

## **The Impact of the Podcast (BBC Sounds) to Raise Metacognitive Awareness in Developing L2 Listening Comprehension among Bangladeshi Undergraduate Learners**

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### **Abstract**

Drawing on Vandergrift's (2006) metacognitive awareness-raising listening questionnaire and podcast technology to expedite undergraduate L2 listening comprehension, this study explored whether podcasts helped learners develop listening comprehension and metacognitive awareness. The purpose of this study is to examine a) does a podcast, 'BBC sounds', play a role in improving learners' listening comprehension, and b) to what extent do listening comprehension and metacognitive awareness help learners improve learning? To apprehend the research objectives, twenty Bangladeshi undergraduate EFL learners in the experimental group (n = 10) and the control group (n = 10) attended the intervention for five weeks during the COVID- 19 pandemic. Participants of the experimental group received metacognitive instruction accompanying five transactional listening texts from the podcast BBC Sounds and performed on the worksheets based on the pedagogical sequence for listening instruction designed by Vandergrift and Goh (2012). Simultaneously, control group participants attended the same podcast texts but the traditional product-based approach and performed the worksheets with comprehension questions. Both groups attended pre-test, post-test, and two metacognitive awareness listening questionnaires (MALQ) before and after the intervention. The quantitative method of research embodied the notion of triangulation for this study. Using one-way within-subject ANOVA, the results revealed a positive correlation ( $r = 0.63$ ) between metacognitive awareness and L2 listening comprehension, which accounted for the total variance in the data. This study implied that podcasts twinned with metacognitive instruction could help learners develop L2 listening in terms of decoding and meaning-building processing by raising their metacognitive awareness and be used by teachers to guide them to learn to listen systematically.

*Keywords:* L2 listening comprehension, podcast, MALQ, metacognitive awareness

### **Introduction**

'Cinderella' (Mendelsohn, 1994) of the four language skills, listening plays a central role in language learning theory. It has become more clearly defined in the last four decades, and the strategies contributing to effective listening have become better understood. In our department's curriculum, like other curricula of public and private universities in Bangladesh, "...listening is considered a mysterious "black box" (Rost, 2001). Hence, learners are expected to acquire listening skills by osmosis. In other words, conventionally listening comprehension lessons help neither improve the effectiveness of

listening nor address the shortcomings the learners encounter in language learning contexts. They experienced difficulties in terms of linguistic features and the meaning of the listening texts. There is hardly any attention paid to the process of listening; rather focuses on the correct outcomes of listening. The stance of this listening approach relied on 'product rather than process' (Field, 1998).

Compounding this regrettable situation, many language learners attribute their difficulties in listening to their low ability and significant problem of listening to texts or tasks with little awareness or understanding of their ineffective strategy use (Graham, 2006). This situation leads learners to be 'demotivated, resigned to being less effective listeners' (Graham, 2006). At this moment, adding more texts to listeners develops a sense of failure (Field, 2000; Graham, 2006). To make more controlled and developed L2 listeners, a "radical restructuring of language pedagogy" (Allwright, 1988), which is a metacognitive instruction in L2 listening comprehension (Vandergrift and Goh, 2012), is the needs of the time and space. Studies by Field (1998), Goh (2000, 2002a, b), Vandergrift (2002, 2003b), Victori and Lockhart (1995), Wilson (2003), and Wu et al. (1998) appear to justify metacognitive instruction in L2 listeners' comprehension problems installing metacognitive knowledge and their listening skills. Educational and cognitive psychology research has revealed the intricate relationship between metacognitive awareness and L2 listening (Rivers, 2001; Veenman and Spaans, 2005). These interrelationships and their possible effects on learners' comprehension have not been investigated in the field of L2 listening research, taking into account L2 listening pedagogy in Bangladesh amply. Hence, to raise metacognitive awareness in developing L2 listening comprehension among Bangladeshi undergraduate learners, metacognitive instruction and BBC Sounds podcast were applied to investigate a) if "BBC sounds" helps improve learners' listening comprehension and b) if listening comprehension and metacognitive awareness attempt to help learners improve learning.

## **Literature review**

Technology Enhanced Language Learning has been a standard practice for many decades and has now become an inseparable part of imparting teaching during the pandemic COVID-19. According to Chapelle (2010), within the domain of technology-enhanced language learning, Computer Assisted Language Learning (CALL) denotes "a variety of technology uses for language learning, including CD-ROMs containing interactive multimedia and other language exercises, electronic reference materials such as online dictionaries and grammar checkers, and electronic communication in the target language through emails, blogs and wikis" (Chapelle, 2010). Recently it has included diverse Web 2.0 and mobile applications. According to Burston (2014), before the pandemic COVID-19, the field of Mobile Assisted Language Learning (MALL), "remains marginal in terms of the number of students and courses involved, the duration of implementations, the language skills targeted, the kinds of learning activities undertaken, and the methodological approach used" (Burston, 2014, p. 103). However, this situation turns upside down with the available devices to conduct, perform and attend the classes. Therefore, mobile learning, which is the process of knowledge construction developing skills, provides performance support to allow stakeholders, students, teachers and educational institutions to engage in learning across various locations, times,

situations, and contexts mediated by mobile devices. Mobile devices have led to a dramatic change in lifestyles, communication patterns, and education. However, it is natural to gauge the feasibility of applying this sophisticated handheld device to harness our educational goals ranging from extending and enhancing learning opportunities and improving students' achievement to supporting learners across different learning needs, styles, and goals (Kukulka-Hulme, 2009). Therefore, mobility is the principal factor that separates this form of learning from other forms of technology-supported learning (El-Hussein & Cronje, 2010; Hockly, 2012; Kim & Kwon, 2012; Kukulka-Hulme, 2009; Kukulka-Hulme & Shield, 2008; Sharples et al., 2009). Then, mobility at different levels is identified, rendering it during L2 listening teaching inside and outside the classroom.

The device's mobility is brought by portable technologies such as smartphones, personal digital assistants (PDAs), iPods, palmtops, etc. (Naismith et al., 2004). Mobile Learning has usually been anchored on mobile technology (Kukulka-Hulme & Shield, 2008; Sharples et al., 2009) and the type of mobile devices and their significant role in the teaching and learning context and the nature of learning within its purview. Hence, any form of formal or informal learning facilitated by portable handheld devices accessible anytime, anywhere is considered mobile learning. According to Sharples et al. (2009), mobile learning provides a combined mobility experience on several levels: "mobility of physical space, mobility of technology and 'mobility' in conceptual space, mobility in social space and learning dispersed over time" (Sharples et al., 2009). Here, mobility of physical space refers to the movement of learners and implies that learning can occur anywhere, irrespective of location. In other words, learning is now possible in spaces other than the classroom vividly exposed during pandemic COVID-19.

Moreover, the mobility of technology is not just limited to the use of portable technologies but also specifies how these can help learning become ubiquitous. Kukulka-Hulme (2008) observed, for instance, that learners can seamlessly transfer attention from one device to another. Mobility of conceptual space considers how the themes and purposes of learning can shift according to the learners' interests. Finally, mobile technology mainly includes advanced mobile devices like smartphones and handheld computers like PDAs. With the help of Wireless Application Protocols (WAP) and Wi-Fi capabilities, disseminating learning content and instructions through the Internet becomes effortless. Therefore, learners can have access to learning content anytime, anywhere. Thus, during the COVID-19 pandemic at the undergraduate level, mobile learning allows learners to mobility and learn with ease when they want, where they want, and personally. Mobile learning can be personalised, learner-centred, self-paced, situated, authentic, and spontaneous, and provide informal and lifelong learning (El-Hussein & Cronje, 2010; Kukulka-Hulme, 2009; Sharples, Taylor and Vavoula, 2005). It could help empower learners and give them a sense of autonomy and control over their learning process. On the other hand, mobile learning is crucial from a pedagogical perspective. Self-paced learning is relevant to mobile learning like other learning theories; behaviourism, cognitivism, constructivism, situated learning, collaborative learning, and informal and lifelong learning (Keskin and Metcalf, 2011; Naismith et al., 2004).

### ***Mobile assisted language learning (MALL)***

The advent of handheld devices has led to the rise of Mobile Assisted Language Learning (MALL). While studies show the role mobile learning can play to enhance the learning and teaching of vocabulary or grammar, among other things, the affordances of the device naturally give scope for the development of listening and speaking skills in particular (Cooney and Keogh, 2007; Demouy and Kukulska-Hulme, 2010; Kessler, 2010). This study looks at how teaching and learning of L2 listening have been explored using mobile technology. Focusing on the effectiveness of medium and student readiness delivery content is noteworthy.

Though these studies pushed the boundaries of integrating mobile technology into language learning, rapid advances in multimedia and Web 2.0 technologies resulted in an inquiry into their audio and video capabilities for teaching listening. The advent of Web 2.0 technologies brought the medium of podcasts that are accessed as downloadable applications. MALL studies have significantly demonstrated the application of audio podcasts to deliver learning materials and authentic language samples. Therefore, this study attempted to discuss and examine podcasts and their design to teach L2 listening with the help of metacognitive instruction and how they can contribute to language learning.

### ***Podcasting: the technology and the medium***

Podcasts are audio files usually available in an mp3 format that can be downloaded easily from the Internet. It is a medium of distributing audio files over the Internet by subscribing to options like RSS or Really Simple Syndication. The scope of a podcast is wide-ranging like the 'radio'; it stands for "both the content and the method of delivery" (Rosell-Aguilar, 2007, p. 472). Podcasting uses RSS, differentiating it from a simple download or online streaming. Nevertheless, these audios are distinct from other forms of audio content available on the Internet since they are delivered automatically to the devices, enabling subscribers to listen to podcasts whenever and wherever they choose (Diem, 2005, Sloan, 2005).

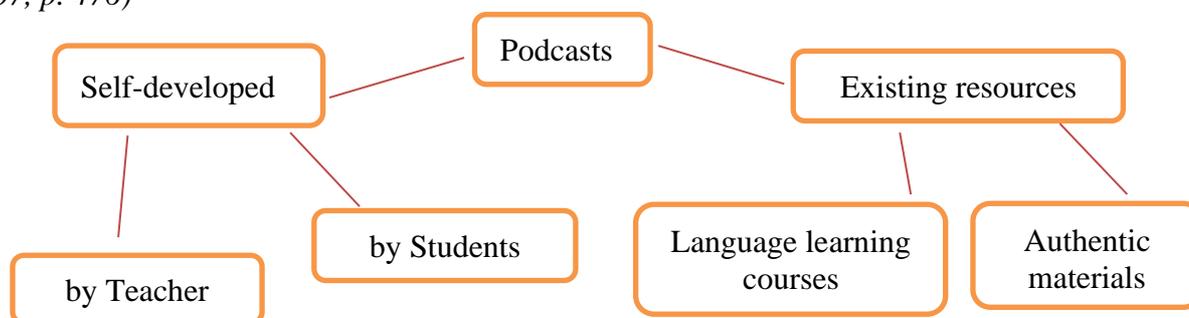
Demouy et al. (2010) studied learners' experiences using their own portable devices for practising listening outside the class while learning French through a distance program. The findings showed that the participants found the practice helpful for the overall development of listening skills, understanding and recognising grammatical points, vocabulary, intonation, and pronunciation. Nah, White and Sussex (2008) studied a wireless application protocol (WAP) site and allowed learners to access it from their mobile phones for listening activities. The site included pre-, during-, and post-listening tasks, an audio-only input, and a mobile and portable discussion board. Learners had to complete the tasks weekly and submit responses by email. The Findings showed that this medium had the potential for student-centred and collaborative learning. It found the medium effective for developing learners' listening skills through this platform was the lack of ease of navigation through the tasks. Since the focus of both studies was on content delivery only, hardly any information on the teaching aspect of the intervention or the nature of tasks used to develop listening was provided. Therefore, the need for instruction is the demand for this study.

## Podcast Design

Podcast content includes audio, video, images, music, and ancillary materials (Rosell-Aguilar, 2007). There are thousands of podcasts available to adapt as authentic material, but for the classroom, the validity and reliability of those as instructional material are not always viable. Therefore, among a series of podcasts, the 'BBC SOUNDS' produced published by the British Broadcasting Corporation or the BBC (BBC.co.uk) was selected for this study due to its British accent, pace, length, complexity and variety of texts for different levels and accessibility. Furthermore, it was found in either classic or contemporary style and can be used in a lecture-style design. To comprehend the use of podcasts in the classroom, Aguilar (2007) created a taxonomy of uses of podcasting and content creators to provide the current scenario in podcasting as a tool for language learning.

Figure 1

*Taxonomy of uses of podcasting for language learning (adapted from Rosell-Aguilar, 2007, p. 476)*



## Podcasting and language learning pedagogy

Two potential aspects of podcasting, creating content and using existing and available resources online, were explored by incorporating teaching language by applying SLA theories (Diem, 2005; Stanley, 2006 and Aguilar, 2007). Aguilar (2007) attempted to evaluate the resources available based on SLA theories because of their free access to language learning materials and authentic input. He argued to establish a concrete pedagogical value, principles and patterns of task design and demonstrate the benefits of using podcasts as a learning resource. For this study, constructivism and informal and lifelong learning theories provide rationale supporting the use of podcasts in language education. Because Aguilar (2007) said that the use of authentic materials and mobile learning imparted theoretical sup, based on this support, the domain of podcasting allowed individual learners to explore, observe, process, and interpret the incoming information and ultimately construct knowledge (Cooper, 1993). Though it is considered that podcasting may fail to provide a social context to facilitate learning, Ellis (1999) argued that it is not the only contributing factor that promotes learning.

Additionally, Web 2.0 platforms providing many contents and linking the podcasts to their websites and blogs can be applied as transactional and authentic texts, another aspect of the framework. Since authentic materials facilitate language learning by demonstrating the usage of the language (Ryan, 1997) and providing exposure to the communicative world of the target language community (Little, 1997), podcasts, a massive resource of accessible materials to the target language and culture, are a great

way of understanding that language by noticing vocabulary, grammatical structures, or phonological features of that language. Again, the theories of informal and lifelong learning support the use of podcasts due to “their enabling capability of any time, anywhere learning” (Rosell-Aguilar, 2007). Simultaneously, intentional or accidental, podcasting can be operative learning in the traditional learning environment. Naismith et al. (2005) claimed that taking learning outside the class “by default embeds learning in everyday life” (p.3). Since podcasting posits suitably within the field of mobile learning, which supports “spontaneous, personal, informal, contextual, portable, ubiquitous and pervasive” (Kukulska-Hulme, 2005, p. 2), it also can enable formal learning within the classroom and informal and formal learning outside the classroom, in a structured and sequential manner (Kukulska-Hulme, 2009). From the lens of pedagogy and learning, podcasting can help develop chunking of information into smaller, manageable portions to facilitate information processing (Ally, 2004) and didactic and discursive learning. According to Kukulska-Hulme and Traxler (2005), didactic mobile learning is “learning from mobile educational material...in a way that responds to the potential and limitations of mobile devices” (Kukulska-Hulme & Traxler, 2005, p. 26). However, discursive mobile learning incorporates the interaction patterns between mobile learners. The distinction between them exists in using the mobility of the resources to distribute content and creating opportunities for learners to interact and connect to co-construct knowledge.

On the one hand, content providers rarely provide opportunities for learners to interact constructively. On the other hand, an interaction that is not structured and guided and is accessed by demography with a full-time job (Rosell-Aguilar, 2013) is rarely explored as primary or supplementary classroom learning materials. Therefore, this study aims to observe the individual patterns of use of podcasts as materials for promoting self-regulated listening practice, thereby limiting it to didactic learning using metacognitive instruction. For this, Aguilar's (2007) suggestions were considered to select and use podcasts for the language-learning course are as follows:

- provide exposure to the language and its characteristics;
- use a range of materials, including authentic materials;
- provide explicit learning outcomes with clear objectives within a defined syllabus;
- provide exposure to the culture of the areas where the target language is spoken;
- be engaging and of adequate length;
- have a clear consideration of the medium: including portability and screen size (Rosell-Aguilar, 2007, p. 489).

Therefore, considering various aspects of the usability of podcasts as listening material, BBC Sounds podcast was selected, and five transactional listening texts on five different topics and contents were used for this study. After finalising the listening texts, tasks are designed based on the metacognitive instruction to see if the podcast and metacognitive instruction help learners raise their metacognitive awareness for successful listening performance.

### **Metacognition: Knowledge and Strategies**

Metacognition became relevant to language learning when Wenden (1987) articulated its role in fostering learner autonomy and differentiating cognitive processes

between learners. Wenden (1991) said that a good language learner is metacognitively aware, self-directed, and can take charge of their learning. Metacognition implies a state of consciousness, awareness, or understanding of our thoughts as we focus on a particular cognitive or learning situation. Flavell (1979) stated that metacognition was manifested in two ways; by experiencing a distinct thought that is different from the usual train of thought or by recalling a memory from stored knowledge related to that train of thought. Metacognition plays an overarching and defining role in managing to learn, and strategies are metacognitive as they help learners manage constructively the way they understand, learn and use language. Learners who develop metacognitive awareness acquire a sense of organisation as they gradually gain more control over their learning process through problem-solving and understanding of what is being learned. Goh (2002) and Vandergrift (1997; 2003a) established and confirmed findings from previous studies indicating that an effective listener employs cognitive and metacognitive strategies to arrive at a meaningful and possibly complete understanding of a text. Vandergrift and Goh (2012) proposed a metacognitive framework for listening instruction that draws on experience, knowledge, and strategies to develop metacognitive awareness and a sense of self-efficacy and motivation. Metacognitive awareness can help learners become self-knowing, self-directed, and self-managed in their learning.

According to Flavell (1979), learners store three kinds of knowledge about cognition – person, task, and strategy. This knowledge is "similar in structure and function to other knowledge in long-term memory" (Borkowski, 1996). Person Knowledge is about self, how you view yourself as a learner and your beliefs about success or failure in learning. It also includes knowledge of the factors that affect one's learning. Task Knowledge is the second type of metacognitive knowledge, which involves knowing the task's nature, purpose, and demands. It also considers the knowledge of "how to approach and complete a real-life listening task" (Vandergrift and Goh, 2012). Strategy Knowledge is the third type of metacognitive knowledge which is an awareness of the different strategies that can help accomplish a listening goal, short-term or long-term.

Flavell's model of metacognitive knowledge served as a guide to developing the Metacognitive Awareness Listening Questionnaire (MALQ) (Vandergrift, 2006). The three categories of knowledge, Person, Task, and Strategy Knowledge, represent "key components in cognitive self-appraisal" (Vandergrift, 2006, p. 433). Raising learners' metacognitive knowledge about listening has been supported now (e.g. Mendelsohn, 1994). While some studies have utilised diaries to explore learner knowledge and strategies (Goh, 1997; 2000), others have utilised questionnaires to investigate the usefulness of listening strategies (Zhang, 2001). Vandergrift (2002, 2003a) also studied the role of a metacognitive pedagogical cycle in developing metacognitive knowledge, self-regulated listening, and building confidence in enhancing listening abilities. A spectrum of tools was used to investigate the various aspects of metacognitive knowledge. A valid instrument guided by the constructs of learning strategies, listening comprehension, metacognition, and self-regulation needed to be developed to tap into the awareness of the language learning processes of L2 listening. The Metacognitive Awareness Listening Questionnaire, or MALQ, was developed by Vandergrift (2006) "to assess the learners' metacognitive awareness and their perceived use of strategies" (Vandergrift and Goh, 2012). The MALQ draws mainly on the three aspects of metacognitive knowledge. It is an inventory of 21 items covering five distinct aspects of

listening: Problem Solving, Planning and Evaluation, Mental Translation, Person Knowledge, and Directed Attention. Although the MALQ was designed to be a research instrument, individual learners can use it for self-assessment purposes to determine their current level of metacognitive awareness and to track the development of their strategy use/listening awareness over time. The MALQ can be particularly helpful in positively influencing students' attitudes, perceptions and understanding of the listening process. Ultimately, they can automatically become confident and skilled listeners who self-regulate metacognitive comprehension processes.

Table 1

*Metacognitive Pedagogical Sequence for listening instruction (Vandergrift and Tafaghodtari, 2010)*

<b>Pedagogical Stages (for generic listening activities)</b>	<b>Metacognitive Processes</b>
1. Pre-listening: Planning/Predicting Stage	1. Planning
2. First listen: First verification stage a. verify initial hypotheses, correct as required, and note additional information	2.a. Monitoring and evaluation
b. compare what has been understood, modify as required, establish what still needs resolution, and decide on important details that require special attention.	2. b. Monitoring, evaluation, and planning
3. Second listen: Second verification stage a. verify points of earlier disagreement, make corrections, and write down additional details understood.	3.a. Monitoring, evaluation, and problem-solving
b. Class discussion in which all class members contribute to reconstructing the text's main point and most pertinent details, interspersed with reflection on how learners arrived at the meaning of certain words or arts of text.	3.b. Monitoring, evaluation, and problem-solving
4. Third listen: Final verification stage Listen specifically for the information revealed in the class discussion that was not made out earlier. This listen may also be accompanied by the transcript of all or parts of the text.	4. Monitoring and problem-solving
5. Reflection and goal-setting stage Based on the earlier discussion of strategies used to compensate for what was not understood, learners write goals for the next listening activity.	5. Monitoring and Planning

It is an awareness-raising tool that helps learners understand their processes while listening to a spoken text. In addition to using podcasts as a part of the listening instruction, the following framework of metacognitive instruction (Vandergrift and Goh, 2012) was adopted as a part of the process-based instruction that drives the conceptual framework of this study. Each stage is designed to target specific metacognitive strategies that may provide exposure and advanced listening learning.

## **The Study**

### **Research Questions**

1. Does a podcast, “BBC sounds”, twinned with metacognitive instruction play a role in improving learners' listening comprehension? and
2. Is there a relationship between listening comprehension and metacognitive awareness among the learners?

## **Methodology**

The study was conducted with twenty Bangladeshi undergraduate EFL learners ( $n = 20$ ) of a private university in the experimental group ( $n = 10$ ) and the control group ( $n = 10$ ) and applied a quasi-experimental research design facing the limitation in choosing learners randomly (Creswell and Clark, 2011). These learners aged 17 to 22 years are Bangla-speaking and have been exposed to English academically for 12 years, and their listening hours tentatively are 7.62 ( $\mu$ ) hours per week. They used for their listening, “out of the syllabus” material (70%) but all of them are self-learning materials (83%), which mainly were news in English in British accents.

### ***Materials***

L2 listening texts used for this study were from the BBC Sounds podcast. Thirteen transactional texts were applied during the pre-test (four texts), intervention (five texts) and post-test (four texts) of various genres. For the pre-test and post-test, narrative texts, sorting texts, problem-solving texts, cause, and effect texts, and decoding texts of assimilation were used to gauge their changes before and after the intervention based on the three listening sub-skills for both groups. For intervention, a narrative text, a sorting text, two problem-solving texts, and a cause-and-effect text were applied for both groups. Still, the experimental group used five worksheets designed on metacognitive instruction (Vandergrift and Goh, 2012), and the control group with five product-oriented designed worksheets.

### ***Instruments***

***Metacognitive awareness listening questionnaire (MALQ)***

The metacognitive awareness listening questionnaire (MALQ) is a robust psychometric questionnaire containing a 21-statement on six grades Likert scale without a neutral point (Vandergrift, 2006). MALQ has five factors to ascertain learners' metacognitive awareness; i) planning and evaluation, ii) person knowledge, iii) problem-solving, iv) directed attention, and v) mental translation (Vandergrift and Goh, 2012).

Table 2

*Five factors and their statement numbers in the metacognitive awareness listening questionnaire (MALQ) (Vandergrift and Goh, 2012)*

<b>Factors of the MALQ.</b>	<b>Item numbers</b>
Planning and Evaluation	1, 10, 14, 20, 21
Person Knowledge	3, 8, 15
Problem- solving	5, 7, 9, 13, 17, 19
Directed Attention	2, 6, 12, 16
Mental Translation	4, 11, 18

The MALQ is not to test with right or wrong answers but to gauge learners' use of metacognitive strategies and their honest responses. The MALQ was administrated after the pre-test and post-test conducted at the beginning and the end of the five-week intervention.

### **Tests**

Learners of both groups attended two tests at the beginning and at the end of the intervention, a pre-test and a post-test, respectively, to measure their changes. These tests were for forty minutes, followed by twenty minutes of MALQs. The tests were to measure the impact of the BBC Sounds podcast to raise metacognitive awareness in facilitating their L2 listening comprehension consisting of forty multiple-choice questions (MCQ). Each test also consisted of three listening sub-skills: listening for factual information, inference, and listening for decoding. Each text for the test had contemporary subject matters, British accents, and real-world conversation with natural speech flow.

For this study, the quantitative method research embodied the notion of triangulation. Three phases of this study were administrating a background questionnaire and a pre-test followed by the MALQ, an intervention of five-week with metacognitive instruction, and a post-test followed by the MALQ for the experimental group. For the control group, of three phases, only the five-week intervention phase was the product-oriented traditional approach with the same five texts. All the response sheets were calculated, analysed and interpreted the data running the SPSS version 26.

## **Results and discussion**

R. Q.: 1. Does a podcast, “BBC sounds”, twinned with metacognitive instruction play a role in improving learners' listening comprehension?

The statistical findings for this research question from the pre-test and post-test data for listening comprehension reveal that learners of the experimental group ( $\mu = 30.1$ ,  $SD = 4.41$ ) outperformed those of the control group ( $\mu = 19.8$ ,  $SD = 7.03$ ). Before conducting the independent  $t$ -test, Levene's homogeneity of variance test was analysed and found that  $F(1,15) = 19.7$ ,  $p = 1.07$ . It divulged that Levene's test was non-significant and equal variances were assumed. So, the variances are of the same nature. Then, the independent  $t$ -test was run between the pre-and post-test of the experimental and control group and found  $t(15) = 3.9$ ,  $p = 0.001$ . Cohen's  $d$  (1.8) was analysed to check the effect of the listening comprehension and found 18% of the total variance of the data.

To measure the rigour of the analysis mentioned above, the use of metacognitive strategies of learners before and after the intervention would justify. Therefore, one-way within-subjects ANOVA on the MALQ would run and found that directed attention ( $\mu = 5.2$ ) was used the most and planning and evaluation ( $\mu = 4.7$ ) was the second most, but person knowledge ( $\mu = 2.7$ ) was used the least.

**Table 3**

*ANOVA<sup>a</sup> of the L2 listening comprehension score on the MALQ score*

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	5611.12	5	1122.22	301.95	0.00 <sup>b</sup>	2.39
Within Groups	200.69	54	3.72			
Total	5811.82	59				

a. Dependent Variable: Listening Comprehension

b. Predictors: (Constant), Problem-solving, Mental translation, Person knowledge, Directed attention, planning and evaluation.

But, problem-solving ( $\mu = 4.3$ ) and mental translation ( $\mu = 4.2$ ) were also used moderately. The statistics of the analysis of variance revealed  $F(5,54) = 301.95$ , where  $p$ -value  $< 0.01$ , which is significant. Based on this one-way within-subjects ANOVA analysis, the regression analysis of the scores of the MALQ and L2 listening comprehension of the experimental group was  $r = 0.63$  and  $r^2 = 0.40$ . The findings revealed that 63% of learners frequently used metacognitive strategies for their L2 listening comprehension. But the control group did not show any improvement in their metacognitive awareness and thus, no listening comprehension improvement was found.

R. Q.:2. Is there a relationship between listening comprehension and metacognitive awareness among the learners?

Statistically, to see the robustness of the MALQ and L2 listening comprehension, the Pearson correlation (2-tailed) was interpreted. The confirmatory factor analysis of the experimental group learners (Table 4) reflected Vandergrift (2006) study on the correlation between the MALQ and L2 listening where French is the second language listening comprehension.

Table 4  
*Correlation of MALQ factors and L2 listening comprehension.*

		Planning and evaluation	Directed attention	Person knowledge	Mental translation	Problem- solving	Listening Comprehension
Planning and evaluation	Pearson	1					
	Correlation						
	Sig. (2-tailed)						
	N						
Directed attention	Pearson	<b>.422**</b>	1				
	Correlation						
	Sig. (2-tailed)	.002					
	N	10					
Person knowledge	Pearson	<b>.091**</b>	<b>.782*</b>	1			
	Correlation						
	Sig. (2-tailed)	.003	.035				
	N	10	10				
Mental translation	Pearson	.623	-.091	.020	1		
	Correlation						
	Sig. (2-tailed)	.204	.521	.887			
	N	10	10	10			
Problem- solving	Pearson	<b>.264**</b>	<b>.163**</b>	<b>.244**</b>	<b>.621*</b>	1	
	Correlation						
	Sig. (2-tailed)	.007	.004	.003	.02		
	N	10	10	10	10		
Listening Comprehension	Pearson	<b>.573**</b>	<b>.371**</b>	.176	.030	<b>.342**</b>	1
	Correlation						
	Sig. (2-tailed)	.005	.006	.104	.005	.004	
	N	10	10	10	10	10	

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

But the result of the Pearson correlation in this study revealed that person knowledge and directed attention had the positive strongest relationships for this group of learners ( $r = .782$ ,  $p = .035$ , which is  $p < .05$ ) and mental translation with planning and evaluation, directed attention, person knowledge, and listening comprehension had no

significant relationships statistically at all where L2 listening comprehension was in English. Simultaneously, this table also showed that listening comprehension and planning and evaluation ( $r = .573, p = .005$ ), directed attention and planning and evaluation ( $r = .422, p = .002$ ), listening comprehension and directed attention ( $r = .371, p = .006$ ) and listening comprehension and problem-solving ( $r = .342, p = .004$ ) had strong positive relationships. However, problem-solving and mental translation had a positive correlation ( $r = .621, p = .02$ ) at the level of 95%. Therefore, it is evident that the metacognitive awareness of learners increased after the intervention, which leads them to successful L2 listening comprehension.

## **Conclusions**

This study implied that learners of the experimental group used the BBC Sounds transcended those of the control group. The podcast, the BBC Sounds, applied with the worksheet designed based on metacognitive instruction, helped Bangladeshi undergraduate EFL learners of the experimental group develop successful L2 listening comprehension. Contrarily, learners who attended the same podcasts applied with the worksheets traditionally designed with a product-based approach did not improve their L2 listening comprehension since their metacognitive awareness did not increase. Learners of the experimental group demonstrated an increase in their use of metacognitive strategies, especially in directed attention, planning and evaluation and problem-solving. They also showed a high positive correlation between them in achieving learners' success in L2 listening comprehension. Considering the statistics and success in listening comprehension of learners, the impact of the podcast, the BBC Sounds, by and large, is realised to apply in the classroom with metacognitive instruction. As metacognitive instruction is embedded in the listening processes using various metacognitive strategies, successful listeners of this study also substantiated the evidence of positive orchestration of metacognitive strategies while comprehending their listening. Therefore, the BBC Sounds podcasts or any other podcasts paired with metacognitive instruction could be recommended as material for developing L2 listening comprehension. Policymakers could be apprised of the BBC Sounds twinned with metacognitive instruction in the course and language proficiency developing courses.

Furthermore, teachers could use these as additional materials to develop learners' efficiency in L2 listening comprehension if it was not advised in the syllabus. However, the study's drawbacks were the sample size of the participants and the conducting of classes online at the peak of the COVID-19 pandemic in the country as learners were hit by the scarcity of gadgets, internet connectivity, and electricity supplies. Moreover, the intervention period was only a few weeks. Hence, conducting this study for more extended periods with a larger sample size and in-person class in the Bangladeshi context is advisable.

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