Original Paper

Discourse Management Markers in High School EFL Classroom

Discourse: An Interactional and Cognitive Perspective

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Abstract

As an irreplaceable component of teacher talk, discourse management markers (DMMs) act as prompters in EFL classes, which can facilitate the understanding and interactions between teachers and EFL learners. By doing qualitative and quantitative analysis, this study adopted a multi-layered study design, and the data were selected from the teaching videos of six EFL teachers. Through the analysis of the collected data, three conclusions are drawn. Firstly, among all the DMMs, Attention markers (AMs) are the most frequently used DMMs in the selected teachers' discourse. Secondly, DMMs within different modes in EFL micro-classroom contexts may serve for various interactional and cognitive functions, such as signaling sequential relationship for learners, inviting for co-construction, marking topic changes, maintaining genuine linguistic communication, denoting the thinking process, reducing cognitive interference in seeking relevance, and foregrounding to channel attention. Thirdly, there are overuse and underuse of certain DMMs in terms of teachers' actual use of DMMs.

Keywords

discourse management markers, interactional functions, cognitive functions, modes in EFL classroom, Chinese EFL high school English teaching

1. Introduction

With the advancement of globalization, English has become the lingua franca in many parts of the world, and serves as one of the most important information carriers in many fields. In China, English is one of the compulsory courses in National College Entrance Examination.

The EFL classroom discourse register is characterized by spontaneously oral communication in a shared space performed by multiple participants. (Marcella, 2023, pp. 20-22) In this context, instructors are treated as experts in a particular field, and learners are positioned as novices. Therefore, their communicative purposes are differed. Teachers are expected to explain the teaching contents, check

students' understanding, stimulate and guide discussion, manage the classroom, etc. Students' main tasks appear to be "showing their understanding, co-constructing their knowledge, and overcoming confusion about the knowledge" (ibid.). Unlike other subjects, EFL teachers are an indispensable source for students' comprehensible input. Therefore, EFL teachers should improve the efficiency and effectiveness of their classroom discourse, especially the appropriate use of discourse markers.

Fraser (2009, pp. 892-893) proposed the notion of "discourse management markers" (DMMs) as a special category of pragmatic markers (PMs). These DMMs are indispensable manoeuvres in "organizing speech on interpersonal and cognitive levels". (Fung & Carter, 2007, p. 410) Actually, DMMs act as prompters in classroom contexts, which can facilitate students' understanding of the teacher's discourse. Besides, an appropriate use of DMMs can also demonstrate the pragmatic competence of language users. (Wang, 2013)

Considering the distributions of discourse markers, certain discourse markers like *okay*, *right/ alright*, *so*, *yes*, *yeah*, etc., are more frequently used in the classroom, while other complex markers like *for example*, *I think*, *you see*, *I mean*, etc., are less often used by EFL teachers (Zhang & Liu, 2010). That is to say, Chinese EFL teachers have their own preferences in selecting DMMs. In terms of multi-functionalities, though the interactional, textual, and contextual adaptation functions have been analyzed in many studies, the cognitive functions are likely to be neglected and need further exploration. Moreover, previous researches do not connect the interactional and cognitive functions of DMMs to the pedagogical goals in Chinese high school EFL classroom context.

The objectives of this paper are threefold: (i) to describe the distribution patterns and frequencies of the three types of discourse management markers in the classroom discourse, (ii) to discuss the interactional and cognitive functions of each type of discourse management markers in the classroom discourse with reference to the four modes, and (iii) to investigate the usage errors on DMMs among the selected EFL teachers.

2. Discourse Management Markers in Classroom Discourse

2.1 "Discourse Markers", Pragmatic Markers' and "Discourse Management Markers"

According to Schiffrin (1987), discourse markers (DMs) are "sequentially dependent elements, which brick units of talk" (p. 31), and serve a variety of functions in the organization of a speaker's discourse. Since 1970, DMs have received a wide range of attention, and have been studied under various labels, including *discourse particles* (Schorup, 1985), *discourse connectives* (Blakemore, 1987), *pragmatic markers (PMs)* (Fraser, 1988), and *discourse operators* (Redeker, 1990), and so on.

Fraser (1999, p. 936) used the term pragmatic markers (PMs). Unlike Schiffrin, he pointed out that the PMs do not contribute to the propositional content of an utterance, but only signal different types of messages. Thus, the PMs, according to Fraser, can be characterized as linguistic devices, which are phonological, lexical, and syntactic, and do not contribute to the semantic meaning of the discourse segment, but do play an essential role in interpreting the utterances. Furthermore, he categorized the

pragmatic markers into four types, which are basic, commentary, parallel and discourse management markers. (Fraser, 1990, p. 386)

DMMs, as a specific area of enquiry of this essay, signal "the meta-comment on the structure of the discourse" (Fraser, 2009, pp. 892-893), and can be divided into three sub-types, including discourse structure markers (DSMs) to convey the contribution of the following discourse segment within the overall sentence (such as *but*, *so*, *in addition*, *first*, *then*, etc.); topic orientation markers (TOMs), which aim is to express the speaker's intention concerning the immediate future topic of the discourse; (such as *anyway*, *back to my original point*, *before I forget*, *but*, *by the way*, *incidentally*, *just to update you*, *on a different note*, *parenthetically*, *put another way*, *returning to my previous point*, *speaking of X*, *that reminds me*, etc.) and attention markers (AMs) to indicate a topic change is making (such as *ah*, *alright*, *anyway*, *anyhow*, *hey*, *in any case*, *in any event*, *now*, *now then*, *oh*, *OK*, *so*, *so good*, *well*, *well then*, etc.).

2.2 Studies on Discourse Management Markers

Traugott (2020) studied DMMs diachronically, and made a distinction among adverbial adjuncts, conjunct adverbials, and DMMs. Later, He proposed a usage-based cognitive model, in which there is a gradient from adverbial adjunct to DMMs form-function pairings. From his perspective, discourse management markers are a subtype of PMs, which are "primarily procedural, rather than contentful, or conceptual" (Traugott, 2020, p. 17)

Traugott (2020) also analyzed the functions of the three DMMs, which are *by the way*, *incidentally*, and *parenthetically*. He called them stance-to-text markers, which are used to signal the feelings, stance, and attitude from the author.

However, by searching essays on CNKI, Web of Science, ProQuest Central, and Elsevier SDOL, there have been a few scholars investigating DMMs as a specific category. Therefore, the current study aims to discuss the functions of DMMs as a sub-branch of PMs.

2.3 Relevant Studies in Classroom Discourse

According to Dong (2022), second language learning and teaching have become a research focus in the studies of DMs. Over the years, scholars from home and abroad have carried out studies from either comparative or single research perspective.

As for the comparative study, scholars usually adopt a corpus-based method to compare the use of different types of DMs from EFL learners and teachers with the use of them among native speakers. One of the most representative research is the one done by Zhang and Liu (2010). They compared the use of DMs by Chinese EFL teachers with the ClassBank English Corpus, finding that "well, sort of, kind of" are less frequently used to ease nervousness by the teachers. Besides, they use well less frequently in denoting the thinking process, while native English teachers use well to gain more time in thinking to maintain their speech. Therefore, the interactional and cognitive function of DMs should be further investigated to facilitate the accurate and appropriate use of DMs among DMs. As for EFL learners, Guo (2012) compared two corpora, one is LLC (London Lund Corpus of spoken English), the

other one is SECCL (Spoken English Corpus of Chinese Learners). According to their research, the use of DMs among Chinese students is less diversified, such as the repeated use of the marker "oh". Besides, they prefer to choose more simpler markers, rather than compound and complex markers (pp. 129-130). Similarly, based on the comparison between two corpora, Pan (2011) figured out that the interpersonal markers like "basically, rarely, whatever, actually" are less frequently used, so the utterances among Chinese EFL learners lack coherence. (p. 38) Besides, the accuracy of their usage should be improved. Wang (2013) figured out that the mistakes in the usage of DMs are caused by pragmatic fossilization and negative transfer from L1.

As for the single perspective research, Walsh (2006) proposed the Self-Evaluation of Teacher Talk (SETT) model, which is based on the assumption that "in L2 classroom context, the pedagogic goals are manifested in interaction." This model divides the classroom discourse into four distinct modes to reflect the relationship between the use of teacher talk in classroom discourse, L2 pedagogical goals, and the interactional features. The term *mode* refers to the micro-contexts of the L2 classroom, which has a clearly defined pedagogical goal and distinctive interactional features. (Azi, 2019, p. 86) The managerial mode is more often occurred at the beginning of the lesson or the transition between different activities. (Walsh, 2006, p. 68) The material mode centers on the material being used. The skills and system mode highlights the language practice in relation to a particular language system. Lastly, the classroom context mode centers on the genuine linguistic communication. It allows more interactional space. His framework can be presented in the following table.

Table 1. The Self-Evaluation of Teacher Talk model (Walsh, 2006, p. 66)

Mode	Interactional Features	Pedagogical Goals	
Managerial	A single extended teacher turn	To transmit information	
	which uses explanations and/or	• To organize the physical learning	
	instructions	environment	
	• The use of transitional markers	To refer learners to materials	
	• The use of confirmation checkers	To introduce or conclude an activity	
	An absence of learner contributions	• To change from one mode of learning	
		to another	
Material	• Predominance of IRF (initiation,	To provide language practice around a	
	response, and feedback) pattern	piece of material	
	• Extensive use of display questions	• To elicit responses in relation to the	
• Form-focused feedback		material	
	Corrective repair	To check and display answers	
	• The use of scaffolding	To clarify when necessary	
		To evaluate contributions	

Skills and	The use of direct repair	To enable learners to produce correct	
Systems	• The use of scaffolding	forms	
	• Extended teacher turns	• To enable learners to manipulate the	
	 Display questions 	target language	
	• Teacher echo	To provide corrective feedback	
	• Clarification requests	• To provide learners with practice in	
	• Form-focused feedback	sub-skills	
		To display correct answers	
Classroom	• Extended learner turns	• To enable learners to express	
Context	• Short teacher turns	themselves clearly	
	 Minimal repair 	• To establish a context	
	 Content feedback 	• To promote oral fluency	
	• Referential questions		
	 Scaffolding 		
	• Clarification requests		

Azi (2019) adopted this model and performed a descriptive qualitative case study to reveal the reflexive relationship between micro-interactional features of Arabic PMs and pedagogical purpose in the four macro modes from semi-structured interviews and classroom recordings of three Arabic EFL teachers. From his research, it can be concluded that in order to "achieve routinization in student's language, which means there is little time and cognitive capacity to think about the function and usage of PMs" (Haselow, 2021, p. 84), language teachers should consistently enhance their understanding and appropriate usage of PMs in their classroom discourse. As for EFL learners, Bu (2012) highlighted that the differences in gender, age, setting and personal identities should also be taken into account when considering the acquisition of DMs by EFL learners.

Based on previous researches, this study will focus on investigating the interaction and cognitive functions of discourse management markers (DMMs) as a specific type in Chinese high school pedagogical settings.

3. Research Methodology

3.1 Data Collection and Analysis

The objects of the study were DMMs used by Chinese EFL high school teachers. The corpus was transferred from the videos of six EFL teachers, who won the first prize in the 17th National Basic Teaching Skills Competition for High School English Teachers in October, 2023, which is one of the most authoritative and influential competition to evaluate teachers' teaching competence in China. The following table presents the specific information of the six teachers and their classes. Due to the

consideration for privacy, T1 to T6 were adopted to represent the name of the teachers.

Table 2. Basic Information of the Selected Materials

Teacher	Province	Class Type	Class Title
T1	Guizhou	Vocabulary	Unit 1 People of Achievement
T2	Hainan	Grammar	Unit 5 First Aid
Т3	Yunnan	Listening and Speaking	Unit 4 Natural Disasters (Prepare for a
			disaster)
T4	Tianjin	Reading	Unit 5 Understanding Ideas The Monarch's
			Journey
Т5	Guanadana	Danding and Writing	Unit 4 Pady language How Do I Vnow My
13	Guangdong	Reading and Writing	Unit 4 Body language How Do I Know My
			Students
T6	Chongqing	Writing	Perhaps Love

Among the six selected classes, there are in total six class types, including vocabulary, grammar, listening and speaking, reading, reading and writing, and writing. Each class lasts for 40 minutes. The teaching materials are taken from different versions of textbooks, including PEP, FLTRP, and self selected materials.

3.2 Research Tools and Procedures

The main research tools in the study include an audio transcription website (https://www.iflyrec.com/) and a corpus software named Antconc (version 4.2.4). Firstly, the audio transcription website was used to convert the teachers' classroom videos into texts. Secondly, the transcript will be edited through word document; Thirdly, the author will annotate the three subtypes of DMMs in the edited transcript, with reference to the specific context, in which the DMMs occur. Then, the organized teachers' discourse is saved in a TXT file and built into a small corpus. Lastly, the corpus software AntConc 4.2.4 was used to retrieve keywords and analyze the frequency and distributions of DMMs.

After analyzing the distributions and frequencies of each sub-type of DMMs, this study adopted a multi-layered study design. Firstly, the interactional features will be identified in order to determine the specific mode that the DMMs belong to. Secondly, the interactional and cognitive functions of DMMs will be further analyzed. Thirdly, the interactional and cognitive functions will be connected to the pedagogical goals in the classroom discourse to draw some pedagogical implications on the actual use of DMMs in classroom discourse. The tentative design of the study can be presented in the following Figure (Figure 1).

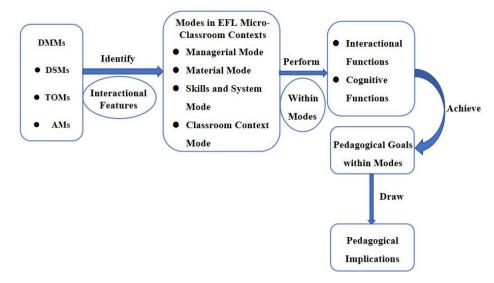


Figure 1. An Extended Multi-layered Research Design

4. Results and Discussion

4.1 Distributions and Frequencies of Discourse Management Markers by Chinese High School EFL Teachers

According to Fraser's definition on DMMs, the author first annotated the selected corpus. Then, Antconc was applied to calculate the distributions and frequencies of the occurrence of DSMs, TOMs and AMs. Table 3 below presented the overall frequencies of the three types of DMMs. The data was extracted from the plot function of Antconc (Version 4.2.4).

Table 3. The Overall Frequencies of Each Type of DMMs in Chinese EFL High School Classroom Discourse

Discourse Management Markers	File Tokens	Freq.	Norm Freq	Dispersion
Discourse Structure Markers	19,228	62	3,224.464	0.735
Topic Orientation Markers	19,228	485	25,223.632	0.904
Attention Markers	19,228	743	38,641.564	0.962
Total	19,228	1,290		

The tokens of the selected corpus were 19,228 words, and the total number of DMMs in the classroom discourse is 1,290. Therefore, the total number of DMMs used by all teachers in a 40-minute English class accounted for 6.7% of the total classroom discourse. However, the distribution and frequency of each subtype of DMMs varied greatly. That is to say, in the classroom discourse, teachers have their own preferences on the usage of DMMs. Thus, the functions of each type of DMMs should be further investigated. The pie chart (Figure 2) below demonstrated the proportion of the three types of DMMs.

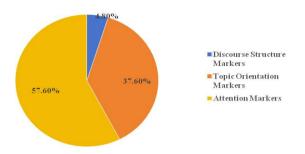


Figure 2. The Proportion of Three Types of Discourse Management Markers

From the pie chart, in Chinese EFL high school classroom discourse, AMs accounts for over a half of the overall use of DMMs, followed by TOMs, which constitutes over one third of the number of DMMs, while DSMs is the least frequently used types, only with a proportion of 4.8%.

4.1.1 Discourse Structure Markers

The following table (Table 4.) shows the distribution and frequency of DSMs used by the teacher in the classroom discourse.

Table 4. The Distribution and Frequency of Discourse Structure Markers

Discourse Structure Markers (DSMs)	Distribution	Frequency (Distribution/Total DSMs)
First(ly)	5	8.06%
Next one	4	6.45%
The first/second/third (one)	17	27.42%
Number one/two/three	11	17.74%
Last one	4	6.45%
Lastly	1	1.61%
At last	1	1.61%
Also	1	1.61%
And	9	14.52%
(And) then	1	1.61%
So	4	6.45%
One	2	3.22%
another one	2	3.22%
Total	62	100%

The above Table provides details on the distribution and frequency of DSMs by the teachers on Chinese high school EFL classroom discourse. It can be seen that out of the thirteen types of DSMs, first/second/third one, and number one/two/ three are the most frequently used DMMs, followed by and, first(ly), next one, and so, while other DSMs are rarely observed in the teachers' classroom discourse.

4.1.2 Topic Orientation Markers

The following table (Table 5) shows the distribution and frequency of topic orientation markers (TOMs) used by the teacher in the classroom discourse.

Table 5. The Distribution and Frequency of Topic Orientation Markers

Topic Orientation Markers (TOMs)	Distribution	Frequency (Distribution/Total TOMs)
So	141	29.07%
And	132	27.22%
How/What about	61	12.58%
But	23	4.74%
(and) then	20	4.12%
Continue	17	3.50%
Because	16	3.30%
For example	14	2.89%
What else	7	1.44%
Actually	5	1.03%
Also	9	1.86%
Or	6	1.24%
Next (one)	7	1.44%
After	5	1.03%
Besides	3	0.62%
First	3	0.62%
Firstly	2	0.41%
Such as	2	0.41%
Finally	2	0.41%
That is to say	2	0.41%
Before	2	0.41%
The last one	1	0.20%
Since	1	0.20%
Just now	1	0.20%
By the way	1	0.20%
Apart from	1	0.20%
After that	1	0.20%
Total	485	100%

From the above Table, it can be concluded that though there are various types of TOMs in teachers' classroom discourse, teachers tend to choose only a certain types of TOMs like *so, and, how about/what about*. Moreover, in the classroom discourse, teachers tend to choose simple TOMs rather than more complex TOMs. The possible interpretation is that due to the limitation of the learners' language competence, and the context of classroom discourse, the use of TOMs should be simple and concise to facilitate EFL learners' language decoding.

4.1.3 Attention Markers

The following table (Table 6) shows the distribution and frequency of attention markers (AMs) used by the teacher in the classroom discourse.

Table 6. The Distribution and Frequency of Attention Markers

Attention Markers (AMs)	Distribution	Frequency (Distribution/Total AMs)
(al)right/Am I right?	205	27.90%
So	105	14.13%
Now	181	24.36%
Okay	118	15.88%
Here	20	2.69%
(Is that) clear?/ Am I clear?	21	2.83%
Yeah/yes	34	4.58%
Pay attention	14	1.88%
You know	14	1.88%
And	12	16.15%
Is that so?	10	13.46%
Well	2	0.27%
You mean	3	0.4%
Really	2	0.27%
Firstly	2	0.27%
Total	743	100%

From the above Table, it can be concluded that, the selected EFL teachers are more likely to employ the AMs like (al)right/ Am I right, now, so to check students' understanding on teachers' discourse. While you mean, you know well, firstly, really are less frequently used as AMs in the selected classroom discourse.

4.2 Functions of Discourse Management Markers in High School EFL Classroom Discourse

This section will analyze the interactional and cognitive functions of the three types of DMMs with reference to the specific modes in EFL classroom settings. According to Fraser, the role of DSMs is to "convey the contribution of the following discourse segment within the overall structure of the discourse". (2009, p. 893) From the selected corpus, DSMs are more likely to occur at the places, where the teacher introduce a series of ideas. For example, the introduction to the teaching objectives and the summary of the class.

There are generally four subtypes of TOMs, which are topic return, topic continuation, topic digression and new topic introduction. (2009, p. 894) From the collected linguistic data, the distribution of TOMs is comparatively dispersed in the selected teachers' classroom discourse, compared to DSMs. However, TOMs, in most cases are more likely to occur before an AMs, which is in line with Fraser's conclusion on TOMs. (ibid, p. 895) The following discussion will focus on the TOMs *so, and, what/how about*, which are the top three most frequently occurred TOMs in the classroom discourse performed by the teachers.

From the data before, AMs are the most frequently occurred type of DMMs in Chinese high school EFL classroom discourse. This may due to the EFL classroom is oriented by interaction, so attracting learners' attention is one of the top priorities in classroom discourse. AMs often indicate the topic change in the discourse segment, but do not specify "the nature of the change". (Fraser, 2009, p. 896) They act as "discourse oil" to avoid abruptness in topic change.

4.2.1 Interactional Functions

4.2.1.1 Signaling the Sequential Relationship for Learners

In Chinese EFL classroom discourse, teachers often employ a sequence of DSMs to connect his/her series of utterances. For example,

- (1) Let's follow these three steps. First one <DSM>, you'd like to introduce their achievement. And <AM> next one <DSM>, you need to inquire their road to success. And <AM> the third one <DSM> you'd like to describe their personal qualities.
- (2) Now <AM>, let's first <TOM> look at our today's learning objective. We have four, and number one <DSM> is about analyze and number two <DSM> is about summarize, and number three <DSM> is about rewrite. And last one <DSM> is about talk about.

The above two examples are in the managerial mode, based on the SETT model. Because they are a single extended teacher turn using explanations and instructions, while learners only follow the teachers' discourse, and their contribution is absent. Therefore, it is crucial for teachers to signal the progress of their discourse, This is similar to the view of Ran (2000, p. 13) who treats DMs as "sign-posters" to assist listeners in construing the discourse. In the given examples, the DSMs are employed to present the logical sequence of the discourse segment. Here, *first/second/third one*, and *number one/two/three* are employed to ensure that students' mind is on the right track.

4.2.1.2 Inviting for Co-construction by Locating

In the EFL classroom discourse, DSMs are also used by teachers, when language practices are organized around a piece of material. For example,

(3) And <TOM> what the last, next one <DSM>, what about the past perfect form? We can say it

will be having great, I will be having that. What about its negative form? Not having done, and next one $\langle DSM \rangle$, having been done over, the last one $\langle DSM \rangle$, not having been done. Wow, boys and girls, you really did a good job you haven't learned before, right $\langle AM \rangle$?

Example (3) belongs to the material mode, which centers on the material being used. One of the interactional features of this mode is the predominance of IRF pattern (Initiation-Response-Feedback) (Walsh, 2006, p.66) Besides, in this mode, the practice and feedback are form-focused. The teacher employ the DSMs (*next one, next one, and last one*) to direct the whole practice process, and invite the students to participate by providing the specific location of the practice. Besides, for EFL teachers, it is also an efficient way to confirm students' understanding by eliciting responses in relation to the material.

4.2.1.3 Marking Topic Changes in Interaction

In high school classroom discourse, teachers often employ TOMs to make topic changes in interaction. For example,

- (4) T: Well <AM>, a narration should include who, what, when, how of a story. It is not a narration, right <AM>? What about <TOM> an argumentation? What is an argumentation? In an argumentation, you will see someone in favor of or strongly oppose certain kind of a theory opinion, right <AM>? (Initiating a new topic.)
- (5) Many animals have migrations, right <AM>? And <TOM> migration is a kind of journey. (Expanding the current topic.)
- (6) Please look at the black blackboard, we know <AM> that migration is a kind of journey, right <AM>? And <TOM> monarchs' migration is a long and difficult journey. (Expanding the current topic.)
- (7) Do you still remember the main idea of paragraph three? The mystery, right <AM>? So <TOM> the author is going to explain how they did this in paragraph three, right? (Ending the current topic.)
- (8) So <AM> can you think of another words with the same meaning of crucial and vital, significant, quite and important. So <TOM> that's the synonym of the two words. (Ending the current topic)

The above five excerpts present the role of TOMs in managing topic changes in classroom interaction. Example (4) belongs to the skills and systems mode, in which the main focus is to train students' ability in distinguishing different writing styles. In this mode, the teacher "provides with practice in essential reading sub-skills" (Walsh, 2006, p. 73) The teacher initiates a question by using the TOM what about to mark the new topic on her discourse and then elicit learners' answer on the newly introduced topic. Example (5) and example (6) belong to the material mode, because the interaction in the classroom is determined by the material being used. In example (5), the teacher first mentions a general fact, and then explains the concept of migration to facilitate students' understanding of the given material. In example (6), the teacher further expands her discourse by describing features of migration. And is used in both examples to expand the discourse. Examples (7) and (8) also belongs to the material mode. The teacher makes the conclusion considering the main idea of paragraph three. So is employed to draw a

conclusion and end the current topic. By using these TOMs, it is much easier for learners to detect the boundaries between discourse segments.

4.2.1.4 Maintaining Genuine Linguistic Communication

In Chinese EFL high school classroom discourse, TOMs are also used to maintain the linguistic communications, which is commonly seen in the classroom context mode, where students have certain freedom to choose what to say and when to say. For example,

(9) S: Love is touched like baby's face.

T: Love touches like the baby face, so <TOM> what's the feeling of touching baby's face?

S: It's soft.

T: Okav?

S: And warm.

T: You can feel the energy of life when you touch the face of a baby. Okay, thank you!

In example (9), the learner's role has been extended, because unlike other three modes, learners are given more freedom in expressing themselves, and teachers' feedback is "focused on the message not form" (Walsh, 2006, p. 79) Here, the teacher used the TOM so to ask for students' further elaboration. Actually, it can be seen as a kind of "scaffolding" to support the students better express themselves, and elicit more details from students. In the given example, the teacher uses the TOM so to initiate a question, which can stimulate the student to provide more details and fix a breakdown in interaction. The pedagogical goal is to construct a context, in which learners can express themselves freely, thus promoting their oral fluency.

4.2.1.5 Checking Comprehension between Speakers

"Interaction is a dialogic and interactive process, in which both sides of interlocutors must interactively present themselves and get involved in the interaction." (Guo, 2020, p. 223) This is especially true in the setting of high school EFL classroom discourse, because the classroom context attaches great importance on learner's participation. Besides, the interaction in the EFL classroom is restricted by students' linguistic competence. Therefore, teachers have to make efforts to get the EFL learners engaged in the interaction by constantly checking students' understanding. Also, to promote the interaction, teachers use AMs to check their understanding on students' discourse. For example,

(10) T: What is this part about?

S: It's about study. It shows the different ways to know the students' mind.

T: Students' body language, right <AM>? Then <TOM> how the teacher knows her students body language, right <AM>? In different situations. Am I right <AM>?

- (11) T: You know <AM> the word physically? so <AM> that is to say <TOM>, we need to prepare something beforehand, **okay** <AM>?
- (12) T: Now <AM>, we're going to listen to the first part of the conversation. After that <TOM> you are going to tell me what is Mrs. Fors doing there, Clear <AM>? Now <AM>, let's listen to it.
- (13) S: I think our world will be much more beautiful and we can make world to become a nature

place and there will be have more and more new insects or plants.

T: Very good. There will be much more new insects, right <AM>? Okay, that's great!

Examples (10) and (11) belongs to the material mode. In this mode, interactions center on the learning material. In example (10), the teacher guides the students' to summarize the main idea on the given reading material. The first AM right is employed by the teacher to check her understanding about the student's discourse. Also, the second and third right are used to confirm students' understanding about her further expansion on the learner's contribution. Here, the pedagogical goals are to evaluate students' participation, and then check and display the correct answer. In example (11), the teacher uses the AM okay with a rising tone to check students' understanding on her explanation. Example (12) belongs to the managerial mode, where the teacher is explaining the task of listening before the listening practice. She uses the AM to ensure that all the learners have followed her instruction. The pedagogical goal is to achieve the successful transition between the managerial mode and skills and system mode. Example (13) belongs to the classroom context mode, where teachers take a less prominent role, so that there will be wider interactional space for students. The teacher also employs the AM right to check her understanding on the students' aforementioned discourse. Besides, the usage of the confirmation checker *right* can reveal that the teacher is attentively listen to the students' speech. To some extent, it extends the learner's contribution. The pedagogical goal is to establish a context, in which learners can confidently express their thoughts to improve their oral fluency.

4.2.1.6 Showing Confirmation

In high school classroom discourse, teachers often use AMs *okay* and *yes/yeah* to show confirmation and praise students when they successfully answer their questions. For example,

(14) T: What's the achievement of Tu Youyou?

S: she successfully found the artemisinin.

T: Yeah <AM>, she successfully found artemisinin, but <TOM> how how did she do that?

S: She founded by the traditional Chinese medicine.

T: uh-huh.

The above example belongs to the material mode, in which the teacher asks question about the famous people in the presented slide. The conversation between the teacher and the student follows a typical IRF pattern. The AM *yeah* is employed to show confirmation to the learner's contribution. It is worth mentioning that after the confirmation, the topic change is made to further expand the discussion. Therefore, the pedagogical goal is to evaluate the learners' current contribution, and further extend their role in the classroom discourse.

4.2.2 Cognitive Functions

4.2.2.1 Denoting the Thinking Process

In terms of teachers' talk, they often use the DSMs like *first one*, *and* etc. before the production stage. For example,

(15) T: So <AM> here are the rules for you. First one <DSM>, ensure it is a group work and cover

the three parts, and <DSM> try to use the chunks we learned today, and <DSM> try to make other group have a guess.

In the above example, the teacher displays instructions before the production stage. Here, her discourse belongs to the managerial mode, where the teacher explains the rules before the production stage. "Institutional business" is the major focus of this mode (Fung & Carter, 2007, p. 68). Also, there will be a transition between two modes, which are the managerial mode and classroom context mode. To achieve the successful transition between stages, the teacher employs DSMs to denote her thinking process to the students, so students can decode her discourse smoothly by following these DSMs as navigators. The pedagogical goal for using the DSMs can introduce or conclude an activity more efficiently.

4.2.2.2 Reducing Cognitive Interference in Seeking Relevance

In Chinese EFL high school, teachers are aware of employing the semantic meaning of TOMs to explicit the relations between the preceding and the following discourse segment. In most cases, the logical relations between the two parts of the discourse have already existed, but may still be implicit to students. For example,

- (16) Now <AM>, I want you to write in groups since time is limited, and <TOM> you will go all going to decide on a person to describe and then <TOM> assign each of the three parts to two students in your groups, alright <AM>?
- (17) Perhaps love is an eraser, because <TOM> it can erase all my sadness. Perhaps love is a roller coaster, because <TOM> it goes ups and downs.
- (18) T: How does the teacher interact with her students? For example <TOM>, when when I read it a lot, when I make a joke, they smile. So <TOM> if I say making a joke here is a cause, then <TOM> what is the response or effect?

S: They smile.

T: Good. So <TOM> you know <AM>, what cause and effect is, right <AM>?

Example (16) belongs to the managerial mode. In this example, the teacher displays her instruction before the production stage. TOMs like *and*, and *and then* are used to ensure students can follow the instructions step by step in their language production. Example (17) belongs to the material mode, the teacher is illustrating some examples about the concept of love from the learning material. The TOM *because* is employed to explicitly highlight the relationship between the tenor and the vehicle. Example (18) belongs to the skills and system mode. The teacher uses "scaffolding" to elicit responses from the learners to strengthen his understanding about the writing techniques, which is also an essential sub-skill in reading. TOMs like *for example*, *so*, and *then* are employed to explicitly unfold the logical relations in discourse segments. Here, in the given examples, TOMs are used to deal with the relations existed within the primary discourse, which can also be viewed as "secondary discourse" or "meta-discourse" (Guo, 2020, p. 173) The interpretation of the discourse performed by EFL learners can be viewed as the process of searching for maximum relevance. Searching for relevance refers to

students' cognitive efforts in processing the propositional information. As in Guo's viewpoint, "the more cognitive effect a marker has in a given context, the less processing effort is in need on the part of students." (ibid.) By employing TOMs, teachers can set constraints on students' language decoding process, thus their cognitive efforts can be greatly reduced in finding the maximum relevance in teachers' discourse, thus facilitating the realization of pedagogical goals in each mode.

4.2.2.3 Foregrounding to Channel Attention

According to Talmy (1978), figure-ground is central to our conceptual system, because it allows us to highlight one particular subject, and make it the focus of attention in a scene. Therefore, the foregrounded subject can be termed as a figure, which is more salient in perception compared to other objects in the ground. In Chinese high school EFL classroom context, teachers often employ AMs as cognitive resources to attract students' attention so that learners can be informed in forthcoming topic shift in the teachers' classroom discourse. For example:

- (19) T: So <AM> here, some people are here. Do you know them? Who are they? Who are they? (Material Mode)
- (20) T: So <AM> good afternoon, ladies and gentlemen. (Managerial Mode)
- (21) T: So <AM>, in our class, we will hold an award ceremony. (Managerial Mode)
- (22) T: And now <AM>, I'd like you to read the chunks and the passage, once again, try to put all these chunks into three parts, achievement, road to success and personal qualities. (Material Mode)
- (23) T: **Okay <AM>**, so <TOM> we can draw the conclusion. When we use a suffix suffix, we usually change the part of the speech of the words. (Material Mode)

The above five examples employs the AMs so, (and) now, and okay. In these cases, the AMs are small in area, short in production and more salient in perception, which naturally gains the position of figures, while other parts of the teachers' discourse can be construed as grounds, which are geometrically more complex and more difficult to construe. Example (19) belongs to the material mode, and the AM so is located in the beginning of the sentence, which is more salient among other parts of the sentence and is used to draw students' attention to the learning material on the PPT slide, so that the teacher can further elicit responses from the students considering the given material. Examples (20) and (21) belong to the managerial mode. In example (20), the teacher greets the students, starting with the AM so, to draw students' attention, and get ready for the class. In example (21), the teacher introduces the main task of the whole class in the beginning, using the AM so to channel students' attention. The pedagogical goal is to set up a physical learning environment and construct a solid foundation for the rest of the class.

Example (22) belongs to the material mode, the teacher uses the AM (and) now to let students focus on the reading exercise. For one thing, the AM is employed as a cognitive device, which channels students' attention due to its prominent feature in the teachers' discourse. Otherwise, students' may feel confused about the ongoing discourse due to their less prominent feature in the discourse. For another, it gives the students certain amount of time to adjust themselves and be well prepared for the coming reading activity, thus significantly reducing their cognitive load. Example (23) belongs to the material

mode. The teacher uses the AM *okay* before the conclusion to arouse students' attention. In this case, the AM is employed before the TOM *so* to avoid the abruptness in topic change, because students can easily perceive the forthcoming topic shift due to its salient feature. Pedagogically speaking, the AM *okay* is employed to highlight the key points in the classroom interaction.

4.3 Problems in Teachers' Use of Discourse Management Markers

4.3.1 Overuse of DMMs

In the classroom discourse, teachers have their own preferences in the usage of DMMs. However, in some cases, Chinese EFL teachers may overuse certain markers, (like *so*, *okay* and *now*) which may arouse confusion among students. For example,

- (24) Hi, boys and girls. Nice to meet you again. So <AM>, welcome to our class today. So <AM>, in our class, we will hold an award ceremony. And <TOM> you are expected to write an award speech for the people of achievement. So <AM> what a speech, an award speech. Yeah, so <AM> but <TOM> how how could we write a word speech?
- (25) **Okay** <**AM>**, think about how to give advice on emergency supplies. **Okay** <**AM>**, this time we'll watch a video together, **okay** <**AM>**? And see how the lady in the video did it.
- (26) And <TOM> just now <AM> I just extracted five sentences from the summary. Now <AM>, let's see what are they? And now <AM>, also <TOM>, more importantly, now <AM> let's look at the function of the -ing form in each sentence, okay <AM>?

In example (24), the teacher employs the AM at the beginning of each sentence to guide attention through her discourse. However, it should be noticed that the overuse of the AM so is does not bear any interactional or cognitive function, but rather the simple repetition, which may interfere students' comprehension. In example (25), the teacher uses the AM okay for three times. Though it is an effective interactional device to attract students' attention, and check their comprehension, the successive use of the AM okay will divert the students' attention away. In example (26), the teacher consistently employs the AM now, which is often used to attract learners' attention when ending or introducing an activity. However, the teacher uses now to introduce all discourse segments. The third and fourth now should be deleted, because also and more importantly have already attracted learners' attention on the topic shift. In a nut shell, the overuse of certain DMMs may disrupt the discourse structure, interfere learner's understanding interactively and cognitively.

4.3.2 Underuse of DMMs

From the classroom recordings, the selected teachers neglect the cognitive function of the AMs well and you know for implying hesitation, and mostly use so, yeah or just leaving the blank in the discourse. For example,

- (27) Now $\langle AM \rangle$, let's move on to another writing technique. **Er...**, to give the readers a real experience of the writers, emotions, or feelings.
- (28) So <AM> here <AM> I just extracted five sentences, the whole passage from the er..., yeah, <AM>, just now the video clip.

(29) You can find the names, is that so <AM>? **So <AM>**, for example <TOM>, Zhong Nanshan, Tu Youyou, Lin Qiaozhi. So <TOM> who is the people impress you most?

In example (27), the teacher simply pauses her discourse and uses *er to* fill the empty of the discourse. In example (28), the teacher employs the filler *er* and an AM *yeah* to mark her hesitation in utterance. In example (29), the AM *so* with is employed to show hesitation in the discourse. In the three examples, a better alternation is to employ the AMs *well* or *you know* in the discourse. As mentioned in Zhang and Liu (2010, p. 362), *well* can be employed as an AM to "gain the time for thinking and maintain the discourse in turn taking". However, from the recorded linguistic data, teachers seldom apply the AMs like *you know* and *well* in the classroom discourse to imply hesitation. That is to say, the selected teachers are good at using AMs in performing the interactional function of checking comprehension, attract learners' attention, and show confirmation, but they lack the knowledge of using AMs appropriately to achieve their cognitive function.

5. Conclusion

5.1 Major Findings of the Study

This study mainly adopted an extended multi-functional framework to explore the interactive and cognitive functions of DMMs in Chinese high school EFL classroom discourse based on the self-built corpus. The major findings can be concluded as follows:

Firstly, among all the DMMs, AMs are the most frequently used DMMs in the selected teachers' discourse. Besides, teachers have their own preferences in choosing DMMs. In terms of the DSMs, first/second/third one, and number one/two/ three are most frequently used. In terms of TOMs, teachers are more likely to employ so, and, how about/what about. In terms of AMs, (al)right/ Am I right, now, and so are the frequently used markers.

Secondly, based on the selected linguistic data, the study reveals the multi-functionality of DMMs that are frequently occurred in Chinese high school classroom discourse within modes in EFL Micro-classroom contexts. The result can be summarized in the following table (Table 7). Moreover, the author also investigates the pedagogical goals during the analysis of DMMs with reference to the specific mode that a DMM belongs to.

Thirdly, as for the usage of DMMs, there are overuse and underuse of certain DMMs. In some cases, teachers may consistently employ a single marker (like *okay, so and now*), However, these repeated DMMs bear no interactional and cognitive function, and will cause confusion among speakers. Also, teachers may underuse DMMs, due to their lack of knowledge in their interactional and cognitive functions. (E.g. mark hesitation, and maintain the discourse, etc.)

Table 7. The Interactional and Cognitive Functions of DMMs in the Selected Classroom Recordings

DMMs	Interactional Function	Cognitive Function
	• Signal the sequential relationship for	
DSMs	learners	 Denote the thinking process
	Invitation for Co-construction by Locating	tion by Locating
TOMs	Mark topic changes in interaction	Reduce cognitive interference in
	• Maintain genuine linguistic	- Reduce cognitive interference in
	communication	seeking relevance
AMs	• Checking comprehension between	• Foregrounding to channel
	speakers	attention
	Show confirmation	

5.2 Pedagogical Implications

The result of the discussion proves the necessity and significance of effectively and appropriately employing DMMs to achieve a wide range of interactive and cognitive functions in EFL classroom discourse. Based on the research data and the above discussions, the study will provide some pedagogical implications for EFL teachers to enhance their knowledge on the usage of DMMs in classroom discourse.

Primarily, the proper use of DMMs is crucial in satisfying the interactional and cognitive functions in each mode, which is also the prerequisite to achieve the final pedagogical goals. As mentioned in Azi (2019, p. 360), the usage of these linguistic entities in the classroom discourse are closely related to "teachers' interactional and cognitive practices". Therefore, teachers should choose appropriate DMMs based on the micro classroom contexts to achieve the final pedagogical goals. That is to say, the micro classroom contexts, the interactional and cognitive functions of DMMs, and the final pedagogical goals are closely related. For example, in the managerial mode, teachers can apply the DSMs (like firstly, secondly, and thirdly) to make their discourse much easier to follow and keep students' attention on the right track. And in the classroom context mode, where students are encouraged to express themselves freely, teachers can employ the TOMs and AMs to check understanding and try to extend learners' discourse. To conclude, the usage of DMMs should contribute to the interactional and cognitive functions, and the pedagogical goals in each mode.

Secondly, teachers should avoid the overuse and underuse of DMMs. From the searched data, teachers have the tendency to successively employ a single marker (like *okay* and *so*). However, the overuse of one DMMs may hinder students' understanding. There are also circumstances when teachers are more likely to ignore the usage of DMMs due to the lack of knowledge in the functions of certain DMMs, especially the cognitive functions of AMs. However, as illustrated in Guo's study (2012), the usage of

DMMs in Chinese EFL learners are less diversified compared to native students. Chinese high school EFL teachers should improve their accuracy and diversity in the usage of DMMs, because their discourse is the major source of the students' comprehensible input.

Thirdly, teacher training workshops should provide opportunities for Chinese EFL teachers to learn about the interactional and cognitive functions of DMMs in relation to the micro contexts in the classroom discourse, so that teachers can reflect on their actual usage of DMMs. This suggestion is in line with Zhang and Liu (2010), and Azi (2019). Besides, teachers should incorporate the usage of DMMs in their lesson plan to cultivate students' competence in using DMMs to facilitate communication.

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