Teacher, New York:McGraw Hill.

ERTUNC, M (1976) An Introduction to Linguistics (Phonology), Gazi Teacher Training Institute.

FINOCCHIARO,M (1964) English as a Second Language-From Theory to Practice, U.S.A: Regents Publishing.

FRAENKEL, A. Survey review, ELT (1984),38/1:52-56.

FRIES, C.C (1952) The Structure of English- An Introduction to the Construction of English Sentences, Harcourt: Brace and Co.

FROMKIN, V. and R. Rodman (1978) An Introduction to Language. U.S.A.: Holt, Rinehard and Winston.

GILBERT,J (1984) Clear Speech-Pronunciation and Listening Comprehension in American English + Teacher's Manual and Answer Key, Cambridge University Press.

GIMSON,A.C. (1962) An Introduction to the Pronunciation of English, London: Edward Arnold (2nd. ed.1970).

HALL,R.A.(1964) Introductory Linguistics, Chilton Co.

HALLIDAY,M.A.K. Language structure and language function in LYONS,J (1970) (ed) New Horizons in Linguistics, Penguin Books.

HAYCRAFT, B (1971) The Teaching of Pronunciation: A classroom Guide, London:Longman.

HEFFNER,R.M.S.(1969) General Phonetics, The University of Wisconsin Press.

HILL,L.A.(1967) Selected Articles on the Teaching of English as a Foreign Language, Oxford University Press.

HUBBARD,P., H, Jones, B. Thornton and R Wheeler (1983) A Training Course for TEFL, Oxford University Press.

JACKSON,H (1980) Analyzing English: An Introduction to Descriptive Linguistics, Pergamon Press.

JONES, D (1918) An Outline of English Phonetics, Cambridge University Press (9th.ed.1960).

LADEFOGED.P (1975) A Course in Phonetics, New York: Harcourt Brace Jovanovich.

———— (1971) Preliminaries to Linguistic Phonetics, Chicago and London: The University of Chicago Press.

LADO, R (1964) Language Teaching- A Scientific Approach, McGraw-Hill.

———— (1976) Linguistics Across Cultures - Applied Linguistics for Language Teachers, The University of Michigan Press.

———— (1961) Language Testing: The Construction and Use of Foreign Language Tests - A Teacher's Book, U.S.A. McGraw-Hill.

LIEBERMAN, P (1967) Intonation, Perception and Language, Cambridge: M.I.T. Press- U.S.A. Riverside.

MALMBERG, B. (1963) Phonetics, New York: Dover Publications.

MAC CARTHY, P (1978) The Teaching of Pronunciation, Cambridge University Press.

O'CONNOR, J.D (1973) Phonetics, Penguin Books Limited.

PIKE, K.L. (1958) The Intonation of American English, University of Michigan Press.

PAULSTON, C.B. and M.N. Bruder (1976) Teaching English as a Second Language-Techniques and Procedures, Little, Brown, Co.

PRATOR, Jr.C & B.W, ROBINET (1972) Manual of American English Pronunciation New York: Holt, Rinehart and Winston.

PYLES, T and J Algeo (1970) English- An Introduction to Language, U.S.A.: Harcourt, Brace and World.

QUIRK., R(1962) The Use of English, Longman (with supplements by A.C. GIMSON and J. WARBURG)

RICHARDS, J.C (1985) "The context of language teaching" in RICHARDS,J.C. The Context of Language Teaching, New York: Cambridge University Press.

RIVERS, W.M. and M.S. Temperley (1978) A Practical Guide to the Teaching of English as a Second or Foreign Language, Oxford University Press.

ROACH,P (1983) English Phonetics and Phonology- A Practical Course, Cambridge Uiversity Press.

ROBERTS, P (1958) "Intonation" in DEAN, L. F. and K.G Wilson (1959)(eds) Essays on Language and Usage, Oxford University Press.

ROBERTS,J, "Teaching with functional materials: the problem of stress and intonation" ELTJ (1983 July),37/3; 213-220.

SELEN, N (1985) Alman Dilinin Fonetik ve Entonasyon Kuralları Anadolu Universitesi Basimevi.

ROBINET,B.W (1978) Teaching English to Speakers of Other Languages- Substance and Tec que, University of Minnesota Press and McGraw-Hill.

TENCH. P (1981) Pronunciation Skills, London: The Macmillan Press.

THOMSON.I (1981) Intonation Practice,Oxford University Press.

TUMPOSKY,N.R. "Activities for practicing stress and intonation, A Forum Anthology: Selected Articles from the ETF 1979-1983.111-115.

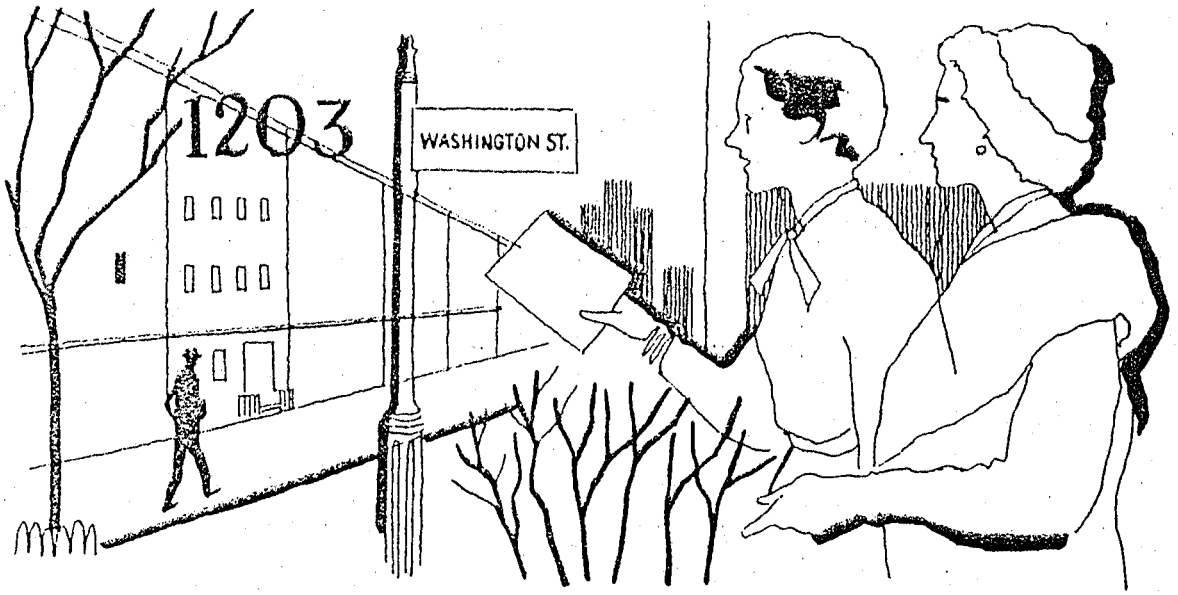
ULDALL.E(1960) "Attitudinal meanings conveyed by intonation contours in JONES W.E and J.Laver (eds) (1973) Phonetics in Linguistics-a book of readings, London: Longman.

WILKINS.D.A.(1972) Linguistics in Language Teaching, London: Edward Arnold Ltd.

WATANEBE,K. "Teaching stress and intonation at University in Japan" ELTJ (1977 Jan.) 31/2;158-163.

A P P E N D I C E S

UNIT 9 ASKING ABOUT ADDRESSES



271 **Where do you live?**
272 **I live on Washington Street.**
273 **What's your address?**
274 **I live at 1203 Washington Street.**
275 **I'm Mr. Smith's next door neighbor.**
276 **You live here in the city, don't you?**
277 **I'm from out of town.**
278 **How long have you lived here?**
279 **I've lived here for five years.**
280 **He's known me for over ten years.**
281 **I've spoken English all my life.**
282 **I've already read that book.**
283 **Has he studied French very long?**
284 **Have you had breakfast already?**
285 **Yes, I had breakfast two hours ago.**

INTONATION

125

271 Where do you live?

272 I live on Washington Street.

273 What's your address?

274 I live at 1203 Washington Street.

275 I'm Mr. Smith's next door neighbor.

276 You live here in the city, don't you?

277 I'm from out of town.

278 How long have you lived here?

279 I've lived here for five years.

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281 I've spoken English all my life.

282 I've already read that book.

283 Has he studied French very long?

284 Have you had breakfast already?

285 Yes, I had breakfast two hours ago.

APPENDIX B

COURSE OUTLINE

1987/88 Faculty of Education Anadolu University

A Methodological Study
of Systematic Intonation Teaching
to the Learners of English as a Foreign Language

Instructor: İlknur Maviş

Class Schedule: Whenever there is time apart from the subjects' actual classroom practice

Duration: 12 meetings (90 minutes for each)

Required Text: No specific material required. Hand-outs are given by the instructor

Device: Tape recorder

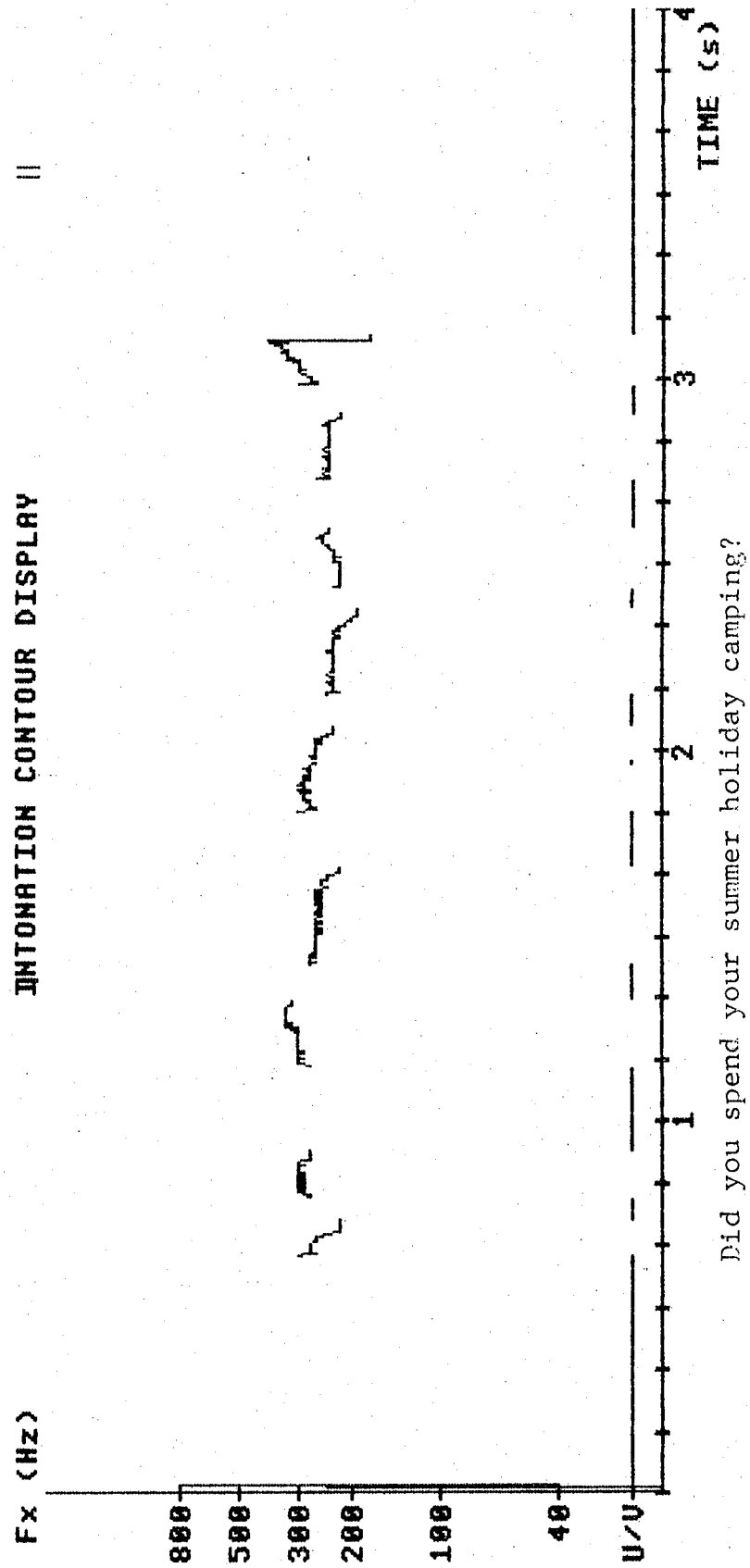
Description: A Methodological Study of teaching some basic tones (rising/falling) used in the Question Patterns of the Target Language.
Subjects are hoped to learn the use of intonation syntactically and attitudinally.
Question Patterns to be covered include: Yes and No Questions, Statement Questions, Wh- Questions, Alternative Questions, Question tags, Response Tags

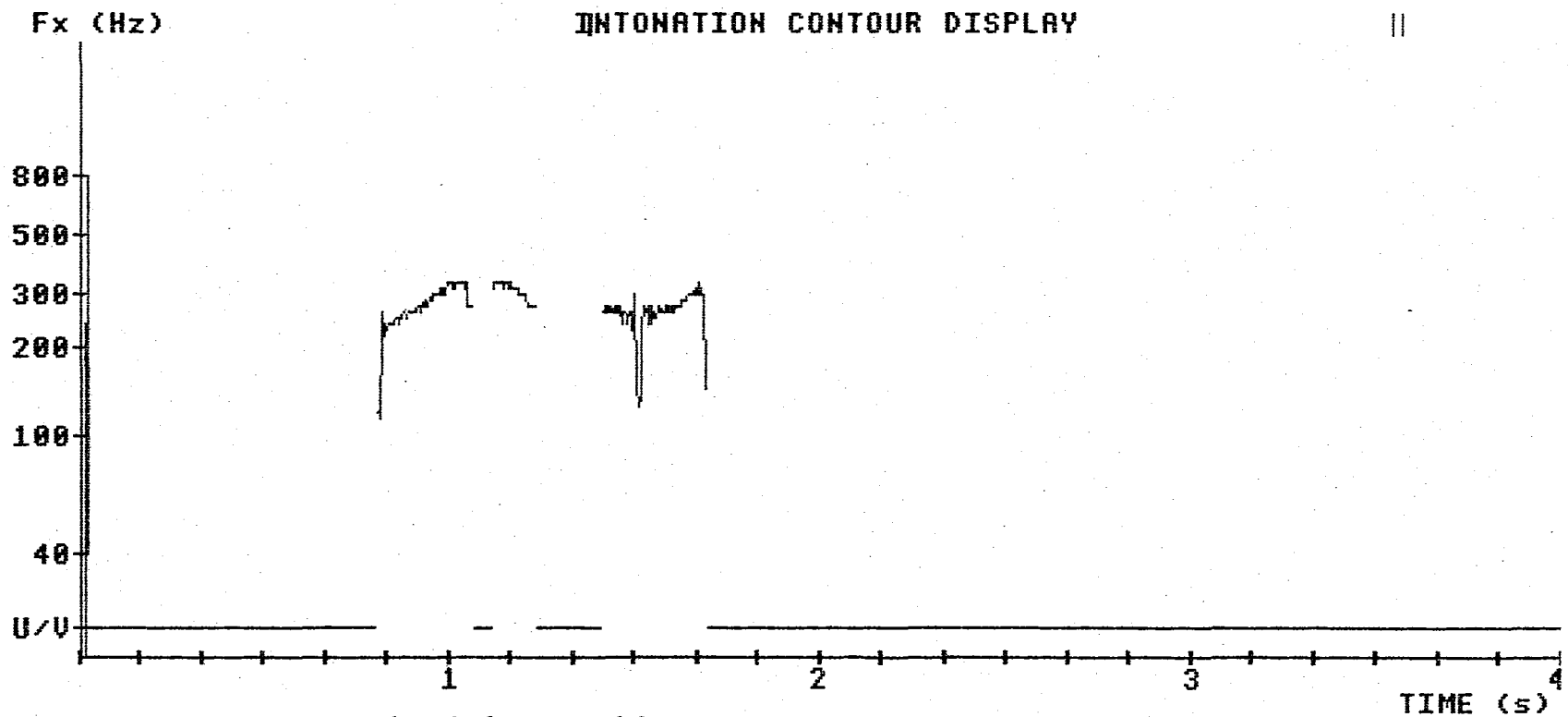
Objectives:-
- to develop a positive attitude in phonetics appreciating its complexity for the learners of English
- to provide students some knowledge about intonation and its functions
- to learn different functions of pitch inflection
- to discriminate rising and falling tones
- to improve students' awareness of the differences in intonation in terms of its use syntactically and attitudinally
- to be able to find the cause for EFL students' errors in the production of intonational utterences
- to let the students gain insights into methods and techniques for presenting intonation in EFL classrooms

APPENDIX B (CONTINUED)

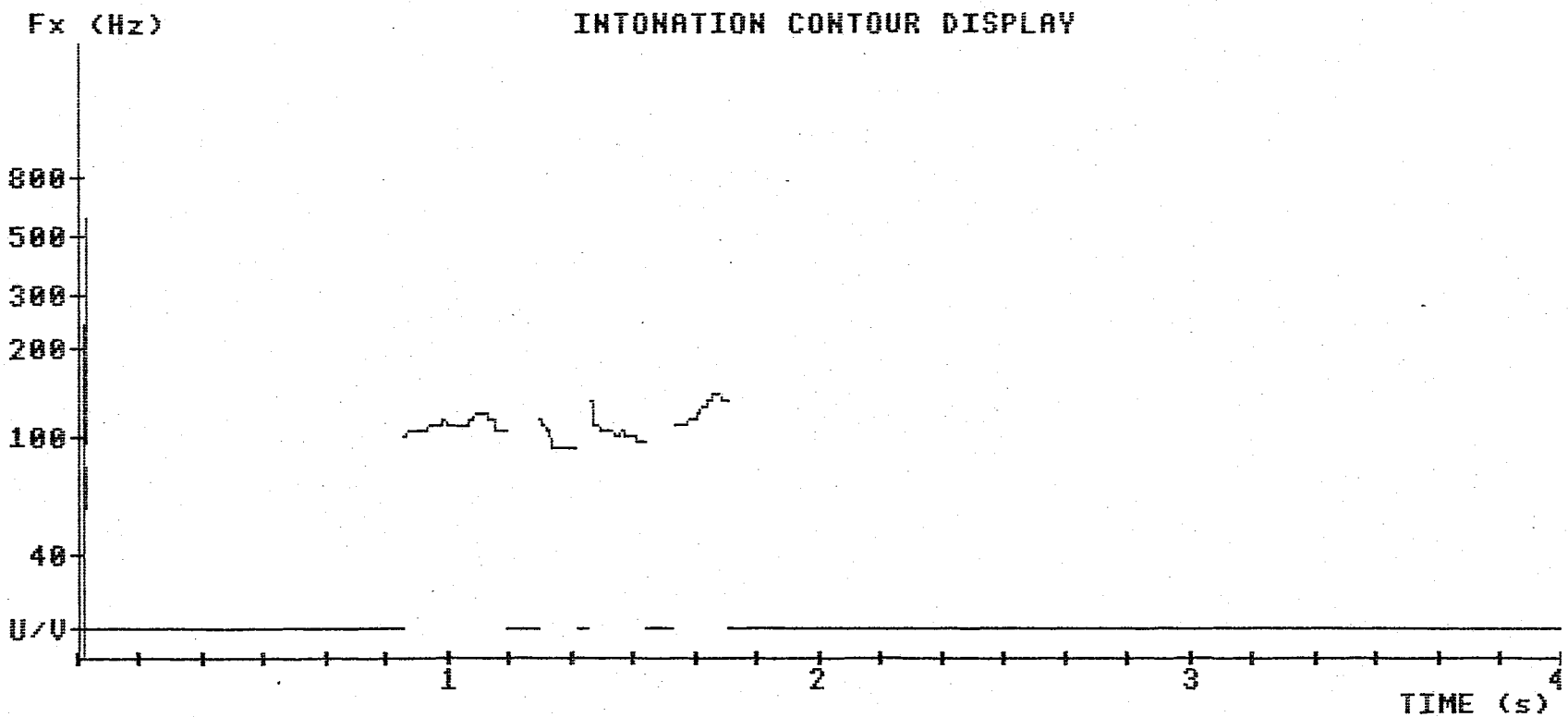
A TENTATIVE SYLLABUS

SESSION	TOPIC	
I	- General information about intonation and its functions (grammatical and attitudinal)	
2	- Tune distinction (rising / falling / mixed)	
	- Falling tune (↓)	Tea
	- Rising tune (↑)	Tea
	- Mixed tune (↓↑)	Tea , Tea
3 - 4	- Yes / No Questions	
	- Rising Tune (↑)	Are you from Eskişehir?
5	- Statement Questions	
	- Rising Tune (↑)	You are a teacher?
6 - 7	- Alternative Questions	
	- Mixed Tune (↑↓)	Are you Özlem or Gözde?
	- Rising Tune (↑)	Are you Özlem or Gözde?
8 - 9	- Wh- Questions	
		A: I'm going to Europe by car
	- Falling Tune (↓)	B: How
	- Rising Tune (↑)	B: How
10-11	- Question Tags	
	- Rising Tune (↑)	You are coming, aren't you ?
	- Falling Tune (↓)	You are coming, aren't you?
12	- Response Tags	
		A: I missed the bus today.
	- Falling Tune(↓) (polite interest)	B: Did you?
	- Rising Tune (↑) (concerned interest)	B: Did you ?

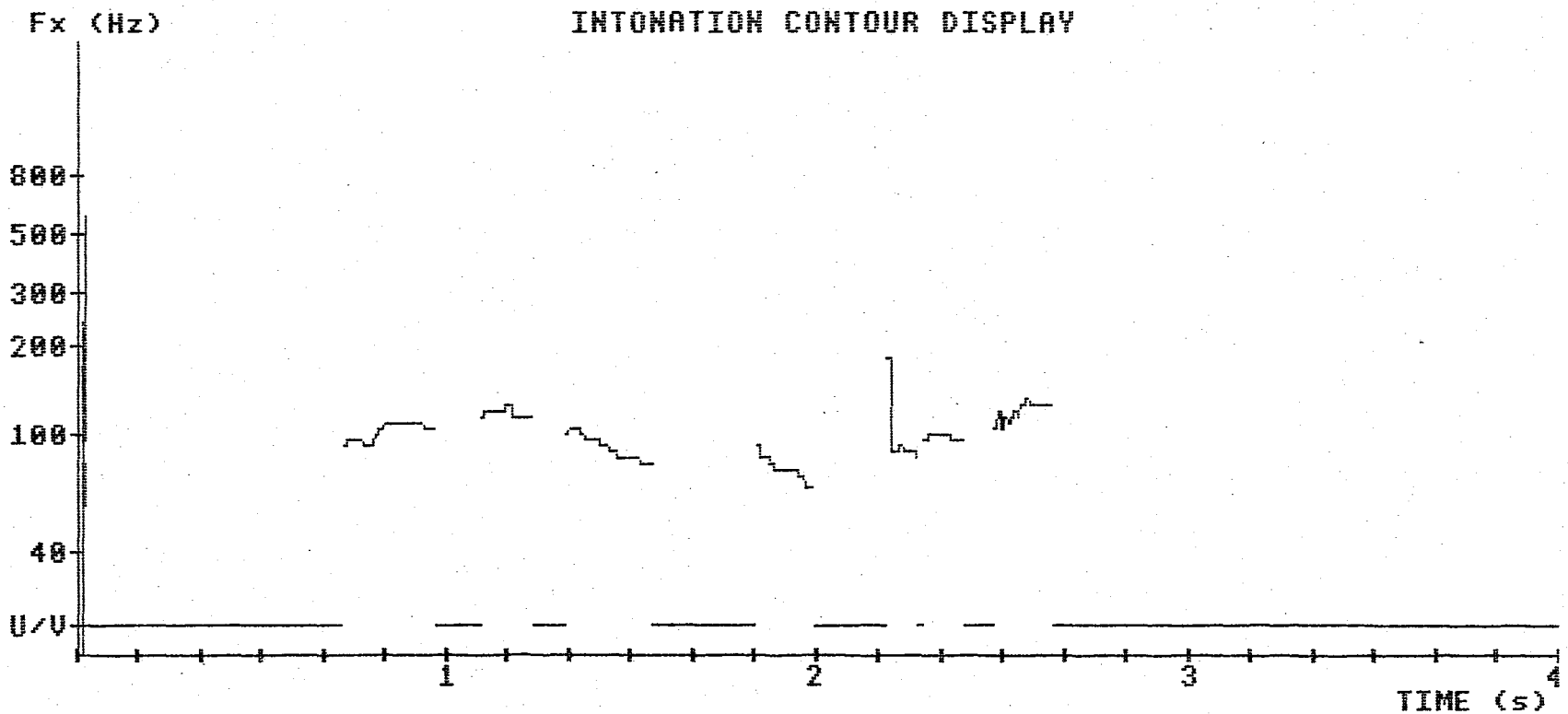

INTONATION CONTOUR DISPLAY
Fx (Hz)
800
500
300
200
100
40
U/V
1
2
3
4
TIME (s)
Did you spend your summer holiday camping?



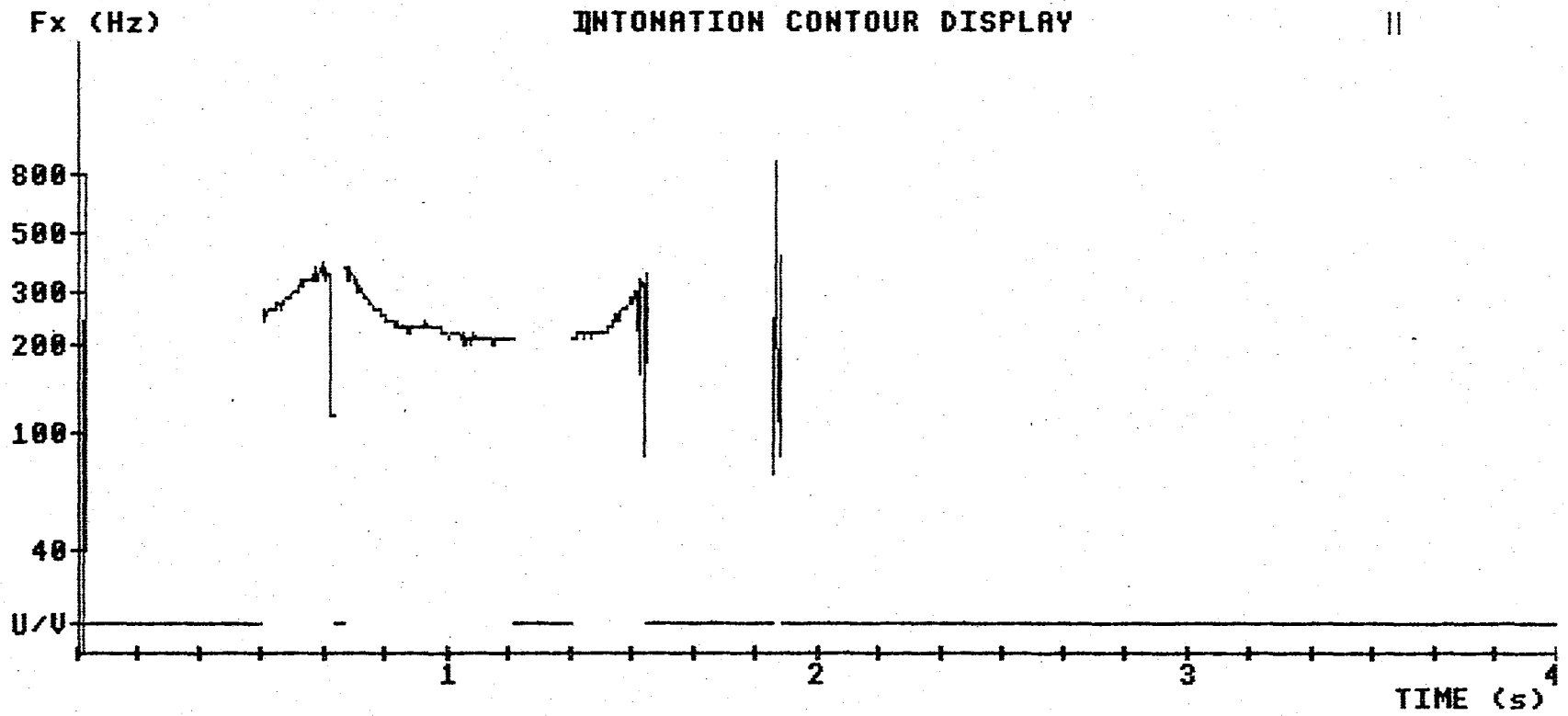
Why did you ask?



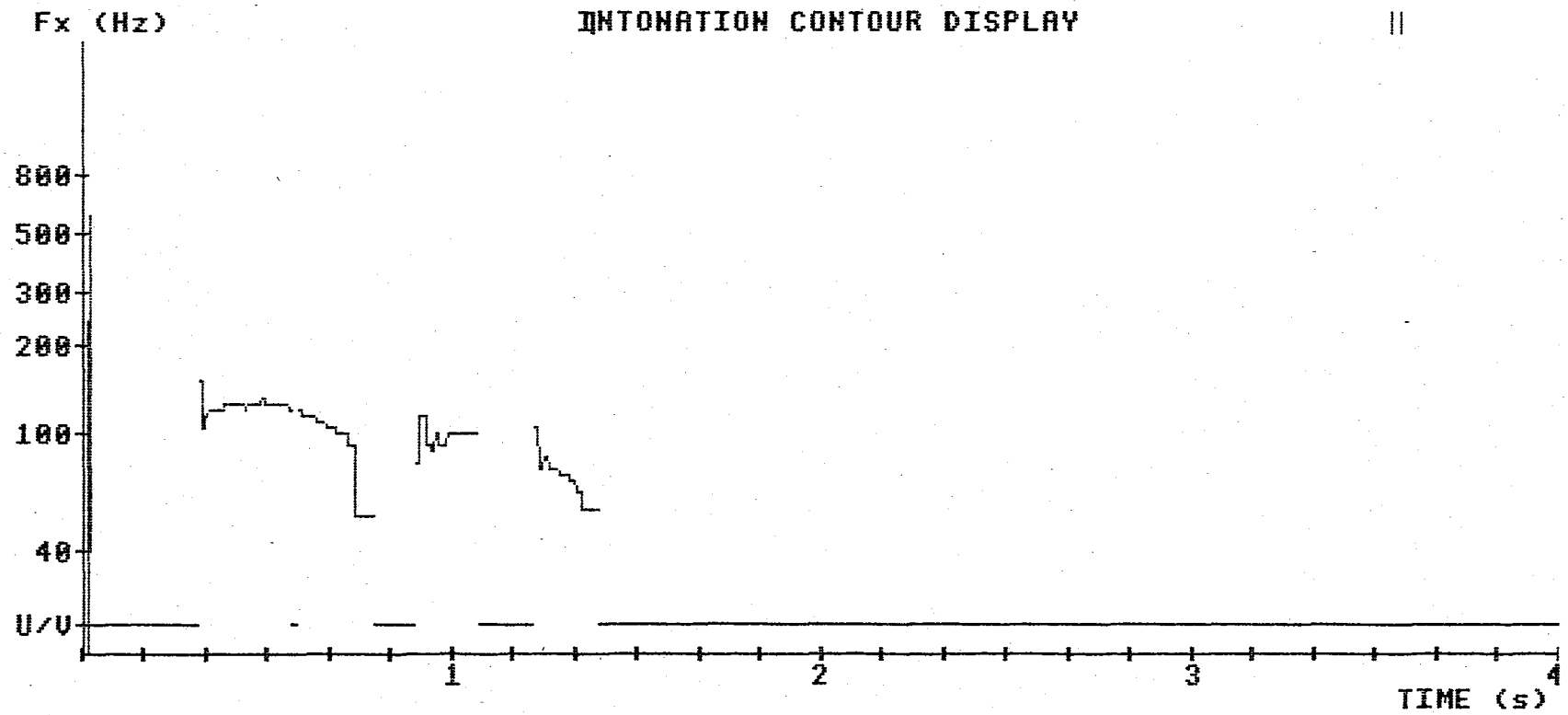
Where does he come from?



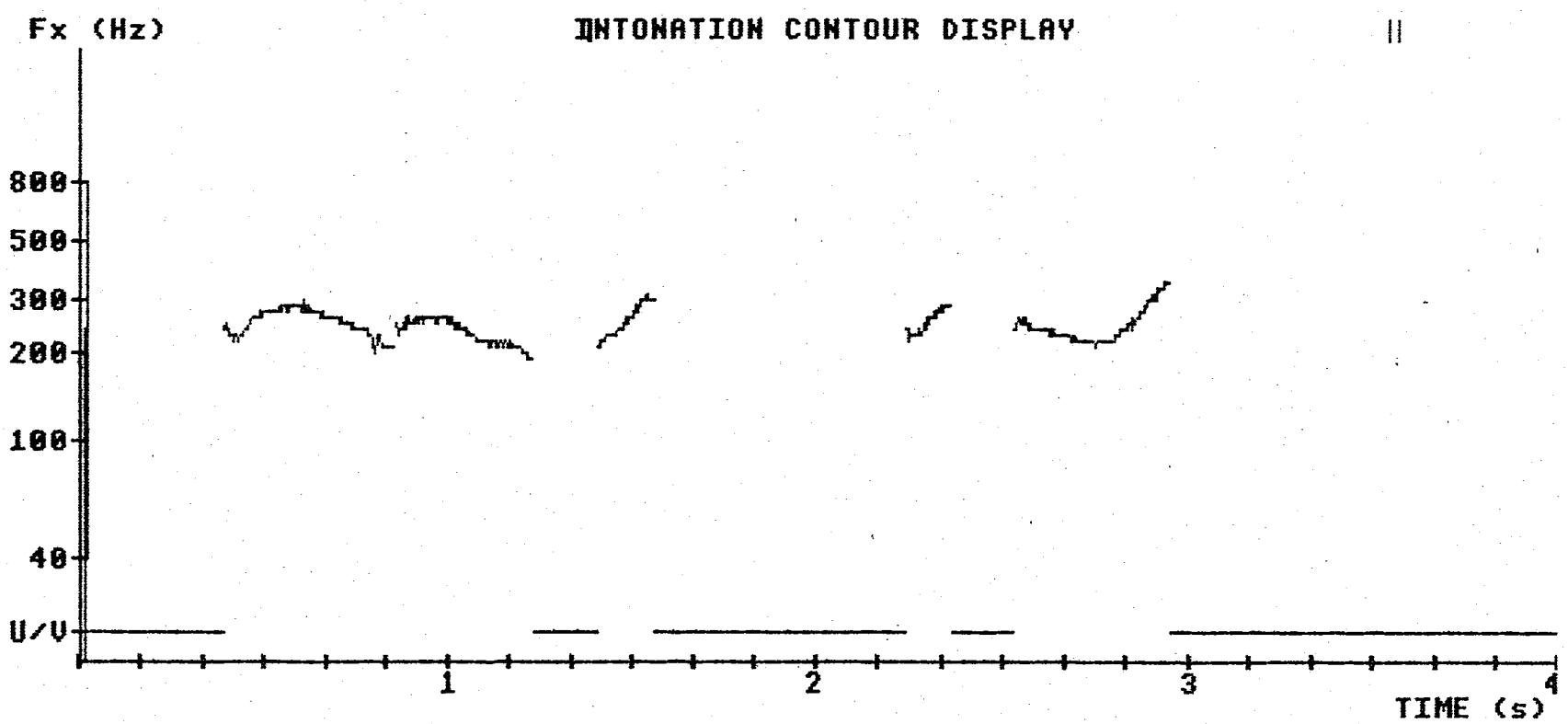
You went to Switzerland skiing, didn't you?



Where were you last night?

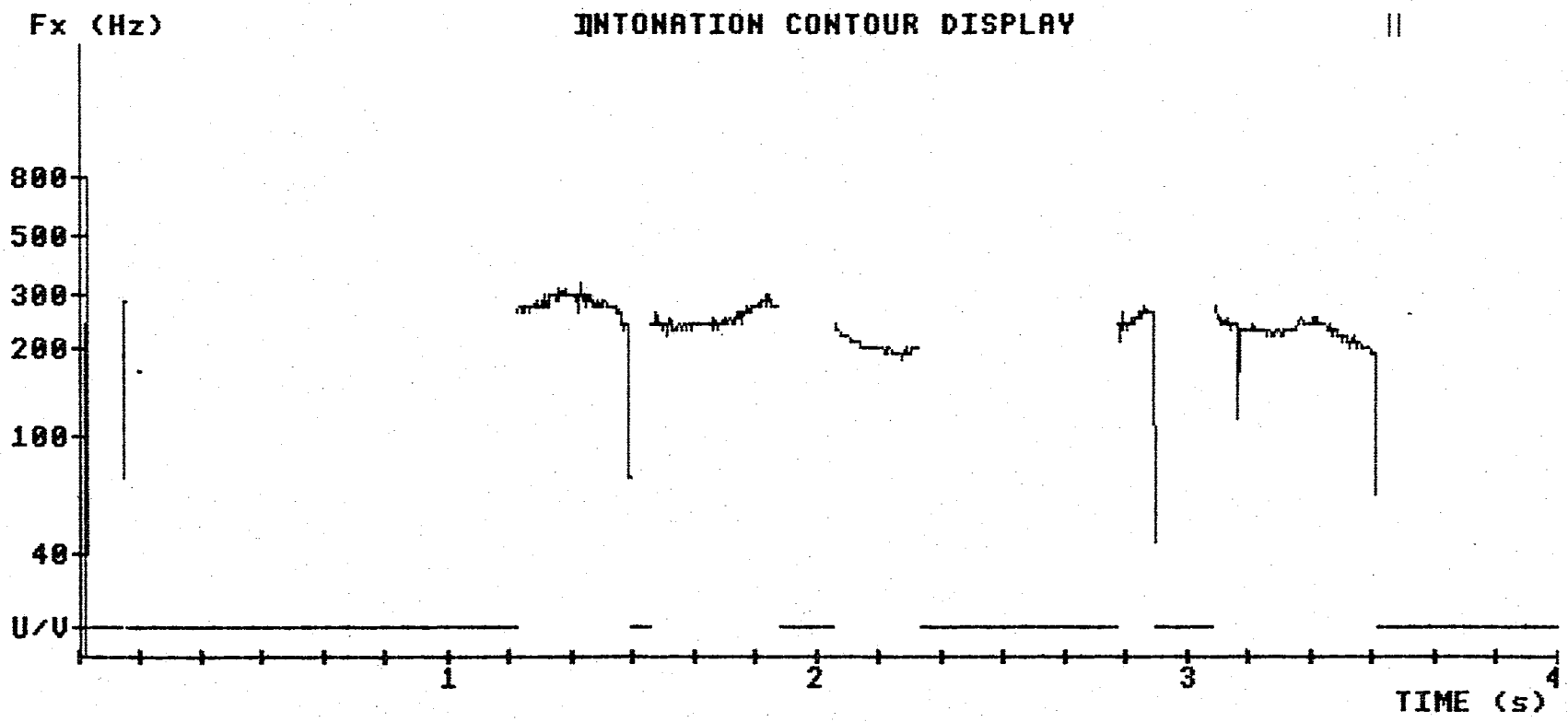


Where were you last night?



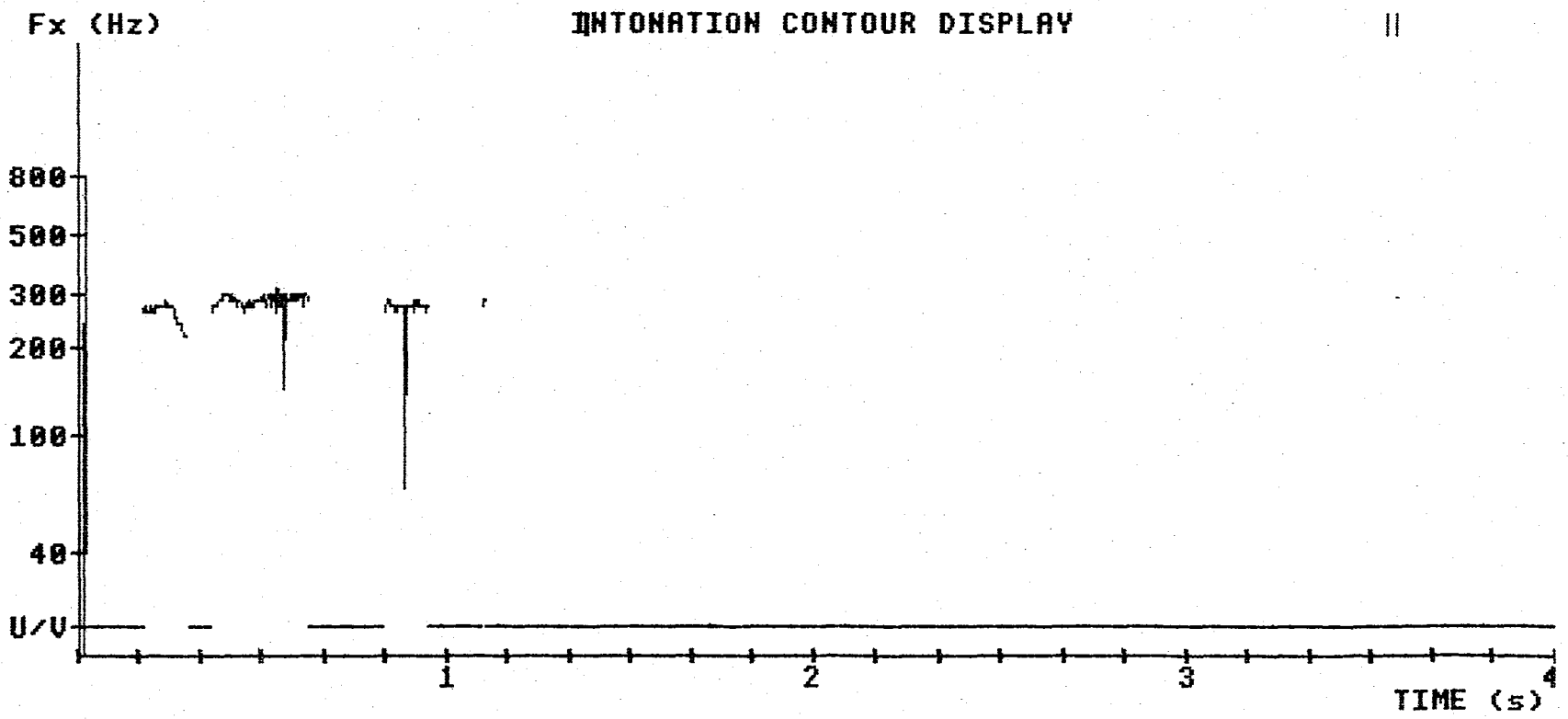
Where was I last night?

What do you mean?

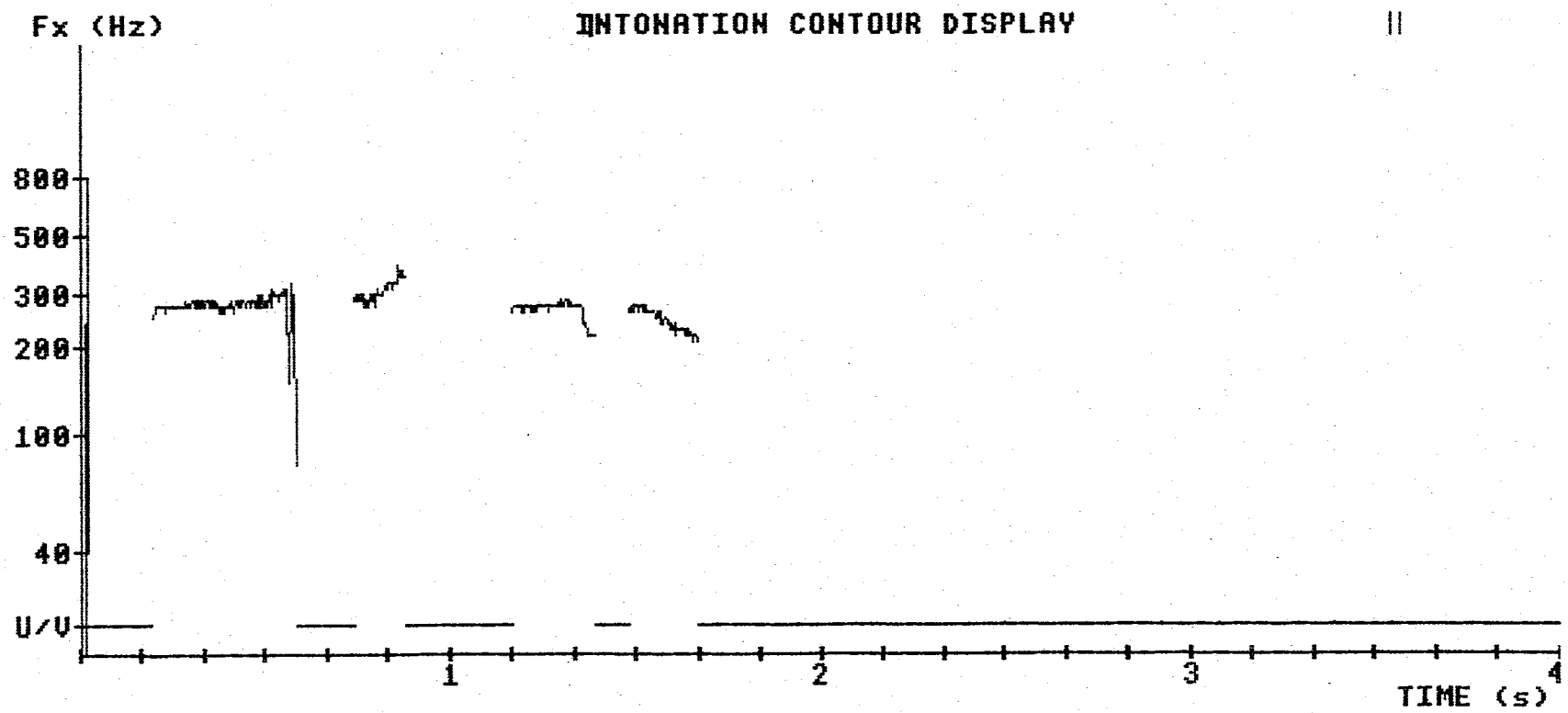


Where was I last night?

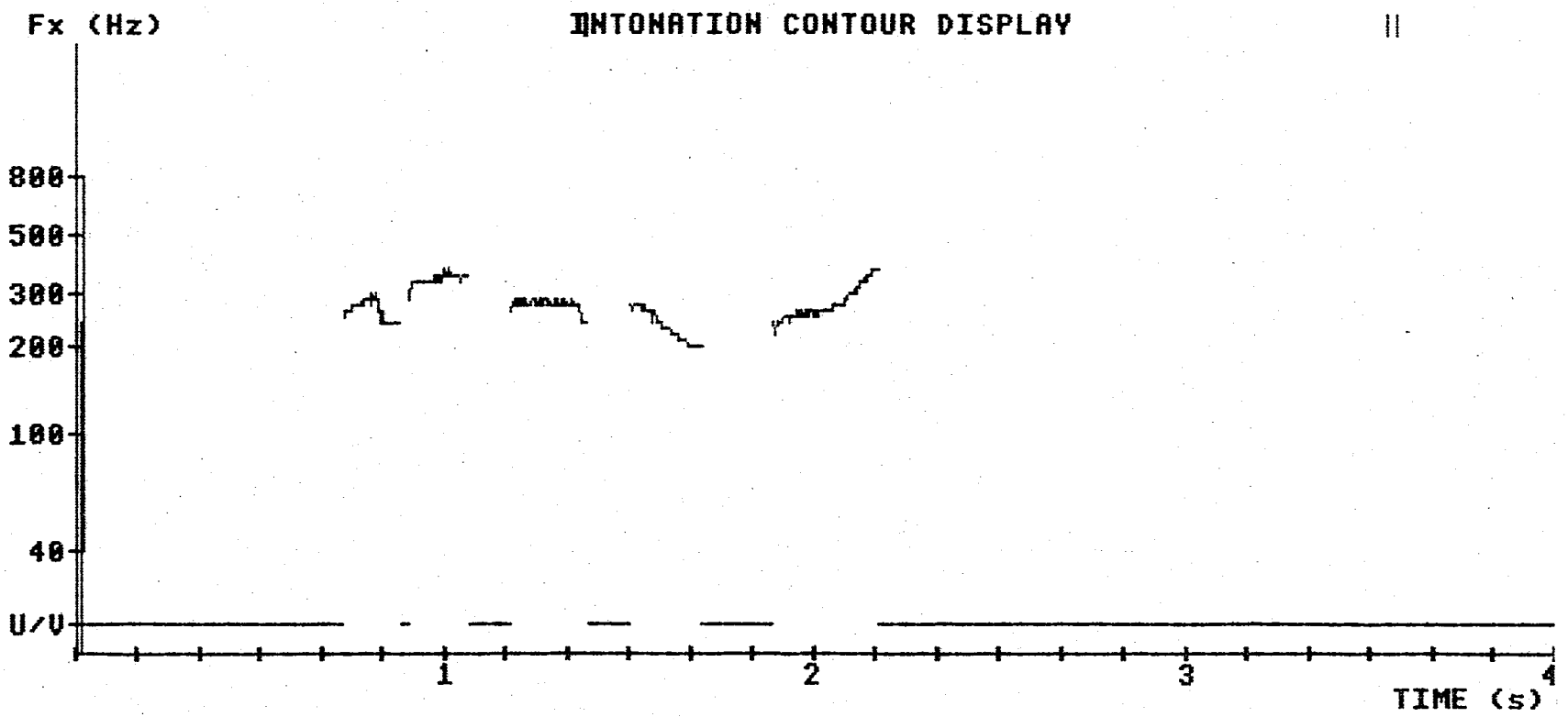
What do you mean?



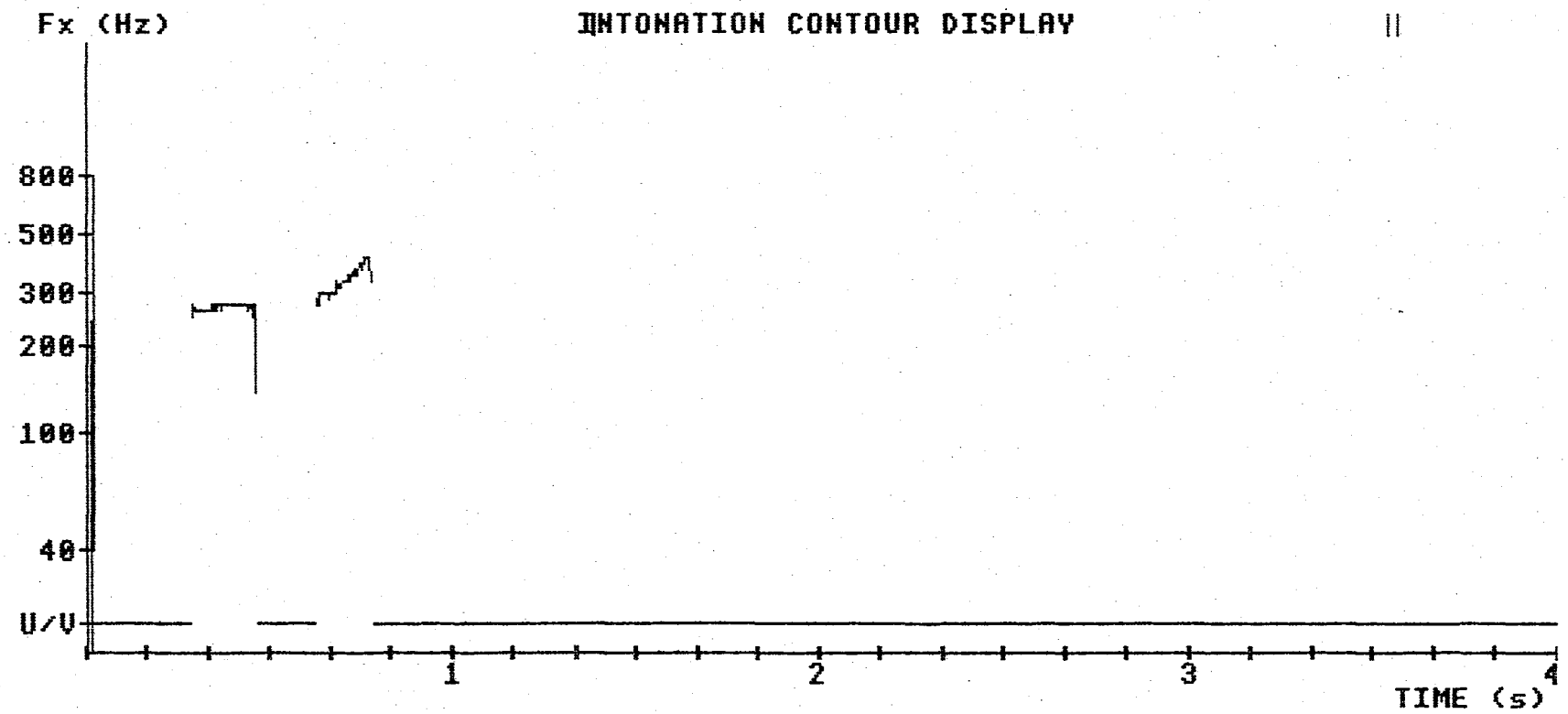
Would you like some tea?



Do you like milk or juice?



You don't like her, do you?


Fx (Hz)
INTONATION CONTOUR DISPLAY
800
500
300
200
100
40
U/V
1
2
3
4
TIME (s)

She's what?

APPENDIX D

PERCEPTION TEST I (PAIRS OF SENTENCES)

1. Was he mad ↓
   Was he mad ↓
2. You've bought one, haven't you ↓
   You've bought one, haven't you ↑
3. What are you doing ↑
   How old are you ↑
4. He isn't here, is he ↓
   She finally arrived, didn't she ↓
5. Were they all here ↓
   Were they all here ↑
6. Come here ↑
   Come and sit ↑
7. What are you doing ↓
   How old are you ↓
8. Have the men paid ↑
   Have the men paid ↓
9. Dreadful weather, isn't it ↓
   Dreadful weather, isn't it ↑
10. He isn't here, is he ↑
    She finally arrived, didn't she ↑

11. Am I planning to marry George ↑
    Am I planning to marry George ↓

12. Was he mad ↑
    Was he mad ↑

13. What time is it ↓
    It's two o'clok ↓

14. Was he mad ↑
    Was he mad ↓

15. Will you have cake or pastry ↓
    Will you have cake or pastry ↓

16. Were they all here ↑
    Were they all here ↑

17. You've bought one, haven't you ↑
    You've bought one, haven't you ↓

18. Am I planning to marry George ↓
    Am I planning to marry George ↓

19. What are you doing ↑
    How old are you ↓

20. Do you like dogs ↓
    Are you interested in music ↓

21. It's an animal ↑
    He's a student ↑

22. Dreadful weather, isn't it ↑
    Dreadful weather, isn't it ↓

23. He lives in Luton ↓
    He lives in Luton ↑

24. Do you like dogs ↑
    Are you interested in music ↑

25. What time is it ↓
    It's two o'clock ↑

26. You want to go to the movies ↓
    You want to go to the movies ↓

27. He lives in Luton ↑
    He lives in Luton ↑

28. It's an animal ↑
    He's a student ↓

29. Have the men paid ↑
    Have themen paid ↑

30. Good morning ↓
    Good morning ↑

31. Come here ↑
    Come and sit ↓

32. Do you like dogs ↓
    Are you interested in music ↑

33. Good morning ↑
    Good morning ↑

34. Was he mad ↓
    Was he mad ↑

35. Were they all here ↓
    Were they all here ↓

36. Do you want an apple or a pear ↑
    Shall we drive or shall we go by train ↑

37. Will you have cake or pastry ↓
    Will you have cake or pastry ↑

38. You've bought one, haven't you ↓
    You've bought one, haven't you ↓

39. Come here ↓
    Come and sit ↑

40. What time is it ↑
    It's two o'clock ↑

41. He isn't here, is he ↓
    She finally arrived, didn't she ↑

42. You want to go to the movies ↑
    You want to go to the movies ↓

43. Dreadful weather, isn't it ↓
    Dreadful weather, isn't it ↓

44. He isn't here, is he ↑
    She finall arrived, didn't she ↓

45. Have the men paid ↓
    Have the man paid ↓

46. Am I planning to marry George ↓
    Am I planning to marry George ↑

47. Do you want an apple or a pear ↑
    Shall we drive or shall we go by train ↓

48. Will you have cake or pastry ↑
    Will you have cake or pastry ↑

49. He lives in Luton ↑
    He lives in Luton ↓

50. Have the men paid ↓
    Have the men paid ↑

51. Wvere they all here ↑
    Were they all here ↓

52. Good morning ↓
    Good morning ↓

53. Come here ↓
    Come and sit ↓

54. What are you doing ↓
    How old are you ↑

55. Good morning ↑
    Good morning ↓

56. It's an animal ↓
    He's a student ↓

57. Dreadful weather, isn't it ↑
    Dreadful weather, isn't it ↑

58. It's an animal ↓
    He's a student ↑

59. You've bought one, haven't you ↑
    You've bought one, haven't you ↑

60. He lives in Luton ↓
    He lives in Luton ↓

61. Do you like dogs ↑
    Are you interested in music ↓

62. You want to go to the movies ↑
    You want to go to the movies ↑

63. Will you have cake or pastry ↑
    Will you have cake or pastry ↓

64. Do you want an apple or a pear ↓
    Shall we drive or shall we go by train ↑

65. Am I planning to marry George ↑
    Am I planning to marry George ↑

66. Do you want an apple or a pear ↓
    Shall we drive or shall we go by train ↓

67. What time is it ↑
    It's two o'clock ↓

68. You want to go to the movies ↓
    You want to go to the movies ↑

APPENDIX D (CONTINUED)

PERCEPTION TEST II (TRIPLETS OF SENTENCES)

1. This is my wife ↓
   My wife likes smoking and drinking ↑
   My wife is going ↑

2. The teacher speaks English ↓
   The teacher speaks English, Italian and French ↓
   The teacher doesn't speak any language ↑

3. Where do you come from ↓
   You come from London ↑
   How did you come ↑

4. What time is it ↑
   It's two o'clock ↓
   Is it ↓

5. These are your books, aren't they ↑
   Those aren't your pens, are they ↑
   That man is a teacher, isn't he ↓

6. You've paid, haven't you ↓
   You won't come, will you ↓
   It will be easier, won't it ↑

7. She's a lawyer ↑
   She's not a lawyer ↓
   She's a lawyer and she wants a job ↑

8. What time is it ↑
   It's two o'clock ↑
   Is it ↓

9. Go to your room ↑
   I'll go to my room and cry ↓
   Don't go ↓

10. These are your books, aren't they ↓
    Those aren't your pens, are they ↓
    That man is a teacher, isn't he ↑

11. Has he gone ↓
    Where am I going ↓
    He has gone ↑

12. Where do you come from ↑
    You come from London ↓
    How did you come ↓

13. You've paid, haven't you ↓
    You wan't come, will you ↑
    It will be easier, won't it ↓

14. Who's coming ↓
    Are you coming ↑
    You're coming ↑

15. Where do you come from ↑
    You come from London ↑
    How did you come ↓

16. What did you ask ↓
    Did you say something ↑
    When did you say ↑

17. Who's coming ↓
    Are you coming ↓
    You're coming ↑

18. Do you like tea ↓
    Do you like tea or coffee ↑
    Do you like tea or coffee or milk ↓

19. The coffee is hot ↑
    The coffee is hot ↓
    I'd like hot coffee ↑

20. These are your books, aren't they ↓
    Those aren't your pons, are they ↑
    That man is a teacher, isn't he ↓

21. Where do you come from ↓
    You come from London ↑
    How did you come ↓

22. What a ridiculous idea ↓
    I think that's a good idea ↑
    What a strange sensation ↑

23. What time is it ↑
    It's two o'clock ↓
    Is it ↑

24. This is my wife ↓
    My wife likes smoking and drinking ↓
    My wife is going ↑

25. Go to your room ↓
    I'll go to my room and cry ↓
    Don't go ↑

26. Has he gone ↓
    Where am I going ↑
    He has gone ↑

27. Where do you live, Mr. Jackson ↓
    Mr. Jackson, this is Mrs. Smith ↓
    I'm glad to meet you, Mrs. Smith ↑

28. What a ridiculous idea ↓
    I think that's a good idea ↑
    What a strange sensation ↓

30. Do you like tea ↓
    Do you like tea or coffee ↑
    Do you like tea or coffee or milk ↓

31. What did you ask ↓
    Did you say something ↓
    When did you say ↑

32. Who's coming ↑
    Are you coming ↓
    You're coming ↑

33. Go to your room ↓

I'll go to my room and cry ↑

Don't go ↑

34. She's a lawyer ↓

She's not a lawyer ↓

She's a lawyer and she wants a job ↑

35. The cofffe is hot ↓

The coffee is hot ↑

I'd like hot coffee ↑

36. What a ridiculous idea ↑

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She's not a lawyer ↑

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Did you say something ↓

When did you say ↑

39. Where do you live, Mr. Jackson ↓

Mr. Jackson, this is Mrs. Smith ↑

I'm glad to meet you, Mrs. Smith ↓

40. What a ridiculous idea ↑

I think that's a good idea ↓

What a strange sensation ↑

41. She's a lawyer ↑
    She's not a lawyer ↓
    She's a lawyer and she wants a job ↓

42. What time is it ↓
    It's two o'clock ↑
    Is it ↑

43. Has he gone ↑
    Where am I going ↑
    He has gone ↓

44. Where do you come from ↑
    You come from London ↓
    How did you come ↑

45. These are your books, aren't they ↑
    Those aren't your pens, are they ↓
    That man is a teacher, isn't he ↑

46. The coffee is hot ↓
    The coffee is hot ↓
    I'd like hot coffee ↑

47. This is my wife ↑
    My wife likes smoking and drinking ↓
    My wife is going ↓

48. These are your books, aren't they ↓
    Those aren't your pens, are they ↑
    That man is a teacher, isn't he ↑

49. Go to your room ↑
    I'll go to my room and cry ↓
    Don't go ↑

50. Has he gone ↑
    Where am I going ↓
    He has gone ↓

51. Do you like tea ↑
    Do you like tea or coffee ↑
    Do you like tea or coffee or milk ↓

52. Go to your room ↑
    I'll go to my room and cry ↑
    Don't go ↓

53. Where do you live, Mr. Jackson ↑
    Mr. Jackson, this is Mrs. Smith ↓
    I'm glad to meet you, Mrs. Smith ↓

54. The teacher speaks English ↓
    The teacher speaks English, Italian and French ↑
    The teacher doesn't speak any language ↓

55. Do you like tea ↑
    Do you like tea or coffee ↓
    Do you like tea or coffee or milk ↓

56. Go to your room ↓
    I'll go to my room and cry ↑
    Don't go ↓

57. Where do you live, Mr. Jackson ↑
    Mr. Jackson, this is Mrs. Smith ↑
    I'm glad to meet you, Mrs. Smith ↓

58. The coffee is hot ↓
    The coffee is hot ↑
    I'd like hot coffee ↓

59. What a ridiculous idea ↑
    I think that's a good idea ↑
    What a strange sensation ↓

60. What did you ask ↑
    Did you say something ↑
    When did you say ↓

61. The teacher speaks English ↑
    The teacher speaks English, Italian and French ↓
    The teacher doesn't speak any language ↓

62. She's a lawyer ↓
    She's not a lawyer ↑
    She's a lawyer and she wants a job ↑

63. These are your books, aren't they ↑
    Those aren't your pens, are they ↓
    That man is a teacher, isn't he ↓

64. You've paid, haven't you ↓
    You won't come, will you ↑
    It will be easier, won't it ↑

65. Where do you live, Mr. Jackson ↑
Mr. Jackson, this is Mrs. Smith ↓
I'm glad to meet you, Mrs. Smith ↑

66. Do you like tea ↑
Do you like tea or coffee ↓
Do you like tea or coffee or milk ↑

67. She's a lawyer ↑
She's not a lawyer ↑
She's a lawyer and she wants a job ↓

68. You've paid, haven't you ↑
You won't come, will you ↑
It will be easier, won't it ↓

69. This is my wife ↑
My wife likes smoking and drinking ↑
My wife is going ↓

70. The coffee is hot ↑
The coffee is hot ↓
I'd like hot coffee ↓

71. Where do you live, Mr. Jackson ↓
Mr. Jackson, this is Mrs. Smith ↑
I'm glad to meet you, Mrs. Smith ↑

72. You've paid, haven't you ↑
You won't come, will you ↓
It will be easier, won't it ↓

73. This is my wife ↓

My wife likes smoking and drinking ↑

My wife is going ↓

74. Who's coming ↑

Are you coming ↑

You're coming ↓

75. What did you ask ↓

Did you say something ↓

When did you say ↑

76. You've paid, haven't you ↑

You won't come, will you ↓

It will be easier, won't it ↑

77. Has he gone ↓

Where am I going ↑

He has gone ↓

78. Who's coming ↑

Are you coming ↓

You're coming ↓

79. The coffee is hot ↑

The coffee is hot ↑

I'd like hot coffee ↓

80. The teacher speaks English ↓

The teacher speaks English, Italian and French ↑

The teacher doesn't speak any language ↑

81. Has he gone ↑

Where am I going ↓

He has gone ↑

82. This is my wife ↑

My wife likes smoking and drinking ↓

My wife is going ↑

83. Who's coming ↓

Are you coming ↑

You're coming ↓

84. What time is it ↓

It's two o'clock ↓

Is it ↑

85. The teacher speaks English ↑

The teacher speaks English, Italian and French ↑

The teacher doesn't speak any language ↓

86. Do you like tea ↓

Do you like tea or coffee ↓

Do you like tea or coffee or milk ↑

87. What did you ask ↓

Did you say something ↑

When did you say ↓

88. Where do you come from ↓

You come from London ↓

How did you come ↑

89. What a ridiculous idea ↓

I think that's a good idea ↓

What a strange sensation ↑

90. The teacher speaks English ↑

The teacher speaks English, Italian and French ↓

The teacher doesn't speak any language ↑

Faculty:

Name and surname:

INSTRUCTION: Listen to the following pairs of sentences and write down if their intonation is same or different:

PERCEPTION TEST

	S	D
1.	0	0
2.	0	0
3.	0	0
4.	0	0
5.	0	0
6.	0	0
7.	0	0
8.	0	0
9.	0	0
10.	0	0
11.	0	0
12.	0	0
13.	0	0
14.	0	0
15.	0	0
16.	0	0
17.	0	0
18.	0	0
19.	0	0
20.	0	0
21.	0	0
22.	0	0
23.	0	0
24.	0	0
25.	0	0
26.	0	0
27.	0	0
28.	0	0
29.	0	0
30.	0	0

	S	D
31.	0	0
32.	0	0
33.	0	0
34.	0	0
35.	0	0
36.	0	0
37.	0	0
38.	0	0
39.	0	0
40.	0	0
41.	0	0
42.	0	0
43.	0	0
44.	0	0
45.	0	0
46.	0	0
47.	0	0
48.	0	0
49.	0	0
50.	0	0
51.	0	0
52.	0	0
53.	0	0
54.	0	0
55.	0	0
56.	0	0
57.	0	0
58.	0	0
59.	0	0
60.	0	0

	S	D
61.	0	0
62.	0	0
63.	0	0
64.	0	0
65.	0	0
66.	0	0
67.	0	0
68.	0	0

Faculty:

APPENDIX D (CONTINUED)

Name and surname:

INSTRUCTION: Listen to the following triplets of sentences and mark those which are the same:

PERCEPTION TEST

	1	2	3
.	0	0	0
.	0	0	0
.	0	0	0
.	0	0	0
.	0	0	0
.	0	0	0
.	0	0	0
,	0	0	0
.	0	0	0
0.	0	0	0
1.	0	0	0
2.	0	0	0
3.	0	0	0
4.	0	0	0
5.	0	0	0
6.	0	0	0
7.	0	0	0
8.	0	0	0
9.	0	0	0
0.	0	0	0
1.	0	0	0
2.	0	0	0
3.	0	0	0
4.	0	0	0
5.	0	0	0
6.	0	0	0
7.	0	0	0
8.	0	0	0
9.	0	0	0
0.	0	0	0

	1	2	3
31.	0	0	0
32.	0	0	0
33.	0	0	0
34.	0	0	0
35.	0	0	0
36.	0	0	0
37.	0	0	0
38.	0	0	0
39.	0	0	0
40.	0	0	0
41.	0	0	0
42.	0	0	0
43.	0	0	0
44.	0	0	0
45.	0	0	0
46.	0	0	0
47.	0	0	0
48.	0	0	0
49.	0	0	0
50.	0	0	0
51.	0	0	0
52.	0	0	0
53.	0	0	0
54.	0	0	0
55.	0	0	0
56.	0	0	0
57.	0	0	0
58.	0	0	0
59.	0	0	0
60.	0	0	0

	1	2	3
61.	0	0	0
62.	0	0	0
63.	0	0	0
64.	0	0	0
65.	0	0	0
66.	0	0	0
67.	0	0	0
68.	0	0	0
69.	0	0	0
70.	0	0	0
71.	0	0	0
72.	0	0	0
73.	0	0	0
74.	0	0	0
75.	0	0	0
76.	0	0	0
77.	0	0	0
78.	0	0	0
79.	0	0	0
80.	0	0	0
81.	0	0	0
82.	0	0	0
83.	0	0	0
84.	0	0	0
85.	0	0	0
86.	0	0	0
87.	0	0	0
88.	0	0	0
89.	0	0	0
90.	0	0	0

APPENDIX E

PRODUCTION TEST

A: Did you spend your summer holiday camping? ↑

B: Yes, did you? ↑

A: Mary's had a baby. Isn't it wonderful.

B: She had a boy? ↑

A: Why did you ask? ↓

A: He comes from Algeria.

B: Where does he come from? ↑

A: Algeria

A: You went to Switzerland skiing, didn't you? ↑

B: Skiing?

A: Come in Sarah. Would you like some coffee? ↑

B: No, thanks Alan.

A: Would you like some tea? ↑

B: No, I'm O.K., thanks.

A: Well, do you like milk or juice? ↑

A: Where were you last night? ↓

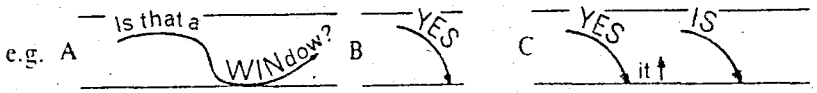
B: Where was I last night? ↑ What do you mean? ↓

A: You don't like her, do you? ↓

B: Well, I don't. She's older than you.

A: She's what? ↑

To test the students' ability the teacher should draw the following three intonation lines on the blackboard and get the students to ask a question that fits the rising line *A* and respond accordingly to *B* and *C*.



The falling tune of question-word questions. 'Who?', 'What?', and 'Where?' form part of the student's earliest needs; the questions beginning with question words should be taught with their characteristic falling tune.[1] This will not come easy to students used in their own language to linking questions with a final rise in tune. If they have practised tune distinction as previously described then it should be easier for them to remember to use it. Any tendency to use a rising tune should be corrected for the moment.[2]

Who. Pointing to pictures, the teacher asks mixed questions which he at first answers.

Is that a man?	(Yes, it is.)
Who is it?	(It's the Pope.)
Is he a politician?	(No, he isn't *or* Yes, he is.)
Is that Stalin?	(No, it isn't.)
Who is it?	(It's Richard Burton.)

The students should first be encouraged to supply the answers, then to ask the questions. As soon as they appear to use '*Who?*' confidently, the stress and intonation pattern should be presented

Stress: O o o (WHO is it?) Intonation O \o o WHO is it?

What? and Where? Use similar exercises to the above. Pointing to pictures of cars, etc., the teacher asks (and the students probably give the responses):

Is that a helicopter?	(No, it isn't.)
What is it?	(It's a car.)
Is it an Alfa Romeo?	(No, it isn't.)
What is it?	(It's a Fiat.)
Is this a Fiat?	(No, it isn't.)
What is it?	(It's a tank submarine, etc.)
What's this?	(It's a dog.)
etc.	

Pointing to a map the teacher asks:

Is this France?	(No, it isn't.)
Where is it?	
etc.	

1. See pp. 87–8 for question-word questions and rising intonation. 2. Ibid.

So far the students' responses have used patterns of *one stress only* with either a rising or a falling tone, deliberately avoiding any secondary stresses. This matches the lively and emphatic speech we want to use in the early stages, e.g.:

Are you MaRIa? / Is that a BAby? } (Stress starting a rising tone.)

Yes. No.
I AM. I'm NOT.
It IS. It ISN'T.
WHO is it?
Who is THAT? THIS?
It's MaRIa.
} (Stress starting a falling tone.)

It is well worth restricting the teaching material to phrases of single stress during the first six hours, or until the students have mastered them. The introduction of exercises with two or more stresses may make it necessary to introduce pitch control (see pp. 73–5) to cope with the tones of level pitch (a static tone, neither rising nor falling), e.g., 'The TRAIN is in the STATION' or 'The TRAIN is at PLATform ONE'. Although some multi-stressed structures may appear to be ideal for initial teaching, they may present students with a complex pattern of stress and intonation they are quite unable to cope with. The following selection of structures can be taught at once, using the pattern of one stress with either a rising or falling tone.

The personal pronouns.
The past and present tenses of the verbs *to be* and *have got*.
The present continuous tense.
The place of the negative.
The verb *to do* and in certain instances the verb *can*.
Plurals, the articles and *some*.
The expression *Would you like . . .?*

Continue the practice making sure that the examples require only one stress as follows:

(What are they?)	They're ANimals.
(You haven't got any animals at home, have you?)	YES, I've got a DOG.[1]
(Can you speak Chinese?)	I CAN'T (I'm afraid).
(Do you have snails for breakfast?)	No, I DON'T![1]

Avoid eliciting answers as follows:

(What are dinosaurs?)	(WELL,) They're BIG ANimals.
(What time is it?)	I HAVEN'T got a WATCH.
(What does prosit mean?)	I DON'T SPEAK LATin (actually).
(Have a cigarette.)	I DON'T SMOKE.

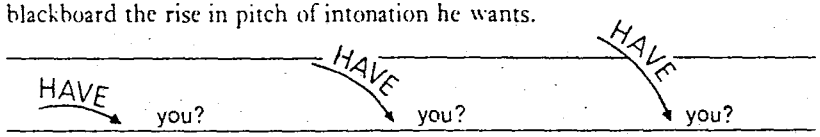
---

1. The replies "No, I DON'T!" or 'YES, I've got a DOG' form two sense groups each of one

The falling tune with ever-growing surprise. The following sentences are said to encourage a higher pitch from which the falling tune can descend.

T. I've got a dog.	*S.* 'Have you?' (*only* the falling tone as in exclamations).
T. I've got a dog that can jump.	*S.* Have you?
T. I've got a dog that can talk.	*S.* Have you?
T. She lost her handbag yesterday.	*S.* Did she?
T. It was stolen.	*S.* Was it?
T. It was stolen by a friend.	*S.* Was it?
T. This'll cost you some money, André.	*S.* Will it?
T. It'll probably be quite a lot.	*S.* Will it?
T. It'll ruin you, I should think.	*S.* Will it?

This exercise should be done once, then the teacher should illustrate on the blackboard the rise in pitch of intonation he wants.



The class rehearses these examples in chorus, then the above exercise is repeated with general criticism of individual students' performances. To complete the lesson the class in chorus should respond with increasing excitement to these questions put by the teacher.

T. I'm going to leave this job.	C. Are you?
T. I've got a new job.	C. Have you?
T. I'm going into the circus.	C. Are you?

With keen responsive students a variation on the exercise allows the teacher to maintain a low level voice pitch of indifference, while the students react with increasing feeling.

Note. An indecisive place of stress, or a low level pitch must be instantly corrected (the 'mood' cards are useful for this), but imperfect sounds may pass. The concentration on the falling tone and the use of pitch make mistakes on stress or on sounds unlikely.

Tune distinction

Before proceeding to longer sentence patterns, the class is tested on its ability to tell a falling tune from a rising one, and an ultimately falling tune from an ultimately rising tune. Use the same method and similar exercises as were used for the beginners (pp. 17–19).

Falling tune: Yes. No. Me. You. Today. Monday. I know. Was it?, etc.
Rising tune: Yes?. No?. Me?. You?. Monday?. Do you?. Was it?, etc.
Mixed tunes: Down. Down?. Did he?. Did he?. Up? A friend. Who?, etc.

Ultimate falling tune in longer sentences:

(*a*) I've already told you to shut UP !

Ultimate rising tune in longer sentences:

(*b*) Did you say it was for ME ?

Both dropping to a low pitch just before the end of (*a*) and sharply rising to a high pitch just before the end of (*b*), distract the listener from noticing the final rise or fall. When the last word consists of a short vowel-sound and a stop consonant as in 'up', it becomes even more difficult to distinguish the final movement of the intonation, particularly if 'up' in fact falls. If the students need convincing that there was a final intonation fall or rise, repeat the sentence both ways (see Appendix, pp. 149–51).

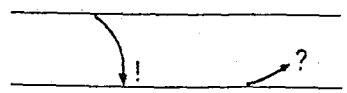
I've already told you to shut UP !!

I've already told you to shut UP ??

Mixed exercises

Teacher. Query what I say.	*Student*
Christ was born on November the 24th.	November the 24th?
America was discovered by the French.	The French?
You're now going to stand on your head.	Stand on my head?
Teacher. Correct me if I'm wrong.	
Kangaroos are common in China	In Australia.
The first space flight occured in 1857.	In 1957.
Rats are wonderful.	Rats are horrible.

Throughout the teacher should illustrate the high fall or the deep rise of the stressed syllable in each example on the blackboard.

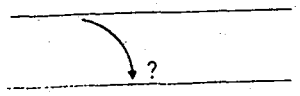


The students can be asked if they agree with the height or depth of the tone. The exercises should be done again, this time very fast, with the teacher correcting and prompting as required.

Note. At this point the teacher may decide to resume work with books but oral exercises should be continued if possible using prompt-words or keywords to maintain progress in speech rather than in reading.

The falling tune in questions beginning with question-words

A. Using one stress. The class is asked to listen carefully to discover whether the tune used in the following questions falls or rises (should a student think the tune rises he should say so). The teacher points at various pictures, people, or students, and asks:



WHO?
(Pause between each)

WHAT?, WHERE?, WHY?, HOW?, WHEN? *The questions should* not *be answered.* Should a student say he heard a rise in tune, the teacher must repeat the question-word and demonstrate the fall with his hand through the air.

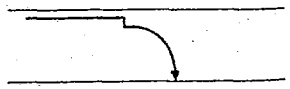
The question-words are repeated in chorus by the class, following the teacher, with a pause between each. Each student is told something which they must query using one of the question-words. It is worth repeating the exercise several times using the same or similar sentences:

T. Please leave the room, Pierre.	*P.* Why?
T. Will you come out to dinner with me, Antonio?	*A.* Where?
T. Cut this in two, Margarita.	*M.* How?
T. I must ask you a favour, Iiji.	*I.* What?
T. We're going to China, Pekka.	*P.* When?
T. Someone is coming to see us this morning, Paola.	*P.* Who?

Questions using these question-words tend to have a falling intonation, and students must be made to remember this and be told that it makes their speech sound more English.

Ideally *A* and *B* should be introduced in a single lesson.

B. Combining two or more stresses. Guide pattern



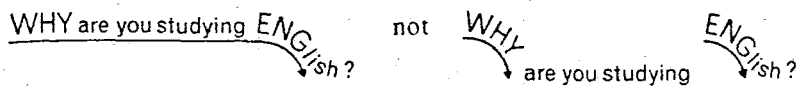
The students are again asked to listen carefully as the teacher recites a series of general questions using two stresses and pausing between each. Students who think they hear a rising tune at the end should indicate where.

WHAT'S your NAME?	WHAT'S she DOing?
WHERE do you COME from?	HOW OLD are you?
WHY are you studying ENglish?	HOW old are YOU?
WHO's King CONstantine?	etc.

Prompted by the teacher students should practise asking each other and the teacher, similar questions about names, addresses, home countries, activities, and professions. If the class is of an elementary level the questions should be confined to objects and people in the room, 'What's that?', 'What's this?', 'Who's this?', etc. While the questions are being asked the guide pattern is drawn on the board. Questions should be of a polite nature, and responses only given when the tone of the questions shows sufficient interest to demand one.

Note. A student's failure to make the tone of the first stress a *level* one and that of the second stress a *falling* one should not be accepted. The chosen pattern must be maintained as it is the basis of the exercise though students of certain nationalities may have difficulties (see pp. 70–83).

When the two stresses are apart as in 'WHY are you studying ENGlish?', the unstressed words in between must remain on a constant level pitch



Putting the two versions side by side on the board is often effective though not essential. Indeterminate stresses and indifferent intonation are not acceptable. Some students will always remain shy, but their number can be reduced by encouraging students to 'mean' what they 'say', and say what they mean.

The following questions may be tried, adding a new word each time each having a level intonation except for a final falling tone stress.

Who is that?
Who is that man?
Who is that man in the red sweater?
Who is that man in the blue shirt next to him?
Who is that man in the black coat next to him looking like Charlie Chaplin?

Homework should be given to advanced beginners using a sentence with ten stresses, similar to the one above.

Spelling exercise. A good training in level tones and pitch control can be given by rapid spelling exercises. The object is simply to drill the students in easy handling of the pronunciation of the English alphabet, not to know English word spellings. Students' names, addresses, home towns, etc., provide the sort of words they should spell to avoid hesitation about the correct spelling.

Structure practices

Assuming that this is the fourth or fifth hour of teaching, specially chosen structure drills should be introduced, aimed at making the students realize that stress and intonation are not an adornment, but an integral part of any spoken practice.

Oral practice using intonation lines, but no books or blackboard tests.

A. Oh, (sorry)!

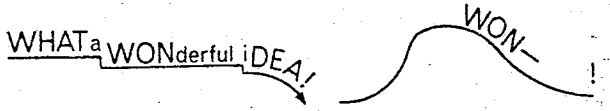
B. You haven't stopped serving luncheons yet, I (hope).

Waitress. It's O.K., love. There's steak and kidney (pie,) lamb cutlets with mashed (potatoes,) our own salad dish with cold (ham,) or plaice fillets with (chips.)

33. Using a lively intonation pattern which moves between high and low pitch, as opposed to the controlled intonation pattern, which descends evenly from a high to a low pitch. Exclamations.

Grade. Intermediate or advanced.

Rehearse. 'What a wonderful idea!' said the two different ways:

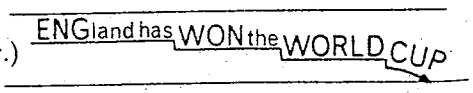
Blackboard. 

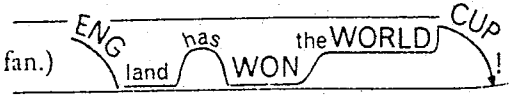
How wonderful!	Good idea!	What a lot of people!
I am sorry!	What an idiot!	How terrible!
How sad!	How interesting!	How nice!
You're lying!		What an actor!

Discuss the feelings of the speaker and the context. Make up statements that would provoke one or the other intonation patterns in the comment, e.g.

(that he's passed his exam.) 

(that I have passed my exam.) 

(as announced by the newscaster.) 

(as announced by the football fan.) 

Grade. Intermediate and advanced.

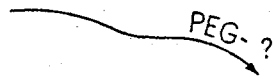
Analyse the characters, deciding what mood and personalities they should express, e.g. the police officer is impersonal and slightly impatient, or he may be sympathetic and helpful. Students try reading the parts and other students comment on whether they succeeded in conveying that particular impression.

A. I've LOST my HANDbag, officer.
P. Now DON'T WORRy, miss. TELL me where you LOST it.
A. It was STOlen from me on the BUS.
P. OH DEAR. NOW WHEN did that HAPpen?
A. About THREE O'CLOCK. At PICcadilly CIRcus. I was JUST . . .
P. JUST CALM DOWN, Miss. At PICcadilly CIRcus you say? WERE you ACtually ON the bus, Miss?
A. WELL . . . I was JUST getting ON to the bus when I found my HANDbag was GONE.

35. Experimenting with different combinations of stress and intonation and interpreting the effect.

Grade. Advanced students.

Intonation pattern

1. 

Where is Peggy? he wondered.

2. 

Where's Peggy? he asked worriedly.

3. 

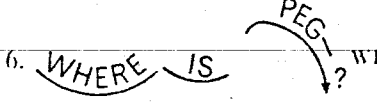
WHERE's Peggy? he insisted.

4. 

Where IS Peggy? he asked, puzzled.

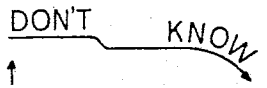
5. 

WHERE is Peggy? he repeated, amazed.

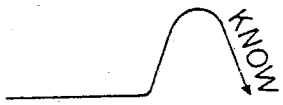


6. WHERE IS PEGGY? he demanded.

Try with other names or nouns now



1. I don't know, she answered simply.



2. I don't KNOW, she said impatiently.

3. I don't know, she said defensively.

4. I DON'T know, she insisted.

5. I don't KNOW! she cried, exasperated.

6. I don't know? she repeated indignantly.

Try and fit question and answer together where possible.

36. Tests.

Grade. Beginners (any level).

Read the sentence 'I can't find my umbrella' several times, each time giving extra stress to a different word,[1] and interpret the context.

Grade. Intermediate and advanced.

Decide which words should be stressed and which intonation pattern *you* think should be used in the following sentences; and justify your decision.

1. In standard terminology: shift the nucleus of the sentence.

When we came into the woods, we saw two magnificent deer fiercely fighting each other.
I think it'll rain and thunder tomorrow.
Who was that man at the end of the queue.
Tell me about it?—No. I don't want to tell you about it.

Grade. As above.

Say the following sentences with the ultimately rising tune, and then try the ultimately falling tune. Interpret your own mood in each case and who you imagine yourself speaking to: 'Have a biscuit!' 'Do come in!' 'What's your name?'

37. Interpreting various speech styles in recordings or radio programmes: excerpts from sermons, plays, telephone conversations, interviews, reporting within the news, etc. What distinguishes one style from another? Enact the situations amongst the students and read, for example, the weather forecast in the anecdotal way.

The teacher asks the class how they would say the following sentences in the given situations:

Grade. Not immediate beginners.

How would you say 'Hello':

To a school-friend you see every day?
To a very shy little girl?
On the phone?

How would you say 'Thank you':

If you are given £5?
5p?
If more is coming?

How do two people say 'Good morning!' to each other normally?
'Good evening!'
'Good-bye!'
'Bye!'

Grade. Intermediate and advanced.

'Me?' he asked, he said suspiciously, he guessed optimistically.
'Me.' he exclaimed, explained, he said in a depressed sort of way.
'Hello!' (He said to the old friend he bumped into unexpectedly.)
(He said to the tiny child.)
(He shouted on the phone after waiting five minutes.)

APPENDIX G

TABLE I

Perception Test-I Scores over 68 Questions Ranked from the highest to the lowest in the Experimental Group - exposed to Systematic Teaching of Intonation

n: 14

PRE-PERCEPTION (before teaching)

66	63	62	62	61	60	59
59	57	56	56	56	48	46

POST-PERCEPTION (after teaching)

61	60	61	65	61	64	56
68	59	57	62	55	55	52

TABLE II

Perception Test-I Scores over 68 Questions Ranked from the highest to the lowest in the Control Group - exposed to Natural Medhod of Intonation Teaching

n: 14

PRE-PERCEPTION

65	62	62	62	61	61	61
60	59	58	57	53	52	52

POST-PERCEPTION (no teaching)

67	64	58	65	65	61	61
55	61	62	59	60	53	61

APPENDIX G (CONTINUED)

TABLE III

Perception Test II Scores over 90 questions Ranked from the highest to the lowest in the Experimental Group - exposed to Systematic Teaching of Intonation

n: 14

PRE- PERCEPTION (before teaching)

76	64	66	85	58	74	70
55	45	70	69	66	64	52

POST- PERCEPTION (after teaching)

82	83	64	85	78	74	72
75	62	59	62	66	68	52

TABLE IV

Perception Test II Scores over 90 Questions Ranked from the highest to the lowest in the Control Group - exposed to Natural Medhod of Intonation Teaching

n: 14

PRE- PERCEPTION

70	70	72	77	83	69	71
77	63	62	50	56	51	50

POST- PERCEPTION (no teaching)

74	63	68	76	76	69	68
75	72	66	62	55	48	65

APPENDIX H

TABLE V

Production Test Scores over 14 Questions within the Experimental Group – exposed to Systematic Teaching of Intonation

n:14

PRE- PRODUCTION (before teaching)

8	4	6	5	5	7	10
6	7	3	3	7	6	8

POST- PRODUCTION (after teaching)

12	10	7	9	9	12	11
13	11	11	9	13	10	11

5 MONTHS LATER (following post- teaching)

10	8	9	12	10	10	14
7	13	12	11	10	11	10

TABLE VI

Production Test Scores over 14 Questions within the Control Group – exposed to Natural Medhod of Intonation Teaching

n: 12

PRE- PRODUCTION

7	5	5	10	7	5
7	4	6	2	5	6

POST- PRODUCTION (no teaching)

10	7	8	8	6	9
10	5	10	7	10	6