

**A STUDY OF STUDENTS' GROUP DIALOGUES ON THE USE OF  
HIGH-LEVEL COMPREHENSION FEATURES IN AN EFL READING  
CLASS**

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**ABSTRACT**

This study aimed to examine junior college students' group dialogues on the use of high-level comprehension features in an EFL reading class. The participants were one high-ability group and one low-ability group in terms of discussion proficiency. Eight representative discussions conducted in the students' first language served as the major data source, which were analyzed for discourse features linked to high-level thinking and comprehension, based on the criteria identified by Soter et al. (2008). Interviews and students' reading logs were collected to provide supporting evidence of how the EFL learners undertook their group reading tasks. The results revealed that both focus groups, to some extent, were able to incorporate all discourse features that indicate high-level learning and comprehension of texts without regard to discussion proficiency. The major differences were that the high-ability group had more uptake questions, whereas the low-ability group engaged in longer and more numerous episodes of elaborated explanations and of exploratory talk. That the low-ability group exhibited more talk and indicators of quality discussion than the high-ability group could be possibly explained with the genre of reading materials, personal belief about reading stories, and the use of nonverbal information and of personal connections. Despite the differences, the two groups demonstrated the language of high-level comprehension to "interthink" deeply about the text. The study concludes that through incorporating discourse features linked to high-level comprehension, students could guide one another toward deeper engagement with the text in group reading.

**Key Words:** group dialogue, discourse analysis, high-level comprehension, story discussion

## **INTRODUCTION**

For decades, a substantive body of empirical evidence has indicated that group discussion is effective in improving students' reading comprehension and higher order thinking (Malloy & Gambrell, 2011; Murphy, Wikinson, Soter, Hennessey, & Alexander, 2009). For example, studies utilizing different discussion approaches such as Book Club, Literature Circles and Instructional Conversations (Shen, 2013), and Jigsaw II (Ghaith & El-Malak, 2004) have revealed that students improved their higher order comprehension more than their counterparts in the traditional whole-class method. Group discussion allows students to work together to summarize, elaborate, and report information to their teammates. Talk is the medium of thought (Vygotsky, 1981). When students give and ask for an accepted interpretation, or are required to explain their thinking, they often use talk to organize opinions and clarify information (Ghaith & El-Malak, 2004; Gillies, 2013). Phippen (2015) ascertained that talking about texts "enabled the students to articulate their own ideas, learn others' opinions and co-construct interpretations" (p. 24). In so doing, students participating in peer-mediated interactions are more likely to generate new ideas and develop new perspectives and understandings (Gillies, 2013; Kucan & Beck, 2003).

Despite the fact that group discussion increases the amount of student talk and provides opportunities for learners to engage in dialogue together, some researchers have claimed that simply organizing learners into groups may not always trigger a productive group dialogue (Allen, Möller, & Stroup, 2003). For example, some students may be observed not providing high quality explanations that support each other in constructing new knowledge. Therefore, theorists and researchers have explored classroom discourses that contribute to high-level complex thinking such as exploratory talk (Rudnitsky, 2013; Sutherland, 2015). However, the discourses examined have been mainly produced by L1 learners and ESL learners. Rarely have discourses in discussion groups in EFL contexts been investigated. In order to extend the findings related to how students use talk to demonstrate their higher order thinking about the text, in this study, the verbal interactions of the two peer-reading groups in an EFL reading class were analyzed and evaluated with a common set of talk types and indicators of high-level comprehension such as elaborated explanations and exploratory talk, as identified by Soter, Wilkinson, Murphy, Rudge, Reninger, and Edwards (2008).

## *HIGH-LEVEL COMPREHENSION GROUP DIALOGUES*

### **Classroom Talk that Promotes High-Level Thinking and Comprehension**

The use of group discussion to improve reading comprehension and higher order thinking is solidly grounded in sociocultural theory. Vygotsky (1978, 1981) maintained that learning and development are inherently social, and social interaction is a prerequisite to cognitive development. He also foregrounded the importance of language as a psychological tool for mediating the internalization process. Recognizing talk as an important tool for thinking and learning, numerous scholars and educators have directed their attention to language of high-level comprehension to help students develop high-level literacy in response to the rapid technological changes taking place in the 21<sup>st</sup> century information society. High-level literacy is related to high-order thinking that goes beyond simple decoding to thinking critically and reflectively about text (Murphy et al., 2009). According to King (2002), high-order thinking has characteristics of making inferences, analyzing and synthesizing ideas, articulating hypotheses, evaluating alternatives, and monitoring thinking, etc.

In examining elementary students' group interactions and dialogues, Baines, Rubei-Davies, and Blatchford (2009) distinguished high-level talk from lower forms of talk. High-level talk occurs when students employ dialogic skills such as explanations and justifications to make reasoning explicit to others. It can be further categorized into high-level inferential talk that involves thinking beyond the given information and high-level, text-based talk that involves reasoning based on the material given in texts. In contrast, lower forms of talk often contain utterances that simply share ideas and opinions without reasons.

In validating discourse features that served across nine teacher-led and student-led discussion approaches such as Book Club as proximal indices of high order thinking and comprehension, Soter et al. (2008) elaborated on a set of features drawn from existing research, which consisted of: (1) questions, (2) elaborated explanations, (3) exploratory talk, and (4) reasoning words.

### **Questions**

Questions include authentic questions, uptake questions, questions that elicit high-level thinking, and questions that elicit extra-textual connections. Authentic questions are open-ended questions in which

answers are not pre-specified. Speakers asking authentic questions are genuinely interested in knowing how interlocutors will respond. By allowing a variety of acceptable answers, authentic questions either generated by students or by teachers, typically require more elaborate cognitive operations on the part of the students answering the questions (Soter et al., 2008), which is likely to stimulate a high degree of reciprocity in interaction (Nystrand, Gamoran, Kachur, & Prendergast, 1997). On the contrary, inauthentic questions, called “test” questions in the Soter et al. (2008) study, allow only one possible right answer and usually require students to retrieve factual information. Test questions are therefore considered to be less cognitively demanding than authentic questions.

Uptake refers to a follow-up question about something someone said previously. As it must incorporate a previous answer, a repeated question does not qualify as uptake. Uptake is often marked by relative pronouns, for example, “How did that work?” and “What caused it?” By establishing dialogic connections among speakers, uptake acts foster coherence within the discussion (Nystrand, Gamoran, Zeiser, & Long, 2003). As for questions that elicit high-level thinking, they are regarded as indicative of analysis, generalization, and speculation. These high-level thinking questions help create contexts for group members to generate extended responses.

The last type of question coded were questions that invite extra-textual connections including affective, intertextual, or shared knowledge responses. Affective responses contain utterances devoted to connecting text to feelings or experiences in a responder’s life. Intertextual responses cover comments on what is being read by using text-to-other-text connections. Shared knowledge responses are made when students create a link between what is currently discussed and what was previously discussed or shared. These three different forms of extra-textual connections are broadly defined using the umbrella term of “intertextual” connections (Chi, 2012). In her study, “intertextual” connections were socially constructed by a group of college EFL readers who drew on a variety of sources to make bonds between and among texts, including visual and audiovisual texts, prior knowledge, and life experiences. Thus, Chi (2012) ascertained that “intertextual” connections enabled students to think deeply into the story within a discourse pattern which surpassed merely discussing the text itself.

#### **Elaborated Explanations**

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Elaborated explanations, identified by several scholars such as Webb (1980, 1991) and Slavin (1991), are defined as “thinking is explained in some detail through extension, building of an idea step-by-step, giving reasons for a statement, or expanding on a statement” (Soter et al., p.381). In line with this, Gillies (2013) refers to the following discourse types: elaborating/explaining, giving details and extending an idea, and amplifying a concept. Giving elaborated explanations allows help-givers to reorganize material, and help-seekers to construct understanding and/or to recognize misconceptions. By engaging in high-level complex thinking, both help-givers and help-seekers often obtain more in-depth perspectives. Slavin (1991) claimed that students are more motivated to engage longer in the elaborated explanations if group rewards based on individual learning performances are provided.

### **Exploratory Talk**

Exploratory talk was identified by Barnes (1976) and Barnes and Todd (1995) who observed classroom talk in which students jointly inquired and constructed new understanding. They also discriminated between presentational talk and exploratory talk. Briefly, exploratory talk occurs when students can try out ideas, relate new ideas to experiences, and develop new, shared knowledge. Elaborating Barnes and Todd’s claim, Mercer (1996) viewed exploratory talk as a social mode of thinking. It occurs when students build up shared understanding over several turns, judge the appropriateness of information, and consider alternatives. In other words, students use exploratory talk to engage critically but constructively with what others have said. Mercer and Littleton (2007) highlighted that the visibility of reasoning processes and the general agreement among teammates distinguish exploratory talk from disputational talk and cumulative talk, characterized, respectively, by disagreement and individualized decision making, and elaborations and positive but uncritical comments. Robins (2011) examined the effect of teaching exploratory talk on the sentence structure of a focus group of six gifted children in an L1 context, and found that the children made progress in varying sentences in terms of clarity, purpose, and effect. After the intervention, these children continued to develop their exploratory talk to explicate their own thinking and to develop their ability to challenge others. This was in contrast with their counterparts who exhibited over-reliance on their teacher until they also received instruction of exploratory

talk strategies.

### **Reasoning Words**

Episodes of exploratory talk are often associated with certain words (Wegerif & Mercer, 1997). These words served as the last index of high-level learning and are referred to as reasoning words in the Soter et al. (2008) study. Reasoning words are frequently used conjunctions (e.g., because and so), modals (e.g., would and could), and adverbials (e.g., maybe) when used to signal reasoning in appropriate contexts. These words are organized into three presumed functions: (1) speculating/proposing (would, could, maybe/might, if), (2) positioning/claiming (I think, I agree/disagree), and (3) analyzing/generalizing (because, so, how/why). Other than providing another index of exploratory talk, students' relative use of reasoning words also indexes their elaborated explanations.

The aforementioned talk and indicators of high-level comprehension illustrate how discussants utilize talk as a social tool for reasoning to produce extended responses while jointly exploring meanings about texts and other subjects. Given the fact that there is an increasing need for high-level literacy to read and synthesize from a variety of information sources emerging from new technologies in the 21st century, the present study attempts to provide an analysis of students' dialogue that promotes higher order thinking and comprehension during peer-led story discussions. The criteria proposed by Soter et al. (2008), which were drawn from previous empirical research, are used in this research project. However, these studies were mostly situated in L1 and ESL contexts. As research has rarely looked into EFL learners' classroom discourse, the current study contributes to the literature as one of the few studies that focuses specifically on identifying EFL learners' academic talk linked to high-level comprehension while undertaking group reading tasks. In other words, this study hopes to shed light on EFL learners' use of language that demonstrates high-level cognitive skills by investigating actual interactional data collected from the classroom.

## **METHOD**

### **Participants**

### *HIGH-LEVEL COMPREHENSION GROUP DIALOGUES*

The participants consisted of one high-ability group and one low-ability group in terms of discussion proficiency adapted from Almasi et al. (2001), which evaluates how group members respond to one another, extend others' comments by asking questions, support ideas by referring to text, and ask questions to clarify text. The two groups were selected from 12 heterogeneous teams consisting of four second-year students with different levels of reading ability each in an EFL reading class from a five-year program at a junior college. Their reading abilities were determined by their final grades achieved in this reading course in the second semester of the first academic year. Each team had one high achiever, two middle achievers, and one low-achieving student. With a high achiever more competent in providing elaborated explanations, engaging students in using the high-level comprehension features seems more possible.

Prior to the inception of this research project, all 12 groups had been audiotaped at the beginning, in the middle, and at the end of the previous semester as they participated in group discussions of essays or articles. Preliminary analysis of these discussion transcripts revealed a discussion pattern which fitted Almasi et al.'s (2001) discussion proficiency. Therefore, the group with the highest frequency and the group with the lowest frequency of these characteristics were chosen to be the focus groups. In other words, the two groups were selected based on "maximum variation" to represent diverse cases to fully display diverse perspectives (Miles & Humberman, 1994). The high-ability group was composed of three female students and one male student; the low-ability group had four females. These participants, aged between 17 and 19, were majoring in Applied English. Their linguistic levels ranged from high-beginning to low-intermediate. The present study attempted to fully depict diverse perspectives of how EFL learners exhibited high-level learning rather than to compare how more and less proficient groups discussed texts. Instead of labeling the groups according to ability, they were simply called Group A and Group B. Group A members included Wendy<sup>1</sup>, Lisa, Joe, and Sharon; Group B members, Debbie, Judy, Gina, and Amy, in the order of their reading abilities, from high to low.

#### **Classroom Context**

Prior to this study, the EFL learners read passages in ACTIVE Skills

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<sup>1</sup> All students' names are pseudonyms.

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for Reading II<sup>2</sup> through Within-Team Jigsaw (Kagan, 1995) under the author's instruction for three and a half semesters. In the latter half of the second semester of the second academic year, they began to discuss eight short stories chosen from three beginning-level graded readers (The Last Leaf and Other Stories, Sherlock Holmes Short Stories, and Stories from the Five Towns<sup>3</sup>) over a period of eight weeks in their first language, Chinese. These stories have 600-700 headwords and involve universal themes such as love and money, which allowed the students to gain adequate comprehension and to relate the text on a personal level. The use of the participants' native language was to diminish the interference of linguistic barriers in spontaneous text interpretations and personal responses, thereby obtaining more trustworthy discussion data (Bernhardt, 2003). The original instruction for two 50-minute periods had the following steps: (1) read-aloud of short story (2) peer-led group discussions (3) whole-class sessions of discussions, and (4) writing in reading logs. Another step, sharing good examples of reading logs, was established starting from the third lesson. As the students were not familiar with story discussion, in the first lesson, guided questions were utilized as a model of ways to talk productively about the story. However, in the subsequent lessons, each student was required to prepare three questions for each small-group discussion and jot them down in their reading logs.

#### Data Sources and Analysis

Three data sources were: (1) audiotapes and videotapes of weekly discussions, (2) interviews, and (3) students' reading logs. Among the eight weekly discussions, the last four weekly discussions were selected for intensive analysis. The assumption was that the last four discussions tended to reveal the participants' sophisticated thinking about the texts more than the first four discussions. In other words, a total of eight representative discussions were collected from the two focus groups. The unit of analysis was a turn or an utterance, which refers to "what is said by any one person before or after another person begins to speak"

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<sup>2</sup> Anderson, N. (2007). *ACTIVE Skills for Reading* (2<sup>nd</sup> ed.). Boston: Heinle Publishers.

<sup>3</sup> Graded readers cited: (1) Bennett, A. retold by N. Bullard. (2000). *Stories from the five towns*. Oxford, UK: Oxford University Press. (2) Doyle, A. C. retold by C. West. (2000). *Sherlock Holmes short stories*. Oxford, UK: Oxford University Press. (3) Henry, O. retold by K. Mattock (2005). *The last leaf and other stories*. Oxford, UK: Macmillan Heinemann ELT.

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(Richards, Platt, & Platt, 1983, p. 493). A turn may consist of one word, one sentence, or more than one sentence. The discussion transcripts were fully coded. That is, meaning-making talk, procedural talk, and off-task chatting were identified. Distribution of the three types of the students' verbal interactions is detailed in Table 1-1. There were 1,356 turns in Group A, inclusive of two turns by one student in another discussion group sitting next to Group A, and 815 turns in Group B. As procedural talk and off-task chatting were beyond the scope of this study, they were excluded from the analysis. Distribution of turns, words, and mean words per turn in meaning-making talk across the four story discussions is summarized in Table 1-2.

Table 1-1

*Types of Utterances across the Four Discussions by Discussion Groups*

Story	Meaning-making Talk		Procedural Talk		Off-task chatting		Total utterances per story	
	Group A	Group B	Group A	Group B	Group A	Group B	Group A	Group B
<i>Car is Waiting</i>	192 (52%)	168 (65%)	56 (15%)	28 (11%)	124 (33%)	62 (24%)	372	258
<i>Speckled Band</i>	291 (61%)	129 (93%)	32 (7%)	10 (7%)	151 (32%)	0 (0%)	474	139
<i>Scandal in Bohemia</i>	150 (64%)	98 (84%)	30 (13%)	16 (14%)	55 (23%)	2 (2%)	235	116
<i>Silent Brothers</i>	206 (75%)	242 (80%)	16 (6%)	31 (10%)	53 (19%)	29 (10%)	275	302
Total utterances by type	839 (62%)	637 (78%)	134 (10%)	85 (10%)	383 (28%)	93 (11%)*	1,356	815

\* Percentages may not add up to 100%, as they were rounded to the nearest percent.

Table 1-2

*Words, Turns, and Mean Words per Turn in Meaning-Making Talk by Discussion Groups*

Story	Words		Turns		Mean words per turn	
	Group A	Group B	Group A	Group B	Group A	Group B
<i>Car is Waiting</i>	2,690	2,415	192	168	14.01	14.38
<i>Speckled Band</i>	3,379	1,914	291	129	11.61	14.84
<i>Scandal in Bohemia</i>	2,235	2,345	150	98	14.9	23.93
<i>Silent Brothers</i>	2,623	4,017	206	242	12.73	16.60
Total	10,927	10,691	839	637	13.02	16.78

The data were analyzed following the language indicators of high-level learning identified by Soter et al. (2008). The first dimension of analysis centered on questions. Questions were coded as either authentic or test questions. These questions were further coded as to whether they induced uptake, and generated responses that revealed high-level thinking (i.e., analysis, generalization, and/or hypothesizing) and extra-textual connections (i.e., affective, intertextual, or shared knowledge connections). The interactional data were continuously analyzed under the categories of elaborated explanations and exploratory talk. Finally, words signaling reasoning in episodes of exploratory talk were identified in the discourse coding category of reasoning words. In order to achieve rater reliability, the researcher provided the coding scheme with examples to an experienced EFL teacher. Then, the teacher coded a random selection of 25% of the transcript pages. She achieved an agreement of 77% with the researcher in terms of the coding of the conversation. The 23% of the transcripts which showed discrepancies were discussed so as to reach an agreement.

Interview data and students' reading logs provide supporting evidence of how the EFL learners used high-level comprehension discourse features to discuss stories. They were analyzed to identify codes and categorize the recurrent pattern, following a content analysis procedure (Patton, 2002). The discussion excerpts in conjunction with the interview excerpts were

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translated from Chinese into English by the researcher. Errors in students' log entries written in English were kept intact to avoid risking changing their meanings.

### **RESULTS AND DISCUSSION**

The present study attempted to investigate EFL learner's collaborative talk linked to high-level comprehension during group reading activities. As mentioned in the Method section, discussion proficiency was employed as the sampling strategy to categorize the two peer reading groups, assuming that the high-ability group (Group A) might exhibit more talk and indicators of quality discussion and the low-ability group (Group B), less talk and indicators.

By examining verbal interactions of the two focus groups, the results, however, showed that both groups demonstrated a certain degree of high-level comprehension in all categories to engage in high-order thinking regardless of discussion proficiency. Group A had more discourse features in some categories, whereas Group B was more proficient in other categories. Simply put, Group A raised more uptake questions and used more reasoning words categorized as analyzing/generalizing, whereas Group B devoted more utterances to elaborated explanations and more utterances to exploratory talk, and employed more numerous words that indicate speculation or making a proposal. To exemplify the picture of the students' cognitive processes, their use of such discourse features will be portrayed.

#### **Questions**

The two focus groups generated both authentic questions and test questions. They posed the same amount of authentic questions. They also asked fewer authentic questions in the last story discussion than those in the first story discussion. This might be due in no small part to the text. The author of the first story, *The Car is Waiting*, purposefully left some things unexplained about the characters' behaviors, which gave room for the EFL readers to formulate authentic questions. Table 2 details the percentages of student-generated questions categorized as authentic or test in each of the four discussions analyzed for each group. The percentages of questions which were labelled authentic ranged from 21.95% to 72.73% across the four sessions for the two groups, showing that, to a certain

extent, the students produced productive talk to facilitate high-level learning, as authentic questions present a demanding cognitive challenge to the students answering the questions (Soter et al., 2008).

As shown in Table 2, Group A produced test questions slightly more than twice as many as Group B. Such a difference was highly relevant to the discussion pattern. Group A regularly began their group reading to obtain particular information they deemed necessary to resolve the confusing parts of the text through test questions. However, Group B tended to start their

Table 2

*Distribution of Questions Coded as Authentic and Test by Discussion Groups*

	Group A		Group B	
	Authentic	Test	Authentic	Test
<i>Car is Waiting</i>	10(71.42%)	4 (28.57%)	12(60.00%)	8(40.00%)
<i>Speckled Band</i>	9(21.95%)	32(78.05%)	8(53.33%)	7(46.67%)
<i>Scandal in Bohemia</i>	7(33.33%)	14(66.67%)	8(72.73%)	3(27.27%)
<i>Silent Brothers</i>	7(25.93%)	20(74.07%)	5(25.00%)	15(75.00%)
Total	33(32.04%)	70(67.96%)	33(50.00%)	33(50.00%)

group reading with plot summary. Group A also had more test questions than authentic questions for the four story discussions as a whole. Regarding Group B, an equal amount of the two types of questions were raised. It is noteworthy that some of the test questions which inquired about information not presented within the text had a potential to stimulate further discussion as authentic questions. An example was when Group A asked a test question about who the author of *Sherlock Holmes Short Stories* was, the students ended up having thoughtful conversations around the story as in the following excerpt.

Discussion Excerpt 1: *The Speckled Band*, Group A

Wendy: Who is the author of *Sherlock Holmes Short Stories*?

Lisa: It's Watson, isn't he? The assistant, right?

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Joe: *Sherlock Holmes Short Stories* wasn't written by Holmes. Do you know about that?

Anna<sup>4</sup>: It was written by *Conan Doyle*.

Lisa: Oh, really?! Then why does the story begin <sup>5</sup>[with the...?

Anna: [Because he used a third- person narrative.

Lisa: So, he pretended to be Holmes' assistant to write the story.

Instead of being written at the beginning of the story, The Specked Band, the author's name, Conan Doyle, was written on the cover of the storybook *Sherlock Holmes Short Stories*. The students who did not read the cover might either have no idea or wrong ideas about who the author is. For example, in the above excerpt, Wendy inquired about the author and Lisa mistakenly thought Watson, Holmes' assistant, was the author. Upon overhearing Joe asking his teammates whether they knew *Sherlock Holmes Short Stories* was not written by Holmes, Anna from another group joined Group A's dialogue, telling them who the author was. Lisa provided a reason for her challenge by questioning why the story began with Watson's narration if Watson was not the author. It was interesting that although Anna mistakenly used the term "a third-person narrative" for "a first-person narrative," Anna's explanation helped Lisa recognize her misconception and gain a new understanding that a character narrating the story may not necessarily be the author. In addition to this extended discussion elicited by the test question in which Group A probed into the author through the literary technique, different types of extended probing were triggered by the questions students asked.

Table 3 shows a breakdown of the percentages of authentic and test questions posed by the students that demonstrated uptake (UT), elicited high-level thinking (HLT), and induced affective responses (AR), intertextual responses (IR) and shared knowledge responses (SK). Several observations can be made about the results. The percentages were calculated based on the frequencies of different types of questions per 100 turns. First, the two focus groups had nearly the same total amount and total percentage of high-level thinking questions. They also asked HLT questions most among all the question types. The phenomenon could be attributed to the fact that the first text (*The Car is Waiting*) was full of room for interpretations and analyses. The frequencies of HLT in the first

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<sup>4</sup> Anna was a student in the group sitting beside Group A.

<sup>5</sup> A symbol of overlapping talk.

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story discussion by Group A (N=14) and by Group B (N=11) account for 46.67% and 39.29% of the total amount of questions, respectively. It seemed obvious that by practicing three different types of high-level thinking, i.e., analysis, generalization, and speculation, the EFL learners in both peer-led groups learned to create dialogues beyond what Baines et al. (2009) called lower forms of talk. These dialogues involved little effort to explore the texts further beyond high-level, text-based talk.

The two groups are also similar in terms of the lower percentage in the three indicators under extra-textual connections (AR, IR, SK) throughout the entire study. Despite the low incidences, it seemed apparent that the students brought their personal affective reactions, intertextual knowledge, and previous reading experiences to jointly construct meanings. Such extra-textual connections are quite similar to Chi's (2012) "intertextual" connections that enabled readers to explore deeper comprehension. The students' collaborative reading that surpassed mere factual information to advance their high order cognitive reasoning can also be evidenced in the episodes of elaborated explanations, which will be presented in the next section.

As for the difference, Group A (3.22%) incorporated a total higher degree of uptake (UT) than Group B (1.88%). The result was within expectations, since Group A had better discussion proficiency. They were more capable of taking up one another's words in one form or another such as uptake questions to develop and expand topics, which, as argued by Nystrand et al. (2003), helped contribute substantively to the flow of discussion.

Table 3

*Questions That Demonstrated Uptake, and Elicited High-Level Thinking and Extra-Textual Connections by Discussion Groups*

	UT		HLT		AR		IR		SK	
	Group A	Group B	Group A	Group B	Group A	Group B	Group A	Group B	Group A	Group B
<i>Car is Waiting</i>	4 (2.08%)	4 (2.38%)	14 (7.29%)	11 (6.55%)	1 (0.52%)	0 (0.00%)	1 (0.52%)	0 (0.00%)	0 (0.00%)	1 (0.60%)
<i>Speckled Band</i>	16 (5.50%)	3 (2.33%)	8 (2.75%)	6 (4.65%)	1 (0.34%)	3 (2.33%)	4 (1.37%)	1 (0.78%)	1 (0.34%)	0 (0.00%)
<i>Scandal in Bohemia</i>	4 (2.67%)	1 (1.02%)	5 (3.33%)	7 (7.14%)	1 (0.67%)	1 (1.02%)	2 (1.33%)	1 (1.02%)	0 (0.00%)	0 (0.00%)
<i>Silent Brothers</i>	3 (1.46%)	4 (1.65%)	3 (1.46%)	4 (1.65%)	1 (0.49%)	3 (1.24%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
Total	27 (3.22%)	12 (1.88%)	30 (3.58%)	28 (4.40%)	4 (0.48%)	7 (1.10%)	7 (0.83%)	2 (0.31%)	1 (0.12%)	1 (0.16%)

**Elaborated Explanations**

The two focus groups offered elaborated explanations (EE) in each group meeting except that Group B did not offer any during their final literary interaction. Tables 4-1 and 4-2 list the turns, episodes, mean length, and percentages of turns and episodes in EE across the four transcripts for each group. The percentages were calculated based on turns and episodes of elaborated explanations per 100 turns. Taking all four transcripts as a whole, Group B had longer and more numerous episodes and devoted more utterances to elaborated explanations than Group A. The mean turns per EE by Group B were 4.54, whereas by Group A were 2.63. The overall percentage of turns and episodes in EE by Group B were 9.26 and 2.04, whereas by Group A were 2.50 and 0.95. What is particularly noteworthy was that Group B which had weaker discussion proficiency exhibited more talk and indicators of quality discussion than Group A which had better discussion proficiency. The unexpected results could be possibly explained with two intertwined factors, genre of reading materials and personal belief about reading stories. The two focus groups were chosen based on their textual talk about essays or articles that have concrete facts. Switching to reading stories that allow for a variety of interpretations

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might result in a different discussion proficiency. Some group B students explicitly stated that they were willing to participate in interesting story discussions in which they could share their unique interpretations, compared to essay or article discussions. One member, Gina, identified that individual interpretations are good when reading short stories, and this inspired her to become more engaged in textual interactions.

Interview Excerpt: Gina, 3<sup>rd</sup> Interview

Researcher: While discussing *The Silent Brothers*, you mentioned that taking a fancy to something is good. Can you elaborate on that?

Gina: Taking a fancy to something? Oh, I thought the sister, because we were talking about character analysis. My peers thought the sister in the story wants her two brothers to fight over her bequest. But, I thought what the sister really wants is that her two brothers would be reconciled.

Researcher: So, you mean making interpretations about the characters or the story is good.

Gina: Yes, personal interpretations.

Researcher: Are you saying that stories give you more room for interpretations?

Gina: Right, the ideas in *ACTIVE*<sup>6</sup> are fairly clear, so sometimes I didn't join in our group discussions before.

It seemed evident that Gina's personal belief about reading stories influenced how Group B carried out their group reading tasks. In other words, if stories had been utilized as the instructional materials for peer-led discussions where the EFL learners had the opportunities to share their individual interpretations, Group B might not have been selected to be the low-ability group in terms of discussion proficiency.

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<sup>6</sup> *ACTIVE Skills for Reading*, the reading material.

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Table 4-1

*Distribution of Turns and Episodes in Elaborated Explanations by Discussion Groups*

	Turns		Episodes		Mean Turns per EE	
	A	B	A	B	A	B
<i>Car is Waiting</i>	8	6	3	3	2.67	2.00
<i>Speckled Band</i>	7	16	3	3	2.33	5.33
<i>Scandal in Bohemia</i>	4	37	1	7	4.00	5.29
<i>Silent Brothers</i>	2	0	1	0	2.00	0.00
Total	21	59	8	13	2.63	4.54

Table 4-2

*Percentages of Turns and Episodes in Elaborated Explanation by Discussion Groups*

	Turns		Episodes	
	A	B	A	B
<i>Car is Waiting</i>	4.17	3.57	1.56	1.79
<i>Speckled Band</i>	2.41	12.40	1.03	2.33
<i>Scandal in Bohemia</i>	2.67	37.76	0.67	7.14
<i>Silent Brothers</i>	0.97	0.00	0.49	0.00
Total	2.50	9.26	0.95	2.04

It was also found that personal interpretations were often employed by Group B to give elaborated explanations. This can be illuminated with their discussion of *A Scandal in Bohemia*. In the story, the King of Bohemia was going to marry a Scandinavian princess. However, he had a liaison with another woman, Irene Adler, five years earlier, and Irene had a photograph of herself and the King together. As the princess would call off the marriage if she discovered the King's love affair, the King asked

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Holmes to take back the photograph before Irene sent it to the Scandinavian royal family. The high achiever, Debbie, asked a question about what the King did wrong.

Discussion Excerpt 2: *A Scandal in Bohemia*, Group B

Debbie: What on earth did the King do wrong or what wrong decision did he make?

What did he do wrong?

Judy: Do you mean what the King did wrong?

Debbie: Was he worried too much?

Amy: I don't think he did anything wrong.

Judy: Right, I don't think so either. He was probably fearful. He was afraid news of his love affair spreading out, which would damage his reputation as a King.

Debbie: So, he didn't do anything wrong?

Amy: I don't think he did anything wrong.

Debbie's confusion might be largely due to the title of the first chapter, *The King's Mistake*. In Debbie's view, the King's romantic relationship with Irene wasn't a mistake. He was just worried too much that Irene would send the photo to the princess he was going to marry. Judy, one of the two middle achievers in the group, used her interpretation to provide elaborated explanations which resolved Debbie's confusion.

Although Amy, the low-achieving reader, did not elaborate on her response, she wrote in her reading log that people who love each other but cannot be together is a universal theme. She wrote,

Did the King really love the daughter of Scandinavian King?...Although this story make me feel peaceful, I think the writer still have feeling want to tell us. No matter in Taiwan or another country, all have such as someone they love each other but can't stay together's story. [Mistakes are the student's.] (Amy's 8<sup>th</sup> log entry)

From Amy's perspective, the King didn't do anything wrong. It was the royal intermarriage that didn't allow the King to get married with a commoner that he loved. Despite her weak reading abilities, Amy made connections between what she read and what she knew, to deduce the author's intentions. Her interpretation might have been made while or after engaging in the elaborated explanations. Such collaborative problem-

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solving activity encouraged Amy to recognize and fill in the gap in her reading comprehension.

In spite of the low overall percentages of turns and episodes in EE, both groups, to some extent, were capable of providing information in more detail to assist understanding. Their helping behaviors guided each other in practicing critical thinking as can also be explicated with Discussion Excerpt 2. It is important to note that the original version didn't have the chapter title. It was logical to speculate that implicit in Debbie's confusion was her challenge about the added title in the retold version. Judy's elaborated explanations supported Debbie's challenge to the title, *The King's Mistake*. Such interaction also brought out opportunities for group members to think critically about what was being read by giving reasons. This exemplifies what Gillies and Khan (2008) state that students offering help to their peers achieved higher scores on reasoning tests. It is reasonable to assume that group B members providing elaborated explanations would help one another develop their reasoning abilities.

#### **Exploratory Talk**

Both groups demonstrated exploratory talk (ET) while participating in collective reading. Tables 5-1 and 5-2 list the turns, episodes, mean length, and percentages of turns and episodes in ET in each of the four transcripts for Groups A and B. The percentages were calculated based on turns and episodes of exploratory talk per 100 turns. Taking all discussion sessions as a whole, Group B generated marginally longer episodes of exploratory talk than Group A. Group B also devoted more utterances to exploratory talk than Group A when the length and incidence of episodes were combined. The mean turns per ET by Group B were 9.96, whereas by Group A were 8.91. The overall percentages of turns and episodes in ET by Group B were 39.09 and 3.92, whereas by Group A were 24.43 and 2.74. Using nonverbal information and making personal connections could probably explain why Group B had more exploratory talk than Group A.

Other than the textual information, Group B utilized the illustrations in *The Car is Waiting* and compared illustrations between stories to analyze the characters' appearances. With the artwork in the storybooks and textual knowledge, judging the appropriateness of an analysis and considering alternatives became easier for the EFL readers. Additionally, Group B members invited each other to share their own experiences of

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sibling rivalry in *The Silent Brothers*. By making a life-to-text connection, students utilized exploratory talk to “interthink” (Mercer & Littleton, 2007) at a sophisticated level. They independently constructed understanding through challenges and justifications of ideas without the teacher’s guidance. How they used exploratory talk as a social tool for reasoning will be described in more detail through Group A’s discussion of *The Car is Waiting*, which is a story with the theme of false pretense.

Table 5-1

*Distribution of Turns and Episodes in Elaborated Talk by Discussion Groups*

	Turns		Episodes		Mean Turns per ET	
	A	B	A	B	A	B
<i>Car is Waiting</i>	59	90	7	7	8.43	12.86
<i>Speckled Band</i>	77	59	8	7	9.63	8.43
<i>Scandal in Bohemia</i>	46	53	5	7	9.2	7.57
<i>Silent Brothers</i>	23	47	3	4	7.67	11.75
Total	205	249	23	25	8.91	9.96

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Table 5-2

*Percentages of Turns and Episodes in Elaborated Talk by Discussion Groups*

	Turns		Episodes	
	A	B	A	B
<i>Car is Waiting</i>	30.73	53.57	3.65	4.17
<i>Speckled Band</i>	26.46	45.74	2.75	5.43
<i>Scandal in Bohemia</i>	30.67	54.08	3.33	7.14
<i>Silent Brothers</i>	11.17	19.42	1.46	1.65
Total	24.43	39.09	2.74	3.92

In this story, a pompous young woman pretended to be a noble lady and tried to impress a man in the park who she assumed to be ordinary. In order to make the man believe she was a rich woman of the upper social class, she told lies about how wealthy she was. While she pretended to be the owner of a big luxurious car, which belonged to the man, the man didn't reveal her lies, but pretended to be an ordinary person. The students talked about why the two characters were deceptive toward each other. One student, Sharon, asked why the female character lied about being weary of money:

Discussion Excerpt 3: *The Car is Waiting*, Group A

Sharon: Why was the lady bored with money?

Joe: Bored with money? I don't think so.

Sharon: Tired of money.

Wendy: She [indulged herself completely in the romance stories she read.

Joe: [I don't think she was bored with money. She just thought...[She just thought...

Lisa: [She wanted to chat him up.

Joe: Well. She pretended to be insensitive to money in order to act like a well-to-do person in the upper social class.

In Discussion Excerpt 3, the students built up shared knowledge about

why the female character behaved in a particular manner over several turns through evaluating ideas and considering options. Joe first disagreed with Sharon's interpretation. He tried to explain his own, but it was still cognitively undeveloped. While Joe was thinking about how to verbalize his thoughts, Wendy and Lisa shared their interpretations. Joe soon offered his. It seemed clear that Joe used language as a medium of thought to formulate his idea which challenged Sharon's interpretation. His behavior is in accordance with Robins' (2011) finding that students developed exploratory talk to explicate their own thinking and to challenge others. Joe's challenge also enabled Sharon to examine her interpretation and to extend her thinking about the character's motivation. This finding illustrates Kucan and Beck's claim (2003) that discussants are inclined to treat their utterances and those of others as thinking devices to extend each other's thinking. As can also be seen in the episode of exploratory talk, the students employed reasoning words such as why to engage in an analysis of the character's motivation and I don't think so to express their disagreement with peers' ideas. What follows are the reasoning words used by the EFL learners.

#### **Reasoning Words**

Unlike the discourse features in the previous categories, the frequencies of reasoning words were reached by counting them only in episodes of exploratory talk, which were computed as percentages based on the frequencies of different types of reasoning words per 100 turns. This resulted in their relatively low incidence. Table 6 details the percentages of particular reasoning words coded according to presumed function in each of the four verbal interactions for each group. It was found that reasoning words that indicate analysis and generalization were used most frequently by the two groups, with a total percentage of 5.96 by Group A and of 4.71 by Group B, respectively. In other words, the students often used because, so, how/why to create a dialogic space where they felt comfortable exploring their ideas and shaping understanding. Such a phenomenon might be attributed to the good examples of student-generated questions the instructor provided from the third lesson. The students consulted the model questions which required deeper processing of the text, starting with how/why. In response to these how/why questions, they utilized because and so to show how they explored deeper into the text.

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Although reasoning words that indicate analysis and generalization were more numerous in Group A's exploratory talk, a larger amount of reasoning words that indicate speculation and making a proposal were found in Group B's (4.71%). The EFL learners in Group B regularly predicted what would happen after the story ends, thereby pushing each other to use words, including would, could, maybe/might, and if to read beyond the lines to think imaginatively about the text.

Table 6

#### *Reasoning Words per 100 Turns According to Function*

	Speculating/ proposing		Positioning/ claiming		Analyzing/ generalizing	
	A	B	A	B	A	B
<i>Car is Waiting</i>	0.52	4.76	3.13	4.76	9.38	4.17
<i>Speckled Band</i>	1.37	9.30	0.69	1.55	4.47	3.10
<i>Scandal in Bohemia</i>	2.00	4.08	1.33	1.02	9.33	15.31
<i>Silent Brothers</i>	0.00	2.48	1.94	1.65	2.43	1.65
Total	0.95	4.71	1.67	2.35	5.96	4.71

### CONCLUSION AND IMPLICATIONS

In the initial phase of this research project, two groups were selected to represent the more and the less proficient groups, assuming that Group A with better discussion proficiency might produce more collaborative dialogue linked to higher order thinking about the text and Group B with less discussion proficiency, less collaborative talk linked to higher order thinking.

However, the results of the study have revealed that both focus groups, to some extent, were able to utilize the language of high-level comprehension to "interthink" deeply about the text regardless of discussion proficiency. Group A was more proficient in using discourse features in some categories, whereas Group B was more competent in others. That Group A was more able to ask uptake questions and employed

more reasoning words that indicate analyzing/generalizing was within expectations. What was beyond expectations was that Group B could engage for longer and more in the elaborated explanations and in exploratory talk. Genre of reading materials, personal belief about reading stories, and the use of non-textual information and of personal connections might be the attributes of such unexpected results.

It was noteworthy that a lack of and a low incidence of certain discourse features were found in certain story discussions, which highlights room for improvement. For example, the two groups did not generate any questions that induced intertextual responses or shared knowledge responses while discussing *The Silent Brothers* (see Table 3). Therefore, a selection of stories that focus on eliciting these features needs to be promoted. Stories that have been made into feature films, TV shows, or manga and anime series will be more conducive to creating contexts for students to make intertextual connections or connections to previously shared knowledge. Another example is that one group didn't engage in elaborated explanations during their dialogue about *The Silent Brothers* (See Table 4-1). Teachers can utilize group goals or group rewards to encourage students to give and ask for explanations. As argued by Slavin (1991), without an overriding group goal, students might feel embarrassed to ask for help or provide help to one another.

The study has also shown that the students interactively filled in missing knowledge and corrected misconceptions about the author of *Sherlock Holmes Short Stories* through one test question inquiring about the author not presented within the story. Meanwhile, one "guest" participant, Anna, sitting near Group A, misused the third-person narration for first-person narration in her response to Group A's question. The students' misconceptions about the narrative technique points out a need for teachers to devote class time to types of narrators and their modes. Such instruction helps students explore why the author chooses a certain narrative style. For example, writers of detective fiction often adopt first-person narrative to invite readers to uncover mysterious cases together. By analyzing the talk and indicators of high-level learning employed by a high-ability group and a low-ability group in terms of discussion proficiency, the study concludes that through incorporating discourse features linked to high-level comprehension, students could guide one another toward deeper engagement with the text in group reading. Integration of stories that have a potential to provoke certain discourse features and of group goals, and explicit teaching of narrative techniques

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are highly recommended for the implementation of small-group story discussions.

Although the findings add to the current understandings of the relationship between EFL learners' group dialogue linked to high-level comprehension during peer-led discussions, such findings need to be interpreted with caution due to a small sample size and the medium of discussion. A small sample size might result in too low or no incidence of certain categories of discourse features in the students' verbal interactions about the texts. Lack of frequency in some discourse features limits the statistical tests such as  $\chi^2$  analysis. Studies involving a large number of students might provide expected frequencies which make quantitative analysis possible. As for the medium of discussion, Chinese, the participants' first language, was the major language for textual talk; research conducted with English, the students' second language, as the medium of discussion in EFL contexts will yield different results such as word counts. One limitation with using the students' native language to talk about stories is data presentation. The discussion excerpts and interview excerpts were translated by the researcher alone, which might result in biased interpretations of the original language. Future implementation of the study should employ procedures such as back translation to guard against possible bias.

Another limitation of this study has to do with the relatively low inter-rater agreement rate of the interactional data. The discrepancy between the two codings of the conversation centered on the two discourse coding categories. Briefly, the two raters differed in identifying the episodes of elaborated explanations and of exploratory talk. Future implementation of the research should utilize additional procedures. One of these would be to provide a coding scheme with more examples of when elaborated explanations and exploratory talk began and ended. Another option would be to employ more than one coder in order to improve rater reliability.

The last inherent limitation is that only heterogeneous teams assigned by the instructor were adopted in the present study. How would dyads formed by students themselves have performed? As pair work is prevalent in the EFL classroom and allows more time for individual members to participate in discussion, pair talk is worthy of a thorough analysis. Additionally, allowing students to choose someone they trust as their partners makes them feel comfortable using talk as a medium of thought. In Haynes's (2015) study, the homogenous pairs being composed of lower-achieving pupils perceived that deciding their partners helped them

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develop their exploratory talk early on. Future studies could extend this study by exploring how dyads formed by students themselves demonstrated their higher-order thinking.

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