

**Shifting from the Reductive Mechanical to the  
Empowering Learner Training Model: A Metacognitive-  
in-Action Approach to Listening Instruction**

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**ABSTRACT:**

**Shifting from the Reductive Mechanical to the Empowering Learner Training Model: A Metacognitive-in-Action Approach to Listening Instruction**

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*The current study departs from the concept of 'learner training' as simply a mechanical training in a number of discrete strategies which does not seem to help students learn how to listen strategically to the broader view of learner training where learning to learn, empowerment and learner autonomy are the ultimate goals. The study empirically probes the effects of an empowering learner training model, deployed in a metacognition-in-action approach to listening instruction, that rests on the firm view that knowledge precedes control. This model focuses on empowering learners with metacognitive knowledge and strategy use over a long-time duration on developing IELTS listening comprehension. An intervention study of seven weeks listening programme was undertaken with 60 EFL college students of two proficiency levels. A pre-post design was adopted to compare the effect of the metacognitive-in action approach (experimental group) with the prevalent listening approach (control group) on developing IELTS listening comprehension of B1 and B2 proficiency level students. Results revealed significant differences in IELTS listening attainment between the two groups of the study regardless of the proficiency level in favour of the metacognition- in-action approach. Furthermore, the interaction effect was significant in favour of the metacognitive-in-action approach and the B2 level. In effect, the metacognition- in-action approach that caters for building students' profiles of themselves as learners, of listening as a process and of their task knowledge increases students' opportunities and readiness to learn how to listen effectively, critically and strategically and be more able to manage their learning opportunities.*

**Keywords:** Reductive and mechanical model of learner training, metacognition, metacognition-in-action-approach, IELTS listening, strategy-based instruction, metacognitive knowledge, metacognitive strategies, cognitive strategies.

## المستخلص:

التحول من الميكانيكية الاختزالية إلى نموذج التدريب التمكيني للمتعلم:

مدخل ما وراء معرفي تطبيقي لتدريس الاستماع

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حاولت الدراسة الحالية التأصيل للتحول بمفهوم تدريب المتعلمين من كونه مجرد عملية ميكانيكية تُختزل في تدريب المتعلم على عدد من الاستراتيجيات بشكل لا تكاملي ومنفصل، والتي لا يبدو أنها تأتي بثمارها من حيث تمكين الطلاب من التعامل مع مهارة الاستماع بأسلوب استراتيجي، للانتقال إلى مفهوم أوسع ونظرة أكثر شمولية تستهدف تمكين المتعلم من كفايات تعلم كيف تتعلم مروراً بمرحلة التمكين وانتهاءً بمرحلة استقلالية المتعلم والتي تمثل الغاية المثلى من العملية التعليمية. وقد عمدت الدراسة الحالية إلى استخدام المنهج التجريبي للكشف عن فعالية تطبيق نموذج التدريب التمكيني للمتعلم المستخدم في مدخل ما وراء المعرفة التطبيقي في تدريس الاستماع والذي ينطلق من مسلمة مؤداها المعرفة تسبق القدرة على إدارة الذات. ويركز هذا النموذج على تمكين المتعلم من خلال تزويده وإمداده بالمعارف عن ما وراء المعرفة والأنواع واستخدام الاستراتيجيات على مدي زمني طويل وقياس أثر ذلك على تنمية مهارات الاستماع لاختبار ال (IELTS)، تم تطبيق الدراسة التدخلية الحالية على عينة قوامها ٦٠ طالب من طلاب كلية التربية - قسم اللغة الإنجليزية من خلال برنامج تدريبي استمر لمدة ٧ أسابيع، تم فيه تصنيف المشاركين الي المستوي المتوسط Independent User من مستويات الكفاءة اللغوية وفقاً لإطار الأوربي المرجعي هما (B1 - B2). وقد تبنت الدراسة التصميم التجريبي تصميم المجموعة الضابطة ذو التطبيقين القبلي والبعدي لمقارنة فاعلية نموذج التدريب التمكيني - مدخل ما وراء المعرفة التطبيقي (المجموعة التجريبية) - بالمدخل السائد لتدريس الاستماع (المجموعة الضابطة) في تنمية الفهم الاستماعي كما يقاسه اختبار ال (IELTS) وفق مستوي الكفاءة اللغوية، وأشارت النتائج الي وجود فروق ذات دلالة إحصائية في تحسين الفهم الاستماعي بين مجموعتي الدراسة بغض النظر عن مستوي الكفاءة اللغوية لصالح المجموعة التجريبية. وفيما يتعلق بأثر التفاعل بين مدخل تعليم الاستماع ومستوي الكفاءة اللغوية فقد اشارت نتائج التحليل الاحصائي الي وجود فروق ذات دلالة إحصائية بين مدخل ما وراء المعرفة التطبيقي ومستوي الكفاءة B2، ومن ثم فإن مدخل ما وراء المعرفة التطبيقي الذي استهدف بناء ملفات تعريفية للمتعلم بنفسه كمتعلم (Person Knowledge) وتنمية معرفتهم بمهامهم (Task Knowledge)، و العمليات التي تنضوي عليها مهارة الاستماع (Process Knowledge) حسن من فرص المشاركين واستعدادهم لتعلم كيفية الاستماع بأسلوب استراتيجي فعال ونقدي، كما أتاح لهم الفرصة لزيادة قدرتهم على إدارة فرص التعلم الخاصة بهم.

الكلمات المفتاحية: تدريب المتعلمين - نموذج التدريب التمكيني - مدخل ما وراء المعرفة التطبيقي في تدريس الاستماع - استراتيجيات ما وراء المعرفة- الكفاءة اللغوية - IELTS

## Introduction

Indeed, there have been positive changes in the teaching of foreign language listening over the past few decades, yet learners still face challenges in the classroom and beyond as they try to improve their listening ability. This is true as listening poses great challenges for large number of English language students. These problems are by large due to the fact that listening for a foreign language is the skill that makes the heaviest processing demands on learners (Rost, 2011; Vandergrift & Goh, 2012; White, 2008). This is because students must store information at the same time as they are working to understand it, which often requires ‘split-second comprehension followed by and expectation of a meaningful response’ (Oxford, 2017, 289). This on-line processing is mostly daunting for FL listeners due to the highly fleeting nature of the message which comes at them very fast and is gone (Buck, 1995; Grant, 1997; Mendelsohn, 1995; Rost, 1994, 2011; Vandergrift & Baker, 2015; Vandergrift & Goh, 2012) and their incomplete knowledge of the target language. It is also due to the memory limitation as well as the lack of control over the message; listeners are at the “mercy of the speaker” (Mendelsohn, 1994, 9; Vandergrift & Goh, 2012, 270); they have almost no control over what is going to be said, how it is going to be said, and how quickly it is going to be said (Mendelsohn, 1995, 132). The words are past flying very rapidly leaving no control over the message, which force listeners to process the message immediately, whether they are prepared to receive the information or they are still processing what they have just heard.

Given all the demands posed by listening highlighted above, it is inevitable that our students need to be explicitly trained and nurtured on how to listen effectively, critically strategically and autonomously. Research in second and foreign language listening has recently begun to focus on learner training which is rooted in strategy instruction (see Cross, 2011; Goh, 2008; O’Malley, 1985b; Paulauskas, 1994; Rost and Ross, 1991; Rubin, Chamot, Garris & Anderson, 2008; Schwartz, 1992; Thompson & Rubin, 1996; Vandergrift, 2004, 2007) as an alternative that holds considerable potential for developing

listening and promoting learner autonomy (Ahmadi, Gharacheh, Dashtaki, & Ebdam, 2014; Bozorgian, 2015; Field, 2012; Thornbury, 2012; Vandergrift & Goh, 2012; Vandergrift & Tafaghodtari, 2010). Defined as explicit instruction on specific steps, practices, techniques and tactics that can be employed autonomously to improve one's language learning and or use (Chamot, Barnhardt, El-Dinarry & Robbins, 1999; Chen, 2007; Cohen & Macaro, 2007; Cohen, 1998; Cohen, 2011; Cohen, Weaver & Li, 1996; O'Malley & Chamot, 1990; Oxford, 1990; 1996; 2011; 2017) ultimately aims to "empower students by allowing them to take control of the language learning process" (Cohen, 1998, 70).

Advocates of this strand of research claim that learner training, through the improved use of language learning strategies, helps learners become more active, more self-directed, more autonomous (Brown, 1994; Chamot, 1993, 1995; Chamot & O'Malley 1994; Chamot et.al., 1999; Cohen, 1990, 1998, 1999; Cohen & Scott, 1996 and effective as well as more discerning of what strategies are best for them as individuals. In addition to the intuitive appeal and popularity among L2 teachers, empirical support for EFL learner training in general has been demonstrated across many learning contexts (foreign and second language) and outcome variables (Ellis and Sinclair, 1989; Grant, 1997; McDonough, 1995, 1999a, 1999b; Mendelsohn, 1994, 1995; Mendelsohn & Rubin, 1995; Oxford, 1990, 1996; Oxford and Leaver, 1996; Rubin, 1994, 1995, 1996; Vandergrift, 1992, 1996; Wenden, 1991, 1996; Wenden & Rubin, 1987)

The overall results, however, are hardly conclusive. Studies of learner training rooted in strategy instruction, according to Plonsky (2011, 994) have also produced negative and mixed results across many of the same context and outcome variables. Moreover, doubts about the effectiveness of learner training, rooted in strategy instruction, have been raised due to methodological flaws in previous research (e.g., small sample sizes, non-random group assignment, exclusion of comparison group) the complexity of variables that affect strategy use, uncertainty of long-term effects, cost/benefit ratio concerns,

nonempirically justified strategies, a lack of valid and reliable instruments and the absence of a comprehensive theory which left researchers and practitioners to design studies of strategy instruction based largely on convenience, intuition and/or some level of idiosyncrasy (Plonsky, 2011, 998).

EFL listening learner training rooted in strategy instruction has become an area of growing and immense interest, yet with inconclusive results and more answers are needed about the optimal nature of such training and/or instruction (Chen, 2005; Fujiware, 1990; O'Malley et al., 1985b; Oxford, 2017; Paulauska, 1994; Rubin et.al., 1988; Schwartz, 1992; Thompson & Rubin, 1996; Vandergrift & Goh, 2012). Such inconclusive results were attributed to a number of reasons. One reason that seemed to be mostly common among most of the listening endeavors undertaken under the reductive and mechanical model was the limited time duration of learner training (training time in previous studies in listening ranged from 1.45 hours (O'Malley et al., 1985b), 4:40 hours (Schwartz, 1992), 10 hours over 8 weeks (Rubin et.al., 1988), 12 hours (Paulauskas, 1994), a two-hours session every week for six weeks and finally 15 hours (Thompson & Rubin, 1996). It would not escape the reader that such limited time duration, would by no means, guarantee the transfer of the strategies taught from the initial representation of knowledge (*Cognitive phase*) through initial changes in behaviour (*associative phase*) to eventual fluent, spontaneous and unconscious, largely effortless and highly automatic behaviour (*automatic phase*) (Anderson, 1983, 2015; DeKeyser, 2007). This is perhaps due to the fact that short time duration does not provide enough room for repeated practice with positive corrective feedback which, according to Anderson, Greeno, Kline & Neves, (1981, 206) are the triggers that accelerate meaningful learning rather than the acquisition of mechanical strategy and thereby contributes to automatization, where tasks can be completed spontaneously and unconsciously, effortlessly, rapidly and efficiently with an insignificant and small error rate. This factor was highlighted by researchers in their justifications for the unpromising results they obtained in listening learner training studies (O'Malley et al.,

1985b; Rubin et.al., 1988; Fujiware, 1990; Schwartz, 1992; Thompson & Rubin, 1996).

In this sense, the empowering and meaningful view of learner training, advocated in the current study, should devote enough time for students to feel more competent, comfortable and efficient with strategy use (Wenden, 1991, 1995, 1997, 2002; Ellis & Sinclair, 1999); learner training has to be interwoven with regular language instruction over long duration that ensures the transfer of representation of declarative knowledge into initial changes in behaviour to the smooth automatic behaviour.

Another crucial reason was that the learner training attempts undertaken under the reductive and mechanical model were limited to providing students with training in a number of discrete strategies without any attempt to prepare learners for the new active and interactive roles expected from them. That is empowering learners by providing them with the knowledge that proceeds control. Learner training in the broader view builds on the firm view that knowledge proceeds control and students should be prepared to direct and self-regulate their learning so that they, may, gradually move from a state of banking, spoon-feeding and dependence on a teacher they accustomed to in the teacher-cantered education (i.e., comfort zone) to the greatest degree of autonomy possible in particular set of circumstances (i.e., learning and empowerment zone) (Wenden, 1991; Benson, 2002; Blidi, 2017; Crabbe, 1999). Thus, self-directed learning is the realization of a learner's potential for autonomy and this, in itself, the ultimate goal of learner training, is missing in the reductive model of learner training (Holec, 1985; Benson, 2001; Blidi, 2017). Without retreating from this assertion, to enable and carry out effective self-directed learning, learners would need to develop skills related to person knowledge, process knowledge, task knowledge and strategy knowledge so that learners become actively engaged in identifying and managing the learning opportunities.

Such knowledge is the real key to learning how to learn and empowerment for it helps learners unleash the potential to know one's self as a learner, process knowledge, task knowledge

and strategy knowledge so that learners can understand and control their cognitive processes and step out of and expand their comfort zone. Metacognitive knowledge is primarily the knowledge or beliefs learners have about the factors or variables that act and/or interact in certain ways to affect learning (Chamot & O'Malley, 1994; Chamot & O'Malley, 1996; Wenden, 1986a, 1986b, 1995). The literature has repeatedly posited Metacognitive knowledge as a prerequisite for broad and more meaningful learner training (Dickinson, 1987; Ellis & Sinclair, 1986; Ellis, 1999; Mendelsohn, 1994, 1995, 1998; Sinclair, 2000; Victoria & Lockhart, 1995; Wenden, 1996, 2002).

To this end, stakeholders, be they teachers, faculties, parents and students themselves have a shared responsibility to ensure the students are better empowered, equipped and therefore more likely, to manage learning opportunities inside and outside classroom settings (Blidi, 2017) and be more able to make informed decisions about their learning and development, which, would by no means, seem possible without having the necessary knowledge.

Metacognitive knowledge is essential for metacognitive strategies to work efficiently as it provides the ground for effective planning, monitoring and evaluation. According to Wenden (1998, 2002) metacognitive knowledge informs planning decisions taken at the outset of learning. It is also centrally involved in monitoring, which Wenden (1999, 437, 2002, 3) refers to as “the regulatory skill that oversees the learning process that follow the initial planning”. It is the basis for determining how one is progressing and it is what constitutes the internal feedback. More importantly, it helps analyze the task demands and how best to approach it as well as strategy transfer. Finally, metacognitive knowledge is in itself motivational-energizing the process of self-regulation (Wenden, 1998, 527).

While metacognitive knowledge has been acknowledged as a pivotal and essential component for broad and more meaningful learner training to bring about its desired effect (Goh, 1997, 2010; Graham, 2006; Vandergrift, 2002, 2003; Cross, 2010; Vandergrift,



Goh, Mareschal & Tafaghodtari, 2006) and to build confidence in the learner that s/he can work independently from the teacher, it has been entirely overlooked or completely absent from the reductive and mechanical learner training studies in listening. The focus of most studies in listening reductive and mechanical learner training has been mainly on training students on cognitive or metacognitive strategies disregarding their preconceived beliefs (metacognitive knowledge).

In this sense the learner training model, that targets learning students how to learn, reflect and empower them, advocates the need to attend to and revisit learners' preconceived beliefs about themselves as learners, listening processes, task and strategy knowledge. This is based on the fact that knowledge precedes control and helps one make informed decision in terms of strategy selection, use and orchestration. It might be worth mentioning here that metacognition is not static nor linear process, rather more than one metacognitive process may be occurring at the same time (Wenden, 2002) during a foreign listening task.

One further reason for the inconclusive results of the reductive, mechanical listening learner training model is that most of the studies highlighted above views learner training as teaching students a set of discrete strategies, deemed to be effective ones in the successful and less successful listener line of research, regardless of the nature of the actual learner's repertoire of strategies, task, mood and motivation levels. What made it worse was such a line of research did not pay attention to the interdependence and complementary function between these set of strategies and the need for learner training programmes to integrate all different sets of strategies. Metacognitive strategies, on the one hand, are executive processes used to help students plan, monitor, and evaluate a learning task (Chamot & O'Malley, 1994; Wenden 2002; Oxford, 2017). On the other hand, cognitive strategies are direct strategies that allow learners to deal efficiently with a highly fleeting language input. Such strategies should enable students to: 1) attend to incoming information; 2) comprehend what they attend to and; 3) store this new learning in

long term-memory so that retrieval is facilitated (Wenden, 1996; Oxford, 1990, 2002).

Both metacognitive and cognitive strategies are interdependent and complementary; training students on cognitive strategies, without due attention to metacognitive strategies, is unlikely to have much transfer value, even if it helps students with specific problems (Brown, Bransford, Ferrara & Campone., 1983). On the other hand, training students on metacognitive strategies, without cognitive strategies, will not be very well-received by learners; it will appear very abstract and not necessarily relevant to students' immediate needs and motivation to do something with this, would likely be low (Mendelsohn, 1994). In O'Malley et al., (1985a) terms "students without metacognitive approaches are essentially learners without directions and abilities to review their progress, accomplishments and future learning directions". By the same token, Vandergrift (1996, 215 – 218) highlights the crucial role of metacognitive strategies in empowering learner training stating that such strategies give learners an overview of the other processes; they allow learners to predict, monitor for errors or breakdown, and to look back evaluating the whole process.

This had led to the conclusion that a learner training programme that targets empowering students and enhancing their ability to reflect and be strategic should address and integrate both cognitive and metacognitive strategies to ensure a good pay-off; any emphasis on preparing students to the active and interactive roles expected in the broader view of learner training, without exposing learners to a wide repertoire of cognitive and metacognitive strategies of all kinds, would perhaps be deemed ineffective.

Last but not least, learner training in most of the reductive, mechanical training studies followed the blind training model; strategies were not named, labelled, nor modelled. In blind training, students are induced to perform particular strategies without giving a rationale to the significance of the strategy, nor are they trained on how to use them. They are told what to do and

led to do it without being informed about as to why they should act in a certain way. Informed and explicit training, on the other hand, names the strategy, tells students how a strategy can be helpful and why. It explicitly informs students how to use them, in what context to use them and their significance as well (Brown et. Al., 1983). The empowering learner training model advocates the informed explicit instruction approach for it does not emphasis listening but learning how to listen strategically and therefore, it results in improved listening performance on the given listening task and maintenance of the strategy across time (Brown & Balinscair, 1982; Wenden, 2002, Plonsky, 2011; Vandergrift, Goh, 2012).

From this brief review of the literature of learner training in listening comprehension, it can be seen that reductive and mechanical model of learner training rooted in strategy instruction has not yielded definitive results with regard to the relation between learner training and actual listening performance. A few attempts have proved good results (e.g. Paulauskas, 1994; Thompson and Rubin, 1996), whereas the majority of the reductive mechanical model studies in listening were inconclusive. The only two studies that yielded positive results were characterized by giving room for metacognitive knowledge (Paulauskas, 1994) as well as the relatively long -time duration (Thompson & Rubin, 1996). The absence of these two factors was a common explanation for the failure reported in the rest of the studies besides some other reasons. The time allocated for strategy instruction in these studies was considered to be too short to produce stable change in learners' processing habits. It ranged from 1.45 to 15 hours. One other compelling reason was the neglect of the metacognitive knowledge that has been considered an essential component for effective strategy instruction. Metacognitive knowledge refers to what students bring into classrooms which is of utmost importance as learners can be resistant, unwilling and uncooperative in the face of broad more meaningful learner training model especially when learners come from a teacher-centered context which is the case in the current study. Learners need to undergo a remarkable

transformation of their beliefs about language learning to be willing to participate in learner training (Wenden, 1996; 2002).

With all this in mind, the current study tried to avoid the major points of weakness discussed above. Besides, it tried to incorporate the principles, suggested to facilitate and ensure effective learner training in the literature. The current study came to close a gap in listening learner training and to continue a promising line of research, namely, how to put metacognition-into- action to listening instruction; an approach that caters for nurturing learner's metacognition and raising students' awareness about themselves as learners (self-or person knowledge), listening as a process (process knowledge) and nature of task (task knowledge) which can make not only a genuine contribution but also a long-term impact (Goh, 1997, 2008; Vandergrift, 2004, 2007) and more importantly how to promote the use and orchestration of appropriate strategies during real time listening and to direct students' own listening through planning, selective attention, monitoring and evaluation, reflective practices so that they continuously improve their listening abilities.

#### **Purpose of the study:**

The current study was undertaken to investigate the effect of an empowering learner training model, deployed in metacognition-in-action approach to listening instruction, on developing EFL College students IELTS listening comprehension of two proficiency levels in comparison with the prevalent traditional approach where students are left to perform the task using their regular approach. Furthermore, the interaction between the treatment and students' proficiency level (B1/B2) was also an item of interest. In effect, the current study sought to verify a reasonable and detailed answer for the following questions:

1. What is the effect of the treatment (metacognition-in-action approach versus traditional prevalent approach) on EFL College students IELTS listening comprehension as measured by the IELTS listening test?

2. What is the effect of proficiency level (B1 versus B2) on EFL College students IELTS listening comprehension as measured by the IELTS listening test?
3. Is there an interaction between the treatment ((metacognition-in-action approach versus traditional approach) and the proficiency level (B1 versus B2) on EFL College students IELTS listening comprehension as measured by the IELTS listening test?

### **Hypotheses of the study:**

The study mainly sought to test the following null hypotheses:

1. There is no statistically significant difference at 0.05 level between the two groups (metacognition-in-action approach to listening instruction and the traditional approach) in IELTS listening comprehension as measured by the IELTS listening section of the test before and after the treatment.
2. There is no statistically significant difference at 0.05 level between the two groups of students in IELTS listening comprehension as measured by the IELTS listening section of the test before and after the treatment due to different proficiency levels.
3. There is no interaction between the effect of treatment (metacognition-in-action approach to listening instruction and the traditional approach) and students' listening proficiency level (B1 Versus B2) as measured by the IELTS listening section of the test before and after the treatment.

### **Methodology**

#### **Research Design**

The design of the current study is primarily postpositivistic in nature. A pre-post design was utilized in this study to assess and compare the effect of metacognition-in-action approach to listening instruction (experimental group, No. = 30) and the

conventional prevalent approach for practicing IELTS listening comprehension (control group, No. = 30) on IELTS listening comprehension among EFL college students of intermediate (B1) and upper intermediate (B2) levels of proficiency.

## Participants

The investigation reported in the current study was carried out with a 60 EFL college students, table 1 below, who were preparing for the IELTS test in one of the language training centres in Egypt where the researcher was the main instructor. The students were divided into two groups of 30 each, one experimental and one control groups. The 60 students were then randomly assigned to two groups of 2 intact classes; metacognition-in-action approach group and the control group, each of which had 30 students divided into intermediate (B1) and upper intermediate (B2) proficiency level in accordance with their scores on the IELTS test. Students were not told that each group was receiving a different kind of listening instruction. Each of the two groups met 3 times a week in a 2-hour session for 7 weeks, totalling 42 actual training hours for each group. Each of the groups listened to the same listening materials, in the same sequence and spent approximately the same amount of time on each of the listening segments used.

Table 1:

*Participants distribution to the study groups*

Groups	Intermediate proficiency(B1) students	Upper-intermediate proficiency (B2) students	Total
Metacognition-in-action approach group	16	14	30
Conventional prevalent group	12	18	30
Total	28	32	60

## Instruments

Two instruments were used to collect data in the current study, namely, 1) a past paper IELTS practice test (full version), and 2) an IELTS listening section test.

### 1. The past paper IELTS practice test (full version):

The IELTS practice test was used as a proficiency test before the treatment to help classify study groups into different levels of proficiency. The test comprises 4 sections, namely reading (55 mins.), writing, (45 mins.), listening (30, mins.) and speaking (11-15 mins). The test assesses candidate's ability to read, write, listen and speak in the kinds of situations which are commonly encountered when living and studying in English-speaking countries. The IELTS test does not assess candidates' general or technical knowledge. The score candidates achieve chart or provide a description of candidate's actual English language proficiency.

Participants of the study were all at either B1 proficiency level – band scores range from 4 :4.5, (score 10 – 15) which corresponds to basic user of the language, or the B2 proficiency level – band scores range from 5: 5.5 (score 16 – 22), which corresponds to the independent user of the language (see table 4 below).

Table 4

### *IELTS Listening Marking Scheme*

Band score	9	8.5	8	7.5	7	6.5	6	5.5	5	4.5	4	3.5	3	2.5
Score /40	39-40	37-38	35-36	32-34	30-31	26-29	23-25	18-22	16-17	13-15	10-12	8-10	6-7	4-5

### 2. The IELTS Listening Section Test

The IELTS listening section test chosen from past papers, was used as a pre-post-test to tap if the treatment would have any effect on participants' performance in listening comprehension. It was also intended to shed some light on

the effect of proficiency levels and in particular the effect of the interaction between treatment and proficiency levels on students' listening performance before and after the treatment.

The test comprises 4 sections, with 10 questions each, totalling 40 questions. Section 1 and 2 are recordings to a conversation from everyday social context situation (e.g., a conversation about travel arrangements/ a monologue about local facilities). Section three is all about an interaction or conversation between 2 main speakers in an educational or training setting (e.g., 2 university students in discussion guided by a tutor). Section 4 is a monologue on an academic subject. The IELTS listening section takes 30 minutes, heard only once, in addition to 10 minutes for transferring answers to an answer sheet. The test formats entail multiple-choice questions, form completion, table completion, note completion, summary completion and short answer questions. The mark scheme was exactly followed, where no half marks were used in the test; an answer is either right or wrong. For the listening test, the approximate band score can be calculated using table 3 below.

## Treatment

The listening material used in the current study was 42 IELTS listening samples used with the two-study groups. But the difference was in the treatment undertaken with each group; the control group students were left to the conventional prevalent approach for practising IELTS listening comprehension, whereas the experimental group were explained in more details below.

### - *Metacognition-in-action approach group*

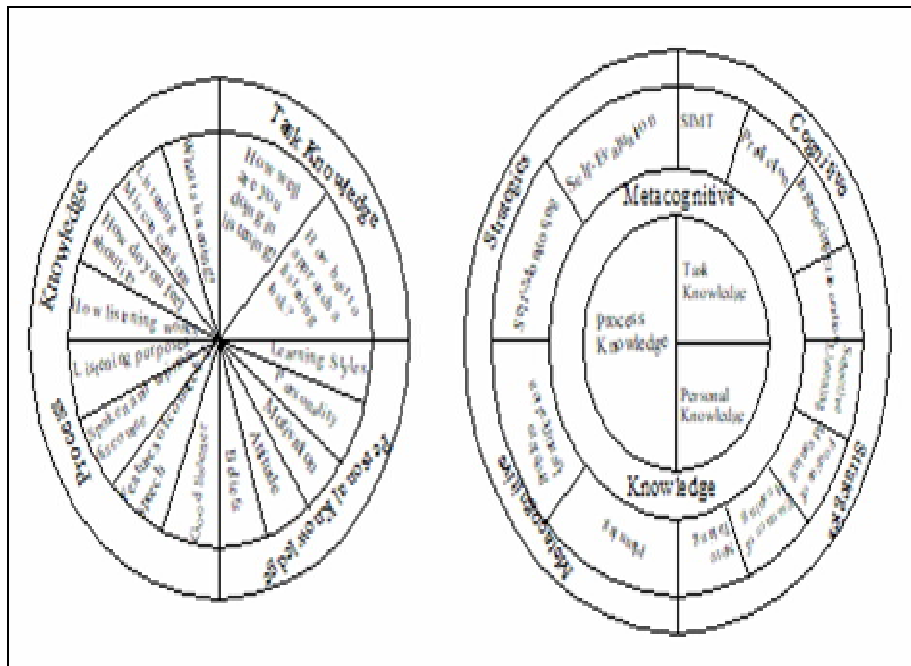
The metacognition- in-action-approach to listening instruction treatment was designed to teach students how to listen strategically, effectively and critically through providing them with both knowledge about listening as a construct, its processes and the tools to apply that knowledge. The treatment given to students in this group tried to attend to all the pre-requisites of



the broad meaningful learner training model and avoid all the limitations of the reductive mechanical model. In effect, it sought to prepare students for the active and interactive roles expected in the more empowering learner training model by creating the opportunity for them to revisit and reflect on their preconceived knowledge (*the metacognitive knowledge component*). Furthermore, it sought to train students on a wide repertoire of core strategies that entail both metacognitive and cognitive strategies (*the strategy use component*) over 7 weeks and 42 hours programme in an informed and explicit fashion to enable them to choose from a wide repertoire of both metacognitive and cognitive strategies what they believe to be best compatible with the task and purpose (Oxford, 2011).

The treatment consisted of two main components: 1) *the metacognitive knowledge component* and 2) *the strategy use component*. An overview of the treatment that the metacognition-in-action received is shown in figure 1 below.

Figure 1: Metacognition-in-action group



In this Figure, we might note the two main components of the program. At the core, there was the metacognitive knowledge component “the know what for listening”, which is the key and pivotal component in the advocated empowering learner training model. The metacognitive knowledge component sought to build students’ knowledge profile and to prepare them for the active and interactive roles they are expected to play in their learning. Put differently, its main objectives were to:

1. raise the students’ awareness about the cognitive and affective factors that facilitate or inhibit language learning in general and listening in particular.
2. raise the students’ awareness about listening as an active process as well as trying to correct some of the misconceptions students have about listening.
3. heighten the students’ awareness about knowledge of purpose and nature of the listening task, knowledge of task demands and knowledge of when deliberate effort or action is required
4. uncover the students’ stored knowledge about learning strategies, and knowledge about how best to approach listening tasks
5. develop the students’ ability to reflect on their approaches to listening as well as on themselves as learners.

The second main component, which is represented by the outer shell in figure, is the strategy use; “the know-how for learning”, the cognitive and metacognitive strategies that students were trained on. This component aimed at training, empowering and equipping students with a wide repertoire of effective core strategies to help them with their listening. As it is clear from the figure, strategies taught included metacognitive as well as cognitive strategies. Metacognitive strategies taught were planning, self-monitoring, self-evaluation and problem identification. The cognitive strategies taught included learning to identify the setting, interpersonal relationship, mood and topic,

**prediction, inference, elaboration, essence of meaning, focus of meaning and notes taking.**

The program consisted of a 2-hour session, three times a week for 7 weeks. Each session had four general steps:

1. presenting and naming the strategy (why / how it helps, when to use it)
2. modelling the strategy (teacher's modelling / students' modelling)
3. practice (active applications of the strategy being worked at in listening tasks).
4. evaluation (asking students to evaluate the effectiveness of the strategy and any difficulties they may have in applying the strategy).

- *Control group*

The main focus of the training for this group of students was using the content for answering comprehension questions. They listened to the same material in the metacognition-in-action approach group, with the same sequence and spent the same amount of time. The only difference was that they had received no strategy training at all. They were left to use their own approaches in carrying out the IELTS listening tasks.

## Results

### Data Analysis

Together with the descriptive statistics for the variables involved in this study, inferential statistics using t-test for independent samples, eta squared and Two-way analysis of Variance (ANOVA) were applied using the Statistical Package for the Social Sciences (SPSS) for Windows to test the treatment, proficiency and the interaction effects on EFL college students IELTS listening comprehension performance.

### Findings

The driving aim of the current study was to probe and compare the effect of the informed, explicit metacognitive-in-action

listening instruction approach as a model of a more empowering learner training and traditional prevalent approach to listening on IELTS listening comprehension among EFL college students of two levels of proficiency (B1 and B2). Furthermore, the interaction between the treatment and students' proficiency levels was also an item of interest.

Before starting the intervention and to verify the homogeneity of the study participants in language proficiency in general and in IELTS listening comprehension in particular (table 3 and 4 respectively), the difference between the mean scores of the pre-tests of the two groups was computed using *t*-test for two independent samples.

Table 3:

*Results of t-test analysis for the pre-test of IELTS listening comprehension based on the teaching approach (Metacognitive-in-Action Approach versus Prevalent Approach) (df=58)*

	Groups	N	Mean	Std. Deviation	t	df	Sig.
IELTS Listening Pre	Metacognitive-in-action approach	30	15.4000	2.15918	0.235	58	0.815
	Prevalent Approach	30	15.2667	2.22731			

Table 4:

*Results of t-test analysis for the pre-test IELTS listening comprehension based on the Proficiency levels (B1 Vs B2) (df=58)*

	Proficiency Level	N	Mean	Std. Deviation	t	df	Sig.
IELTS Listening Pre	B1	27	14.7778	2.13638	1.28	60	0.073
	B2	33	15.7879	2.13245			

The results of the two groups, as shown above, showed not to be significantly different, which means that the two groups have started at almost the same level and any change in EFL college

students IELTS listening comprehension could be attributed to the intervention.

#### Treatment effect

#### *Effects of Instructional Approach on IELTS Listening Comprehension*

An independent sample *t*-test was carried out to compare the effect of the instructional approach (explicit metacognitive-in-action listening instruction approach versus the traditional prevalent approach) on IELTS listening comprehension (table 5 below).

Table 5:

*Results of t-test analysis for the post-test of IELTS listening comprehension based on the teaching approach (Metacognitive-in-Action Approach versus Prevalent Approach) (df=58)*

Groups	N	Mean	Std. Deviation	t	df	sig	( $\eta^2$ )
IELTS Listening Action Approach	30	26.7333	2.16450	8.99	58	0.00	0.582
Prevalent Approach	30	20.8000	2.89351				

The results of the *t*-test, table 5 above, demonstrated that there was a statistically significant difference between the mean score of the experimental group ( $M = 26.7$ ,  $SD = 2.16$ ) and those of the control group ( $M = 20.8$ ,  $SD = 2.89$ );  $t(58) = 8.99$ ,  $p = 0.00$  in favour of the highest mean scores, that is the metacognitive-in-action group. This means that different treatment used in the two study groups (experimental vs control) do have different effects on IELTS listening comprehension. Put simply, the metacognitive-in-action listening instruction approach was more effective than the traditional prevalent approach in enhancing EFL college students' IELTS listening comprehension.

To uncover how much variance in the independent variable – IELTS listening performance- was a result of the treatment, Eta Squared ( $\eta^2$ ) – a measure that describes the proportion of variance associated with or accounted for by each of the main effect, interaction- was used. Table 5 above shows that there was a

large effect size (0.582) to the metacognitive-in-action listening instruction approach (main effect) on IELTS listening comprehension. This means that the first null hypothesis of the current study stating that “*There is no statistically significant differences at 0.05 level between the two groups (metacognition-in-action approach to listening instruction and the traditional approach) in IELTS listening comprehension as measured by the IELTS listening section of the test before and after the treatment*”, was rejected and in effect, the changes in the students’ IELTS listening comprehension can be, by large, attributed to the effect of metacognitive-in-action listening instruction approach as a representation of broad and more meaningful of learner training.

*Effects of Instructional Approach Across Levels of Proficiency (B1 vs. B2)*

In addition to the effect of the treatment, the study tried to examine the impact of proficiency level on students’ IELTS listening comprehension. An independent sample *t*-test was carried out to compare the effect of the instructional approach across proficiency levels (B1 versus B2) on EFL college students’ IELTS listening comprehension (table 6 below).

Table 6:

*Results of t-test analysis for the post-test IELTS listening comprehension across the Proficiency levels (B1 Vs B2) in the Experimental Group (df=28)*

	Proficiency Levels	N	Mean	Std. Deviation	T	df	sig
IELTS Listening Post	B1	14	25.28	1.77	4.36	28	0.00
	B2	16	28.00	1.63			

The results of the *t*-test for the post-test proficiency level, table 6 above, demonstrated that there was statistically significant difference in EFL college students' IELTS listening comprehension within the experimental group between the mean score of the two levels of proficiency; B1 (M = 25.28, SD = 1.77) and those of the B2 (M = 28.00, SD = 1.63);  $t(28) = 4.36, p = 0.00$ . Put simply, the effect is in favour of students of B2 level of proficiency.

#### *Effect of Interaction between Treatment and Proficiency*

The current study was also into probing whether there is a difference in IELTS listening comprehension due to the treatment by proficiency interaction effect. To this end, the researcher used a Two-way Analysis of Variance: table 7 below reports on the results of the two-way Analysis of variance considering the two variables of the study.

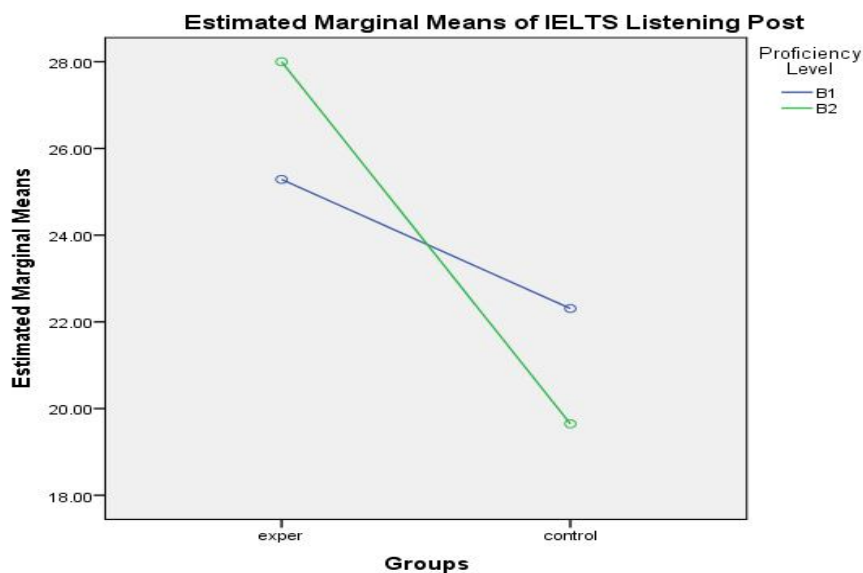
Table 8:

*Two-Way Analysis of Variance: interaction between the teaching approach and proficiency*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Model	34526.491a	4	8631.623	1780.314	.000
Group	476.094	1	476.094	98.197	.000
Pl	.011	1	.011	.002	.963
Group * pl	107.128	1	107.128	22.096	.000
Error	271.509	56	4.848		
Total	34798.000	60			

Finally, table 9 above shows the results of the effect of the interaction between EFL college students' IELTS listening comprehension and treatment. Surprisingly, the difference between the mean scores of the study groups due to the interaction between the type of treatment and proficiency levels was significant at 0.01 level ( $F(2,58) = 22.096, P = 0.001$ ) in favour of metacognitive-in-action listening instruction approach and the proficiency level B2. Figure 2 below graphically demonstrates the shape of the interaction.

*Figure 2: The interaction between the metacognitive-in-action listening instruction approach and proficiency level*



This means that the effect of metacognitive-in-action approach to listening instruction seems to be different to the B1 and B2 and that the higher level of proficiency, B2, benefited more. With this in mind, the third null hypothesis of the current study stating, *“There is no interaction between the effect of treatment (metacognition-in-action approach to listening instruction and the traditional approach) and students' listening proficiency level (B1 Versus B2) as measured by the IELTS listening section of the test*



*before and after the treatment*”, was rejected. From this we can conclude that the improvement achieved by students due to treatment is dependent upon their proficiency level and students of the higher-level benefit more.

## DISCUSSION

Findings of the study showed that shifting from the reductive mechanical to the empowering meaningful learner training, represented in our case with the metacognition-in-action approach to listening instruction, is effective in enhancing EFL college students IELTS listening comprehension. The data obtained from this study showed that the metacognition-in-action group students outperformed those in the control group. Several interpretations could be given for the superiority of the metacognition-in-action approach to listening instruction over the control group. An interpretation may lie in the fact that the empowering learner training deployed in the metacognition-in-action approach to listening instruction prepared the students for the active and interactive roles expected from them to assume responsibility for their learning. The incorporation of the *metacognitive knowledge, sufficient practice, explicit and informed training*, and the *long duration of the training* were all crucial factors contributed to the positive results obtained.

The first and perhaps the most important factor is the interwoven of the metacognitive knowledge component into the treatment received by the metacognition-in-action group but not by the control group. The metacognition-in-action, with its metacognitive knowledge component, was like a ground basis providing students with the needed information mainly on themselves as learners, on the underlying processes involved in listening and learning as well as on how to approach listening strategically. Such information made students aware of their previously acquired knowledge and gave them the opportunity to reflect on as well as reject or correct the inappropriate conceptions they had had and to acquire new insights about themselves as learners and about listening as a process. In other words, metacognitive knowledge helped learners understand themselves as learners; their strengths and weaknesses as well as prepared them for the active and interactive

roles they are expected to have in the program. This, in turn, helped students become more effective at managing their own learning and resources.

In effect, the metacognitive knowledge component opened totally new avenues to which students had had no access before about themselves as learners, about the underlying process of listening as a construct, and about task and strategy knowledge, which helped them step out of their comfort zone, extending it by being empowered to plan, monitor and reflect on their learning.

In a word, the empowering learner training model which did not limit itself to training students on discrete strategies but exceeded to better equip them with enough knowledge to embark on their own listening with considerable level of understanding of what to do made them more ready and willing to try out strategies taught. In a sense, it helped students enhance their *declarative knowledge* which, according to Sinclair (2000), enhances students' capacity for making informed decisions about their learning as well as selecting and orchestrating the appropriate strategies in the light of the specific task at hand, which is of utmost importance for learner training empowering model.

Another interpretation that might have assisted the metacognition-in-action group to outperform the control group is the package and repertoire of strategies the empowering learner training model advocates. This package included both the executive strategies (metacognitive strategies or construction manager) and processing language strategies (cognitive strategies or construction workers) which are essential to learning at all levels of proficiency (Oxford, 2011, 2017; Anderson, 2008). Such strategies never lose their value for successful learners, who rely on the coordinated operation of metacognitive cognitive strategies, and, in turn, select, orchestrate and monitor appropriate strategies to the task at hand.

Metacognitive strategies, in this sense and figuratively speaking, acted as the 'construction manager' whose job is to focus, plan, obtain resources, organize, coordinate, monitor and evaluate the construction of L2 knowledge. Metacognitive strategies, if

operating effectively, are the mind's masters that set guideline and manage the creation of L2 edifice. Such strategies, according to Oxford (2011:44), are infused with metacognitive knowledge of various kinds: person, group or culture, task, whole-process, strategy and conditional knowledge. Meanwhile, cognitive strategies, metaphorically acted as the 'construction workers' who build internal mental frameworks (schemata) into increasingly elaborate, integrated and automatic structures. Cognitive strategies thus directly facilitate the construction of the mental edifice of L2 language and culture. Operationally, cognitive strategies follow metacognitive guidance. Sometimes, unmanaged cognitive strategies – the builder operating without supervision – can cause significant problems, like a ceiling falling in or a door being off its hinges (e.g., major academic or communication failures) and this can result in the need for a significant repair.

Obviously, the time allocated for practising strategies taught in the learner training model advocated in the current study was a further central factor that contributed to the positive findings obtained. The current study lasted for 7 weeks, 2-hours session, thrice a week, totalling 42 hours; the longest time duration compared with other studies. Such duration perhaps provided enough room for repeated practice with positive feedback which helped the transfer of the strategies taught from the initial representation of knowledge, through initial changes in behaviour to eventual fluent, spontaneous and unconsciously, largely effortless and automatic behaviour.

Less obvious than the time needed for practice, but of equal importance, is the informed, explicit approach used in teaching. This approach incorporated a remarkably effective technique that is the strategy modelling. Modelling strategies was carried out by the researcher as well as the students who themselves made excellent teachers. The researcher's modelling gave the students the opportunity to see how an expert approaches different listening tasks, how he makes use of all his available resources and how he orchestrates the strategy use to make sense of a message of highly fleeting nature. Whereas the researcher's modelling might

have given students insights on how to be strategic when listening, their mates' modelling challenged them to do the same.

## **Conclusions**

In short, the empowering learner training model that caters for revisiting students' metacognitive knowledge, explicitly training students on both executive and processing strategies over long time duration have an enhancing impact on IELTS listening comprehension of EFL college students. More importantly, it gets students closer to be self-independent and more able to discern of what strategies are best for them as individuals. Metacognitive knowledge presumably led to an improvement in students' self-knowledge, listening process knowledge, task knowledge, strategy knowledge and strategy use. It helped students discover their own learning styles, become more aware of its strengths and weaknesses as well as their attitudes and expected roles in learning and more importantly reflect on their own learning. Such knowledge left the door open for metacognitive and cognitive strategies to be perceived as perhaps the best alternatives to approach the IELTS listening tasks. Students with the help of metacognitive strategies have developed a self-directed learning approach whereby they were ultimately able to set their own goals, plan how to achieve them with the available resources, monitor as well as evaluate their progress over time. Similarly, the cognitive strategies with their specific nature helped students to deal with the different listening tasks more effectively, competently and with more confidence. These three components interacted with the students' feelings and as a consequence warded off their anxiety, increased their self-motivation as well as instilled self-confidence.

The study shows that there is an urgent need to shift from the reductive mechanical to the more empowering learner training model that focuses on metacognitive knowledge as well as cognitive and metacognitive strategies over a long-time duration that targets helping learners learn how to learn to get ready and be better equipped for the challenges of the 21<sup>st</sup> century skills.

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## References

- Ahmadi, K., Gharacheh, A., Dashtaki, A. & Ebdam, R. (2014). The Effect of Metacognitive Learning Strategies Training on Listening Performance of Iranian Intermediate English Language learners. *International Journal of Psychology and Behavioural Research*, 3(6), pp.499 – 503. [Online] Available at: <http://www.ijpbrjournal.com>.
- Anderson, J. R. (1983). *Integrated skills reinforcement: Reading, writing, speaking, and listening across the curriculum*. Longman Publishing Group.
- Anderson, J. R. (2015). *Cognitive psychology and its implications*. 8<sup>th</sup> ed. Freeman Publisher.
- Anderson, J., Greeno, J., Kline, P., & Neves, D. (1981). Acquisition of problem-solving skill. *Cognitive skills and their acquisition*, 191-230.
- Benson, P. (2001). *Applied Linguistics in action: teaching and researching autonomy in language learning*. Harlow: Longman.
- Benson, P. (2002). *Autonomy and communication*. In Benson, B. & Toogood, S. (Eds.), *Learner autonomy: Challenges to research and practice* (pp. 10–28)..
- Blidi, S. (2017). *Collaborative learner autonomy*. Springer Singapore.
- Bozorgian, H. (2015). Less-skilled learners benefit more from metacognitive instruction to develop listening comprehension. *International Journal of Research Studies in Language Learning*, 4(1), 3-12.
- Brown, A., Bransford, J., Ferrara, R. & Campione, J. (1983). Learning, remembering, and understanding. In Flavell, J. & Markham, E. (Eds.), *Carmichael's manual of child psychology*, 1, 14- 21.

- Brown, A., & Palincsar, A. (1982). Inducing strategic learning from texts by means of informed, self-control training. *Topics in Learning and Learning Disabilities*, 2, pp, 1-17262.
- Brown, D. (1994). *Principles of language learning and teaching* (3<sup>rd</sup> edition.) Englewood Cliffs, NJ: Prentice Hall.
- Buck, G. (1995). How to become a good listening teacher. In Mendelsohn, D. & Rubin, J. (Eds.) *A guide for the teaching of second language listening*, 113-131, San Diego: Dominic Press.
- Chamot, A. (1993). Student responses to learning strategy instruction in the foreign language classroom. *Foreign Language Annals*, 26(3), 308-321.
- Chamot, A. (1995). Learning strategies and listening comprehension. In Mendelsohn, D. & Rubin, J. (Eds.) *A guide for the teaching of second language listening*, 13- 30, San Diego: Dominic Press.
- Chamot, A. & O'Malley, J. (1994). *The CALLA handbook: Implementing the cognitive academic language learning approach*. Reading, MA: Addison-Wesley Publishing Company.
- Chamot, A., & O'Malley, J. (1996). The cognitive academic language learning approach: A model for linguistically diverse classrooms. *The elementary school journal*, 96(3), 259-273.
- Chamot, A., Barnhardt, S., Beard El-Dinary, P., & Robbins, J. (1999). *The learning strategy handbook*. New York: Addison Wesley Longman.

- Chamot, A., Barnhardt, S., El-Dinary, P., & Robbins, J. (1996).** Methods for teaching learning strategies in the foreign language classroom. In Oxford, R. (ed.) *Language learning strategies around the world: Cross-cultural perspectives*, (Technical Report 13), pp. 175-187. Second Language Teaching and Curriculum Centre, University of Hawaii', Honolulu HI
- Chen, Y. (2005).** Barriers to Acquiring Listening Strategies for EFL Learners and Their Pedagogical Implications. *TESL-EJ*, 8 (4), 1-19.
- Chen, Y. (2007).** Learning to learn: The impact of strategy training. *ELT Journal*, 61(1), 20-29.
- Cohen, A. (1990).** *Language learning: Insights for learners, teachers, and researchers*. Heinle & Heinle.
- Cohen, A. (1998).** *Strategies in learning and using a second language*. Harlow, Essex: Longman.
- Cohen, A. (1999).** Language learning strategies instruction and research. In Cotterall, S.& Crabbe, D. (Eds). *Learner autonomy in language learning: Defining the field and effecting change*, pp. 61-68. Frankfurt: Peter Lang.
- Cohen, A. (2011).** Second language learner strategies. In Hinkel, E. (ed.) *Handbook of research in second language teaching and learning*, 2, pp. 681-698, Routledge, NY.
- Cohen, A., & Macaro, E. (2007).** *Language learner strategies: Thirty years of research and practice*. Oxford: Oxford University Press.

- Cohen, A., & Scott, K. (1996). A synthesis of approaches to assessing language learning strategies. In Oxford, R. (ed.) *Language learning strategies around the world: Cross-cultural perspectives*, (Technical Report 13), pp. 89-106. Second Language Teaching and Curriculum Centre, University of Hawaii', Honolulu HI
- Cohen, A., Weaver, S., & Li, T. (1996). *The impact of strategies-based instruction on speaking a foreign language*. Working paper, University of Minnesota, Center for Advanced Research in Language Acquisition CARLA.
- Crabbe, D. (1999). *Defining the field: introduction*. In Cotterall, S & Crabbe, D. (Eds.). *Learner autonomy in language learning: Defining the field and effecting change*. Peter Lang Edition.
- Cross, J. (2010). Metacognitive instruction for helping less-skilled listeners. *ELT journal*, 65(4), 408-416.
- Cross, J. (2011). Social-cultural-historical contradictions in an L2 listening lesson: A joint activity system analysis. *Language Learning*, 61(3), 820-867.
- DeKeyser, R. (2007). *Practice in a second language: Perspectives from applied linguistics and cognitive psychology*. Cambridge: Cambridge University Press.
- Dickinson, L. (1987). *Self-instruction in language learning*. Cambridge: Cambridge University Press
- Ellis, G., & Sinclair, B. (1986). A Systematic Programme of Learner Training: Train the Learner to Learn More Effectively. *Techniques of Teaching: from Theory to Practice*. Londres: Modern English Publications in Association with the British Council.
- Ellis, G., & Sinclair, B. (1989). *Learning to learn English: A course in learner training (learner's book)*. Cambridge: Cambridge University Press.



- Ellis, R. (1999). *Learning a second language through interaction*. John Benjamins Publishing Company, Amsterdam.
- Field, J. (2012). Listening instruction. In Burns A. & Richards, J. (Eds.). *The Cambridge Guide to Pedagogy and Practice in Second Language Teaching*. NY: Cambridge University Press.
- Fujiwara, B. (1990). Learner training in listening strategies. *JALT Journal*, 12(2), 203-217.
- Goh, C. (1997). Metacognitive awareness and second language listeners. *ELT journal*, 51(4), 361-369.
- Goh, C. (2008). Metacognitive instruction for second language listening development: Theory, practice and research implications. *RELC journal*, 39(2), 188-213.
- Goh, C. (2010). Listening as process: Learning activities for self-appraisal and self-regulation. In Harwood, N. (ed.), *Materials in ELT: Theory and practice*, pp. 179 - 206. Cambridge: Cambridge University Press.
- Graham, C. R. (2006). Listening comprehension: the learners' perspective. *System*, 34, 165-182.
- Grant, L. (1997). Listening to English in the 21<sup>st</sup> century: The need for learner strategies. *Paper presented in the third EFL Skills Conference*, pp. 65-71. *American University in Cairo, Cairo, Egypt*
- Higgins, J. (1996). Students' listening difficulties: The contribution of speech rate. *Paper presented in the third EFL Skills Conference*, pp. 10-18. *American University in Cairo, Cairo, Egypt*
- Holec, H. (1985). On autonomy: some elementary concepts. *Discourse and learning*, 985, 173-190.
- McDonough, S. (1995). *Strategy and skill in learning a foreign language*. London: Arnold.
- McDonough, S. (1999a). Learner Strategies. *Language Teaching*, 32, pp.1-18

- McDonough, S. (1999b). A hierarchy of strategies. In Cotterall S.& Grabbe, D. (Eds.) *Learner autonomy in language learning: defining the field and effecting change*, pp. 51-60. Frankfurt: Peter Lang.
- Mendelson, D., (1994). *Learning to listen: A Strategy-Based Approach for the Second language learner*. San Diego: Dominie Press.
- Mendelson, D., (1995). Applying learning strategies in the second/foreign language listening comprehension lesson. In Mendelsohn, D. & Rubin, J. (Eds.) *A guide for the teaching of second language listening*, pp. 132-150. San Diego: Dominie Press
- Mendelsohn, D. (1998). Teaching listening. *Annual Review of Applied Linguistics*, 18, 81-101
- Mendelson, D., & Rubin, J. (1995). A guide for the teaching of second language listening. San Diego: Dominie Press.
- O'Malley, J., Chamot, A., Stewner□Manzanares, G., Küpper, L and Russo, R. (1985a). Learning strategy use by beginners and intermediate EFL students. *Language Learning*, 35, pp. 21-46.
- Oxford, R. L. (1990). *Language learning strategies: What every teacher should know*. New York: Newbury House.
- Oxford, R. L. (2002). Language learning strategies in a nutshell: Update and ESL suggestions. *Methodology in language teaching: An anthology of current practice*, 4(3), 124-132.
- Oxford, R. L. (2011). Applied Linguistic in-action series. *Teaching and researching language learning strategies*. Pearson Education Limited.
- Oxford, R. L. (2017). *Teaching and researching language learning strategies: Self-regulation in Context* (2nd ed.). Routledge

- Oxford, R., & Leaver, B. (1996). A synthesis of strategy instruction for language learners. In Oxford, R. (ed.) *Language learning strategies around the world: cross-cultural Perspectives* (Technical Report 13), pp227-146. Second Language Teaching & Curriculum Centre, University of Hawaii', Honolulu HI.
- Paulauskas, S. (1994). *The effects of strategy training on the aural comprehension of L2 adult learners at the high beginning/low intermediate proficiency level*. Unpublished doctoral dissertation. University of Toronto.
- Plonsky, L. (2011). The effectiveness of second language strategy instruction: A meta-analysis. *Language learning*, 61(4), 993-1038.
- Rost, M. (1994). *Introducing Listening*. Penguin Group, London.
- Rost, M. (2002). *Applied linguistics in action: teaching and researching listening*. Harlow: Longman.
- Rost, M. (2011). *Applied linguistics in action: teaching and researching listening*. (2<sup>nd</sup> ed), Longman, London
- Rost, M., & Ross, S. (1991). Learner use of strategies in interaction: Typology and teachability. *Language learning*, 41(2), 235-268.
- Rubin, J. (1994). A review of second language listening comprehension research. *The Modern Language Journal*, 78(2), 199-221.
- Rubin, J. (1995). An overview to a guide for the teaching of second language listening. In Mendelsohn, D. & Rubin, J. (Eds.) *A guide for the teaching of second language listening*, pp.7-12. San Diego: Dominie Press.

- Rubin, J., Chamot, A. U., Harris, V., & Anderson, N. J. (2008). Intervening in the use of strategies. In Cohen, A. & Macaro, E. (Eds.) *Language Learner Strategies: thirty years of research and practice*. Oxford: Oxford University Press
- Schwartz, A. (1992). The effect of interactive video training in listening techniques, metacognition and attribution on the listening comprehension of second language video. Unpublished PhD thesis, University of Maryland.
- Sinclair, B. (2000). Learner autonomy: The next phase? In Sinclair, B., McGrath, I & Lamb, T., (eds.). *Learner autonomy, teacher autonomy: Future directions*. The British Council, Pearson Education Limited, England.
- Thompson, I., & Rubin, J. (1996). Can strategy instruction improve listening comprehension? *Foreign Language Annals*, 29(3), 331-342.
- Thornbury, S. (2012). Speaking instruction. In J.C. Richards & A. Burns (eds.), *Cambridge guide to pedagogy and practice in second language teaching* (pp.198 – 206). Cambridge: Cambridge University Press
- Vandergrift, L. (1992). The comprehension strategies of second language (French) listeners. Unpublished PhD thesis, University of Alberta.
- Vandergrift, L. (1996). The listening comprehension strategies of core French high school students, *Canadian Modern Language Review*, 52,200-23
- Vandergrift, L. (1996). The listening comprehension strategies of core French high school students. *Canadian Modern Language Review*, 52, 200-223.
- Vandergrift, L. (2002). Listening: theory and practice in modern foreign language competence.

- Vandergrift, L. (2003). Orchestrating strategy use: Toward a model of the skilled second language listener. *Language learning*, 53(3), 463-496.
- Vandergrift, L. (2004). Learning to listen or listening to learn? *Annual review of Applied Linguistics*, 24, 3-25.
- Vandergrift, L. (2007). Recent developments in second and foreign language listening comprehension research. *Language Teaching*, 40(3), 191-210.
- Vandergrift, L., & Baker, S. (2015). Learner variables in second language listening comprehension: An exploratory path analysis. *Language Learning*, 65(2), 390-416.
- Vandergrift, L., & Goh, C. C. (2012). *Teaching and learning second language listening: Metacognition in action*. Routledge.
- Vandergrift, L., & Tafaghodtari, M. H. (2010). Teaching L2 learners how to listen does make a difference: An empirical study. *Language learning*, 60(2), 470-497.
- Vandergrift, L., Goh, C. C., Mareschal, C. J., & Tafaghodtari, M. H. (2006). The metacognitive awareness listening questionnaire: Development and validation. *Language learning*, 56(3), 431-462.
- Victoria, M., & Lockhart, W. (1995). Enhancing metacognition in self-directed language learning. *System*, 23(2), 223-234.
- Wenden, A. (1986a). Incorporating learner training in the classroom. *System*, 14, 315-325. Wenden 1998
- Wenden, A. (1986b). What do second language learners know about their language learning? A second look at retrospective accounts. *Applied Linguistics*, 7, 186-205.
- Wenden, A. (1991). *Learner strategies for learner autonomy*. Englewood Cliffs, NJ: Prentice Hall.

- Wenden, A. (1995). Learner training in context: a knowledge-based approach. *System*, 23, 183-194.
- Wenden, A. (1997). Designing learner training: the curricular questions. In Jacobs, G. (ed.) *Language classrooms of tomorrow: issues and response*. RELC Anthology, Series, 38.
- Wenden, A. (1998). Metacognitive knowledge and language learning. *Applied Linguistics*, 19, 515-537.
- Wenden, A. (1999). An introduction to metacognitive knowledge and beliefs in language learning: beyond the basics. *System*, 27, 435-414.
- Wenden, A. (2002). Learner development in language learning. *Applied Linguistics*, 23, 32-55.
- Wenden, A. L. (1996). Learner representations in language learning: relevance and function. In *Proceedings of the international conference 'AUTONOMY 2000': the development of learning independence in language learning* (pp. 234-253).
- Wenden, A., & Rubin, J. (1987). *Learner strategies in language learning*. Prentice/Hall International.
- White, G. (2008). Listening and good language learners. In C. Griffiths (Ed.), *Lessons from Good Language Learners* (208-17). Edinburgh: Cambridge University Press.