

Effects of discourse marker instruction on EFL learners' listening comprehension

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Although English listening comprehension has been extensively researched, few studies have investigated the role of discourse markers (DMs) in EFL learners' listening comprehension. Hence, the study reported here investigated the effect of the teaching of DMs on Taiwanese EFL learners' listening comprehension. A total of 72 ninth-grade students recruited from two intact classes in a junior high school participated in this study. They were randomly assigned to DM and non-DM groups. The DM group received 14 weeks of DM instruction. After the intervention period, both groups were tested using multiple-choice questions, recall questions, and a summary at the post-test stage. A *t* test was applied to compare the comprehension scores of the two groups. The results demonstrate that the DM group significantly outperformed the non-DM group during the post-test stage. For the DM group, the presence of DMs in the listening comprehension texts not only facilitated global comprehension but also assisted the students in retaining detailed information. DMs activate prior knowledge, provide more processing time, distinguish major and minor ideas, indicate speakers' intentions, and reduce anxiety. By contrast, few participants in the non-DM group utilized DMs to enhance listening comprehension.

Keywords: discourse markers; listening comprehension; EFL learners; Taiwan

Introduction

Researchers have increasingly focused on EFL listening because it provides input for language learners and is regarded as a pre-requisite for acquiring other language skills (Field, 2011; Lynch, 2011; Nation & Newton, 2009). In Taiwan, an English listening comprehension test was added to the Comprehensive Assessment Program for Junior High School Students (CAP) in 2015 to measure listening ability in real-world communication (Research Center for Psychological and Educational Testing, 2005).

Active listeners constantly predict messages on the basis of their prior knowledge, including content and form schemata (Zarei & Mahmudi, 2012). To comprehend the relationship among utterances in conversation, listeners must have prior knowledge of text organization, which is indicated by discourse markers (Bachman, 1990) which are closely related to listening comprehension (Carter & McCarthy, 2006; Haig, 2008; Syam, 2013) and guide listeners in interpreting incoming information, evaluating the relative importance of ideas, and recognizing relationships among the ideas (McCarthy, 2011; X. Zhang, 2012).

Although discourse markers (DMs) are frequently used in spoken English and play a substantial role in listening, they are often mistaken for useless or redundant elements (Carter & McCarthy, 2006; Fraser, 2009; Fung & Carter, 2007). The teaching of DMs is avoided because they are among the most difficult features of spoken English to explain

to learners (Huang, 2011). Thus, although English listening comprehension has been extensively investigated in Taiwan, the role of DMs in EFL learners' listening comprehension has not been explored. Hence, the current study investigated whether DM instruction promotes EFL learners' listening comprehension, and listeners' perceptions of the role of DMs in English listening comprehension.

The paper starts with a brief review of the literature about the role of DMs in English listening comprehension and empirical studies on EFL listening comprehension in Taiwan. Next, the intervention programme and method are introduced. Then the results are discussed. Finally, three pedagogical implications are suggested.

Literature review

Discourse markers

DMs are words or phrases that guide readers and listeners to interpret incoming information (Carter & McCarthy, 2006). Fraser (2009, p. 167) defined them as "pragmatic markers" that show the speaker's communicative purposes and provide a commentary on the utterance that follows. There are two types of DMs: macro- and micro-markers (Chaudron & Richards, 1986; Jordan, 2006; Jung, 2003), as exemplified in Table 1. Macro-DMs are global information markers that signal the relationship among major propositions or designate crucial transitional points during discourse. Macro-DMs indicate the overall organization of lectures by highlighting major information and are the signals or metastatements regarding major propositions. Micro-DMs signal local information in texts, marking the intersentential relationships of functions.

DMs are cohesive ties that act as connectives and signal the structure of a piece of discourse; they are used by the speaker to indicate what is being stated, how it is being stated, and how it relates to what was stated (McCarthy, 2011). DMs convey the speaker's attitude, communicative purposes, and emotions. DMs can be employed to monitor topic development as well as indicate speakers' perspectives and emotional reactions (Blakemore, 2002; Fraser, 2009).

Table 1. Classifications and functions of micro- and macro-DMs (adapted from Jordan, 2006, p. 184)

Categories	Functions	Examples
Micro-DMs	Segmentation	well, OK, now, and, right, (all) right
	Temporal	eventually, at that time, after this, for the moment
	Causal	so, then, because
	Contrast	but, only, on the other hand
	Emphasis	of course, you see/know, actually, obviously, in fact
	Code glosses	for example
	Hedges	perhaps, maybe
Macro-DMs	Previews	to begin with, you probably know something about there are four stages of
	Summarizers	let me summarize
	Emphasis markers	this/that is why
	Logical connectives	first, the next thing is, and

Empirical research on the role of DMs in listening comprehension

According to Flowerdew and Miller (2012), DMs play a crucial role in facilitating learners' listening comprehension. Additionally, DMs indicate the relationship and relative importance of ideas, and are beneficial clues regarding changes of direction in a conversation, coherence, and speakers' communicative intentions. Researchers have maintained that L2 learners' listening comprehension is increased when DMs are present in a text (S. Chen, 2014; Jung, 2003; Rido, 2010) whereas a lack of DMs results in L2 learners' misinterpretation of a text (X. Zhang, 2012). L2 listeners who use texts with DMs recall more information and more crucial ideas and thus perform better when tested (Richards, 2006).

Some researchers have confirmed that DM instruction facilitates listening comprehension (Chaudron & Richards, 1986; Eslami & Eslami-Rasekh, 2007; Sadeghi & Heidaryan, 2012), in particular, improving when listeners are aware of textual metadiscourse (Simin & Tavangar, 2009). This awareness enables learners to interpret a text, determine its global structure, and infer its meaning.

Although the presence of DMs is a distinct feature of spoken English, they are often treated as fillers and considered to be devoid of meaning and function in language classes (Fung & Carter, 2007). Some EFL learners might not be able to utilize DMs to identify the entire structure of a listening text, thus failing to distinguish main from minor ideas. Moreover, although the role of DMs in reading comprehension has been researched extensively in Taiwan (K. T.-C. Chen & Chen, 2015; Chu, Swaffar, & Charney, 2002; Li, 2010; Lin, 2014; Yau, 2009a, 2009b), there is little research on their role in facilitating listening comprehension in Taiwan (or other EFL contexts).

Empirical studies on EFL listening comprehension in Taiwan

Listening comprehension is a precursor to acquiring other skills for language learners (Kim & Phillips, 2014) and is an essential component of communicative competence (Wagner & Toth, 2014). Numerous empirical studies on English listening comprehension in Taiwan have enriched the development of interdisciplinary listening research of listening strategies (Ho, 2012), strategy instruction (L. W. Chang, 2008), test formats (Yang, 2011; Yousif, 2006), listeners' anxiety (L. W. Chang, 2008), and teachers' beliefs (H. L. Chang, 2003). The factors that reportedly hinder listening comprehension are rapid speech rate, pauses, vocabulary limitation, long and complex sentences, and the inability to draw inferences or synthesize information (Table 2).

Table 2. Empirical studies on Taiwanese EFL learners' listening comprehension difficulty

Sources	Factors	Studies
Text	<ul style="list-style-type: none"> • Speed of delivery • Cognition load: Memory/Text length • Unrepeated materials • Unfamiliar contents/topics • Test formats 	<p>M. C. Chuang (2009)</p> <p>Yang (2011), Z. Zhang and Zhang (2011)</p> <p>C. F. Chuang (2011), Chien (2006)</p> <p>Yang (2011)</p> <p>Yousif (2006)</p>
Listener	<ul style="list-style-type: none"> • Anxiety • Grammar • Vocabulary size • Self-efficacy • Elicitation of intended message/key ideas • Listening strategies 	<p>H. L. Chang (2003), L. W. Chang (2008)</p> <p>M. C. Chuang (2009), Yang (2011)</p> <p>M. C. Chuang (2009), Yang (2011)</p> <p>Lin (2014)</p> <p>Z. Zhang and Zhang (2011)</p> <p>Ho (2012)</p>

Previous studies have confirmed that learner listening comprehension problems can be addressed by pre-listening support, repetition with longer pauses, slower delivery speed, and modified listening test formats (Yang, 2011; Yousif, 2006). C. F. Chuang (2011) also indicated that anxious learners, who tend to focus on listening to every word and dislike guessing, can be assisted by familiarization with test item types prior to examinations. Thus, to assist learners in attaining higher listening scores, instructors should slow the delivery speed, familiarize learners with test item types, and provide pre-listening support such as topic information, background knowledge, and question reviews. However, the goal of listening education should be to produce superior language users rather than improved test takers so students must ultimately learn to comprehend spoken English in real-world communication contexts. The pursuit of this goal may be aided by teaching EFL learners about DMs but their role currently receives little attention in Taiwan. This study addresses the following research questions:

1. Does DM instruction promote EFL junior high school students' listening comprehension?
2. What are the participants' perceptions of the role of DMs in English listening comprehension?

Methodology

Participants

A total of 72 ninth grade students recruited from two intact classes in a Taipei municipal junior high school participated in this study. These participants had similar demographic backgrounds. They were native Mandarin Chinese speakers and aged between 15 and 16. One of the classes was assigned to the experimental group, the DM group ($n = 37$), and received 14 weeks of instruction on the DMs in the listening texts. The other class was assigned to the control group, the non-DM group ($n = 35$). This class listened to the same texts without DM instruction. The DM and non-DM groups had similar L2 listening proficiency.

Discourse marker instruction

A specially designed version of the DM instruction programme was constructed and administered (Table 3). Most of the DMs were derived from the participants' English textbooks.

According to Timmis (2005), DM teaching texts should engage learners' interest and promote natural interaction. Because of the availability of appealing and authentic texts on the Internet, the teaching materials in this study included films, videos, and songs on YouTube, providing the learners with abundant high-quality English input. For a teaching approach, Carter and McCarthy (1995, p. 155) suggested a data-driven methodology, which they referred to as the "three I's": illustration, interaction, and induction. Consciousness-raising is the goal of the first stage of DM instruction. Learners must notice and understand DMs during a natural conversation. Context-appropriateness in using DMs is the focus of the second stage (Huang, 2011). In the current study, authentic listening materials were provided to train learners to identify the functions of DMs in different contexts. The third stage focuses on how learners use DMs to facilitate their textual listening comprehension. The three I's were incorporated into a lesson plan (Table 4).

Table 3. DM instruction syllabus

Week	Topics	Examples
1	Orientation + pre-test	
Micro-discourse markers		
2	(1) Additive (2) Adversative (3) Alternative	and, in addition but, however or
3	(1) Casual (2) Temporal	because, since, so then, next
4	Framing/Segmentation	well, oh
5	Framing/Segmentation	OK, all right
Macro-discourse markers		
6	Summarizers	to sum up, so far, in brief, finally
7	Numerative connectives	first, second, third, last
8	Emphasis	(as) you know, that is the key point
9	Exemplifiers	for example, for instance
10	Topic markers/shifters	well, let's find out, another one is
11	Relators	That is..., it's called...
12	Rhetorical questions	And why? That is..., all right?
13	Review	(All DMs)
14	Post-test/Questionnaires	Listening comprehension test Discussion/feedback

Table 4. DM lesson plan

Categories	Contents
Time	45 minutes/week
Teaching materials	Films, videos, comics, interviews on TV or Internet
Teaching procedures	
Stage 1: Illustration	Raise students' awareness/noticing of DMs in a natural conversation.
Stage 2: Interaction	Identify and practice interpersonal/textual functions of DMs in different contexts.
Stage 3: Induction	Exploration & Integration: Listen with scripted speech and then move to authentic listening texts. Give task-based listening activities to explore DM use and usage.

Instruments

The instruments included the General English Proficiency Test (GEPT); DM listening comprehension pre- and post-tests; and pre- and post-study questionnaires.

General English Proficiency Test

The listening section of the basic-level GEPT was employed as the pre-test to evaluate the English listening comprehension of both groups. It was administered to examine the homogeneity of the 2 groups' general English listening proficiency.

DM listening comprehension pre- and post-test

A single DM listening comprehension test was employed as a pre- and post-test. This test contained more DMs and native-like spontaneous conversation than the contemporary EFL listening tests (for example the GEPT), textbooks, or ancillary materials. The DMs used in the test were derived mainly from the participants' English textbooks (Appendix 1). There were eight conversations and one short lecture. Test items were created to assess global and local information, measuring the participants' ability to recall various types of information including details, main ideas, summaries, and inferences (Appendix 2). Topics with which the participants were familiar were avoided. Multiple-choice and true-false questions were used to assess whether the participants could identify details or infer content introduced using DMs. Short-answer test items required the participants to infer the speaker's intentions and understand the main point of the spoken text (see Table 5).

The recording for the DM test was performed by two native English speakers who had previously conducted similar work for a junior high school English textbook publisher in Taiwan. The conversations were delivered in clear American English at a normal speaking pace. The resulting recording was 11 minutes and 28 seconds in length, including 989 words which were delivered at a speech rate of 86.22 words per minute. To ensure the authenticity and naturalness of the edited spoken text, one native English speaker and one non-native English teacher listened to the CD and commented that the recorded English seemed natural.

The DM listening comprehension test was piloted using 26 junior high school students who did not participate in the study. After they finished the test, the researcher asked them about the test difficulty and any ambiguous questions. Based on these data, the test items were revised to produce the final version.

Two raters, one English teacher and the researcher, evaluated the participants' short-answer questions. A different weighted score was used depending on whether a question had been fully, partially, or not at all correctly answered. Answers which identified the main idea were given full credit (5 points), those identifying only part of the main idea or some idea were given partial credit (2 or 3 points), and other answers received no credit. The two raters fully agreed approximately 78% of the time. Disagreements were resolved by a third rater.

Table 5. DM listening comprehension test

Text	Test Items	Information		Item No.	Scoring
		Global	Local		
Dialogue	True-false	3	2	5	15
	Multiple choice	7	8	15	60
	Short-answer	2	0	2	10
Lecture	Multiple choice	0	1	1	4
	Short- answer	2	0	2	11
Total		14	11	25	100

Pre- and post-study questionnaires

The purpose of these questionnaires was to explore the participants' perceptions of the role of DMs in English listening comprehension after the intervention programme. The pre-study questionnaire collected demographic information about the participants' profiles and their language learning experience including gender, age, and years of

English study; and participants' self-reflection on the difficulty they encounter in English listening comprehension (Appendix 3). The post-study questionnaire used two open-ended questions to explore the participants' perception of the role of DMs in their listening comprehension (Appendix 4).

Procedures

The pre-study questionnaire, the GEPT and the DM listening comprehension pre-test were administered to the DM and non-DM groups 1 week prior to the commencement of the intervention programme. During the intervention the DM group received strategy training for recognizing and interpreting DMs in English spoken texts once per week for 14 weeks. At the end of the intervention programme both groups completed the DM listening comprehension post-test and the post-study questionnaire.

Data analysis

A mixed method was employed to analyse the data regarding the participants' pre-test and post-test performance as well as their questionnaire responses. An independent *t* test compared the GEPT listening scores of the DM and non-DM groups. A second independent *t* test compared the mean scores of the two groups on the DM listening comprehension pre- and post-tests. Furthermore, a pair-samples *t* test was conducted to look for significant differences of the mean scores within each group between the DM listening comprehension pre- and post-tests. The results of the quantitative analysis were substantiated by the qualitative analysis of the post-study questionnaire data.

Results and discussion

This section will discuss the results of the study in relation to the two research questions.

The effects of the DM instruction on EFL learners' listening comprehension

To look at whether the DM instruction of the intervention promoted learners' listening comprehension it is important to determine whether the experimental and control groups were homogenous at the outset. The mean scores for the DM and non-DM groups on the GEPT listening comprehension pre-test were 64.44 and 63.39, respectively (Table 6). The results of the independent *t* test of those scores ($t = -.203$, $p = .84$) shows the groups were homogenous in terms of their listening comprehension ability prior to the administration of the DM instruction programme.

Table 6. Results of the independent *t* test of the DM and non-DM groups' GEPT listening scores

	Group	N	Mean	SD	<i>t</i>	<i>p</i>
Pre-test	DM	37	64.44	21.72	-.203	.84
	Non-DM	35	63.39	22.08		

$p^* < .05$

The mean scores on the DM listening comprehension pre-test and post-test (Table 7) show no significant differences between the DM group (mean = 60.08; standard

deviation = 24.92) and the non-DM group (mean = 59.06; standard deviation = 24.94) performance on the DM listening comprehension pre-test ($t = -.17$, $p = .86$). By contrast, the DM group (mean = 71.32; standard deviation = 22.79) significantly outperformed the non-DM group (mean = 58.31; standard deviation = 24.25) on the listening comprehension post-test ($t = -2.35$, $p = .02$), indicating the effectiveness of the intervention programme for the DM group.

Table 7. Results of the independent t test of the two groups' DM listening pre-test and post-test scores

	Group	N	Mean	SD	t	p
Pre-test	DM	37	60.08	24.94	-.174	.86
	Non-DM	35	59.06	24.92		
Post-test	DM	37	71.32	22.79	-2.347*	.02
	Non-DM	35	58.31	24.25		

$p^* < .05$

In comparing each group's own performance on the pre- and post-tests (Table 8) it is clear that the DM group performed significantly differently ($t = -7.59$, $p = .00$) whereas the non-DM group's mean scores of the DM listening pre-test and post-test were not significantly different ($t = 1.143$, $p = .26$). These findings suggest that DM instruction had facilitative effects on promoting the DM group's English listening comprehension.

Table 8. Results of the pair-samples t test of the two groups' DM listening pre-test and post-test scores

Group		N	Mean	SD	t	p
DM	Pre-test	37	60.08	24.94	-7.59***	.00
	Post-test	37	71.32	22.79		
Non-DM	Pre-test	35	59.06	24.92	1.143	.26
	Post-test	35	58.31	24.25		

$p^{***} < .001$

In comparing performance on the true-false and multiple-choice test items (Table 9) it can be seen that the DM group correctly answered more true-false ($N = 3.87$) and multiple-choice test items ($N = 12.61$) than the non-DM group ($N = 2.52$ and 12.06 , respectively). The balance between global and local information in their correctly answered questions leans towards global for the DM group (56.64% of their correct true-false answers and 53.07% of their correct multiple-choice answers) but towards local for the non-DM group (59.09% of correct true-false answers and 64.69% of multiple-choice answers).

For the short-answer test items, the mean scores were 9.27 and 5.94 for the DM and non-DM groups, respectively. The aforementioned findings collectively suggest that using the DMs improved the DM group's listening comprehension and accuracy in recollecting global information.

Table 9. Mean number of correctly answered test items on global and local information in the post-test

	True-false test item		Multiple choice test item	
	DM group	Non-DM group	DM group	Non-DM group
Global information	2.19	1.03	7.27	4.26
Local information	1.68	1.49	6.43	7.80
Total correctly answered items	3.87	2.52	13.70	12.06
Total test items	5	5	16	16

The above results reveal that the DM group's listening comprehension was superior to that of the non-DM group on the post-test. The DM group accurately recalled more global information and identified more crucial ideas than the non-DM group. This may indicate that the DMs enhanced the naturalness of the utterances and assisted the DM group in understanding the speaker's intentions during discourse.

Although the participants in the non-DM group could also comprehend and recall the listening texts, their performance was significantly inferior to participants in the DM group. In addition, they tended to focus on the local or minor information in the text. The findings are consistent with those of previous empirical studies documenting the effectiveness of DMs on listening comprehension (Flowerdew & Miller, 2012).

Notably, some participants with lower listening proficiency in the DM group mentioned that they relied more on DMs, especially the macro-DMs, which assisted them in focusing on the main ideas of the text. For these participants, the DMs compensated for their lack of background knowledge. The findings provide evidence of Simin and Tavangar's (2009) assertion that DM instruction and training facilitate EFL learners' listening comprehension.

In addition, from participants' performance in the post-test, it was found the short listening text was easier to comprehend for both the DM and non-DM groups. By contrast, the non-DM group had difficulty in comprehending the longer text with complex structure. The findings suggest that DMs played a significant role in facilitating text comprehension. As demonstrated by Hyland (2009), DMs highlight the relationships among ideas in the text; this likely facilitates EFL learner listening comprehension.

Participants' perceptions of the role of DMs in EFL listening comprehension

The second research question explored the participants' perceptions of the role of DMs in listening comprehension. From the participants' responses on the questionnaire, the majority of the DM group (78.38%) positively regarded the DM instruction and the role of DMs in listening comprehension. By contrast, over half of the non-DM group (54.29%) indicated that DMs distracted their attention on the test content.

Table 10 shows the DM group's listening difficulty before and after the DM intervention programme. Most participants (over 70%) had high anxiety and difficulty with the delivery speed before the DM instruction. Over half of them lacked self-efficacy and had difficulty in eliciting main ideas from long texts. From the post-study survey, only 29.73% of the participants felt difficult to follow the delivery speed and elicit main ideas. Their listening anxiety was substantially reduced. Over 45% of the participants would not feel anxious about English listening comprehension. The DM group reported that they attempted to utilize the DMs to solve their listening problems, as displayed in Table 11. The presence of DMs in a spoken text can provide more

processing time for listeners (Wagner & Toth, 2014). The redundancies in spoken text offered them another opportunity to interpret information that they had heard previously if necessary.

Table 10. DM group's listening difficulty in the pre- and post-study survey

Listening difficulty	Pre-study Survey			Post-study Survey		
	Completely/ mainly	Some	Little/ No	Completely/ mainly	Some	Little/ No
Speed of delivery	78.38	10.81	10.81	29.73	29.73	40.54
Limited vocabulary size	29.73	27.03	43.24	18.92	35.14	45.95
Unrepeated materials	48.65	29.73	21.26	17.14	24.32	59.95
Unfamiliar contents/topics	24.32	37.84	27.03	24.32	27.03	48.65
Grammar	29.73	35.14	35.14	27.03	24.32	48.65
Test formats	27.03	51.35	21.62	21.62	32.43	45.95
Anxiety	70.27	18.92	10.81	24.32	29.73	45.95
Self-efficacy	54.05	18.92	27.03	45.95	18.92	35.14
Listening strategies	45.95	29.73	24.32	21.62	29.73	48.65
Cognition load: Text length	56.76	21.62	21.62	35.14	18.92	45.95
Elicitation of main ideas	56.76	27.03	16.22	29.73	27.03	43.24

Table 11. DM group's listening difficulty and their application of DM functions

Listening difficulty	Application of DM function
1. Speed of delivery	Use DMs to buy time
2. Unrepeated materials Limited vocabulary size/grammar	Redundancies: Clarify the meaning
3. Unfamiliar contents/topics Failure of eliciting main ideas	Signposts: Signal the text organization
4. Anxiety Lack of listening strategy	Directional guides: Predict and interpret the incoming information
5. Limited cognition load: Text length	Help recall more information overall

Some excerpts of the participant positive responses are as follows:

Those words (DMs) give me time to take a short break. I have more time to figure out the meaning. More understanding, more concentration.

Instead of wild guessing, DMs help me interpret the speaker's intention correctly. For example, when I hear "but" or "however", I can predict his (the speaker's) following talk... opposite or different.

Listening fatigue...I guess. I just couldn't concentrate on the listening for a long time. Now, I can rely on DMs to remind me of the key points that I should pay attention to again.

If I have learned DMs before, English listening would be easier for me. In the past, I felt anxious about the speed and missing any word, especially a novel or unfamiliar one. I used to

stick to these difficult words and then I missed many main points. Now, I know I have a second chance to interpret the meaning when I hear “for example” or “that’s.”

DMs prepare us for (authentic) listening which is more likely to occur in Americans’ real life conversation.

In contrast to their positive effect on the DM group, DMs seemed to influence the non-DM group negatively. Spoken texts with DMs were more difficult for the non-DM group to process. DMs even hindered some participants’ comprehension and distracted them. As two participants complained,

Well...you know...that’s... I hate these nonsense words (DMs), which are quite abstract and complicated. They (DMs) make me more anxious and distract my attention in listening.

With these fillers, false starts, or redundancies, the listening text is so messy that I couldn’t concentrate on my listening and even missed the main ideas. We should not listen to such kind of (spoken) English...well...I should call them broken English...that would be harmful for our language acquisition.

The findings indicated that the non-DM group had difficulty comprehending the unscripted and unsimplified spoken English. As shown by Gilmore (2011) and Wagner (2014), this difficulty might stem from the spoken texts to which EFL learners are exposed in English class. What they hear is scripted and simplified spoken English.

Conclusion

The findings of the current study demonstrate that DM instruction promotes EFL listening comprehension. The presence of DMs in listening comprehension texts was effective not only in facilitating global comprehension but also in enabling listeners to retain detailed information. DMs activated the DM group members’ prior knowledge, provided more processing time, enabled the group members to distinguish the main ideas from the minor ones as well as infer the speakers’ intentions, and they reduced anxiety. However, the non-DM group, who listened to the same spoken text with DMs, did not receive the same benefits. Few members of the non-DM group utilized DMs to enhance comprehension and recollection. To develop EFL listeners who are more selective, active, and effective, they should be taught to make use of DMs.

Pedagogical implications

Three pedagogical implications arise regarding the benefits of DM instruction from the study reported in this paper. First, teachers should focus more on the significant characteristics of DMs and require learners to notice frequently used DMs and their functions in various contexts (this is consistent with the findings of Fung, 2007). Creating as many opportunities as possible for learners to engage with and learn from DMs is crucial.

Second, textbook writers must provide learners with natural spoken texts. Learners should shift from listening to scripted written English to more authentic spoken English. The number of times learners encounter DMs in textbooks may affect their acquisition of them. According to Ur (1984), this repetition assists learners in consolidating their DM knowledge.

Third, this study has crucial implications for assessing EFL listening. In terms of the construct validity of listening tests, if high-stakes EFL listening assessments incorporate more natural spoken texts with DMs, the test results would enable

researchers to make valid inferences regarding listening comprehension ability in the real-world communication. Furthermore, instructors are more likely to recognize the importance of DMs in spoken English and incorporate DM instruction into curricula (Wagner, 2014).

Limitations and future direction

This study was limited of necessity by using an artificially constructed DM listening comprehension test with only 25 test items, and by employing a relatively small sample. Future DM listening comprehension research should make use of more natural spoken texts of varying text types which will establish a complete profile of the participants' listening comprehension ability. Future researchers should also use larger samples of participants with more diverse L2 listening proficiency profiles.

About the author

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Appendix 1: DM types and frequencies in the DM listening comprehension test

Categories	Functions	DMs and Frequency
Micro-DMs	Segmentation	well (12), OK (3), now (1), and(2) , all right (2), oh (4)
	Causal	so (5), then (1), because
	additive	and (3)
	Contrast	but (3), yet (1)
	Alternative	or (3)
	Emphasis	really (2), you know (5), sure (2), yeah (3), hey (1)
	Code glosses	for example (2), like (1), that means (1), I think/I mean (5)
Macro-DMs	Hedges	maybe(2)
	Previews	today I going to talk about (1)
	Summarizers	let me summarize, to sum up
	Emphasis markers	that is why (2)
Fillers	Logical connectives	first (2), second (1), finally (1)
	Hesitation	pause (1), repetition (2)

Appendix 2: DM listening comprehension script for the pre- and post-test**Section I: True–false questions****A. Listening script 1**

Narrator
Listen to a dialogue between a husband and his wife.
Male: Do you have a minute?
Female: Sure. What do you need?
Male: Well, I'm searching for my shirt.
Female: Again? Oh, no. All right, I'll help.
Narrator
Q1: The man could not find his shirt more than once.
Q2: The woman is happy to help her husband.
Q3: The woman cannot find her shirt.

B. Listening script 2

Narrator
Listen to a dialogue between two friends.
Female: Did Peter get a job yet, or is he still looking?
Male: He just got a job at a small restaurant.
Female: Really? What will he be doing there?
Male: Well, maybe a dishwasher.
Narrator
Q4: Peter got a job.
Q5: Peter will be a dishwasher.

Section II: Multiple-choice questions**C. Listening script 3**

Narrator
Listen to a dialogue between two friends.
Female: I really admire your sister.
Male: Mary or Jane?
Female: Mary, I mean...I think...it is her personality.
Male: Yes, she has a good one. And lots of people like her.
Narrator
Q6: Who does the woman admire?
Q7: What does the woman like about Mary?

D. Listening script 4

Narrator Listen to a conversation between an assistant and a student before answering the question.	
Student:	Okay, I'll pay with a credit card. And where do I do that at?
Woman:	At, um, the housing office.
Student:	I see...housing office, all right.
Woman:	Do you know where it is?
Narrator Q8: What is the student trying to find out from the assistant?	

E. Listening script 5

Narrator Listen to part of a longer conversation between a student and her advisor.	
Advisor:	Well, good. So, the bookstore isn't working out?
Student:	Oh, the bookstore's working out fine. I just, I—this pays double what the bookstore does.
Woman:	Oh, wow!
Student:	Yeah! And it's more hours...I mean I am kind of hanging out and not doing much else. If it weren't for the people, well, it'd be totally boring.
Narrator Q9: Where does the student work? Q10: What is the student's attitude toward the people with whom he currently works?	

F. Listening script 6

Narrator Listen to part of a longer conversation between a man and a woman.	
Man:	Hey, Lisa, how's it going?
Woman:	Hi, Mark. Uh, I'm OK. I guess. But my schoolwork really makes me crazy.
Man:	Yeah? What's wrong?
Woman:	Well, I've got a paper to write and two exams to study for. Now, I just can't concentrate on any of it.
Narrator Q11: What is the woman? Q12: How is the woman feeling? Q13: What might the man be?	

G. Listening script 7

Narrator Listen to a conversation between a teacher and a student.	
Man:	I was hoping you could look over my note cards for my presentation...
Woman:	OK, so tell me: What's your topic about?
Man:	Playing computer games can motivate...
Woman:	Oh, yes—students to learn.
Man:	Yeah, that's it.
Woman:	And what's the point of your talk?
Man:	Well, I think...students would do the homework voluntarily.
Woman:	Okay, so...
Man:	Well, that is...Can you help me?
Narrator Q14: What is the topic of the student's presentation? Q15: What information will the student include in his presentation? Q16: Why does the student visit the professor? You can write in Chinese or English.	

H. Listening script 8

Narrator The school's dining services department has announced a change. It will no longer serve hot breakfast foods. This will save money and keep students healthy. Now, listen to two students discussing the change.	
Woman:	Do you believe any of this? It's ridiculous.

Man:	What? You mean...it is important to eat healthy foods...
Woman:	Sure, but they're saying yogurt's better for you than an omelet...or than hot cereal? I mean whether something's hot or cold, that shouldn't be the issue. Except...maybe...on a really cold morning, but in that case, which is going to be better for you: a bowl of cold cereal or a nice warm omelet? It's obvious...you know...there's no question.
Man:	I am not going to argue with you there.
Woman:	And this whole thing about saving money...well, you know...
Man:	What about it?
Woman:	Well, they're really going to make things worse for us, not better. 'Cause if they start cutting back and we can't get what we want right here, on campus, well, we're going to be going off campus, and you know what? That will be... expensive.
Man:	Maybe. But it'll be healthier for us.
Q17: What is the main topic of the conversation? Q18: What is the man? Q19: According to the school, what type of food is healthier for students? Q20: What is the man's opinion about the change? Q21: Why does the woman disagree with the change? Q22: Please use one or two sentences to summarize the conversation. You can write in Chinese or English.	

Section III: Lecture

Narrator Please listen to the following lecture.
Today we are going to talk about success. First, I'll ask you guys a question. What do you think of when you think of a successful person? Well, for example...Bill Gates probably comes to mind for many people, right? But I'm just...you know...wealth and success are sometimes mistaken for the same thing. So...what is success? Success is "the achievement of something desired, planned, or attempted." That means that although we may never be rich, each of us, like you and me, can be successful. So I am going to share with you a few simple rules to point us in the right direction. First, show up! I mean...when you approach every task with interest, that's really showing up! Second, ask questions! Uh...ask every question you can think of about a topic. Well, you know. This added knowledge will pay off in the long run. Really! Then, pay attention. Many of us consider ourselves good listeners. Yet we often hear words without hearing the message. That is the key. Do you agree? Finally, don't quit. Take Steve Jobs, for example. He once said to a group of students: "You have to love what you do!" That is, doing what you love will make keeping that promise easier, and then success will taste sweeter! <i>Adapted from Studio Classroom, May 2011</i>
Narrator Q23: Who said "You have to love what you do!"? Q24: What is the best title for this lecture? You can write in Chinese or English. Q25: Please use one or two sentences to summarize the rules for success mentioned in the lecture. You can write in Chinese or English.

DM listening comprehension test (Students' answer sheet)

Student ID number _____

Section I: True/False Questions (15%)

- (1) True. (2) False. (3) Not mentioned.
- (1) True. (2) False. (3) Not mentioned.
- (1) True. (2) False. (3) Not mentioned.
- (1) True. (2) False. (3) Not mentioned.
- (1) True. (2) False. (3) Not mentioned.

Section II: Multiple-Choice and Short Answer Questions (70%)

6. (A) Her friend.
(B) The man.
(C) The man's sister.
(D) Her sister.
7. (A) Her looks.
(B) How she acts.
(C) Her family.
(D) How smart she is.
8. (A) Where the housing office is?
(B) How far away the housing office is?
(C) Whether she needs to tell him where the housing office is?
(D) Whether he has been to the housing office already?
9. (A) A library.
(B) Bookstore.
(C) A bank.
(D) A school.
10. (A) He finds them boring.
(B) He likes them.
(C) He is annoyed by them.
(D) He does not have much in common with them.
11. (A) A teacher.
(B) A worker.
(C) A student.
(D) A patient.
12. (A) She has more than one paper to write.
(B) She has trouble with her schoolwork.
(C) She has been busy with her housework.
(D) She has been happy talking with the man.
13. (A) The woman's friend.
(B) The woman's husband.
(C) A company's boss.
(D) The school's principle.
14. (A) Comics.
(B) Computer games.
(C) Voluntary work.
(D) Note cards
15. (A) Students study voluntarily.
(B) Notes are important for presentation.
(C) Students need help.
(D) Games is allowed in class.
16. Why does the student visit the professor? You can write in Chinese or English.

17. (A) Healthy food.
(B) The school's new policy.
(C) Ways to save money.
(D) Cold or hot breakfast.
18. (A) The principle.
(B) A teacher.
(C) A student.
(D) A advisor.
19. (A) Yogurt.
(B) An omelet.
(C) Cereal.
(D) Vegetables.
20. (A) It's ridiculous.
(B) It's healthier.

- (C) It's expensive.
(D) It's meaningless.

21. _____

22. _____

Section III. Lecture (15%)

23. (A) Bill Gates.
(B) Steve Jobs
(C) The speaker.
(D) Everyone
24. _____

25. _____

Appendix 3: Pre-study questionnaire

Student ID Number _____

PART I: Background Information

1. Year of birth: _____
2. Year of Study English: _____
3. Gender: ☐ Male ☐ Female

PART II: Self-Evaluation of English Listening Comprehension

Instructions: Read the following items carefully and place a “√” in the box that indicates your level of agreement or disagreement with them. I have English listening comprehension difficulty in:

Questionnaire Key: 5 – Completely 4 – Mainly 3 – Some 2 – A little 1 – Not at all

Sources	Factors	1	2	3	4	5
Text	• Speed of delivery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Cognition load: Text length	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Unrepeated materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Unfamiliar contents/topics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Test formats	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Listener	• Anxiety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Grammar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Vocabulary size	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Self-efficacy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Elicitation of key ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Listening strategies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Others:						

Appendix 4: Post-study questionnaire

1. Do DMs facilitate your English listening comprehension? Why or why not?

2. What are some of the most useful and valuable things you learned from the DM instruction? (for DM group only)

3. Self-Evaluation of English Listening Comprehension: (for DM group only)
 Instructions: Read the following items carefully and place a “√” in the box that indicates your level of agreement or disagreement with them. After the DM instruction programme, I have English listening comprehension difficulty in:

Questionnaire Key: 5 – Completely 4 – Mainly 3 – Some 2 – A little 1 – Not at all

Sources	Factors	1	2	3	4	5
Text	• Speed of delivery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Cognition load: Text length	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Unrepeated materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Unfamiliar contents/topics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Test formats	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Listener	• Anxiety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Grammar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Vocabulary size	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Self-efficacy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Elicitation of key ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	• Listening strategies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Others:
