# The signal and comprehension approach: decoding and meaning building

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#### **Abstract**

This paper discusses Egyptian colloquial Arabic connected speech as a listening problem. The paper proposes a modified approach for teaching listening: The Signal and Comprehension Approach. It is an approach that enhances listening as a skill to attain comprehension in any listening task. The approach focuses on signals laden with linguistic phonological changes that make deciphering connected speech very difficult. By adopting the proposed approach, learners can develop not only their listening skills but also their listening strategies and meaning building. It trains the language learner to crack the code in order to construct meaning. The approach includes pedagogical listening tasks that are based on topdown or world knowledge as well as bottom-up or data driven processes. The discussed tasks use songs as a venue of connected speech. These tasks come from an online course offered through the Georgia Institute of Technology (Georgia Tech) that uses songs to teach Arabic language, culture and history.

#### Introduction

In speech the correspondence between an acoustic signal (representing a sound) and a perceived phoneme is lacking, because phoneme boundaries disappear; that is, phonemes cannot be segmented into discrete units. This is because properties of an acoustic signals of phonemes overlap and intermix so greatly with the acoustic properties of adjacent segments (Delattre, Liberman, & Cooper, 1955; Liberman, Cooper, & Studdert-Kennedy, 1967; Liberman, Delattre, Cooper, & Gerstman, 1954; Studdert-Kennedy, 1976).

Overlapping and intermixing is evident in connected speech, and often renders connected spoken language too difficult to decipher. In addition, the language of connected speech undergoes a great deal of phonological modification and change within words and at word boundaries, i.e., between words, such as assimilation, contraction, liaison and elision; referred to in the literature as "sandhi-variation." The modifications sometimes are so great that the resulting incoming speech is referred to as "acoustic blur," out of which the listener has to attempt to reconstruct what words the speaker actually intends and, hence; the meaning (Brown, 1990).

Researchers in language pedagogy contend that foreign language learners are faced with a daunting task when they listen to native speakers using naturally occurring connected speech (Brown & Yule, 1983; Flowerdew & Miller, 2005; Rost, 1990, 2002; Ur, 1984), and; therefore, connected speech, or "real life" language, needs to be the focus of instruction. The difficulty is due, as mentioned, to the phonological changes that alter the speech to the extent that learners often fail to recognize words they have already learned due to the learners' unfamiliarity with connected speech. An added difficulty is that connected speech takes place in real time. Therefore a learner does not have the time to search his memory for the meaning of words during processing, nor remember how words sound in citation form (in isolation), nor recall how words look like on paper. In writing, there are spaces between words. In speech however, words run into one another with no spaces between them, which makes deciding where one word ends and another begins more difficult (Brown & Yule, 1983; Field, 1997a, 1997b, 1998a, 1998b, 2000a, 2000b, 2003; Koster, 1987; Ur, 1984).

In my study Aquil (2012a) I investigated the problem of connected speech and found one of the sources of the problem is that learners were not able to recognize words that have undergone phonological modifications characteristic of connected speech. This was despite the fact that the learners previously had learned and knew the words in writing or in their citation forms.

Accordingly, listening texts and recordings ought to contain naturally occurring stretches of connected spoken language. For example, conversations, commercials, excerpts from movies, clips, plays and songs. Naturally occurring connected speech is

characteristic of reduced forms, whose pronunciations differ considerably from the decontextualized units of language, as in isolated citations forms (Brown, 1990, 1995a, 1995b; Brown & Yule, 1983).

In the present paper I discuss how to tackle listening problems that learners of Arabic have in listening to Arabic connected speech. In section 1, I examine the phonological changes which take place in Egyptian Colloquial Arabic (henceforth referred to as ECA), and then consider the warranted pedagogical implications. In section 2, I examine the Listening Comprehension Approach, the approach adopted by listening books and courses; then introduce The Signal Approach, an approach I advocate, which ties in listening skill as well as comprehension, The Listening Skill and Comprehension Approach. In section 3, I present and discuss examples of listening tasks based on the proposed approach. The tasks come from an online advanced course taught in the Arabic program at the Georgia Institute of Technology (Georgia Tech), "Arabic language, culture and history through songs, the Advanced/ Intermediate Language and Culture through Song: New Materials for Arabic, Chinese, Japanese and Russian," a project by the school of Languages (ML) Georgia at http://www.clsp.gatech.edu/Song Project/. For more information about the course please see (Aquil, 2012c).

#### 1.1. Modern standard Arabic and dialects

Arabic is spoken by an estimated 323 million people in twenty-two countries extending from Mauritania in the west to Oman in the east. Different regions and countries speak local varieties (dialects) phonologically different from Modern Standard Arabic (MSA). ECA is a dialect spoken in Egypt. ECA is widely spoken and understood by the whole Arab world because of its role in the media, songs, and the movie industry.

The MSA consonants ( $[\Theta]$ ,  $[\eth]$ ,  $[\eth]$ ) and the emphatics ( $[s^s]$ ,  $[z^s]$  [q]) are pronounced differently in ECA ([t], [z], [g], [s], [z] [?] respectively). For instance,  $[\Theta alaa\Theta a]$  three in MSA is pronounced [talaata] in ECA,  $[\eth enb]$  guilt is [zanb],  $[\eth caamiSa]$  university is

pronounced [gammisa], [ssanduuq] box is pronounced [sanduu?], and [zsulm] oppression is pronounced [zulum], illustrating the change in the emphatics [ss], [q] and [zs]. MSA vowels also undergo changes. For example, the MSA diphthong [ay] is pronounced as a long [ee] in ECA, MSA [aw] is pronounced as a long [oo]. For example, MSA [bayt] 'bouse' is pronounced as [beet] in ECA, [yawm] 'day' as [yoom] in ECA.

# 1.2. Overview of phonological changes in ECA connected speech

In connected ECA speech there are substantial changes and modifications.

In ECA the [l] of the definite article [?il] assimilates completely to the adjacent coronal segment of the neighboring word (Abu Salim, 1988). This assimilation takes place when two phonological words are concatenated in connected speech. The following example illustrates this point.

- (1) a. Pilbint  $\underline{2il}$  sikirteera  $\rightarrow$  Pilbint Issikirteera the secretary girl
  - b. huwwa ?aal ?inn ? $\underline{il}$  dars  $\rightarrow$  huwwa ?aal ?innI $\underline{dd}$ ars he said that the lesson is difficult

Coronal stops palatalize as the following examples demonstrate.

- (2) a. /nadya/ na[[d<sup>i</sup>]ya ~ na[/dž/ya Nadya [female name] /inti/ in[t<sup>i</sup>]i ~ ?in[tš]i you, fem. Sing /gidi:d/gi[d<sup>i</sup>]i:d ~ gi[dž]i:d new /tiktib/tik[t<sup>i</sup>]ib ~ tik[tš]ib she writes
  - b. /na:mit ya\(\forall ni\) na:mi[t\(\text{s}\)] ya\(\forall ni\) she went to sleep, guess so /il-walad yi\(\forall ullik\) il-wala[d\(\text{z}\)] yi\(\forall ullik\) the boy tells you fem.sing.

Initial glottal stop /?/ is deleted when it is preceded by another word. Sometimes only the consonant is deleted (3a) and sometimes the following vowel is deleted as well (3b and c). The /h/ is also deleted when it is in the final position, as (3d) illustrates.

- (3) a. titxul ?il mina titxulilmiina enter the port
  - b. da ?inta danta that's you
  - c. Pana Paxattu Panaxattu I took it
  - d. nifraħ biih ba?a nifraħbiiba?a we are happy for him (got married) at last

Emphasis (i.e. an emphatic sound) spreads across word boundaries. ECA and all Arabic dialects have emphatic consonants. These consonants are characterized acoustically with a low second formant frequency and articulatorily with the constriction in the pharyngeal cavity caused by the retraction of the tongue root (Broselow, 1979). Note the emphatic sounds (represented by a secondary articulation of the pharyngeal [S] sound) in the minimal pairs of (4b).

(4) a. baat he spent the night
tiin figs
seef sword
b. b'aat' arm pit
t'iin' mud
s'eef' summer

Emphasis spreads across the syllables of the word as it is illustrated in

(5) t<sup>s</sup>aa.lib a student
t<sup>s</sup>a.l<sup>s</sup>a.b<sup>s</sup>a students
s<sup>s</sup>aa.fi clear
s<sup>s</sup>a.f aa clearness
r<sup>s</sup>aa.gil a man
r<sup>s</sup>a.g<sup>s</sup>aa hope

As for vowels, deletion takes place across two words. For example, in the following examples, the preposition [fi] gets connected to the neighboring phonological word, and accordingly one vowel is deleted.

(6) a. Pana fi xidmitak Panaf xidmitak I am at your service b. fi issinema in the movies

As demonstrated, the vowel [i] in the preposition [fi. in] gets deleted and hence the stray [f] connects to the pronoun [?ana I] as in (3a). As for (3b), the vowel [i] of the definite article [i[s]] is deleted. Vowel deletion in ECA occurs because two consecutive open syllables are not allowed.

Vowels and other consonants undergo phonological changes as well in ECA connected speech, e.g., vowel epenthesis or deletion, and consonant assimilation to obey syllable structure rules, as demonstrated in (7) for the noun phrase [bint simi:na] *a fat girl*.

### (7) bint simi:na bintis mi:na CV<u>CC. C</u>V.CVVCV CVC.CVC.CVVCV

In conclusion the following table summarizes some of the problems an English speaking learner may have in listening to ECA connected speech and pedagogical implications that need to be addressed in a listening class.

Table 1: Phonological changes and pedagogical implications

Phonological change	Pedagogical implication
Consonant assimilation	
Occurs to certain morphemes in certain environment, the definite article ?ilbintIssikirteera → ?ilbintIssikirteera)  Consonant spread	Attention must be drawn to the assimilation of coronal consonants in the definite articles.
Occurs across the syllables of a word t <sup>s</sup> aa.lib t <sup>s</sup> a.l <sup>s</sup> a.b <sup>s</sup> a	Attention must be drawn to the difference between emphatic sounds and corresponding non-emphatic sounds. Learners need to be made aware of the spread
Consonant deletion	
Occurs most of the time with glottal stops /?/, and with /h/ to obey syllable structure rules. ?ana ?axattu → ?anaxattu	Attention must be drawn to the transient nature of the glottal stop especially when it occurs between two vowels.
Vowel deletion	
Occurs to obey syllable structure rule fi issinema → fissinema	Attention must be drawn to the importance of syllable structure rules.

#### 2. Teaching listening

# 2.1. The listening comprehension approach

A sequence of a typical listening lesson is divided into three phases: pre-listening, while-listening, and post-listening, each of which has a clear aim and function. The pre-listening phrase prepares the students for practice in listening comprehension through activities involving activating the "schemata" and prior knowledge, making predictions, and reviewing new vocabulary. The while-listening phase focuses on comprehension through exercises such as gap-filling, answering questions, multiple choice, true/false sentences, and note taking, whereas the post-listening phase involves more comprehension and opinion questions, and analysis of language and grammar (Field, 1998a, 1998b).

For decades, language textbooks and instructors focused on an approach that measured learners' achievement in terms of their ability to answer questions about facts and details in a given recording, namely the listening comprehension approach (CA, henceforth). Not much attention was paid to connected speech and to problems that may arise from phonological changes in connected speech. This is in spite of the fact that only when the code of the connected speech is cracked, can decoding the message occur and, accordingly, meaning building and listening comprehension can take place (Field, 2008).

Listening comprehension is defined as an active process of meaning construction by means of drawing on various information sources in order to interpret the intended meaning of a message (Faerch & Kasper, 1986). Basically, a certain theme runs through the literature in listening comprehension, namely, the distinction between what is called top-down (knowledge-based), and bottom-up (data-driven) processing. The latter is thought to involve decoding speech signals, whereas the former is supposed to denote not just understanding the words, but also interpreting the speaker's intention and the wider context of a given communication.

To ensure that a listening lesson achieves its ultimate goal, an approach that combines both top-down and bottom-up processing

tasks is warranted. However, methodologies that followed the CA emphasized top-down process more than bottom-up. For example, instructors and textbooks emphasize the importance of pre-listening strategies, such as advance organizers, planning and directed attention strategies. These strategies not only provide the context necessary for activating the language and background knowledge "schemata" stored in the long-term memory that is related to the topic, but also help in raising learners' awareness, expectations and motivation. These strategies are encouraged because they enable the learners to use their prior knowledge to understand and interpret the meanings from the recording (Anderson & Lynch, 1988; O'Malley & Chamot, 1990; O'Malley, Chamot, & Kupper, 1989; Underwood, 1989; Ur, 1984).

On the other hand, strategies and activities involved in the second stage, while-listening, have not received the same importance as the ones in the pre-listening stage. Specifically, strategies related to the signal, input or data driven processes (e.g. connected speech) were somewhat overlooked.

#### 2.2. The signal/comprehension approach

The present approach emphasizes the integration and interconnectedness of higher and lower level processes, i.e., of top-down and bottom-up processes involved in listening to songs, a real life listening genre. It proposes to teach listening in stages buttressed by developing corresponding metacognitive strategies (Vandergrift, 2004, see table 2), and adopts Field's (2008) Process Approach (PA, henceforth), which incorporates the strengths of the customary listening CA, but adds focused practice to improve learners' listening skills. Note that the stages and the strategies in Vandergrift's (2004) model are iterative and form a cycle.

Like Field's (2008) PA, the Signal/Comprehension is composed of micro listening exercises to raise learners' awareness and provide focused practice. These exercises can be used for remedial purposes or in anticipation of listening problems before they actually occur. The difference between the proposed approach and Field's is that the present approach integrates both top-down and bottom-up processes, making use of the capital letter "S." The letter "S" unifies all the components of the approach with each other and with the auditory signal, i.e. the input (See Figure 1).

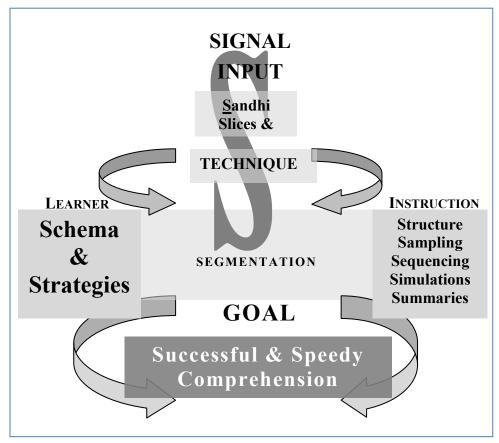


Figure 1: The Big S Signal-Based Approach

Thereby, the present approach highlights both top-down and bottom-up processes. By engaging listening strategies such as planning and advance organizing, predicting, inferencing, elaborating, contextualizing, monitoring, evaluating, directed and selective attention, top-down processes are emphasized. Similarly, by involving listening tasks to practice connected speech input, such as phoneme distinction and discrimination, syllable identification and completion, stress identification and discrimination, segmentation, and transcription, bottom-up listening processes are engaged.

Table 2: Stages of listening Instruction, adapted from Vandergrift (2004: 11)

Stage of listening Instruction	Related Strategies	Metacognitive	
Planning and predicting	Planning attention	and	directed

Once learners know topic and text type, they predict possible information and words they may hear.

#### First verification stage Monitoring

#### **Hypothesis testing**

Learners test and verify initial hypothesis to correct it if required and when additional information is not understood.

# <u>Validation</u> Monitoring planning and selective attention

Learners compare with peers' information if understood and modify as required, establish what needs further resolution, and decide on details that need further attention.

# Second verification stage Monitoring and problem <u>Compare and contrast</u> solving

Learners verify points of disagreement with peers, make corrections if required and add more details.

#### **Discussion**

#### Monitoring and evaluation

Class discussion to arrive at a construction of the main points and supporting details of the text, interspersed with reflections on how learners arrived at the meaning of certain words of the text.

### Final verification stage

# Selective attention and monitoring

Learners listen to information they could not decipher before class discussion.

#### Reflection stage

#### Evaluation

Based on the previous class discussion, learners reflect on points learned to plan for next listening lesson.

With the Signal/Comprehension approach (SCA), the format of a lesson's presentation becomes more flexible and sequences of activities are not highly predictable, hence, avoiding monotony and boredom and securing some motivation on the part of the learners (Field, 2008). SCA follows the customary lesson plan of the CA. It divides the lesson into the same phases (pre-listening, while-listening and post-listening). However, like Field's (2008) PA, it differs in that it provides the learners focused practice on form and meaning. For example, it incorporates decoding tasks such as exercises on the phoneme, the syllable, and the spoken word, as well as meaning-building tasks such as guided questions on meaning, inference and interpretation questions.

What follows is just an exposition of a variety of activities adapted from the Song Course which is taught at the Arabic program in the School of Modern Languages, Georgia Tech. The activities focus on listening as a skill and a strategy. The instructor does not have to cover all the tasks discussed below; it is rather left to the needs of the class as to which task to carry out. Note that most of the activities are learner-centered. Please see Appendices 1-10 for samples of the listening tasks and questions from the song course.

#### 2.2.1. Pre-Listening in SCA

Learners are presented with four or five vocabulary words that are new and critical to the understanding of the text. In this segment of the lesson, learners also discuss the title, context and all details that are likely to occur based on their expectations. Learners are asked to predict the words that may come in the song and discuss them as a class. Visual media is used in the form of photos and videos to help in activating schema and world knowledge. Learners are also asked to devise questions in anticipation of the information in the song.

## 2.2.2. While-Listening in SCA

The idea here is to instill multiple listening repetitions and steps, but with a focused purpose for listening. This segment of the lesson is divided into four stages. Stage 1 resembles the Extensive Listening of Field's (2008) approach. In Extensive Listening, learners are asked to listen to the whole recording to have some familiarity with the content and confirm or disconfirm the expectations they predicted at the pre-listening stage. They answer general questions, such as 1) How many speakers/singers are there? 2) Who are the singer/speakers? 3) How does the singer/speaker feel, is he happy, angry, disappointed, defiant? 4) What do the learners think about the music; does it convey a happy or sad mood?

In Stage 2 (Intensive Listening) learners listen to the recording again, and are asked to extract the words -- which were brainstormed and written on the board in the previous stage -- then discuss as a class the words that they think they heard. Learners are asked to listen again and add to the words and phrases they are able to extract from the previous listening.

Stages 3 and 4 are validation and selective attention stages, respectively. Learners listen to a segment of the recording and complete an information gap task then compare their results with their peers. They listen again and check what they have written or filled in, and verify answers. In Stage 4, learners listen to the segment again and guess the meaning of words, which are written on a worksheet, from context and compare their results with their peers then with the class.

The while-listening phase focuses on both form, as in decoding the message exercises, and meaning, as in meaning building tasks. In the decoding the message exercises, learners practice phoneme identification and discrimination, syllable identification and completion, segmentation, stress identification and discrimination, and spoken word recognition. In the meaning building exercises, learners practice inference questions, backward and forward reference, interpretation questions, locating main points, identifying main points, and paraphrasing.

### 2.2.3. Post-listening in SCA

The post-listening phase involves both the CA customary activities, such as teaching new vocabulary, analyzing language and repetition, and note taking. SCA like Field's (2008) PA, adds mentally listing the main points of the recording and deciding which ones are of primary importance, reconstructing meaning from words and phrases heard in the recording, reconstructing sentences from notes taken about the recording, using words and sentences in oral debates and writing assignments, and writing a summary pinpointing new information added to the learner's knowledge. The following tables exemplify the three phases of a listening lesson and demonstrate the stages and activities under each phase and stage (Aquil, 2012b). The examples are given in English for those who do not speak Arabic, along with some examples in Arabic for instructors of Arabic. Please see Appendices 1-10 for extracts in Arabic illustrating some of the listening exercises in the Song Course at Georgia Tech. The tables below exemplify the different phases and stages of listening instruction.

### Table 3: Pre-Listening in SCA

#### **Pre-Listening**

#### Learners:

- 1- Learn vocabulary that is critical; just four or five words essential for understanding.
- 2- Discuss title, context, issues and details likely to occur.
- 3- Take notice of visual media to help in activating schema and world knowledge.
- 4- Devise questions in anticipation of the information in the recording.
- 5- Reflect for two minutes and brainstorm for words which may be heard in the recording. Teacher writes words on the blackboard.

#### Table 4: During Listening in SCA

#### **During Listening**

#### Instill multiple listening steps, but with a focused purpose. Learners perform the following steps:

### Step 1: Extensive Listening

Same as in Extensive Listening (Field, 2008), general questions.

- a. Listen to the whole recording to get the gist and ensure some familiarity with the content.
- b. Answer general questions, such as:

How many speakers are there?

Who are the speakers?

How does the speaker feel? Is he happy, angry, disappointed, or defiant?

## Step 2: Intensive Listening

- Listen to the recording again; teacher underlines on the board words previously brainstormed by learners in the pre-listening stage.
- 2- Listen to the text again and extract words and phrases previously learned. Underline the extracted utterances, written on a worksheet.
- 3- Compare with their peers.

#### Step 3

- 1- Listen to a segment of the recording and complete answers on an information gap task, and then compare with peers.
- 2- Listen to the segment again and check what previously written or filled in, and then verify the answers.

#### Step 4

- 1- Guess the meaning of new words, which are on a worksheet. Listen to the segment again and from the context of the text guess the meaning of some new words and phrases.
- **2-** Compare with peers.

### Table 5: Decoding the Message: Exercises on the Phoneme

#### **During Listening**

#### Phoneme discrimination

Instructor extracts some minimal pair words from the recording whereas;

#### Learners:

- 1- Decide whether they heard (A or B) minimal pairs on a worksheet.
- 2- Transcribe one member of the minimal pairs (A or B).
- 3- Raise their left hand when a sound represented by a certain phoneme (e.g., / p/) or the right hand if they hear the phoneme (/b/). Then they write the entire word.
- 4- Hear then see minimal pairs on a worksheet, [seef/ s'eef] من المعنوب word / summer, [tiin/t'iin] نوائين المعنوب أسيف المعنوب word / summer, [tiin/t'iin] نوائين المعنوب أسيف المعنوب المعنوب أسيف المعنوب أسيف المعنوب أسيف المعنوب المعنوب
- 5- Decide if they hear a short or a long vowel of minimal pairs on a worksheet. For example [baal/bal باللبان mind/made wet [fuul/ful] نام fava beans/ Arabian jasmine.

## Table 6: Decoding The Message: Exercises On The Syllable

#### **During Listening**

#### Exercises on the syllable

Instructor extracts some words of multiple syllables from the recording, while learners perform the following tasks:

- 1- Listen and write the syllables they hear.
- 2- Listen to words extracted from the recording. These words are on a worksheet. Learners identify the syllables that occur in more than one word. For ease of explanation I give examples in English first. The following English words share the pronunciation of some syllables, consumption, Egyptian, somebody, reckon. Examples for Arabic are, [fallahaat] العنا female farmers, [melihaat] beautiful women and [haat] bring', [mutafallim] beautiful women and [haat] bring', [mutafallim]
- 3- Write down new words (from a recording) that have consonant clusters that are not common in learners' native language. For example the following consonant clusters do not exist in ECA, prank, strip, slack, and therefore, they are good candidates for an Arabic-speaking learner of English. As for an English-speaking learner of Arabic, the following Arabic consonant clusters rarely occur in English: the medial geminate [darras/dars] ענשט/ בעשט/ בעשט/
- 5- Listen to extracts of words and phrases that are sliced out of a text. In these extracts some sound material is deleted or not pronounced. For example, the alveolar stop is deleted in the following English compound (hand book →hanbuk). The words and phrases are provided in their full forms and spelling on a worksheet with the translation in the learners' native language. Learners decide on the translated word corresponding to the heard extract. An example in Arabic might be the deletion of the glottal stop and assimilation of the [l] in definite articles followed by coronal sounds, [affams]

# in the sun, [gamsit ?il qaahira] في الله عنه الله عنه the sun [fis-sams] ضي الله أورة [gamsit-il qaahira] ضي الله الارة (airo university.

- 6- Learners listen again to the extracts, but this time in their original sentences as they come in the text. They are asked to repeat the extracts. After that, learners are asked to listen again to the same extracts and write them. Finally, learners are asked to read the same extracts from a transcript.
- 7- Detect strong salient syllables in a recording of a phrase or a sentence and write the words down. The instructor writes on the board what the learners detect and holds a classroom discussion. Learners listen again, but this time they add weak syllables that are in the vicinity. Class discussion follows, and learners listen again with the help of a transcript.
- 8- Listen to words with strong syllables and guess what the word is: For example in English /twen/ — twenty, /brek/—breakfast /hæps/ — perhaps, /twiin/ — between. In Arabic, it can be /bála/ — [baladi] بالله my country, /mutasáa/ — mutasáabiq شياط competitor, /níit/ — [baraníit] مشابق المعادية

# Table 7: Decoding the Message: Exercises on Connected Speech

#### **During Listening**

# Exercises on connected speech Segmentation

Instructor plays a sentence from a recording, or some new recorded material from a connected speech stretch, whereas learners perform the following tasks:

- 1- Transcribe the words they understand. Then the instructor replays the recording while learners add more words. Next, learners compare with peers.
- 2- Fill in missing words on a transcript worksheet in which words (content as well as function words) are missing.
- 3- Listen to a recording of sentences which are provided on a worksheet. Learners add stress to the stressed syllable of the words.
- 4- Hear a stretch of running speech and a sequence of unfamiliar words whose word boundaries are marked by the segmentation system used by the learners' native language. In English, for example, it is a strong syllable followed by weak one. As for ECA it is also a strong syllable followed by a weak one (Aquil, 2011). Learners attempt to write the words. Instructor replays and explains the difference in the segmentation procedure of target language compared with that of the native language.
- 5- Listen to an extract beyond learners' proficiency level. Learners focus on prefixes and suffixes. Instructor replays the recording, while learners transcribe the words, which begin with prefixes and end with suffixes. Next, learners compare with peers. For example, in English the following words are good candidates: premeditate, adhere, concede, endurable, smoker, modernize, mountainous. In ECA these can be some examples, [mat labsh] ה א ל הוא , he didn't ask, [fallahaat] ה א ל הוא ל
- 6- Listen to an extract (longer than a phrase or a sentence) in faint audio. Learners tune in on stressed syllables and write them down. A discussion follows. Learners listen again and write all other syllables in the vicinity. On the subsequent listening, learners put the stress on all stressed syllables. A discussion follows. Learners listen again with the help of a transcript where the stressed syllables and reduced vowels are marked.

#### **Table 8: Meaning Building**

#### **During Listening**

#### Meaning building

Questions that focus on the learners' ability to make connections between one part of a recording and another, or what a speaker says and has said.

#### • Inference questions

With this type of question, learners are trained to trace implicit connections between sentences and facts in the recording. One variation is to make learners listen to sentences and pause between them. During the pause, learners discuss the connection between the sentences. The discussion can be either in the native or target language, depending on the learners' proficiency in the target language.

#### Backward and forward reference

Learners are given worksheets with words and phrases extracted from the recording. They listen to some extracts of the recording and are asked to write  $\mathbf{R}$  if the words or phrases refer back to something already mentioned or  $\mathbf{N}$  when they think it is a new subject.

#### • Interpretation questions

Learners interpret an utterance extracted from the recording by completing recognition tasks such as the following:

- 1- Recognize the ultimate goal of the recording.
- 2- Recognize understatement and vague language.
- 3- Recognize idiomatic language and metaphor.

### • Locating main points

#### Learners:

- 1- Listen to a summary in simple language of the main points of a recording they are about to hear; a class discussion follows.
- 2- Listen to the original recording, and each time they hear one of the main points being made, they write it down.
- 3- Listen again to verify their choices and also write down two or three words that are in the vicinity of the main points previously written down.

4- Listen again to verify, but the instructor pauses at the main point and asks learners what extra information they can add.

#### • Identifying main points

On a given worksheet, learners see a list of main points to be made by the speaker in a recording. The points are not in the order in which they come in the recording. Learners number the points in the order they come in the recording when they hear the speaker mentioning them.

#### Deep processing paraphrase

#### True/False updated

- 1- Learners check some statements against the information in the recording in the True/False format. However, the written statements may not come in the same order as in the recording and may not be of the same words.
- 2- Learners are asked to mark the statements "True" if they think they are correct. If they think the statements are wrong, they mark them "False" and correct them. If the statements are not mentioned at all in the recording, they mark them with a question mark. A class discussion follows.

#### Paraphrase matching

- 1- Instructor extracts and re-records 10 sentences from the recording.
- 2- The 10 sentences are provided on a given worksheet, some of which are a paraphrased version of the original sentences in the recording. Learners read the sentences on the worksheet and make sure they fully understand each sentence.
- 3- Then learners listen to the extracted and pre-recorded sentences and decide whether or not the sentences they hear mean the same as the sentences they have read.

### Table 9: Post-Listening

#### Reflection and Summary

In addition to the tasks in the listening comprehension, through which learners:

- 1- Learn new vocabulary.
- 2- Analyze language.
- 3- Listen to the recording again, but pause occasionally and repeat what they hear.

The proposed approach adds the following exercises and tasks:

- 4- Take selective notes.
- 5- Mentally list main points.
- 6- List the main points of a recording or a speaker's talk, and decide which are of primary importance.
- 7- Write a summary, and mention which points add to your knowledge.

108
Table 10: Vandergrift (2004: 11) Stages of Listening Instruction Adapted to Signal/Comprehension Approach

Vandananift	Listening	Related	Mot	acognitive	SCA Stages of Listening	SCA- Additional Strategies
Vandergrift Instruction St	U	Strategies	Met	acoginiive	Instruction	SCA- Additional Strategies
Planning & P		Planning Attention	&	Directed	Pre-Listening	<ul> <li>Visualization</li> <li>Form a mental picture of what is heard</li> <li>Imagine scenes, events, objects, etc. as being described (Goh, 2002)</li> </ul>
1st Cycle		Monitoring	g		repetitions and steps	Noticing
Hypothesis T	esting	Monitoring Selective A	<b>J</b> -	_	Extensive Listening Step 1 General Questions on context, attitude and mood	Return to the text as the basis for comprehension activities and for language awareness
					<ul> <li>Intensive Listening Step 2</li> <li>Monitor for previously learned words</li> <li>Monitor for previously</li> </ul>	<ul> <li>Awareness Raising</li> <li>Raise awareness of the relationship between form and meaning</li> </ul>

The signal and comprehe	nsion approach		109
Validation		<ul> <li>Listen again to verify answers</li> <li>Compare answers with peer</li> </ul>	<ul> <li>Raise awareness between form in its written and auditory forms</li> <li>Identify differences between a heard word and its printed version (Richards, 2005)</li> </ul>
Second Verification Stage Compare & Contrast Discussion	Monitoring & Problem Solving  Monitoring & Evaluation	Work out differences in answers with peer Listen again and discuss with the whole class	Negotiation Negotiate answers
2 <sup>nd</sup> Cycle First Verification Stage Hypothesis Testing	Monitoring	<ul> <li>While-Listening</li> <li>Decode the Message</li> <li>Phoneme detection and discrimination</li> <li>Syllable identification and demarcation</li> <li>Segmentation</li> <li>Stress marking</li> <li>Discuss answers with</li> </ul>	<ul> <li>Directed Attention</li> <li>Monitor attention</li> <li>Avoid distraction</li> <li>Concentrate hard</li> <li>Focus on saliency of sounds</li> <li>Continue listening despite difficulty</li> </ul>

110 <b>Validation</b>	Monitoring, Planning & Selective Attention	<ul><li>peer</li><li>Listen again and verify answers</li></ul>	Aquil  Focus on Form (Doughty & Williams, 1998)  Draw attention and focus on form
Second Verification Stage  Discussion	Monitoring & Problem Solving  Monitoring & Evaluation	<ul> <li>Compare answers with peer</li> <li>Work out differences in answers         Discuss answers with the whole class     </li> </ul>	Negotiation Negotiate answers
3 <sup>rd</sup> Cycle  First Verification Stage  Hypothesis Testing	Monitoring (continued)	<ul> <li>While-Listening Meaning Building</li> <li>Inference question</li> <li>Interpretation questions</li> <li>Backward and forward question</li> <li>Locating and identifying main points</li> <li>Identifying main details</li> </ul>	<ul> <li>Inferencing (Goh, 2002)</li> <li>Use visual clues</li> <li>Fill in missing information</li> <li>Guess meaning of words</li> <li>Use contextual clues from text</li> <li>Make use of familiar words</li> </ul>

The signal and comprehe	ension approach		111
· · · · · · · · · · · · · · · · · · ·			Draw knowledge of the world
Hypothesis Testing (continued)			<ul> <li>Apply knowledge about target language</li> <li>Translation</li> </ul>
		<ul><li>Deep processing paraphrase</li><li>Paraphrase matching</li></ul>	Change words, phrases or sentences into Native Language or from Standard to Dialect (Goh, 2002)
Validation	Monitoring & Problem Solving	Listen again and compare with peer	Negotiation
		<ul> <li>Work out difference with peer</li> </ul>	Negotiate answers
Second Verification Stage	Monitoring & Evaluation	<ul><li> Listen again to confirm or change answer</li><li> Compare with peer</li></ul>	
Compare & Contrast Discussion	Selective Attention &	Listen again but with	

listening class

draw association with previously learned material.

113 Aquil

#### 3. Conclusion

In relation to the interconnectedness of top-down and bottom-up processes, the SCA does not tip the scale on one end at the expense of the other. It combines message deciphering with meaning-building exercises. Through SCA, listening lesson plans incorporate strategies that help learners interact with the text being heard to negotiate meaning. For example, by monitoring the recording they regulate and thus are able to control their own listening purposes, and accordingly adjust their listening strategies in order to achieve an understanding of the recording.

The approach provides peer discussion, which is of utmost importance as it raises learners' consciousness (Schmidt, 1990, 1993a, 1993b) so they notice areas of agreement and disagreement and focus their attention on areas of difficulty. Verification between and among peers, as in class discussions, allows learners to listen to information with new ears, to the extent that to some, what could have been undecipherable becomes decipherable. The sequence of the activities is not predictable, sustaining more motivation on the learners' part. The code cracking activities require directed attention on the part of the learners to a signal and input that resemble real life, such as connected speech and songs. The activities are learner-centered and devised according to their needs. Last, but not least, one of the ultimate goals of the approach is to equip the learner with strategies he can transfer to a wide range of listening tasks.

#### References

- Abu Salim, I. M. (1988). Consonant Assimilation in Arabic. *Lingua*, 74, 45-66.
- Anderson, A., & Lynch, T. (1988). *Listening*. Oxford: Oxford University Press.
- Aquil, R. (2011). Empirical Evidence for Stress as a Perceptual Unit in Spoken Cairene Arabic. *Perspectives of Arabic Linguistics, 23rd & 24th*, 3-20.
- Aquil, R. (2012a). Listening to English connected speech: A problem and solutions *Arab World English Journal*, *3*(2), 329-364
- Aquil, R. (2012b). Phonology and applied linguistics meet in teaching listening. *Arab World English Journal*, *3*(3), 168-189.
- Aquil, R. (2012c). Revisiting songs in language pedagogy. *Journal of the National Council of Less Commonly Taught Languages*(Spring 2012), 21 pages.
- Broselow, E. (1979). Cairene Arabic syllable structure. *Linguistic Analysis*, 5(4), 345-382.
- Brown, G. (1990). Listening to spoken English. London: Longman.
- Brown, G. (1995a). Dimensions of difficulty in listening comprehension. In D. Mendelsohn & J. Rubin (Eds.), *A guide for the teaching of second language listening*. San Diego: Dominie Press.
- Brown, G. (1995b). Speakers, listeners and communication: Explorations in discourse analysis. Cambridge: Cambridge University Press.
- Brown, G., & Yule, G. (1983). Teaching the spoken language: An approach based on the analysis of conversational English. New York: Cambridge University Press.

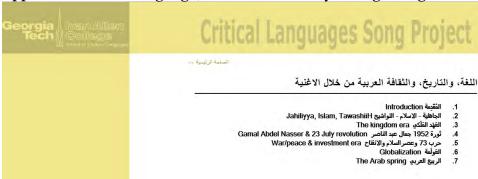
- Delattre, P. C., Liberman, A. M., & Cooper, F. S. (1955). Acoustic loci and transitional cues for consonants. *Journal of the Acoustical Society of America*, 27, 769-773.
- Doughty, C., & Williams, J. (1998). Focus on Form in Classroom Second Language Acquisition. Cambridge: MA: Cambridge University Press.
- Faerch, C., & Kasper, G. (1986). The role of comprehension in second language learning. *Applied Linguistics*, 7, 257-274.
- Field, J. C. (1997a). Authentic listening marterials and strategic listening. In P. Crundy (Ed.), *LATEFL 1997 Brighton Conference Selections*. Whistable, Kent: IATEFL.
- Field, J. C. (1997b). Notes on listening: Variability and assimilation. *Modern Language Teacher*, 6(1), 51-52.
- Field, J. C. (1998a). The changing face of listening. *English Teaching Professional*, 6, 12-14.
- Field, J. C. (1998b). Skills and strategies for listening. *ELT Journal*, 52(2), 110-118.
- Field, J. C. (2000a). Finding one's way in the fog: Listening strategies and second language learners. *Modern Language Teacher*, 9(1), 29-34.
- Field, J. C. (2000b). Not waving but drowning: A reply to Tony Ridgway. *ELT Journal*, *54*(2), 186-195.
- Field, J. C. (2003). Promoting perception: Lexical segmentation in L2 listening. *ELT Journal*, *57*(4), 325-334.
- Field, J. C. (2008). Listening in the language classroom. New York: Cambridge University Press.
- Flowerdew, J., & Miller, L. (2005). Second language listening: Theory and practice. Cambridge: Cambridge University Press.

- Goh, C. (2002). Exploring listening comprehension tactics and their interaction patterns. *System, 30*, 185-206.
- Koster, C. J. (1987). Word recognition in foreign and native languages: Effects of context and assimilation. Dordrecht: Foris Publications.
- Liberman, A. M., Cooper, F. S., & Studdert-Kennedy, M. (1967). Percpetion of the speech code. *Psychological Review, 74*, 431-461.
- Liberman, A. M., Delattre, P. C., Cooper, F. S., & Gerstman, L. H. (1954). The role of consonant-vowel transitions in the perception of the stop and nasal consonants. *Psychological Monographs*, 68, 1-13.
- O'Malley, J. M., & Chamot, A. U. (1990). Learning strategies in second language acquisition. Cambridge: Cambridge University Press.
- O'Malley, J. M., Chamot, A. U., & Kupper, L. (1989). Listening comprehension strategies in second language acquisition. *Applied Linguistics*, 10(4), 418-437.
- Richards, J. (2005). Second thoughts on teaching listening *RELC*, *36*(1), 85-92.
- Rost, M. (1990). Listening in language learning. London: Longman.
- Rost, M. (2002). Teaching and researching listening: Applied linguistics in action. London: Longman.
- Schmidt, R. (1990). The role of consciousness in second language learning. *Applied Linguistics*, 13, 17-46.
- Schmidt, R. (1993a). Awareness and second language acquisition. Annual Review of Applied Linaguistics, 13, 206-226.
- Schmidt, R. (1993b). Consciousness, learning and interlanguage pragmatics. In G. Kasper & S. Blum-Kulka (Eds.),

- Interlanguage Pragmatics (pp. 21-42). New York: Oxford University Press.
- Studdert-Kennedy, M. (1976). Speech perception. In N. J. Lass (Ed.), *Contemporary issues in experimental phonetics.* New York: Academic Press.
- Underwood, M. (1989). Teaching listening. London: Longman.
- Ur, P. (1984). *Teaching listening comprehension*. Cambridge: Cambridge University Press.
- Vandergrift, L. (2004). Listening to learn or learning to listen? *Annual Review of Applied Linguistics*, 24, 3-26.

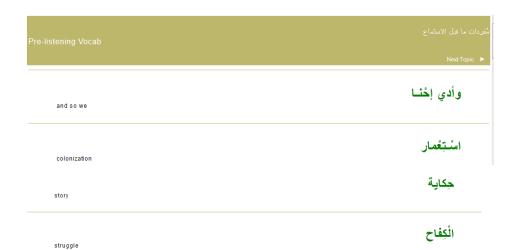
## **Appendices**

Appendix 1: Arabic language, culture and history through songs



# Appendix 2: Pre-Listening Vocabulary

# **Critical Languages Song Project**



الفلاص من النساد
 تورهٔ 1952
 حرب 6 اكتوبر
 نكسة 67
 كفاح الشعب المصري

# Appendix 3: Pre-Listening-Prediction

Des lietasias au		قبل الاستماع: السُّياق والتُّوفُع
Pre-listening qu	◆ Previous Topic	Next Topic ▶
		مگاية شعب
		ماذاً نَقهم من عنوان الأغنية؟
		🔲 الأغنية عن وَصمة نُروي عن:
		🔳 حب بین حبیبین
		🔲 نِضال شُعْب
		🔲 فتَاهُ اسمها شُعب
		🔲 انتصار ئعب
		🔲 ئزېمة مِصىر
		🔲 هزیمهٔ الاستعمار
		ماذا سَننتَج من عنوان الأغنية؟
		الأغنية سنكون عن:
		ا أثاريخ وسبب بناء السد السد
		□ فائدة السد
		 الزراعة في مصر
		☐ الصناعة في مصر ☐ الصناعة في مصر
		■ دور جمال عبد الناصر
		<ul> <li>تائج تأمیم قناة السویس</li> </ul>
		الله الله الله الله الله الله الله الله
		ما هي اهم الاحداث الذي سنتناولها الأطنية؟
		🔲 حداث دنئواي
		🔲 تأميم قناة السويس
		🔲 رفض البنك الدولي المساعدة
		🔲 ئنمية الاستعمار البريطاني لمصر
		📃 تحقيق الجلاء

# Appendix 4: While-Listening: Extensive Listening, Verification, Validation & Monitoring

while-listening 1	5	خُلال الاستماع الأول
	◆ Previous Topic	Next Topic ▶

اسكيم إلى الأعنية وأجد الكلمات التي الحُرزتها مِن قبل والتُكفُرِج الكلمة التي عَلِها ويعدما في الأغنية. فإن مع زميلك تم مع الصنف كُله.

Listen to the song and find the words you previously guessed and extract the words that come before and after the word. Compare with your colleague and then with the whole class.

كم من صوت سمعت في الأغنية؟ وهل تُعبِّر الأغنية عن صوت شخَّص فردي أم عن جُماعة؟

How many voices did you hear in the song and does the song express an individual's voice or a collective voice?

النيل نبض حياة مصر

# Appendix 5: While-Listening: Intensive Listening (Focused Questions) & Monitoring

Listanina camprahancian		أَسْئِلَةً عَنِ الْفُهِمِ
Listening comprehension	◆ Previous Topic	Next Topic ▶
		ماذا تُعرف عن حائلة دنشواي؟ اختار من النقط الثالية كل ما تُعرفه، أو قَرأتُ عنه؟
		خَدَنَتُ فَى أُواخِرِ القرنِ التَاسِعِ عَسُر     مات فَيِها الكَثيرِ من الفلاحينِ المصرين     تُوَضِّع فَسُوّة وذُل المُسْتُحُهِرِ     دَلْق المُسْتَحُهِرِ     دَلْق المُسْتَحُهِرِ     دَلْ المُسْتَحُهِرِ     دَلْ المُسْتَحُهُرِ     دَلْ المُسْتَحُهُرِ     دَلْ المُسْتَحُهُرِ المُسْتَحَالِ المُصري فيه الشعب المصري في الدلتا     وفيها كثير من الحمام
		قلنسا نلحق نينسسسي مستقبلها ونرجع تبابهسسا تقهم من هذا السطر اختار كل ما هو مناسب من الإختيارات التالية
		ا حوال مصر الاقتصادية كانت سيئة احوال مصر الاقتصادية في أوج مجدها مصر كانت مثل امرأة عجوز مصر متبهة بفئاة لها مستقبل
		كـان طبيعي نبص النيــــــــــــــــــــــــــــــــــــ
		<ul> <li>مصر هبة النيل</li> <li>مصر صحراء لو لا النيل</li> <li>لا حياة في مصر بدون النيل</li> </ul>

#### Aquil

والعرويسسة ف كل دار وقسسسفت مسسسعانا تقهم من هذا السطر اختار كل ما هو مناسب من الإختيارات التالية

- 🔲 العالم العربي كان بجانب مصر
  - 🔳 العرب ساعدوا مصر
- البيوت العربية تعاطفت مع مصر
  - 🔲 كل عربي ڤرح لنصر مصر

- 🔘 كانك مياه النيل مستغلة احسن استغلال
- كانت مياه النيل غير مستغلة احسن استغلال
  - مياه النيل كانت تروي الصحراء
  - میاه النیل کانت لا تصب فی البحر

- 🔘 مصر انتصرت انتصار ساحق
  - 🔘 مصر مرث بنكسة
    - 🔘 مصر خُرِفَت
  - الجنود المصريون حُرِفُوا

# Appendix 6: While-Listening: Deciphering The Message (Segmentation)

, in the second second	✓ Previous 1	Горіс	Next Topic 1
	احدًا بتودًا المسسسد العالي	نمة أو كلمات من سطر الاغتية. نبى و	اکمل الثاني، النائمس قد یکون حروف في کا قانـــــــــــــــــــــــــــــــــــ
العالي	<u></u>	بنيناه بإيدي	У
	احنا بنينا	کلمهٔ ر کلمه	
- سر	کفاح اللی ورا	ـــد حکایه	المكايه مش مكايه
	كمال	_ تولع شرار تحب كافح و اكتبل الإن	ئىعب زاھف خطوت
		بدایه	تسمعوا المكايه؟ بس قولها من
	-	وبيسن سستعمسار	هسي حكسايسة حرب وكسار بسينسنا إ
انتَصرنــــا	J	وککهه دم الضحا	كان كناحنا بنار انتُصرنـــــا
	ئورة ونور ونار	الجيش وثار يوم ما	انتَصرنا پوم ما
	اليلاد	الفســــــاد يــوم مــا	پوم ما
	U,	الجلاء انتُمس نسا انتُمس	پوم ما
		l l . Ne h . Šh	

# Appendix 7: While-Listening: Meaning Building

سُواب أم خُطأ True or false

أقرأ الجمل التالية وقرر ان كانت المعلومات في الجملة صواب أم خطأ حسب ما سمعت وتعلمت من الاغنية. صمح المعلومة إذا كانت خطأ.

بُنِي السد قبل تأميم قناة السويس.

حادثة دنشواي كانت قبل بناء السد العالى.

مياه النيل تضيع في البحر.

الاستعمار ساعد المصريين في بناء السد.

لم يئنق احد في دنئواي.

الأرض لم ترجع ابدأً للمصرين.

البنك الدولي لم يعط مصر قرض مالي لبناء السد.

حلل ائر الموقف على الأغنية.

بعد استماعك وقراءتك لجميع ما جاء في هذا الدرس والاغنية، عن أثر البيئة على القنان والسّاعر، نافَسَ مع زميلك اهم عوامل البيئية في التَأتير على المجتمع والفن. حاول مع زميلك أن تجد عسّرة عوامل على الاقل.

نافَسٌ مع زميلك المناسبة التي هي كانت السبب المباشر في كتابة الاغنية.

هل تعتقد أن الأغنية مازالت لها أثر بعد اربعين عاماً من غناءها، ناقش مع زميلك .

وابحث ايضا عن مدى الامتداد والاستمرارية التي حظت بها هذه الأغنية على مر السنين.

نافئس تائير الاغنية في نبض السارع والمجتمع حين ذاك حتى الأن.

## Appendix 8: Post-Listening: Language Analysis

أَسْئلَةُ مَا بِعَدُ الإَسْتَمَاع Post listening ◀ Previous Topic

فساكريس لما النسعب تنغسرب جسوه بلده ... أه فسسساكرين

كلمة تغرب تعبر عن مفهوم مهم في الثقافة العربية هو....

- الغرب
- الغُربة
- الشغرب
- الغرابة

الغُربة هن ما يعادل home sick هل تستطيع أن تجد علاقة بين غريب - غُربة- الغُرب ؟

حَلِل كلمات الأغنية واتصالها بنقافة المجتمع.

# Appendix 9: Post-Listening: Reflection

Research & Discussion

لبَحْت والمُناقشة

Next Topic

ناقس مع زميلك الاحداث التي أنت لكتابة الاغنية.

هل في اعتقادك نجمت الأغنية في وُصنف الصِّراع الذي كان موجود في يَلك الفِئْرة؟ نافَسُ مع زميلك.

كُوّبُك كلمات الاغنية على اساس انها حكاية أو قِصمة؟ نافَس مع زميلك كيف نجح مؤلف الاغنية في ابراز هذه النقطة وما هي الكلمات أو العبارات التي استخدمها لهذا الغرض؟

بعد استماعك وقراءتك لجميع ما جاء في هذا الدرس والاغنية، عن أثر البيئة على الفنان والشاعر، ناقس مع زميلك اهم عوامل البيئية في التأثير على المجتمع والفن. حاول مع زميلك أن تجد عشرة عوامل على الاقل.

هل في اعتقادك نجحت الأغنية في وُصف الصِّراع الذي كان موجود في بُلك الفِتْرة؟ نافسَ مع زميلك.

هل تعتقد ان الاغنية كانت مُؤفِّقة في وصنف الصراع الذي كانت تمر به مصر؟

نافَسَ مع زميلك سُعبية جمال عبد الناصر والنفاف السّعب المصري حوله.

Appendix 10: Post-Listening, Summary

الْکِدَابِة Writing Previous Topic ◀

اكتب انت وزميلك أو مجموعتك مسؤدة لأفكار ونقاط لموضوع انشاء عن أغنية "حكاية شعب" وعن الأغنية وأثرها في تاريخ مصر والأمة العربية، وعن مدى تأثير الموقف والحدث، القوم والعادات والثقاليد، اللغة والمعاني، التوافق أو عدمه مع المجتمع أو المجموعة، امتداد المعاني والقيم أو عدمها حتى يومنا هذا، وتأثر الفن بالشارع خاصاً وبالعالم.

في مجوعات وزعوا الانقاط بينكم وكل مجموعة تكتب فقرة موضحة النقطة بأمثلة. الهدف في أخر التدريب هو أن يكون هناك تعبير واحد متوافق ومتصل للصف كله ولذلك يجب أن تتواصلوا وترجعوا مع بعض فقراتكم وكتاباتكم.