Metacognitive instruction in listening for young learners

Christine Goh and Yusnita Taib

This article outlines a small-scale study of metacognitive instruction for young second language listeners and discusses the value of lessons that highlight the listening process. Ten primary school pupils participated in eight specially designed listening lessons that included traditional listening exercises, individual post-listening reflections on their listening experience, and teacher-facilitated discussions that focused on specific aspects of metacognitive knowledge about listening. During the eight lessons, the learners demonstrated some knowledge about factors that influenced their listening and strategy use. After the eight lessons, all the students reported a deeper understanding of the nature and the demands of listening, increased confidence in completing listening tasks, and better strategic knowledge for coping with comprehension difficulties. On the whole, the weaker learners have benefited the most from such a process-based approach to listening instruction.

Introduction

Listening can be a stressful activity for beginning and intermediate language learners, who are often unable to process information quickly enough to make sense of what is said. This problem could be due to different factors including cognition and affect. Language teachers have the challenging task of helping learners improve in a skill which involves processes that are unobservable. Teachers are advised to encourage their learners to take an active role in their own listening development.

To help learners understand mental and emotional processes in their learning, teachers can guide them in discovering important aspects of the listening process. When learners become aware of the nature and demands of listening to another language, they will be in a better position to evaluate and manage their own learning. Teaching that explicitly elicits and develops learners' knowledge about the listening process is in this article referred to as 'metacognitive instruction'. To discuss metacognitive instruction, it is useful to first define the term 'metacognition'.

Metacognition

In cognitive psychology, metacognition is defined as:

> 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: 232).

Metacognition has two key features, namely, control or executive aspects, and knowledge about cognitive states and processes (Paris and Winograd 1990: 17). The former refers mainly to the use of metacognitive strategies while the latter can be further distinguished as follows:

Person knowledge	individual and universal traits that influence learning
Task knowledge	the purpose, the demands, and the nature of learning tasks
Strategy knowledge	approaches and techniques that are likely to be effective in accomplishing a task or a goal

(based on Flavell op. cit.)

Development in these three aspects of metacognitive knowledge will enable learners to appraise themselves and to select appropriate strategies for improving their performance. Based on the above, it can be argued that metacognitive instruction includes both training learners directly to employ relevant strategies as well as helping them increase their metacognitive knowledge. Wenden (1998), in her work on learner autonomy, has strongly advocated helping language learners develop these areas of metacognitive knowledge in order to self-appraise and self-regulate their learning.

With regard to metacognition and children, Nisbet and Shucksmith (1986: 36) cited key research in the field and argued that children already begin to develop metacognitive knowledge or awareness which could control their strategic activities while they are still in primary school. They pointed out, however, that younger children are initially unable to utilize that knowledge spontaneously, giving rise to a gap between knowing and doing or production deficiency. Nevertheless, the ability to monitor and evaluate one's thinking and act strategically is one of several important developmental advances during middle childhood and adolescence (Flavell, Miller, and Miller 1993).

Increasing metacognitive knowledge about listening

Metacognitive instruction in listening for language learners takes different forms. One common approach is a sequence of activities that encourages planning, monitoring, and evaluating strategies used for the selected listening text (Mendelsohn 1998). Chamot (1995) has suggested a procedure where teachers model how they themselves use strategies when listening to a tape or watching a video with new information. Before listening, the teacher thinks aloud about what he or she already knows about the topic and what words one might expect to hear. After listening to a short segment of the text, the teacher thinks aloud again, describing the mental processes involved during listening, commenting also on whether the predictions have been confirmed or rejected. Finally, the teacher evaluates his or her use of strategies for the particular text.

Goh (1997) proposed developing person, task, and strategy knowledge about listening explicitly. The post-listening stage, she argued, should not stop with using the information gathered from the listening passage. It should extend further to include learners' introspection of their mental processes during the listening task. She also outlined a plan for process-based lessons which made use of guided reflection questions and listening diaries that focused on selected aspects of metacognitive knowledge. These were then followed up by teacher-led discussions which encouraged learners to evaluate and apply their individual and collective metacognitive knowledge.

Vandergrift (2002) demonstrated that reflection on the processes of listening was beneficial for young learners. Canadian Grade 4 to 6 beginning level core French students completed listening comprehension tasks and reflective exercises which engaged them in prediction and evaluation. The results based on introspective data suggested that the activities sensitized the learners to listening processes and developed their metacognitive knowledge. In another study among adult learners, a teaching sequence that integrated both text-focused and metacognitive awareness-raising activities was used (Vandergrift 2003). The instructor guided the learners in the use of prediction through individual planning, pair-discussions, and post-listening reflections. The learners reported increased metacognitive knowledge and learner engagement, and further commented on the motivational dimensions engendered by the success they experienced with this approach to listening (p. 437).

In a departure from procedures which emphasized top-down processing (using prior knowledge and strategies to assist comprehension), Field (2003) advocated training learners to perceive acoustic signals from the text. He outlined several exercises to sensitize learners to the phonological features of fast speech such as reduced forms, assimilation, and elision. The value of a signal-based approach, he argued, is that it draws our attention to problems of both perception and comprehension that would otherwise pass unnoticed (p. 332). It could be added that such activities also increase learners' awareness of phonetic and phonological cues (Brown 1990) and phonological variations, both important parts of task knowledge for learning to listen.

The study

To further explore the benefits of metacognitive training in listening, we conducted a small-scale study with a group of primary school pupils, who were preparing for a year-end listening examination. The study involved a series of process-based listening lessons. It was hoped that the study would contribute to a small but growing body of research on metacognitive instruction in listening among young language learners.

Objectives

The study had two objectives. The first was to elicit and identify the primary school pupils' metacognitive knowledge about listening in English. We also sought to find out how well older children were able to articulate their metacognitive knowledge. The second objective was to investigate how useful process-based activities were for teaching listening to the pupils.

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We examined the pupils' self-reports as well as their performances in several listening tests.

Scope

Two types of metacognitive knowledge were examined in the study: task knowledge and strategy knowledge. For task knowledge, the learners were asked about the factors that influenced their listening. To elicit their strategy knowledge, they were asked to observe how they had tried to understand the listening input in the lessons.

Participants

The pupils were all between 11 and 12 years old. There were five boys and five girls, all in the final year of their primary school education in Singapore. Based on their school mid-year listening examination and their teacher's assessment, five of them were considered as having average or poor listening ability. Although English was the medium of instruction in school, none of the learners spoke it as their dominant language. The English they spoke amongst themselves was a local variety which differed quite substantially from the standard variety taught in school, in grammar and pronunciation. Their writing, however, tended to have more features of standard English.

Their listening lessons and examinations involved listening to recordings by speakers of standard English. The language of most of these speakers closely resembled southern British English in stress, rhythm, and intonation. The pupils in our study had very little informal exposure to this type of spoken English. As a result, they often experienced anxiety and difficulties during listening tests.

Conducting process-based listening lessons

Eight listening lessons were conducted a few months before the pupils' primary school leaving examination. Each lesson was an hour long and provided practice for the listening component of the public examination as well as opportunities for developing their understanding of the listening process. The lessons followed a three-stage sequence: Listen and answer–reflect–report and discuss.

Stage 1:
Listen and answer

This stage of the lesson was modelled after the listening examination format. To replicate examination conditions, no pre-listening activities were included. The listen and answer sequence is also the modus operandi of many English teachers for 'teaching' listening because of the strong backwash effects of public examinations.

The listening exercises in six lessons were parallel versions of the listening examination. These consisted of short texts of 90 to 150 words, or three to four minutes of recording. The texts included news reports, instructions, announcements, dialogues, and stories. For each text, candidates had to answer three or four questions by selecting the right answer from three options. Each listening exercise had 10 questions. Most of the questions required listening for details. In the last two lessons, the pupils were not given answer options but had to write down a short answer for each question. The rationale for varying the required response was that we wanted to find out whether it influenced the pupils' perceptions of task demands and strategy use.

Stage 2:
Individual reflection

As soon as they finished stage 1, the pupils were asked to reflect individually on how they had completed the listening exercises. To guide them, four questions were written on the board (see Table 1):

Question	Purpose
What were you listening to?	Confirm comprehension
What helped you to understand the text?	Elicit task knowledge (factors that influenced listening)
What prevented you from getting the correct answers?	(Same as 2)
What did you do to understand as much of the text as possible?	Elicit strategy knowledge (Strategies for facilitating listening)

TABLE 1
Reflection probes

This stage was immediate retrospection which allows individuals to report on their mental processes before they are forgotten (Færch and Kasper 1987). This increases the reliability and comprehensiveness of reports. Another advantage is that it provides a well-defined context for individuals to base their reflection on. In this way we tried to ensure that the pupils' reports about factors influencing their listening and strategy use were based on concrete experiences and were not general statements or abstractions about the listening process.

Stage 3:
Self-report and group discussion

This final stage was facilitated by the teacher. The pupils took turns to read aloud their notes on their reflections. As each pupil reported their observations, the others listened and sometimes asked questions or included their own comments.

The next section presents the pupils' metacognitive knowledge about listening revealed in stages 2 and 3.

Pupils' metacognitive knowledge
Factors that influenced comprehension

The pupils reported 21 features that influenced their ability to listen well and answer comprehension questions. Twelve features were reported by seven or more (a majority) of the pupils. These features have been categorized under broad factors, following Goh (1999) (see Table 2) with examples from the pupils' self-reports.

Text
a) Explicitness of information
I am not sure of the answer as there is no mention of it.

b) Speech rate
The reading is so fast that I choose the answers anyhow.[i]

c) Content of listening text
Comical statement in passage. Distract my attention.

d) Repetition
At first I could not hear anything about B. When the text repeats again, I can catch the point. So I put the answer as no. 2.

Task
a) Types of question
All this questions need lots of thinking.

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b) Types of answer option
The two answers were mentioned in the passage. Must decide the answer.

c) Test format
I felt not sure of answering the question. When there are choices in the question, I could elemelate (sic.) the choices and do not really have to pay so much attention to the text. But when it is free response, I have to really listen and give the answer.

Environment
a) Physical conditions
Today the weather is cool and refreshing. This has a good effect on my performance.

b) Presence of other listeners
Having all boys around me is factor which help me.[ii]

Listener and speaker
a) Emotional and physical states
The atmosphere here is not as serious as in exams. I can concentrate better.
My right eye is very itchy and I cannot concentrate.

b) Attention
Being attentive to the speaker helped me think.

c) Voice clarity
This time, the speaker's voice is unclear compared to the speaker before this passage and I do not understand the passage.

A small number of pupils reported other influences on listening. These included topic familiarity, vocabulary, memory, densely-packed information, text length, and accent.

Strategies for facilitating listening

There were substantially fewer reports about strategy use compared with factors that influenced listening performance. Table 3 presents the four most commonly reported strategies.

Planning
Look at question first to concentrate on the parts to pay special attention to.

Directed attention
The main thing to do is to listen very carefully as it had lots and lots of information coming out at one time . . .

Selective attention
Did not concentrate much after the part where the answers are given to the question.

Inferencing
Looking for clues in the passage.

The most frequently reported strategy was inferencing, a cognitive strategy for processing information directly by using contextual clues, such as key words. It was reported three times more than the other strategies. Planning by way of previewing comprehension questions was also frequently done.

Although three of the four strategies were metacognitive, they did not include strategies that could affect the accuracy and completeness of comprehension. Strategies for monitoring and evaluating comprehension, for example, were not reported in the eight sessions. Affective strategies for motivating themselves to listen and dealing with negative emotions were

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barely mentioned. As a result, we concluded that these primary school pupils had limited knowledge of comprehension strategies.

On the other hand, they knew quite a great deal about test-taking strategies. Every pupil reported strategies for choosing the best answer from the three options, such as using logical deduction and elimination. All the pupils found the exercises in the last two lessons more difficult because they had to provide their own answers. They felt that they could not answer some questions because they had not clearly understood the relevant parts in the texts. This might explain why even though these pupils passed their listening tests in class, they still found it difficult to understand standard English spoken in school, for example, when listening to teachers' explanations and instructions, school assembly speeches, announcements and recorded texts.

The value of metacognitive instruction

Two methods were used to find out about the usefulness of the process-based lessons conducted. Firstly, an additional lesson was conducted the week after the last listening lesson. In this lesson, each pupil wrote a short reflection based on the prompt 'What I think about my listening ability at the end of the eight sessions'. The teacher asked the pupils to tell one another what they had learnt about listening in English before they wrote their reflections. This was to give them an opportunity to consolidate their metacognitive knowledge about the listening process. The second way in which we assessed the value of metacognitive instruction was by comparing their listening test scores before and after the intervention.

We concluded that the process-based lessons had two benefits. Firstly, the pupils reported an increase in their confidence and metacognitive knowledge. More specifically, their strategy knowledge had increased. Secondly, there was strong indication that metacognitive instruction had contributed to the pupils' improvement in two sets of listening test scores.

Confidence and metacognitive knowledge

All the pupils perceived an improvement in their listening ability after the sessions. They attributed this improvement to their growing ability to manage the listening process. Here is an example from one of the reflections:

> I have learnt to cope with listening comprehension. I have become more conscious of what I think when I listen to the passage.

In particular, they highlighted the benefits they had derived from the teacher-led discussions during each lesson and her final summary and review during the ninth lesson. Every one of them also reported greater awareness of their thinking processes when listening. Instead of just thinking about finding the correct answer, they also attempted to find ways to understand the listening texts better. This suggests a greater degree of self-appraisal and self-management of listening on their part. They have learnt to attend to their mental processes during and after listening, and not merely focus on the comprehension questions and answer options.

A comparison of the pupils' final reflections with their earlier verbal reports showed that they now had a wider range of strategies for facilitating listening (see Table 4). Strategies mentioned by a minority during the eight

lessons were now reported by most of the pupils in the group (indicated with *). (See also appendix for an example of the final reflection.)

Directed attention
I concentrate when the speaker is fast and ignore distractions.

Notice repetitions*
Take note if there are repetitions—this could mean that the point repeated is being emphasised and that it is very important.

Visualisation*
Picture or mental maps appear in my head when I listen to the text.

Inferencing
Sometimes if too difficult words appear, I try to guess the meaning of the word so as not to be worried.

Maintain interest*
If you ever encounter a passage you find boring, you still concentrate. You could connect it to something which you've experienced but not too much as that might lead to daydreaming.

Positive self-talk*
Psycho [iii] myself, talk and comfort myself to get rid of negative feeling.

TABLE 4
Strategy knowledge after metacognitive instruction

While there was a clear development in their strategy knowledge, especially in the use of affective strategies (maintain interest and positive self-talk), these primary pupils still knew relatively few strategies compared with older and adult learners reported in other studies. Nevertheless, given their development after eight lessons, we would predict improvement with further metacognitive instruction. Due to their rather limited knowledge, however, instruction would have to include explicit teaching of strategies such as prediction, comprehension monitoring and evaluation, and asking for clarification.

Improved listening performance

Two sets of listening scores were used to assess the pupils' listening performance. The first was based on the learners' listening test results immediately before and after the eight process-based lessons. The second set of scores was from their school mid-year examination (taken about a month before the eight sessions) and their year-end examination (taken shortly after the sessions). In both sets of tests which were similar to the examination format, all except one pupil increased their scores in the second round of testing. The pupil who did not show an improvement had maintained her original high score of 19/20.

Those who scored low marks in the first round of testing showed the biggest improvements. Of the four weaker listeners, three of them increased their mid-year scores by as much as 5 to 7 marks, scoring full marks (20/20) in the year-end examination. The fourth pupil increased his performance by 4 marks and scored 19/20. These results suggest that the weaker pupils had benefited the most from metacognitive instruction.

Because of administrative constraints, the conditions of our study could not be strictly controlled to eliminate variables such as practice effects from normal class listen-and-answer exercises. Therefore, this study could not

demonstrate the exclusive role of metacognitive instruction in the learners' improvement. Nevertheless, the final self-reports from three of the weak pupils testified to the benefits they had derived from listening lessons that had a strong focus on the process of listening:

> I feel these sessions are very useful . . . I will use their methods . . . To sum everything, I feel that my listening skills have improved and I feel that these sessions have been of great help.

> After being through the eight inspiring lesson, I have learnt to cope with listening lesson.

> I take note of repetition and keep calm and confident of doing well in listening tests and when listening.

What this also shows is the motivating effect of getting the pupils to think about their learning and taking more responsibility for the outcome.

Conclusion

When participating in lessons involving a receptive skill such as listening, students can easily become passive and disengaged from the active process of learning. This often not only leads to boredom and frustration on their part, but also denies them opportunities to discover how they might take control of their listening development. Teachers can encourage greater metacognitive awareness by asking learners to report and discuss the thought processes that they engage in during listening tasks. Besides helping learners explore new ways of learning, metacognitive instruction also reduces language anxiety and builds confidence when approaching listening tasks.

Our study has convinced us that primary school pupils can benefit from metacognitive instruction as much as older learners. They are also able to articulate their task and strategy knowledge about listening. However, their knowledge is limited and needs to be developed. One way of doing this, as our study demonstrated, is through individual introspection and process-based discussions. In addition, young learners would benefit from explicit teaching of strategies through procedures such as those described at the beginning of this article. As the pupils in our study have shown, young learners might have a limited repertoire of comprehension strategies, but they can quickly adopt new ones.

Young learners will, however, need more guidance from their teachers in mediating their perceptions about strategies and task demands. As children are still developing cognitively, they are often unable to adopt multiple perspectives on many things, including the uses of specific strategies and how their application might change according to task demands. The pupils in our study tended to hold only one view about each strategy—that it was either useful or not useful. Young learners can be helped to see that not all strategies are appropriate for all tasks, and that the effectiveness of strategies is often influenced by various factors.

Finally, for a comprehensive programme in metacognitive instruction, we recommend using a variety of methods which include reflection and discussion, teacher modelling, integrated sequences of activities that focus alternately on text and process, as well as perception practice that

facilitates recognition of segments of speech. This last method was not used in our study but we intend to incorporate it in future instruction because it can potentially increase learners' task knowledge—the characteristics and demands of connected speech. Thus, by focusing explicitly on person, task, and strategy knowledge, metacognitive instruction will raise learners' awareness of key aspects of the listening process. This can help them develop a range of skills and strategies for listening. Such a programme will also ensure that metacognitive instruction in listening remains fresh and relevant for the learners.

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Notes

i   'Anyhow' is an adverbial phrase found mainly in colloquial speech to mean 'without careful consideration'.
ii   This comment was made by a male student.
iii A colloquial expression which means trying to control one's state of mind.

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Appendix

I can be more aware of my thoughts when I listen and get some useful information from them that can help me. I am able to concentrate on the text better and ignore distractions. Try to prepare myself before the

exams and be confident before it. If I miss any information, I will take note of where they can be found and be extra attentive during the second reading. I am able to calm myself if I ran into any difficult and unknown words and try to guess their meaning. If I really cannot guess the meaning of the words, I will use logical reasoning to find out the answer. Even if the text is boring, I will try to concentrate and picture the text in my mind to make it more interesting. If the speaker is too fast, I will catch only the important points of the passage that can help me in my questions. My listening ability has improved and it also help me to catch more information when I communicate with others, watch TV or listen to radio, etc.

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