

# **Employing Metacognitive Awareness in Teaching TOEFL Listening**

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## **Abstract**

This paper reports on the approach taken in the Global Business Intensive Course (GBIC) to the teaching of listening in preparation for the TOEFL iBT test. The program adopted a metacognitive approach and employed a pedagogical study cycle to train the students in how to plan, monitor and evaluation their listening and their listening development. The paper discusses the problems facing teachers in a TOEFL listening course and the challenges students have when learning listening. It briefly outlines a working theory of listening and how metacognitive awareness of listening can improve a learner's listening skill. This paper reports on how this was applied to the teaching of listening in the GBIC program, the resulting improvement in the participants TOEFL listening scores and the students' impression of how their listening had improved.

## **Key words**

Metacognitive Awareness, Listening, TOEFL iBT

## **I. Introduction**

The Global Business Faculty of Osaka International University established an intensive English program - Global Business Intensive Course (GBIC) with the goal of preparing participants to study undergraduate courses in English at affiliated universities. This required that the students in the program (GBICs) perform well on the TOEFL iBT test to succeed in their study abroad applications. The TOEFL iBT test is an integrated test which includes a component of listening in both the speaking and writing sections of the test which a test taker needs to do well in, to achieve a good test score. Listening was considered the language skill to which the most attention should be given.

## **II. Listening is a complex action and requires work**

Although listening is given greater attention in language classrooms than before and learners are exposed to more listening activities, they are still required to independently

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develop their listening with little or no teacher support. In fact, listening as the most frequently used language skill, is an essential aspect of communicative competence (Richards, 2008). As an activity, listening is a covert, very individualistic and personal experience making it not only difficult to describe but also difficult to assess. Even though listening is now recognized as an active mental process, it is still difficult to define and investigate (Vandergrift, 2011). Teaching still struggles to come to grips with the best and most efficient approach to the teaching of listening. The description of listening given by Rost (2002) clearly indicates the current perspective of learning. He describes it broadly as receiving what the speaker says; as constructing and determining meaning of what the speaker is saying, as a collaborative process of interaction and negotiation to clarify meaning; and as a transformative process of creating meaning through involvement, imagination and empathy. It is clear from this definition, that listening is viewed as a complex, active process of interpretation in which listeners are matching what they hear with their prior knowledge. It is hardly a passive action and indeed listening involves a considerable amount of work on the part of the listener. This is perhaps the foremost concept that learners and teachers need in their approach to developing listening: the student must play an active role. Thus, teachers of listening need to have a clear understanding of what this “active role” means and impart this to learners.

### **III. Finding an effective approach to teaching listening**

Current listening textbooks try to reflect the advancement in listening pedagogy and research into what listening is. For example, many listening activities have pre-listening sections as a standard feature with the intention of orienting students in the listening topic or activating their background knowledge of the topic. A nod towards language research that has distinguished the role top-down processing plays in listening (Vandergrift, 2011). However, commercial textbooks tend to be generic in nature and are void of the instruction and context that test preparation students require. Generic texts situate instruction in non-academic contexts and generally give no instruction in listening strategies that the learner may take to various listening situations. Additionally, they are not the most ideal texts for TOEFL students as they will cover all the situations of listening while TOEFL listening is primarily one-way listening. Students remain challenged by not knowing how to listen when they encounter listening content. Here, they receive no support from their teachers other than to try harder. Goh (2000) lists ten comprehension problems faced by students when listening (e.g. not recognizing known words, not chunking streams of speech, missing the start of the sentence, concentration problems). Often teachers feel that they have to imitate real life listening and task the students with unsupported listening of this nature. The nature of the real time listening experience does not allow for the listener to slow it down or break it into manageable

chunks, they never get the opportunity to review and learn how to deal with listening input. The result is that they do not learn how to listen, how to manage the input stream, what listening strategies are available to improve their listening ability and they never focus on the process of listening. So often it is the case that instruction focuses entirely on testing listening, often overlooking the process of listening by which students can learn to comprehend while listening (Mendelsohn, 1994; Vandergrift, 2004). Most TOEFL test preparation texts favor this approach. Teachers need to give more thought as to how they may equip their students to become active listeners and manage their listening. Listening can be a stressful activity for beginning and intermediate language learners who may struggle to quickly process and comprehend information.

#### **IV. Listening in the TOEFL iBT test**

In the TOEFL iBT test, listening is the language skill that the test taker is most dependent on. A strong listening ability means a being a step closer to a good score. As the TOEFL iBT test aims to assess integrated language skills, the test taker is tasked with responding to both aural and written sources. Of the four sections in the TOEFL iBT test, only the reading section has no listening component. The listening section is entirely that and in each of the other two sections, the writing and speaking section, a response to aural and written input is a component of the question task. In fact, of the six speaking questions, four are integrated skills tasks of which all require accurate listening skills. It is clear from the design of the TOEFL test that a poor listening skill is an impediment to achieving a good overall score. Many preparation texts and websites focus heavily on training for the test through practice tests and test taking tips. Much attention is placed on working through test questions and on explaining the correct answers in Japanese. Listening is most easily measured and determined in terms of listening comprehension outcome with the teaching of listening taking that tack. In general, TOEFL iBT classroom listening activities place an emphasis on the outcome of listening. The instruction to the student is to record details or to explain the meaning of a passage they have had to listen to. The emphasis is on testing how well something was understood. And even though note taking is permissible in the TOEFL iBT test, very little attention is given to this academic skill which if taught well, supports the listening. Not surprisingly, a by-product of this form of instruction is often anxiety for the learner and possibly a nurtured self-belief that listening is difficult. This approach to teaching listening whether in a general listening course or a TOEFL preparation course, generally ignores the involvement of the listener in the process of listening and avoids teaching to it. And thus, the issue facing the teachers in the GBIC TOEFL iBT listening course was twofold; how to teach listening in a way that prepares the student for the TOEFL iBT test but without sacrificing the development of listening to the detriment of the

student. Vandergrift and Goh (2012) believe that a change in how listening is taught in the classroom is necessary. They support teaching that leads students to investigate and discover their listening process and to have an awareness of the nature and demands of listening in a foreign language which will assist them in better managing their own learning. Teaching listening with an explicit focus on the learners' knowledge about the process and management of listening is called "metacognitive instruction". This paper will explain and review the concept of metacognition in the listening process and describe the metacognitive pedagogical sequence developed by the listening teachers in the GBIC program to prepare the students for the TOEFL iBT test through managing and monitoring their individual listening development.

#### **V. Aiming for competent listeners**

Listening teaching needs to take a metacognitive approach to listening development. This should take the form of explicit instruction in listening development. Learners need to be supported and introduced to current theory of the cognitive processes that they are using when engaged in listening. This means that teachers need to engage the learner is thinking about listening to the degree that they even discuss the theory of the process of listening and cognitive actions such as top-down/bottom-up processing. Learners need to be aware of what they are thinking when listening and how they are feeling. Teachers need to discuss with them how to control their thoughts and feelings and how to interact with and react to the incoming information. Once thus equipped, students need to focus their attention on what they can do to support and improve their cognitive processes and be provided with ample opportunity to apply, implement and practice. Further to this, teachers need to give instruction in how students can evaluate and monitor their listening skill, focus on an aspect that needs development and work to improve it. In this way learners can be taught to take charge of and manage their listening development. In short, this is a learner-oriented approach which places importance on the role metacognition plays in learning to listen. A metacognitive approach to listening adds another step beyond simply teaching or focusing on cognitive strategies (Vandergrift & Goh, 2012). It is clear that the task facing the teacher of listening is: 1) to have a sound knowledge of the theory of the listening process and listening comprehension, 2) introduce students to a different approach to tackling listening, one in which they take a more active role and greater responsibility, 3) introduce and teach learners strategies useful for the development of the listening and for application in listening and, 4) convince the learners to take a different approach, one of action and self-analysis. Although, it may be hard to convert students to a different approach to learning to listening from the one deeply ingrained, once the learners perceive an improvement in their listening skill, they will more willingly take charge of their learning process. Teachers need to refocus

students' attention on what it means to be a competent listener. This means issuing the learner with a knowledge of the cognitive process of listening and the knowledge sources needed for listening and giving instruction in how to actively manage and develop these. GBIC staff, except when doing a formal test, gave very little measure to scores in practice exercises. The instruction focus was on how to learn to listen and the implementation of it.

## **VI. Metacognition in the listening process**

Cognitive theory postulates that the learner is actively involved in the learning process, further adding the notions of declarative knowledge (what one knows of something) and procedural knowledge (what one knows how to do) (Anderson 1983, 1985). From this point of view, it is conceivable that the learner needs to have a knowledge of the cognitive listening processes so as to perform effectively and regulate them when listening, and it is essential for the effective teaching of listening that the teacher know and comprehend what cognitive processes are involved when listening and what knowledge resources are available to the listener. The purpose being to give students training in each of the cognitive processes involved in listening and to: 1) instruct students in strategies that they may apply when listening, 2) to teach students learning activities they may engage in to develop their listening and, 3) to teach students how to monitor and evaluate their listening development and listening skill. Working from a theoretical model of L2 listening will clarify for the teacher the cognitive processes in listening and the elements of processing (Vandergrift and Goh, 2012) and this will assist teachers in finding the appropriate listening practice for learners (Buck 1995). Vandergrift and Goh (2012) lay out four cognitive processes that are the components to L2 listening comprehension: 1) top-down and bottom-up processing, 2) controlled and automatic processing, 3) perception, parsing, utilization and, 4) metacognition.

### **1. Top-down and bottom-up processing**

Top-down and bottom-up are the two distinctive types of knowledge applied in the listening comprehension process by the listener to process information (Vandergrift, 2011). Bottom-up processing is the segmentation of the sound stream and the application of linguistic knowledge to construct meaning. It is based on the assumption that by applying phonological knowledge (phonemes, stress, intonation), lexical knowledge (vocabulary) and syntactical knowledge (grammar) of the target language, meaning can be extracted from speech and the final message determined. But while this is indeed a valid process in listening comprehension, the listener also has recourse to prior knowledge and context knowledge stored in long-term memory which can be resourced to construct meaning. This is recognized as top-down processing. This is a holistic

interpretation process where listeners form, confirm and modify hypotheses based on the speaker's meaning (Lynch and Mendelsohn, 2002). Accuracy in top-down processing depends on; the learner's appropriate application of the knowledge sources, the learner's ability to confirm and modify understanding while listening and on the information bank that the learner has recourse to for interpretation. A beginner will most likely depend upon bottom-up processing, placing greater conscious attention here than engaging in top-down processing. With practice leading to greater proficiency in the target language, this cognitive process becomes increasingly automatic, allowing for attention to and the employment of top-down processing (Vandergrift, 2007). Vandergrift and Goh (2012) note that bottom-up and top-down processing are in reality, neither an either-or application but often are a combination and they function reciprocally. As proficiency increases, the two processes function interactively in a compensatory manner. Additionally, depending on the purpose and context of the listening task and the learner's language proficiency, learners may selectively engage the different cognitive processes. When having to extract or verify specific details, they will engage in bottom-up processing and where the situation demands attention to the gist of the listening text, they tend to rely in top-down processing. The teacher needs to bring to the attention of the learner these two processes and how and when to engage in them. It is important for the teacher to realize that his or her lower level students may still be heavily independent on the bottom-up processing and may need instruction and training on top-down processing. However, Vandergrift (2004) notes that top-down processing instruction currently is heavily favored at the expense of bottom-up instruction. If the lexical knowledge of the beginner student is deficient, context knowledge and top-down processing will not support comprehension any better. Advanced students may have a comprehensive vocabulary and yet be unable to recognize known words in the speech stream. Bottom-up training is necessary for *all* learners to enable them to understand enough linguistic elements from what they hear to then be able to apply their top-down skills. Field (2003), advocates that sensitizing learners to phonological features of fast speech (reduced forms, assimilation, elision) and outlines several classroom exercises. Introducing learners to the concepts of top-down and bottom-up processing with instruction in activities and language study that will support these cognitive processes is what teachers need to bring to their instruction. For example, students need to know that they have to build and expand their knowledge sources (grammar, vocabulary, schemata etc.). It means not just learning grammar but knowing how meaning is coded in grammatical structures. In the same way understanding the importance of rapid bottom-up processing and how this is only improved by practice. Teachers of TOEFL iBT listening can include in their classroom short activities that work on this and give students instruction in how they can make their own activities and focus on listening development when doing regular

TOEFL listening activities by making use of the audio transcripts.

## 2. Controlled and Automatic Processing

Converse to automatic processing, controlled processing requires conscious attention to the active analyzing of elements in the speech stream (Vandergrift & Goh, 2012). Native speakers for whom listening is natural and fluent, will be able to switch back and forth between the top-down and bottom-up processes rapidly as is needed to achieve comprehension. How well L2 learners can do so depends heavily on the degree to which they can coordinate the top-down and bottom-up processes. L2 learners being hindered by language knowledge limitations, are forced to pay more attention to bottom-up processing and for them the coordination of the cognitive processes needs more conscious attention and is less automatic. Further constraints placed on the L2 listener are time and the limited capacity of working memory as the listener has to cope with the rapid pace of the incoming data stream. Whatever cannot be processed automatically will have to be subject to controlled processing. The implication is that with a strong long-term memory to support a listener, i.e. the greater ability to automatically process incoming data, the more working memory space is available for the L2 listener to process new data and to assimilate the content of what they are hearing. As a cognitive skill, listening can with practice become automated as with other behavioral skills (Johnson, 1996). Learners will benefit from understanding that the challenges of listening are not insurmountable and that there is an active learning path available to them. Realizing that more than just doing endless practice listening exercises, if they were to add to these a *learning focus* and with sufficient practice, aim to expedite and automate their bottom-up processing, their listening would improve. In the TOEFL iBT test, listening tasks are based on campus conversations and academic lectures, so students need to work on building their knowledge in this genre. Teachers should design activities and tasks that analyze the various situations and context and set specific knowledge building tasks.

## 3. Perception, Parsing, and Utilization

Chamot (1995) referring to Anderson's model of comprehension, explains the concept of listening as a cognitive process whereby selected information received by the listener is filtered through the working memory and referenced with knowledge sources in long term memory to determine understanding. According to this model there are three stages: *perception* where the information received is initially stored in short term memory; *parsing* is where the listener accessing associated schemata and prior knowledge will select information for transfer to long term memory and *utilization* is where information becomes part of either declarative or procedural knowledge. In the perception stage, learners need to resort to bottom-up processing to identify the

sound signals as words or meaningful chunks of language, this is controlled processing conducted within working memory. Strong segmentation skills are necessary for a learner to be competent at this stage. Reduced forms, stress patterns, elisions common in speech make distinguishing the word boundaries a challenge. For example, a learner may easily be able to distinguish a word in isolation but have difficulty singling it out in connected speech. This conversion of sound into a phonetic representation is in the next stage parsed for meaning. This is not a linear action but is rather is of an integrated nature as it the cognitive processes of bottom-up and top-down. From the parsed speech learners activate potential words from long-term memory to create possible representations of meaning. With the development of language proficiency learners are able to rapidly and accurately activate words related to the context and topic. In the utilization phase, the learner is primarily applying top-down processing, matching the meaningful units to information retrieved from long-term memory. From pragmatic and prior knowledge sources, the listener will form interpretations of meaning and monitor these against evolving meanings forming in working memory as they listen. For fluent speakers this process is automatic – the agreement of the linguistic input with prior knowledge – where comprehension breakdown occurs, listening becomes a problem-solving task. Listening as described above is a very complex process. The commonly used approach of listening as testing expects a student to apply this process without training and strengthening the various parts. Goh (2000) in a study that identified the real-time listening challenges of ESL learner and classified them on the basis of the language comprehension model of Anderson. Goh identified perceptual problems such as not recognizing word, neglecting parts of speech or the inability to chunk speech. In the parsing phase, Goh identified problems such as quickly forgetting what was heard before, being unable to form a mental representation from words understood and failing to follow the train of thought due to having missed previous parts. In the utilization phase, listeners struggled with understanding the words but not the meaning, being confused by conflicting meaning. The teacher and learner need to be aware of the importance of the first two initial phases (perception and parsing) and know what information to select for working memory which is short term and with limited capacity. Learners may become overwhelmed attempting to focus on and remember every detail of the incoming information. The teacher needs to provide instruction or teach strategies for selection of information to process and extract meaning from. With regard to TOEFL iBT test preparation, listening teachers need to focus their students on task of the listening question. Note-taking training gloves well with this instruction and training.

#### 4. Metacognition

From the field of cognitive psychology, Flavell (1976) is accredited with coining the term “metacognition” which can be summarized to explain concept of thinking about the cognitive process.

“one’s knowledge concerning one’s own cognitive processes and products or anything related to them.... active monitoring and consequent regulation and orchestration of these processes in relation to the cognitive objects or data on which they bear, usually in the service of some concrete goal or objective” (Flavell, 1976, p. 232)

In cognitive psychology, the concept of metacognition refers to one’s awareness of thinking and learning (Flavell, 1976, 1979), and specifically refers to what one is thinking, how one thinks with reference to the learning task at hand, and why one takes that approach. It also includes the concept of being able to regulate these thinking processes. Flavell (1979) elaborates further, by postulating that metacognitive awareness takes the form of experience and knowledge. The former, *metacognitive feeling*, may be the sense or feeling one has of one’s cognition, like the realization of not comprehending or understanding something. The latter, *metacognitive knowledge*, would be one’s beliefs and perception of learning. Relating this to a situation in L2 learning, it would be when a listener struggling with a problem faced in a listening situation, relates it to a past experience and applies the same strategies used then to overcome the problem. Paris and Winogard (1990) define metacognition as having two key features; a knowledge of cognitive states and processes (person, task and strategy knowledge) and executive control in the application of this knowledge (the use of strategies). Flavell further qualifies metacognitive knowledge to constitute the following different kinds of knowledge:

- 1) **Person knowledge** (the knowledge and understanding a person has of his or her cognitive process and universal traits that influence learning). With regard to students in the GBIC listening course, this would be realizations such as their recognition that they feel anxious about note-taking and whether they can hear the necessary information required to perform the task. Another example would be the individual’s preference for conversations over lectures or the realization that they perform better with conversations as compared to lectures. Person knowledge may also be the individual’s awareness of his or her ability to maintain the intense level of concentration required in the TOEFL iBT listening.
- 2) **Task knowledge** (the knowledge a person has about the information and resources they need to undertake a task – the nature, purpose and demands of a task), In the TOEFL iBT test, many of the questions are integrated and have a specific and clearly defined task. The GBICs would have to know the specifics of

each question and what resources they would be given to complete their task. For example, question 3 in the speaking section is an integrated question that includes reading a brief passage, listening to short conversation and requires them to summarize their opinion of a speaker and note the examples given by the speaker. The task is specifically defined and thus the listening goals in this question are very specific. The test takers need to focus on the task information and filter out any other distracting information.

- 3) **Strategy knowledge** (knowledge regarding the approaches and techniques necessary for successful task completion). An example of a specific TOEFL iBT listening strategy would be to recognize the type of speaking question to be done and employ the relevant note-taking strategy. Another example would be to monitor the time while performing the speaking to ensure that they complete the task requirements before the time runs out. A more general listening strategy would be to recognize the conversation pair (e.g. a student requesting an assignment extension) and anticipating the possible replies (e.g. the professor agreeing, refusing or making an exception with conditions).

The GBIC listening course instructors would have to be aware of these three sources of knowledge and guide the GBICs in their understanding and development of them. The GBIC instructors decided to take a metacognitive approach to the teaching of listening in the GBIC program and to involve the students in the GBIC course (GBICs) in their learning. Reviewing the goals of a metacognitive approach as laid out by Vandergrift & Goh (p. 83, 2012), they redefined them in terms of the TOEFL iBT listening content and devised a pedagogical cycle which the GBICs would follow when doing any of the listening sections in the TOEFL iBT test. This cycle of study is based on the metacognitive pedagogical sequence suggested by Vandergrift and Goh (p. 108, 2012).

## **VII. The metacognitive approach of Vandergrift and Goh aims to guide learners to:**

### **1. Understand the challenges of the L2 listening.**

Students clearly know that listening is difficult and may even comment that listening is hard because they cannot hear what is being said. In the GBIC course, the first lecture is on the nature of listening; what makes listening difficult in general and, what is a starting point in learning how to listen. The lecturer includes in the discussion very simplified explanations of some concepts such as working memory and long-term memory and a very basic theory of how listening takes place. The aim is to demonstrate to the students that their goal is the automatization of much of the parsing activity necessary when hearing connected speech. Also, to impress upon them the need for a library of knowledge (vocabulary, schemata, grammatical phrases etc.) to resource in an

instant so that their working memory is available for problem solving. Having a basic and rudimentary theory of listening and targeted goals to work towards gives the students meaning to the listening activities and intense practice they have to do in the course.

**2. Individually think about how to develop their listening.**

Students need to be taught how to evaluate their listening performance, identify listening difficulties and focus on developing these. Having a knowledge of how speech is affected by for example, reductions and how to practice hearing them will help the learner overcome this listening challenge. In the study cycle, one of the stages, Listening Development, is where students focus on the mechanics of listening. Lessons and instruction are given in reductions, stressed and unstressed syllables, elisions and training is given in bottom-up listening activities as suggested by Field (2003). After the first few lessons, the GBICs have a menu of listening development training activities from which they can choose according to their own assessment of what they feel they need training in. Using the TOEFL audio transcripts, they would judge where their listening has broken down, try to determine the cause and then select a relevant training activity.

**3. Learn from others how to develop and advance their listening.**

Listening is a very individual learning process, but peer input could offer some assistance when learners can share listening strategies. Hearing from their peers or observing teacher demonstrated think-aloud protocols will demonstrate for learners what they can and should be doing when listening. Throughout the various stages in the study cycle, the students listen to the audio and then form discussion groups. Depending on the listening focus, their discussions will be on how they took notes, their thinking while listening, their listening strategies and serve as a form of peer-learning.

**4. Be able to appropriately and selectively use listening strategies.**

For students to become proficient at strategy usage, they need not only a knowledge of listening strategies but extensive practice in their application. The listening situations in the TOEFL iBT test are structured around to university life and academic lectures. It is one-way listening which does not require any interaction with the speaker and as such does not include the gambit of listening. As a standardized test, the TOEFL conversations and lectures conform to patterns and a particular design. Students need to have listening strategies for the TOEFL test and general listening strategies albeit for one-way listening only. In the study cycle, students analyze the transcripts and over a series of lessons develop strategies based on the patterns that emerge. The aim is to learn a variety of strategies and be able to apply them to a listening situation. Over time by analyzing many transcripts, the GBICs learn various listening strategies which they can selectively

employ according to the listening situation.

**5. Be motivated and believe in their ability to accomplish a listening task.**

The listen-and-test approach to teaching may be very demoralizing, given an awareness of listening and a self-understanding of their own listening process, learners feel more positive about their potential to develop their listening skill. Especially if they can see results in interactions outside of class. The pedagogical cycle of study takes affirmative study action. The student is actively involved in his or her study and can feel that he or she is doing something. The reasoning behind the activities and multiple listenings to be done of a single audio is clear. The listening course requires the students to do a considerable amount of daily TOEFL related listening homework with their peers using the study cycle. The intensity and volume of study shows results over time and the students begin to notice and comment on the improvement in their listening skills. The students keep a log of the work they have done (this is not a log of scores, but assignments completed), this record of achievements is a motivator. The results on tests such as the TOEIC and TOEFL iBT do show improvement and this is also motivating.

**6. To develop the listening proficiency in enough to participate successfully in oral interaction.**

The inability to comprehend and follow a conversation can be demoralizing but when learners are able to identify the features of listening that they are struggling with, work on them and improve their listening skill, they will notice the effects in their ability to interact better. Extra curricula activities related to studying abroad are part of the GBIC program. The GBICs interact with foreign students from affiliate universities a couple of times each semester. One of the outcomes of these interactive activities is that they note that their listening has improved. The GBICs are surveyed for feedback on how they felt their listening was improving and report that their listening has improved.

**VIII. Aims and objectives in the GBIC TOEFL iBT listening course**

Vandergrift and Goh (p. 85, 2012) propose a metacognitive awareness framework consisting of three components which direct a learner to become self-knowing (*metacognitive knowledge*), self-directed (*metacognitive experience*) and self-managed (*strategy use*). In this framework, *metacognitive experience* is where a learner has the fleeting experience of sensing or noticing something unfamiliar and choosing whether to react on that impression or letting it pass. When related to listening, it may be when a learner notices an unrecognizable sound or word and responds to it by drawing upon a strategy previously in such a situation. In their framework, Vandergrift and Goh note that the metacognitive experience is only of value to the learner when he or she responds

to it. As defined by Flavell (1979), *metacognitive knowledge* refers to the three bodies of cognitive knowledge in the long-term memory; person knowledge, task knowledge and strategy knowledge. The third component in their framework, *strategy use*, is the action of self-management; selecting strategies according the listening purpose or task and using strategies for listening development. Self-appraisal and self-management of language learning being the important functions of the framework. They note too (p. 92) that even as metacognitive processes involve a learner's conscious attention, effective learning depends upon what action the learner takes to pursue listening development. Vandergrift and Goh (p. 99, 2012) referring to the objectives of Metacognitive instruction, note that if teachers have clear objectives this will afford their students the needed scaffolding through which they can receive instructor guidance, support and feedback. They believe that learners will be more motivated and see the benefits of "engaging in their metacognitive processes" when they are evaluating, tracking and monitoring their listening development and by participating in peer discussions on the mental processes. In the GBIC listening course, the instructors drew up course objectives based on the example given in Vandergrift and Goh (p. 99, 2012). These objectives were discussed with the students over a series of lessons. (See table 1 & 2 Appendix A)

#### **IX. GBIC TOEFL iBT listening course materials and out-of-class listening**

The GBIC TOEFL iBT listening course consisted of two 15-week semesters and the class met for a weekly 90-minute lecture. The students were also required to participate in a weekly 60-minute TOEFL Listening practice workshop and were encouraged to do their homework assignments together. The course materials used were the listening audios and transcripts from the course textbook: *Developing Skills for the TOEFL iBT: Listening Intermediate* (Edmonds, 2009), a TOEFL iBT preparation textbook: *Longman Preparation Course for the TOEFL test* (Philips, 2013) and 24 TOEFL YouTube videos e.g. *TOEFL Listening Test 101*(see footnote).<sup>i</sup> In the listening course, TOEFL listening materials were used from all the sections of the TOEFL test that had components of listening. The course prescribed an intensive out-of-class listening regimen so that the students were doing one or two TOEFL test related listening assignments every two days whether as class homework, workshop study or TOEFL YouTube listening self study. The course, as suggested above included discussions with the students on the cognitive process of listening, how they felt about their individual listening ability, how they could improve their listening and what their listening goals were. Lessons and instruction were given in the mechanics of listening and how to train their ear to hear and parse the phonological stream. In teacher guided lessons, the students analyzed TOEFL transcripts and noted features such as outlines of lectures, discussed and noted listening cues in the conversations and lectures; and discussed other features of

conversation that would support listening. In this way, the students built a menu of items that they needed to focus on individually to train their ear or to build background and language knowledge. After a series of lectures, the students were instructed to select from this menu of listening foci, something that they felt they needed to focus on when they did a listening study cycle.

#### **X. The pedagogical sequence: The Listening study cycle**

The pedagogical sequence used in the GBIC TOEFL iBT listening course consists of five stages: the Initial listening (test conditions), the Listening Development stage (bottom up listening skills), the Transcript Analysis stage (top down listening skills); the Practical Language Usage stage and the Final Listening stage (test conditions). A student working through the cycle will do a series of listening each with a different learning objective. The listening study cycle is best done in a group or with a partner for the benefit of peer discussion and learning cooperation. The aim of the listening study cycle is to foster independent self-study and monitoring of listening development. Learners should determine for themselves from the menu of study options, what learning focus they will prescribe for themselves.

**Stage 1: The Initial Listening.** This first listening is done under test conditions. The students listen to the audio only once and take notes as if it were a real test. If the listening is from the TOEFL iBT listening section, the students will then also complete the questions. Equally so, if the listening is part of an integrated question that includes reading (e.g. speaking questions 3 & 4 and the integrated writing question), then they will do the reading first as the listening depends on it. Then the students will form groups and report from their notes what they have heard. Students confirm what their peers report, discuss the listening and can add to their notes any information that they have missed. It is important that in these peer discussions, students share with each other how they had heard something (strategies such as listening for signal words or expecting an answer and explanation to a previous question etc.). In a second listening they listen to confirm the information that they had added to their notes in the peer discussion. The answers to the questions are not checked or given out, neither are they referred to in the discussion. The objective of this stage is to in the first listening focus on test conditions and performing the listening under test conditions as a form of test preparation. The reason for not going over the answers is to focus students' attention on listening and sharing with each other strategies they used for listening. It is an attempt to break the mold of listen-and-test. Another test preparation focus that can be done in this stage is for students to discuss how they took their notes and to explain their note-taking organization and style. It might be best done after the second listening.

**Stage 2: Listening Development (bottom up listening skills).** In this stage, the

learners focus on the mechanics of listening. They will listen again with the support of the transcript. While listening, they will identify sections or parts in the audio they cannot distinguish by listening alone but can understand with the support of the audio transcript. These they will underline and then after the listening return to these sections to analyze the cause of their listening deficiency. Based on their knowledge of the phonological changes that occur in connected speech, they may identify the problem. There could be a number of identifiable reasons for their not being able to hear a stream of connected speech, but students should be advised to select and identify one in this stage and to limit their practice to one or two learning foci. It could be for example, linking. They may then decide that they wish to do some training in hearing and noticing the linking of words and then set this as a learning focus. While listening again, they will mark on the transcript the linked words or phrases. At this stage, once they have identified and marked their transcript, they do another listening. This time with the objective of trying to imitate the linking in the script using their transcript markings as a guide. They listen and read aloud. There is also the option of doing still another listening with linking as the study focus. This time they speak aloud along with audio but without referring to the transcript. The objective of stage two in the listening cycle is for the listener to identify factors that make listening a challenge for him or her and to do some training to learn to in hear them better. In the GBIC program, students are studying an audio script on almost a daily basis, they have ample opportunity to vary their study foci and to improve their bottom up listening skills.

**Stage 3: Transcript Analysis.** In this stage students analyze the transcript with the objective of building their background knowledge, language knowledge, grammatical knowledge and schemata. Previously, they will have had lessons with their teachers where together they have learned about such things as conversations pairs, noted the common situations, noted opening gambits in conversations and other patterns of speech. They will have also marked how intonation carries meaning. For example, a small and seemingly insignificant word like “well” depending on how it is said marks the attitude or feeling of the speaker. Here too, students are instructed to contrast their knowledge campus life in Japan with what they can learn about campus life in America. If for example, the conversation is about applying for a scholarship, they should compare the process at their campus with the information they can get from the conversation situation. This is important background knowledge they may need for a future listening and also part of their preparation for study abroad. Another area of study important to the student is building of lexical knowledge. Again, if the content is about scholarships, the student could go through the conversation and note the words related to this topic, collocation and usage of the word *scholarship* and its forms. Study of transitions and phrases that signal important information is forthcoming or mark the movement of the

argument in a lecture are another form of analysis that could be done at this stage. A listening exercise at this stage would be after noticing and marking them in the transcript, the student can listen to see if he or she can hear them in the audio script. This is also important note taking training. The objective is to build knowledge that will support their listening.

**Stage 4: Practical Language Usage.** The objective at this stage, to find a phrase or vocabulary that the student thinks will be useful and set a goal of trying to use it the immediate future. The TOEFL iBT conversations are littered with useful phrases related to campus situations that the students will need when abroad.

**Stage 5: Final Listening.** In this final stage, the students do the listening again under test conditions and make a comparison of their note-taking and performance to that of the initial listening done in the first stage. This time they check their do answers. After listening so many times and studying the audio script they are sure to get them correct. They need to compare their answers in the final listening to those made in the initial listening and note why they originally got an answer wrong. This can be done individually but it is more beneficial in a discussion group. Explicitly noting *why* one got an answer incorrect is a form of learning. It takes a fair amount of time to complete a listening study cycle, but students should be encouraged to complete a cycle properly, set their study focus for each stage and conduct their peer discussions without skipping a stage as they will eventually see the results of their effort and time invested. It is important to impress upon them that they will see faster results in their scores and number of correct answers if they preserve in their application of the listening study cycle.

## **XI. Listening scores on standardized tests and student feedback**

The GBIC study program scheduled the GBICs to take the TOEIC and TOEFL iBT test at various times during the year long course. The TOEIC test was used as an independent measure of the GBICs' progress. A TOEIC test was taken within the first weeks of the course and then once at the end of each semester. As mentioned above, preparing for the TOEFL iBT test was one of the principle goals of the GIBC course so the GBICs took the TOEFL iBT three times in the program. The first two were TOEFL iBT practice online tests (TPO) which are previous TOEFL iBT that can be purchased from ETS (Educational Testing Service) and done as practice tests or as test simulations. The GBICs did two TOP tests under test conditions. The third test they did was a formal certificated TOEFL iBT test taken at an ETS designated testing center. Below are the Listening scores of the 2016 and 2017 GBIC cohorts. The TOEFL tests were conducted in the second semester at roughly monthly intervals.

**Table 1:** listening test scores for the 2016 GBIC cohort

	TOEIC 20160429	TOEIC 20160709	TOEIC 20170113	TOEFL iBT (TPO) 20160901	TOEFL iBT (TPO) 20161021	TOEFL iBT (official) 20161126
Student A	340	345	400	12	13	14
Student B	280	345	335	9	10	13
Student C	340	410	425	13	21	22
Student D	475	470	485	19	19	22
Student E	200	310	335	5	9	12
Student F*	N/A	N/A	375	5	9	15
Student G	335	315	350	2	4	13
Student H	315	380	315	12	10	7

\*Student F joined the GBIC program from the second semester

In the 2016 cohort it can be seen that except for student H, all the students showed gradual improvement in their listening scores over the three-month period of the second semester. With regard to the TOEIC test, the results showed that all the students improved their scores when comparing the first and third test. For most students, the scores gradually increased from test to test. Only student H is the anomaly.

**Table 2:** listening test scores for the 2017 GBIC cohort

	TOEIC 20170429	TOEIC 20160729	TOEIC 20171223	TOEFL iBT (TPO) 20170901	TOEFL iBT (TPO) 20171019	TOEFL iBT (official) 20171125
Student A	395	315	320	7	10	10
Student B	270	355	355	11	12	13
Student C	365	410	425	16	7	20
Student D	230	260	300	7	4	4
Student E	320	290	415	11	8	11
Student F	275	305	365	7	6	10
Student G*	N/A	380	440	13	13	20
Student H	315	325	260	9	12	10
Student I*	N/A	N/A	365	10	8	15
Student J	235	230	310	2	8	14
Student K	390	425	430	4	22	18

\*Student G & I joined the GBIC program from the second semester

In the 2017 cohort, except for student D, the other students either made gains in their listening scores or maintained their listening score within a close range on the TOEFL listening section. This student, however showed a steady measured increase in listening scores on the TOEIC test. Again, except for students A and G, the TOEIC scores showed an increase over the course of the program. Test scores are influenced by many factors and they not analyzed in depth here but are provided as evidence to support the belief of the GBIC listening teachers that their approach to the teaching of listening in the GBIC course provided results where it counted the most for the students and the university-

on their test scores.

## **XII. Comments and feedback from GBIC students**

In Osaka International University, the students of all classes are surveyed about their courses at the end of each semester. The GBIC teachers of the listening course asked the GBICs to comment on whether the course had benefited their listening. Below are some randomly selected comments from the surveys taken at the end of both the semesters in 2016 and 2017.

“My listening skill was improved before through this class. I try to speak more English with my friends and professor. And also, I understood how to good at listening and note taking is better. I think my hearing and brain area are a little improved.”

“Thanks for this class. I can listen a lot of words or sentences. So, I want to do my best in the future. I want use a lot of listening skills when I do TOEFL, TOEIC or something.”

“My English improve during 3 monthes (sic). I couldn't hear about the text and it was hard for me to do anything because I cannot hear any words. Now I practiced a lot to understand what they want to so. So I thank my teacher to teach us how.”

“My listening skill is quiete (sic) good. We have lots of listening practice and also discussion. It help me to prepare to do there TOEFL Question. And my English listening ability has been improved a lot. I know how to take a good note when listening.”

The comments and feedback from the students indicated that they felt that their listening had improved and more importantly that they wanted to continue studying to improve their listening. The survey was not designed to examine in depth the change in attitudes to learning to listen, but the brief comments do suggest a change in attitude towards studying listening, a personal sense of improvement and a self-confidence in developing this language skill.

## **XIII. Conclusion**

Current listening theory recognizes that there are a number of factors that contribute to the competence of a L2 listener and that listening is a complex and automatic cognitive skill. The L2 language teacher needs to have a full understanding of how listening

comprehension works, what the operative cognitive processes are (bottom-up/top down processing; perception, parsing and utilization) and what knowledge resources (linguistic, pragmatic, discourse, and prior knowledge) listeners draw from. To attain successful listening outcomes, competent listeners use metacognition to regulate these processes. Accordingly, the language teacher needs to understand how listeners can manage these cognitive processes knowing that the degree with which a listener can consciously control the cognitive processes will vary with language proficiency. Metacognition refers not only to the learner's awareness of listening comprehension cognitive processes involved in comprehension, but also the ability to manage them when listening (Goh, 2008). Teachers frustrated with the lack of progress of students' listening development in a standard text preparation course, may want to consider the regulatory role of metacognition in the listening process and how it may be effective in the teaching of listening and the preparation of the students for the test they face. This paper has demonstrated how teaching TOEFL iBT listening within a framework of metacognitive awareness and how the instruction of the students in how to apply a metacognitive pedagogical cycle of study was used with success in an intensive language course. The listening study cycle that gives the learner a pattern of study that can be applied to any listening that they may choose to use in the future as listening study material and as such is practical and effective beyond the classroom and independent of the teacher.

#### Note

<sup>i</sup> (URL: <https://www.youtube.com/watch?v=mB3AdJuujMM>). (2018/7/5)

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**Appendix A:**

**Table: 1.** Aims and objectives for developing Metacognitive Knowledge about L2 listening in the GBIC listening course. (based on the Figure 5.6 Vandergrift and Goh, 2012)

<p><b>Person Knowledge</b></p> <p>Aim: Learn more about myself as a L2 listener and how I feel about listening in the TOEFL iBT test.</p> <p>Test taking objectives:</p> <ol style="list-style-type: none"><li>1. Examine beliefs about TOEFL iBT listening.</li><li>2. Know what makes TOEFL iBT listening difficult.</li></ol>
<p><b>Task Knowledge</b></p> <p>Aim: Accurately understand the task requirement of each of the TOEFL iBT questions that have a listening component.</p> <p>Test taking objectives:</p> <ol style="list-style-type: none"><li>1. Develop the skill of note-taking.</li><li>2. Have a planned note-taking method for each specific listening task.</li><li>3. Compare audio transcripts of the same question from different practice tests to look for similarities and differences, study conversation patterns and study conversation pairs. (Schemata building)</li><li>4. Discuss with peers the message and meaning of intonation heard in conversations or lectures.</li><li>5. Listen while reading transcripts to analyze connected speech, note what was difficult to hear and identify the cause. (Examination of phonological features)</li><li>6. Identify vocabulary related to the conversation topic and situation, note language usage and meaning. (Building lexical knowledge)</li></ol>
<p><b>Strategy Knowledge</b></p> <p>Aim: Learn a variety of listening strategies and learn to select the appropriate strategies to solve a problem. Use strategies to manage self-efficacy and feelings.</p> <p>Test taking objectives:</p> <ol style="list-style-type: none"><li>1. Know the listening strategies associated with each type of question.</li><li>2. Frame the typical questions types of the listening section into listening goals.</li><li>3. Learn to recognize conversation patterns and conversations pairs.</li><li>4. Learn to use the paragraph structure. (Topic, explanation/expansion, example (s) and conclusion) when listening to lectures to guide listening.</li><li>5. Listen for and note information that follows signal words and rhetorical questions.</li><li>6. Learn to listen for the topic.</li></ol>

**Table 2:** Aims and objectives for developing strategies for listening comprehension and overall listening development in the GBIC listening course. (based on the Figure 5.7 Vandergrift and Goh, 2012)

<p><b>Planning</b></p> <p>Aim: Determine goals and how to achieve them.</p> <p>TOEFL iBT Listening Comprehension</p> <ol style="list-style-type: none"> <li>1. Before starting a question, briefly review the task and strategies to be used.</li> <li>2. Prepare the specific note-taking outline to be used for the question.</li> </ol> <p>Overall listening development</p> <ol style="list-style-type: none"> <li>1. Determine the context and activate related schemata.</li> <li>2. Note deficiencies in listening and plan remedial training.</li> <li>3. Build lexical knowledge to support listening.</li> </ol>
<p><b>Monitoring</b></p> <p>Aim: Check progress while listening and learning to listen.</p> <p>TOEFL iBT Listening Comprehension</p> <ol style="list-style-type: none"> <li>1. Concentrate and pay attention to the task.</li> <li>2. Keep to and apply your planned test taking strategy for the question.</li> <li>3. Guess as to what to expect as the conversation unfolds and confirm.</li> <li>4. Monitor the lecture outline as it unfolds.-“this is the example for the second point”</li> <li>5. Know what to listen for and note it down.</li> <li>6. Respond to listening signals and transition words that note forthcoming information.</li> <li>7. Make decisions on where information is relevant or not.</li> </ol> <p>Overall listening development</p> <ol style="list-style-type: none"> <li>1. Note weaknesses in phonological decoding.</li> <li>2. Note where vocabulary needs strengthening and expansion.</li> <li>3. Control and manage listening experiences.</li> <li>4. Note gaps in listening and actively employ strategies to resolve the problem.</li> <li>5. Assess listening development and skill.</li> </ol>
<p><b>Evaluation</b></p> <p>Aim: Assess progress in learning to listen and attempts at listening challenges</p> <p>TOEFL iBT Listening Comprehension</p> <ol style="list-style-type: none"> <li>1. Note performance in standard tests and practice tests.</li> <li>2. Determine accuracy of understanding.</li> <li>3. Note ability to follows lectures.</li> <li>4. Note ability to take notes.</li> </ol> <p>Overall listening development</p> <ol style="list-style-type: none"> <li>1. Assess general listening ability.</li> <li>2. Assess ability to follow and understand non TOEFL lectures.</li> </ol>