



Effects of Dialogic Teaching on Students' Critical Thinking Dispositions in the Context of Reading Comprehension

Yitayih Tibebu Tegegne*¹, Haile Kassahun Bewuket², Mekonnen Esubalew Tariku³

¹Department of English Language and Literature, Social Science and Humanities College, Debre Markos University, Debre Markos, Ethiopia.

²Department of English Language and Literature, Social Science and Humanities College, Injibara University, Injibara, Ethiopia. Email address: hailekassahun@yahoo.com

³Department of English Language and Literature, Social Science and Humanities College, Debre Markos University, Debre Markos, Ethiopia. Email address: mesubalew655@gmail.com

*Corresponding Author: Email address: yitetibeb@gmail.com Telephone: +251 913759059

Article Info

Accepted on:

December, 2025

Published on:

February, 2026

©Arba Minch

University, all rights reserved

Abstract

Dialogic Teaching Pedagogy (DTP) facilitates the learning and teaching processes that are dynamic and interactive in nature. Considering the rising importance of DTP, this study examined the effects of DTP on students' critical thinking disposition in reading context. To this end, a quasi-experimental, non-equivalent pretest-posttest design was employed with 94 intact sixth-grade EFL students. The intact groups were selected on the basis of the pretest scores. Those sections were assigned to the experimental group (n = 48) and the control group (n = 46) randomly. Critical Thinking Disposition Inventory and dialogic interaction were administered before and after the intervention, that was supported by systematic classroom observations and semi-structured interviews. The result of quantitative data shows a significant difference between the two groups, supporting the experimental group. Qualitative findings supplement that DTP enhanced students' critical thinking disposition and dialogic interaction. This leads to suggesting that DTP can be used as an effective alternative pedagogy in teaching English.

Keywords: *Dialogic Teaching, Reading comprehension, Dialogic intervention, Dialogic discourse analysis, Dialogic Framework, Dialogic Education*

1. INTRODUCTION

1.1 Background of the Study

People are constantly exposed to a wide range of information that requires critical thinking (CT). Therefore, CT has become one of the essential competencies of the twenty-first century and must be inculcated into educational practices (Ennis, 2018; Paul & Elder, 2011). In language learning, specifically reading comprehension, CT substantially supplement readers in refining the truth through interpreting, analyzing and synthesizing the given reading text effectively (Playsted, 2021; Zare et al., 2021). It also helps readers to point out the main concepts from detailed ideas, identify between fact from opinion, and arrive at a deeper comprehension (Farihah et al., 2023; Hanum et al., 2020).

Although the tendency to think critically is a substantial issue particularly in the context of teaching reading comprehension, it is still below its expectation in many contexts (Ucan, et al., 2023). For example, In Australia, the National Assessment Program–Literacy and Numeracy (NAPLAN', 2025), asserted that one-third of students did not meet the minimum standards in reading comprehension. Other global empirical studies also declared that there is a general declination of students' score in reading performance (Nakamura & de Hoop, 2014). Similar trends have been observed in the Ministry of Education of Ethiopia. For instance, the Early Grade Reading Assessment (EGRA, 2024) report stated that 40% of grade four and about 33% of grade eight students in Ethiopia scored below the basic reading level.. Such difficulty might partially come from students' inadequate CT skills and dispositions (Joaja, 2024; Tsegaye, et al., 2025).

These challenges have led educators to look for innovative pedagogies that foster critical engagement with reading texts. In recent years, dialogic teaching pedagogy (DTP) has used as an alternative teaching pedagogy that can support learners to improve their critical thinking by means of organized classroom dialogue (Alexander, 2008, 2020; Attard, et al., 2020; Hennessy, et al., 2017). DTP, consequently, places emphasis on interactive and purposeful talk between two groups or individuals to progress thought, expression, and understanding. It views learning as an

interactive process whereby knowledge is co-constructed through collaboration, as maintained by Mercer (2020) and Wegerif (2019).

Based on socio-cultural (Vygotsky, 1978) and dialogic approaches (Bakhtin, 1981) respectively, dialogic teaching encourages inquiry-based learning wherein learners question, explain ideas, argue for and/or against them, and justify them. These approaches further facilitate truth-seeking, open-mindedness, CT, self-confidence, inquisitiveness, systematicity, and analyticity, which are some of the dimensions of critical thinking disposition (CTD) (Boonsathirakul & Kerdsomboon, 2021; Redhana & Karyasa, 2017). Within the context of teaching reading comprehension, DTP makes a reader learn to explore different interpretations, connect ideas, and make critical judgments about textual evidence. DT and CTD are highly linked; while CTD fostering reflective reading, dialogic pedagogies provide a social and cognitive environment wherein critical thought can be realized (Alexander, 2020; Playsted, 2021).

The relationship between dialogic teaching and critical thinking disposition is therefore firmly grounded in theory and supported by empirical evidence. Through collaborative inquiry, peer interaction, and dialogic engagement with texts, students develop stronger CT dispositions, and deeper comprehension (Aukerman, 2019; Atanda, 2019; Sudwan, 2022). Proponents of dialogism and socio-cultural theory similarly argue that spoken language, dialogic interaction, and collaborative engagement are vital to cognitive growth and language development (Alexander, 2020; Mercer, 2014).

Empirical studies further reinforce the effectiveness of dialogic teaching. For instance, Wegerif (2019) demonstrated that DTP improves students' meta-cognitive thinking skills, while Rojas-Drummond (2020) found that dialogic practices enhance learners' argumentation abilities. Likewise, Ucan et al. (2023) showed that dialogic learning improves students' ability to construct macro-structures after reading narrative and expository texts. Such findings suggest that dialogic engagement helps learners synthesize ideas, infer underlying textual organization, and build comprehension in a collaborative manner.

Advocators of DTP including Alexander (2020), Atanda (2019), Freire (1998), Gillies (2018), Hajhosseiny (2012), Rojas-Drummond (2020), and Wegerif (2019) argue that dialogic teaching

encourages learners to share perspectives, engage critically with texts and peers, and participate confidently in classroom discourse. By promoting equitable participation and shifting the teacher's role from authority figure to collaborative partner, DTP fosters meaningful engagement, deeper reflection, and democratic learning spaces. It motivates students to interpret texts critically, articulate their ideas, respect others' viewpoints, and assume an active role in their own learning.

Despite these strengths, DTP is not without criticism. Garcia et al. (2021) argues that in dialogic session, certain students may dominate the discussion. So, it needs a skilled teacher to manage and guide the classroom interaction efficiently. Additionally, Shea's (2018) action research in Japan pointed out that DTP had logistical constraints, such as time limitation may restrict the depth and width of the dialogue. Sedova et al. (2019) also contend that dialogic pedagogy often overlooks key qualities of strong arguments, such as coherence, persuasiveness, and accuracy. These critiques underscore the need for further empirical investigation into the specific effects of DTP in the context of reading instruction.

Motivated by these theoretical debates and the mixed empirical findings, the present study examines the effects of dialogic teaching pedagogy on students' critical thinking disposition in the context of reading comprehension. Although existing research provides substantial support for the potential of DTP, contradictory results persist, making additional investigation necessary. This study, therefore, seeks to contribute to the ongoing scholarly conversation by offering further evidence regarding the impact of dialogic teaching on key dimensions of students' CT in reading comprehension development.

1.2 Statement of the Problem

Most Ethiopian elementary students face a problem in comprehending reading texts because of the limited use of interactive and reflective teaching approaches. Low CTD among Ethiopian learners has been reported by various studies, which correlates with weak reading outcomes (MoE, 2024; Tsegaye et al., 2025). As it is important for teachers to serve as a driving force in implementing thinking-oriented learning environments, the pedagogies, such as dialogic teaching, might help to solve the challenges.

Previous research has shown that dialogic teaching can significantly improve students' CT, communication, and collaborative learning (Dereje, et al., 2025; Uyar & Karamustafaoğlu, 2025; Hochstein, 2012; Hassen & Mekbib, 2021). For instance, Uyar & Karamustafaoğlu's (2025) study revealed that dialogic teaching pedagogy increases seventh-grade students' CT performance in science education in a better way. Similarly, Hochstein (2012) reported that dialogic teaching pedagogy affects university students' CT dispositions and social interaction. Additionally, Dereje, et al (2025) showed that dialogic teaching promotes students' English language use in the EFL classroom. Moreover, Hassen & Mekbib (2021) concluded that dialogic teaching creates the opportunity of explaining students' assertions, raising questions, arguing with each other in the group discussion, presenting examples, interpreting their thoughts, explaining their collaborative activities, and encouraging justification to assist knowledge constructions co-operatively. However, contrasting evidence (e.g., Shea, 2018) concluded that there are inconsistencies between theoretical models and actual classroom implementation. Such ways of mixed findings of previous studies as well as limited studies in Ethiopia highlight the need for further experiment in the Ethiopian EFL context. Therefore, this study aims to examine the effects of dialogic teaching pedagogy on students' critical thinking dispositions during reading comprehension. In light of this, the researchers have formulated the following specific research objectives and research hypotheses.

1.3 Objectives of the Study

- To examine the effects of dialogic teaching pedagogy on students' critical thinking dispositions.
- To explore the effects of dialogic teaching pedagogy on students' dialogic interactions.

1.4 Research Hypotheses

- ✓ There is a significant mean score difference in critical thinking disposition between students taught through dialogic teaching pedagogy and those taught through monologic methods.
- ✓ There is a significant difference in students' dialogic interactions between the experimental and comparison groups following the dialogic teaching intervention.

2. REVIEW OF RELATED LITERATURE

2.1 Concepts of Dialogic Teaching Pedagogy

Dialogic teaching pedagogy is a way of teaching that puts real conversation front and center, using purposeful talk and group discussion to get students thinking harder and reading better (Alexander, 2017). People call it with various terms such as dialogic teaching (Alexander, 2020), dialogic practices (Attard et al., 2018), dialogic literacy (Caviglia et al., 2017), dialogicality (Hennessy et al., 2017), dialogic education (Matusov et al., 2017), dialogic pedagogy (Mercer, 2014), and “talk moves” (Michaels & O’Connor, 2015). This shows that, even if people assigned it with different terms, they have similar concepts which are meaningful dialogue, exploratory questions, and honest back-and-forth interaction among concerned bodies. This approach gets students be involved in active discussions. It pushes them to think critically, forward reasonable answers, look at a given reading text from different perspectives, and really reflect on what’s being thought (Lair-Gentle et al., 2023; Matusov et al., 2017). In short, students construct meaning cooperatively or through together, which naturally leads to better understanding (Atanda, 2019). Aukerman (2019) and Sudwan (2022) both make the case that using dialogue in reading lessons really work. Students do not just skim the surface that they wrestle with the text, explain what they mean, and build understanding with their classmates. Such way of back-and-forth interaction pushes students to think deeply, challenge ideas, justify their opinions, and explore deeper through shared dialogue.

2.2 Theoretical Foundations of Dialogic Teaching Pedagogy

The roots of dialogic teaching go back to Vygotsky’s socio-cultural theory (1978). He defined learning as something that happens naturally when people interact with each other in real social and cultural settings. According to Vygotsky, knowledge grows through social interaction and cooperation. Bakhtin (1981) also asserted his idea of dialogism, that is, meaning always constructed through heteroglossia or from the integration of different voices and perspectives, not from just a classroom teacher delivering a talk on a stage. Therefore, in dialogic teaching pedagogy, learning is basically a social process of making meaning together. In the 21st EFL classrooms, such approach of language teaching aims to deepen students’ CT, support them to be reasonable through problems, learn together, and build knowledge as a team. Alexander (2020),

Mercer (2014), and Miyazaki (2023) all point out that dialogic teaching is not only just about talking rather, it is about coming up with innovative ideas, organizing themes, defending one's point of view, comparing perspectives, predicting what might happen, and solving problems which all through open dialogue and shared understanding. Dialogic teaching pedagogy treats learning as something that happens in the flow of real interaction. In the current EFL classroom context, dialogic teaching builds students' abilities to think, reason, and create meaning together. Moreover, it promotes students to enhance ideas, handle their thoughts, defend their various viewpoints, compare different insights, and pretend outcomes to solve problems and reach in a common understanding on a given issue by contributing ideas (Alexander, 2020; Mercer, 2014; Miyazaki, 2023). For this study, a revised version of the Dialogic Teaching Framework from Alexander (2020), Calcagni & Lago (2018), and Mercer (2014) was employed.

This teaching model integrates oral communication, cognitive domains, and social interaction to support learners to be involved deeply and critically with reading tasks. Empirical studies indicate that dialogic teaching pedagogy encourages students thinking critically by actively engaging in group discussion, analyzing, and interpreting the given issue, and also evaluating them in order to stand in their ideas in communication with others (Atanda, 2019; Matusov et al., 2019; Wegerif, 2019). When students use open-ended questions and peer discussions in reading, they share their interpretations and work together to make sense of the text (Roseline & Zakiuddin, 2024; Sudwan, 2022).

2.3 Measuring Critical Thinking Disposition

The Critical Thinking Disposition Inventory (CTDI) was used to measure learners' disposition within critical thinking. The original CTDI, as developed in the Delphi project by Facione (1990), is a seven-dimension instrument including truth-seeking, inquisitiveness, open-mindedness, analyticity, critical thinking self-confidence, systematicity, and maturity. Its original version had 75 items. Later on, Redhana and Karyasa (2017) revised the instrument to 33 items and retained the seven dimensions to address concerns of complexity and cultural inclusiveness. The revised version of CTD was especially appropriate for the age group of 11-16 years, comparable to Piaget's formal operational stage, in which learners begin to develop abstract reasoning (Boonsathirakul & Kerdsomboon, 2021; Joaja, 2024).

3. METHODS

3.1 Design

Quasi-experiment, non-equivalent pretest–posttest design was used in the current study to identify the potential causal relationship between an independent variable (dialogic teaching pedagogy) and the dependent variables (students’ critical thinking dispositions and the dialogic interactions). When a researcher wants to measure changes before and after an intervention, in which random assignment of participants to groups is not feasible, quasi-experimental particularly a non-equivalent pretest-posttest design is more appropriate (Cohen et al., 2018; Creswell & Creswell, 2018). Further, the school schedule allowed enough time for pre- and post-intervention sessions, which ensured smooth implementation of the designed treatment.

3.2 Participants

94 grade six students, who were learning at Amber Elementary School, in the 2024/2025 school year, were the participants of the current study. From among four sections in grade six, a critical thinking disposition inventory was given as a pretest to determine comparability; thus, one-way ANOVA was performed. Consequently, two sections with statistically comparable mean scores were selected as intact groups. Section B was assigned to the experimental group where as Section A was assigned to the comparison (control) group randomly.

Table 1. The Demographic Variables of the Study Participants

Sex	Experimetal Group Students	Control Group Students
Male	23	22
Female	25	24
Total	48	46

Source: Data Survey, 2024

3.3 Data Collection Instruments

To address the research objectives, three data collection instruments were used, namely: a Critical Thinking Disposition Inventory (CTDI), systematic classroom observations, and semi-structured interviews administered to assess both quantitative and qualitative aspects of dialogic teaching and critical thinking disposition.

3.3.1 Critical Thinking Disposition Scale

The CTDI was adapted based on the pilot study insight to suit the cognitive and linguistic levels of Grade 6 students for this study. This is how; the adapted instrument would ensure appropriate measurement of students' disposition toward critical thinking within reading comprehension instructions. In this process, the intention is to determine whether or not the students demonstrate critical thinking dispositions, as measured using the CTDI of Redhana & Karyasa (2017). Due to the nature of the linkage between critical thinking and reading comprehension, particularly in the elementary school and the students' age level, this instrument was modified. The adapted version included Truth seeking, open mindedness, analyticity, systematicity, critical thinking self confidence and inquisitiveness with a total of 24 items, each related to the different aspects of reading comprehension. The scale items were translated into Amharic and administered both as pre- and post-test.

3.3.2 Systematic Observations

Systematic observation of instructional strategies, student engagement, and patterns of interaction was carried out during reading comprehension lessons. The range of observed verbal and non-verbal behaviors was categorized into cumulative, disputation, and exploratory talks based on Mercer's framework (Mercer, 2014). The analysis also covered the frequency of open- and closed-ended questions. To further investigate meaning-making processes, a dialogic discourse analysis approach was conducted in relation to voice appropriation, inter-textual references, and power dynamics across the student-student and teacher-student interactions.

3.3.3 Semi-structured Interview

Semi-structured interviews were used to collect data on students' disposition toward critical thinking to further complement the quantitative data. This method was used because it allows participants to express their views freely while enabling researchers to probe deeper on relevant issues (Cohen et al., 2018). Six open-ended questions were designed based on CTD dimensions, focusing on students' experiences of critical thinking within dialogic reading instruction.

3.4 Validity and Reliability

To ensure content, and structural validity of the instruments that are the CTDI, systematic observation checklist, and semi-structured interview were reviewed by the researcher's advisors,

and two university instructors. Based on their feedback the final modification was made. To test the instruments for reliability, they were piloted during the 2023/2024 academic year on sixth-grade students at Dil Betigle Elementary School, 20 km from the study site. In order to determine the internal consistency of the CTDI, Cronbach's alpha was used. As a result, the overall reliability coefficient is $\alpha = .95$, which indicates an excellent internal consistency of the instrument.

Table 2. Reliability Statistics on Critical Thinking Dispositions

No.	Domain of Items	Cronbach's Alpha	N of Items
1	Truth-seeking	.99	4
2	Open- Mindedness	.98	3
3	Analyticity	.96	7
4	Systematicity	.89	4
5	Self-confidence	.93	4
6	Inquisitiveness	.97	2
	Total	.95	24

Source: Data Survey, 2024

3.5 Procedure

With participants' consent obtained, CTDI was administered to confirm the homogeneity of the groups. The instructional material was adapted based on the principles and repertoires of dialogic teaching. Then, the intervention was implemented for sixteen weeks, twice a week, for 40 minutes a session (32 sessions in total). The same English language teacher taught the participants of both conditions with the use of the same instructional materials to minimize extraneous variables. Participants in the control group received conventional (monologic) reading instruction. The participants in the experimental group engaged in dialogic teaching sessions prepared in compliance with a dialogic teaching model.

The instructional procedures followed the modified DTP framework of Alexander, 2020, including: establishing the dialogic culture and interactive norms through pre-reading tasks,

inviting student contributions using the reading text as input, promoting the learning talk and teaching talk, including questioning, extending, discussing, and arguing, debriefing of each session for reflection and synthesis. The observations were performed by two trained observers by using a structured and validated observation tool to keep inter-rater reliability and increase the reliability and validity of data. Then, the cumulative score was used for analyses.

3.6 Data Analysis Techniques

Quantitative data from the CTDI were analyzed by both descriptive and inferential statistics. After the confirmation of normality of data distribution for each variable, using the Shapiro-Wilk test, independent-samples and paired-samples t-tests were conducted to compare group differences and pre-post changes, respectively, across six CTD dimensions: truth-seeking, open-mindedness, analyticity, systematicity, self-confidence, and inquisitiveness (Creswell & Creswell, 2018). Qualitative data from interviews and classroom observations were thematically analyzed, supported by dialogic discourse analysis (Roseline & Zakiuddin, 2024). Audio and video recordings were transcribed, coded, and categorized based on dialogue types, namely cumulative, disputational, and exploratory talk, and questioning patterns, namely open- versus closed-ended (Marjanovic-Shane & Kullenberg, 2019 and Skaftun, 2019).

3.7 Ethical Considerations

Considering the population in the experiment was human, ethical procedures followed suit. . Informed consent letters were handed out to the students and their parents, which discussed with them their right to withdraw from the study at any time without penalty. The researcher followed procedures that ensured participants' well-being and confidentiality and offered the results upon request.

4. RESULTS

4.1 Critical Thinking Disposition

This section presents findings from the critical thinking disposition inventory, classroom observations, and semi-structured interviews.

Table 3. Pretest and Post-test Critical Thinking Dispositions Results of the Control and Experimental Group

Group and Time	Time and Group	N	M	SD	Std. Error Mean	T-test for equality of means					Effect Size
						Levene's Test For Equality of Variance		T	Df	Sig. (2-tailed)	
						F	Sig				
Pre-intervention	Control	46	2.67	0.225	0.475	80.613	.000	-.247	91	.805	
	Experimental	48	2.7	0.964	0.418						
Post-intervention	Control	46	2.85	0.293	.318	64.419	0.000	-7.111	91	<0.001	-
	Experimental	48	3.57	0.625	.331						
Control	Pre-test	46	2.67	0.225	0.475	-	-	-0.901	45	0.067	0.217
	Post-test	46	2.85	0.293	0.318						
Experimental	Pre-test	48	2.7	0.964	0.418	-	-	-6.880	47	<0.001	1.216
	Post-test	48	3.57	0.625	0.331						

Source: Data Survey, 2024

As shown in Table 3 clearly, the experimental group had a pretest mean score of 2.70 (SD = 0.96), while the control group was 2.67 (SD = 0.23). The difference in the means was 0.03 with ($t = -0.247$, $df = 91$, $p = 0.805$), which indicates no statistically significant difference between them. Due to this, both groups began the experiment with relatively equal levels of CTD. This way of equivalence in the baseline can be guaranteed that any consequent change in scores would have been resulted from the intervention itself.

Following the sixteen week intervention, the control group had a post test mean score of (M= 2.85 and SD = 0.29), which show only an 0.18-point increment. The improvement was not significant at $t = -0.901$, $df = 45$, $p > 0.05$, indicating monologic instruction did not significantly improve students' level of CTD. In contrast, the post-test mean score for the experimental group increased to 3.56 (SD = 0.63), or 0.87 points higher compared with the pretest. The improvement was statistically significant, since, $t = -6.880$, $df = 47$, $p < 0.001$. The independent samples t-test result which compares the post-test scores between the two groups also shows a statistically significant difference, that is, $t = -7.111$, $df = 91$, $p < 0.001$, inclination to the experimental

group. The effect size (Cohen's $d = 1.216$) further indicated a large effect. Therefore, the result of the intervention indicated of the impressively positive effect of dialogic teaching pedagogy on students' CTD.

The data from interview were in correspondence with the quantitative results. The experimental group students reported more engagement in reading activities and reflective thinking. For example, Students from experimental group Alemu and Almaz (pseudonyms) said that they began to refine the core point in a reading text by asking questions, being open-minded with the information, and connecting what they had with their own experience. Similarly, Student Bekalu and sewasew (pseudonyms) explained currently they read actively, seeking to get an accurate meaning and context. They try to understand in-depth arguments and themes rather than superficially, which helps to increase their confidence and curiosity. By contrast, Student Desalegn and Tihune (pseudonyms) from the control group revealed that they just read to answer the comprehension questions. When reading, they had never think whether the information was true or not. They have read just to complete the teacher's task."

These excerpts illustrate the disposition of critical thinking such as open-mindedness, curiosity, and reflective judgment was fully developed in students exposed to dialogic instruction, Alemu, Almaz, Bekalu and sewasew (pseudonyms) and while the control group, Desalegn and Tihune (pseudonyms) did not show much improvement. Complete interview excerpts of 3 sample students are given below:

For example,

Bekalu (pseudonym) expressed his critical thinking dispositions in reading text in the following way:

My way of getting the truth from the reading text is by asking different questions, being honest toward the information from the reading text, and trying to find out clearly the truth of the reading text. I usually consider many perspectives in analyzing and investigating various aspects of a reading text. I also started to comprehend reading tasks by connecting information from the reading text with my own experience. Then, I try to answer the stated comprehension questions correctly.

Sewasew (pseudonym) also expressed her critical thinking dispositions in reading text in the following way:

I become actively involved in reading to search for the truth within a text with regard to information, meaning, and context. I search for the truth by understanding the ideas, themes, and arguments presented by the reading text. This eventually makes me increase my confidence in reading and enhance a deep rather than superficial understanding of the reading text. Moreover, finding the truth in the reading text is being systematic by engaging deeply with the text, seeking and discovering the accurate, underlying meanings, facts or arguments presented in the reading text. Such activity improves my open-mindedness, intellectual motive and curiosity for learning, and it makes me confident in decision-making.

Desalegn (pseudonym) from the control group forwarded his critical thinking dispositions as follows:

In my point of view, when I read a reading text, my focus is only on answering the comprehension questions. I do not bother with whether the information is true or not. In addition, I usually read the reading text to fulfill the teacher's order to complete the reading tasks. I do not have that much interest to involve in a reading activity except doing the given reading comprehension questions. I usually do not consider others' ideas when I make decisions. I think I am not systematic, due to this, I am not confident in my reading.

4.2 Dialogic Interaction

The second objective of the study was to assess the impact of the dialogic teaching intervention on students' dialogic interactions, focusing on both student–student and teacher–student exchanges. Dialogic Discourse Analysis (DDA) was employed to analyze the transcribed classroom interactions using established frameworks from Alexander (2020), Bakhtin (1981), and Mercer (2014).

Table 4. Key Findings Regarding Students' Questioning Behavior and their Talk in the Lesson

Group		Observations in pre-intervention					Observations in post-intervention				
		1	2	3	Total	%	4	5	6	Total	%
Experimental	OQ	2	1	2	5	19.2%	5	7	11	23	35.4%
	CQ	3	3	5	11	42.3%	4	5	8	17	26.2%
	CT	1	1	2	4	15.4%	2	2	3	7	10.8%
	DT	2	2	1	5	19.2%	3	2	1	6	9.2%
	ET	0	0	1	1	3.8%	3	4	5	12	18.5%
	Total	8	7	11	26	100	17	20	28	65	100
Control	OQ	2	1	3	6	22.2%	2	3	3	8	21.6%
	CQ	4	3	3	10	37%	4	3	4	11	29.7%
	CT	2	1	1	4	14.8%	2	1	3	6	16.2%
	DT	2	3	1	6	22.2%	3	2	4	9	24.3%
	ET	0	1	0	1	3.7%	1	2	0	3	8.1%
	Total	10	9	8	27	100	12	11	14	37	100

Key: OQ= Open-ended Questions, CQ= Close-ended Questions, CT= Cumulative-Talk, DT= Disputational-Talk, ET= Exploratory-Talk.

Source: Data Survey, 2024

As Table 4 summarizes, the quantitative observation that was done before the intervention indicated low levels of interaction in both groups. In the experimental group, the students asked only five open-ended questions (19.2%), and their cumulative and disputational talks were dominant while exploratory talks were at a minimal rate. The same observation was noted in the control group. On the other hand, following the sixteen weeks intervention, the experimental group students raised 23 open-ended questions however; only eight open-ended questions were raised at the side of control group students. 18.5% of exploratory talk was exercised by the experimental group students but only 8.1% of it was done within control group students by reasoning, negotiation, and co-construction of meaning. These results show that dialogic teaching pedagogy encouraged students to ask more open-ended questions and engage in a deeper and more reflective way of classroom discussions.

Qualitative Analysis of Dialogic Patterns from the transcripts of the post-intervention discussions showed a better dialogic engagement among the students of the experimental group. Through questioning, exploration and exchanging of ideas, students taken over heteroglossia or multiple voices and viewpoints from texts, often challenging or expanding one another's viewpoints.

Dialogic teaching pedagogy further promoted interpretive discussion and critical reasoning. In the case of argumentative texts which involved moral expression or contradictory viewpoints, students' debatable interpretations, resolved cognitive disagreement, and co-constructed new understandings. This process was guided by teachers through exploratory and open-ended questioning, modeling interpretive reasoning, and distributing authority in classroom talk. Another significant feature of dialogic interaction is intertextuality which the students connected ideas across texts, across cultural contexts, and from their own experiences to expand their interpretive models. This not only deepened comprehension but also developed a disposition towards critical thinking. Through thematic process in group discussions, students collaboratively identified patterns, questioned assumptions, and advanced new perspectives. The classroom turned into a space for interpretive play, critical inquiry, and shared authorship of meaning-whom students were active constructors of knowledge.

Finally, both quantitative and qualitative results sustain that of dialogic teaching pedagogy significantly reinforced students' critical thinking dispositions and their dialogic interaction. The intervention also fostered exploratory talk, open questioning, and cooperatively meaning-making process, transforming the reading classroom into a reflective and interactive learning environment.

5. DISCUSSION AND CONCLUSIONS

This section discusses the major findings of the study within the context of prior studies, addressing both the research questions, the theoretical and pedagogical implications of the results. Particularly, two areas were discussed: the impacts of dialogic teaching pedagogy on students' critical thinking disposition and its effect on students' dialogic interactions in the context reading comprehension.

5.1 Effect of Dialogic Teaching Pedagogy on Students' CT Disposition

The first research question was to investigate whether students in the experimental group showed significantly better CTD than those in the control. The statistical results confirmed that students who received dialogic teaching performed significantly higher on the post-test. This revealed that dialogic teaching pedagogy effectively improves learners' disposition toward CT.

The qualitative findings supported this statistical result. Following the dialogic intervention, students experienced more intellectual functions toward truth-seeking, open-mindedness, curiosity, inquisitiveness as well as reflective thinking. Students interacted with the given reading text more deeply and more critically by evidencing probing questions, various view points, tests of the truth and coherence of arguments. These patterns demonstrated that dialogic teaching supported learners in developing a disposition toward deeper analytical understanding rather than surface level. The systematic manner of engaging with reading material allowed students to find meanings underlying the text and critically evaluate textual claims. Thus, their reading confidence and motivation increased, indicating development of both cognitive and affective components of the CTD.

These findings align with the findings of the previous studies (Boonsathirakul & Kerdsomboon, 2021; Hardman, 2019; Hochstein, 2012; Sudwan, 2022), which consistently reported that dialogic pedagogy is more effective than conventional approaches in promoting CTD. For instance, Hardman (2019) found that dialogic instruction significantly strengthened the CTD of elementary students in the United Kingdom, while Sudwan (2022) demonstrated positive effects across university disciplines in Thailand. All these findings confirm that dialogic teaching pedagogy effectively develops students' CT dispositions at different levels and contexts of education.

5.2 Dialogic Interactions of Students during Reading Instruction

The second research question, therefore, was to determine whether the dialogic teaching intervention provided impacted the quality of students' dialogue during reading instruction. Thematic analysis of dialogic discourse supported by interviews and classroom observations indicated that dialogic pedagogy greatly enhanced the engagement and interaction of the students. Students were motivated to be involved in cooperative construction of meaning through dramatic reading, role-playing tasks, and exploratory questioning. In these activities, heteroglossia, and various viewpoints from the text, which helped to improve dialogic interaction, polite expression, and interpretive reasoning are adopted by learners. The intervention encouraged voice appropriation, tension and interpretation, inter-textual connections, power relations, and thematic development which are the key features of dialogic engagement or

interaction. The teachers themselves modeled the way to talk dialogically through thinking aloud and showing how to reason through textual meanings, thus helping students to internalize ways of dialogic thinking.

The findings are consistent with studies which were conducted by Alexander (2018) and Sudwan (2022). Alexander (2018) documented that dialogic teaching develops better classroom discourse quality than monologic teaching, since it promotes greater student involvement within teacher-student relationships. In the same way, Sudwan (2022) highlighted that dialogic pedagogy is better than a monologic model which includes developing a conducive classroom environment, improving the depth of students' dialogue, and increasing communicative skills. This affirmation is in line with the social interaction which is derived from sociocultural theory.

However, this study also highlighted some challenges. As the interview data highlighted that dialogic teaching pedagogy is time-consuming for teachers and can result in uneven participation by quiet or shy students. This kind of challenge was also forwarded by Shea (2018) limitations where culturally instilled expectations of teacher authority and a lack of confidence by students hamper dialogic participation. Moreover, there are gaps between the theoretical models of dialogic teaching and their actual implementation in the classroom. As Garcia, et al (2021) suggested, such challenges may be mitigated by the use of a variety of interactional strategies, reflective practice as a teacher, and sustained support for teachers in effective dialogic instruction. For future implementations, therefore, structured scaffolding and adaptive strategies will be considered for inclusive participation in the dialogical classroom.

5.3 Conclusion

This study was significant to show the effects of dialogic teaching on students' critical thinking dispositions and their classroom interaction in the context of teaching reading. To this end, the findings indicated that the dialogic teaching pedagogy remarkably enhanced students' critical thinking disposition and their dialogic engagement in reading instruction. Results from quantitative data revealed that there was statistically significant difference between the experimental and control group with the CTD. Similarly, the qualitative evidence indicated an increment in truth-seeking, curiosity, inquisitiveness, and deeper text comprehension among learners who had been learned with dialogic instruction.

Additionally, the intervention encouraged more dynamic classroom interaction characterized by interpretive tension, voice appropriation, thematic exploration and intertextual awareness. These results show that dialogic teaching is an efficient pedagogical approach for the promotion of critical thinking and interactive learning in the EFL reading comprehension context. Based on this, it is suggested that dialogic teaching pedagogy should be used as an alternative or complementary instructional approach into the material and curriculum development in English language teaching. Further investigation might address the long-term impacts, quantifiability in different educational levels, and strategies to overcome the challenges of introvert students' participation and instructional time.

5.4 Implications for Practice

The findings of this study explores the significance of dialogic teaching pedagogy (DTP) in enhancing critical thinking in the context of English as a Foreign Language (EFL) instructions, with a particular focus on its impact on the dispositional aspect of critical thinking. Since global language education progressively underscores communication-oriented pedagogies, the integration of DTP offers a substantial role for empowering deeper reasoning, reflective involvement, and collaborative meaning-making. Practically, the finding of the study suggest that EFL teachers should create conducive instructional environments that prioritize exploratory dialogue, open questioning, and sustained dialogic interaction rather than teacher-dominated instruction. Classroom practices such as prompting students to justify various viewpoints, actively involved in group discussions, and motivating various perspectives can enhance a habit of critical inquiry. For curriculum designers, embedding dialogic tasks such as dialogic reading activities, structured arguments, and reflective group discussions can provide systematic opportunities for developing critical thinking dispositions alongside reading comprehension. Additionally, teacher education programs should incorporate training on dialogic teaching principles, repertoires, and dialogic strategies to empower teachers' capacity to manage rich, student-led discussions. Overall, the study provides empirical support for the integration of dialogic teaching pedagogy in EFL contexts, demonstrating its potential to contribute meaningfully to learners' critical thinking development while simultaneously enriching communicative language learning.

Acknowledgement

We express our acknowledgments to the grade 6 students and their teachers for their cooperation in the whole research process.

Conflict of Interest

We, the authors of this manuscript, do not have a conflict of interest concerning publishing it in your journal.

REFERENCES

- Alexander, R. (2008). *Towards dialogic teaching: Rethinking classroom talk* (4th ed.). Dialogos.
- Alexander, R. (2017). *Towards dialogic teaching: Re-thinking classroom talk* (5th ed.). Dialogos.
- Alexander, R. J. (2018). Developing dialogic teaching: Genesis, process, trial. *Research Papers in Education*, 33(5), 561–598. <https://doi.org/10.1080/02671522.2018.1481140>
- Alexander, R. (2020). *A dialogic teaching companion*. Routledge.
- Atanda, A. (2019). *Effects of dialogic discourse and scaffolding instructional strategies on reading comprehension in Oyo State, Nigeria* (Unpublished doctoral dissertation). [University name not provided].
- Attard, C. (2020). An exploration of technology use to mediate students' engagement with mathematics. *Mathematics Education Research Journal*. <https://doi.org/10.1007/s13394-020-00359-2>
- Aukerman, M., & Boyd, M. (2019). Mapping the terrain of dialogic literacy pedagogies. In R. Wegerif, L. Li, & J. C. Kaufman (Eds.), *The Routledge international handbook of research on dialogic education* (pp. 373–385). Routledge.
- Bakhtin, M. (1981). Discourse in the novel. In M. Holquist (Ed.), *The dialogic imagination* (pp. 259–492). University of Texas Press.
- Boonsathirakul, J., & Kerdsomboon, C. (2021). The investigation of critical thinking disposition among Kasetsart University students. *Higher Education Studies*, 11(2). Canadian Center of Science and Education.

- Calcagni, E., & Lago, L. (2018). The three domains for dialogue: A framework for analysing dialogic approaches to teaching and learning. *Learning, Culture and Social Interaction*, 18, 1–12. <https://doi.org/10.1016/j.lcsi.2018.03.001>
- Caviglia, F., Delfino, M., Dalsgaard, C., & Pedersen, A. Y. (2017). Dialogic literacy: Contexts, competences, and dispositions. *L1 Educational Studies in Language and Literature*, 17(1). <https://doi.org/10.17239/L1ESLL-2017.17.01.05>
- Cohen, L., Manion, L., & Morrison, K. (2018). *Research methods in education* (8th ed.). Routledge.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.
- Dereje B, Haile K and Solomon A (2025).Dialogic Teaching: Transformative Impacts on EFL Learners’ Spoken Discourse at Gondar College of Teacher Education,ERJSSH 12(2). DOI: <https://dx.doi.org/10.4314/erjssh.v12i2.10>
- Early Grade Reading Assessment. (2024). *EGRA national report*. Ministry of Education of Ethiopia.
- Ennis, R. H. (2018). Critical thinking dispositions: Their nature and assessability. *Informal Logic*, 18(2), 165–182. <https://doi.org/10.22329/il.v18i2.2378>
- Facione, P. A. (1994). *The California critical thinking disposition inventory*. California Academic Press. <https://doi.org/10.3928/0148-4834-19941001-05>
- Farihah, E. N., Chotimah, C., & Tamela, E. (2023). An analysis of students’ reading comprehension in narrative text. *Journal of English Language Education and Literature*, 8(2), 48–55. <https://journal.unuha.ac.id/index.php/Channing/article/view/2786/785>
- Garcia, M., Smith, J., Johnson, A., & Davis, R. (2021). Technology adoption in ESP learning environments: Challenges and strategies. *Journal of Educational Technology & Society*, 24(3), 112–130.
- Gillies, R. M. (2017).Promoting academically productive student dialogue during collaborative learning.*International Journal of Educational Research*, 97, 200-209. <https://doi.org/10.1016/j.jer.2017.07.014>
-

- Hajhosseiny M. (2012). The Effect of Dialogic Teaching on Students' Critical Thinking Disposition. Alzahara University, Vanak Street, Tehran, Iran
- Hanum, N., Munandar, J. M., & Purwono, J. (2020). The influence of competence and knowledge management on performance. *Jurnal Aplikasi Manajemen*, 18(2), 252–260. <https://doi.org/10.21776/ub.jam.2020.018.02.05>
- Hardman, J. (2019). Developing and supporting implementation of a dialogic pedagogy in primary schools in England. *Teaching and Teacher Education*. <https://doi.org/10.1016/j.tate.2020.102908>
- Hassen, W., & Mekbib, A. (2021). Dialogic teaching in a teacher education college: An analysis of teacher educator and pre-service teacher talk in physics classrooms. *African Journal of Research in Mathematics, Science and Technology Education*. <https://doi.org/10.1080/18117295.2020.1801019>
- Hennessy, S., Mercer, N., & Warwick, P. (2011). A dialogic inquiry approach to working with teachers in developing classroom dialogue. *Teachers College Record*, 113(9), 1906–1959. <https://doi.org/10.1177/0161468111111300902>
- Hochstein, M. (2012). *The effect of dialogic teaching on students' critical thinking disposition* (Master's thesis). Alzahra University.
- Joaja, A. (2024). *Jean Piaget's theory of cognitive development*. <https://scholar.google.com>
- Jocuns, K. F. (2021). Dialogic teaching as a way to promote students' English language use in EFL classrooms. *PASAA*, 62, 1–25.
- Lair-Gentle, A., Lakin, K., Konasa, H., & Grootenboer, P. (2023). Systematic quantitative literature review of the dialogic pedagogy literature. *Australian Journal of Language and Literacy*. <https://doi.org/10.1007/s44020-022-00029-9>
- Matusov, E., & Marjanovic-Shane, A. (2017). Promoting students' ownership of their education through critical dialogue and democratic self-governance. *Dialogic Pedagogy: An International Online Journal*, 5, E1–E29. <https://doi.org/10.5195/dpj.2017.199>
- Matusov, E., Marjanovic-Shane, A., Kullenberg, T., & Curtis, K. (2019). Dialogic analysis vs. discourse analysis of dialogic pedagogy: Social science research in the era of positivism and post-truth. *Dialogic Pedagogy: An International Online Journal*, 7, E20–E62. <https://doi.org/10.5195/dpj.2019.272>
-

- Mercer, N., Hennessy, S., Howe, C., Wheatley, L., & Vrikki, M. (2018). Dialogic practices in primary school classrooms. *Language and Education, 33*(1).
<https://doi.org/10.1080/09500782.2018.1509988>
- Mercer, N., & Dawes, L. (2014). The study of talk between teachers and students, from the 1970s until the 2010s. *Oxford Review of Education, 40*(4), 430–445.
<https://doi.org/10.1080/03054985.2014.934087>
- Michaels, S., & O'Connor, C. (2015). Conceptualizing talk moves as tools. In L. B. Resnick, C. S. C. Asterhan, & S. N. Clarke (Eds.), *Socializing intelligence through academic talk and dialogue*. American Educational Research Association.
https://doi.org/10.3102/978-0-935302-43-1_27.
- Miyazaki, K. (2023). Questioning in Bakhtinian dialogic pedagogy and argumentative theory. *Dialogic Pedagogy: An International Online Journal, 11*(3).
<https://doi.org/10.5195/dpj.2023.544>.
- Ministry of Education. (2024). *Annual report on higher education certificate examination*.
<https://www.moe.gov.et>
- Nakamura, P. R., & de Hoop, T. (2014). *Facilitating reading acquisition in multilingual environments in India (FRAME-India)*. American Institutes for Research.
- National Assessment Program–Literacy and Numeracy (NAPLAN, 2025). Students' assessment report. Queensland Curriculum and Assessment Authority. Retrived from www.qcaa.qld.edu.au/logins/qcaa-portal/leading.
- Paul, R., & Elder, L. (2004). *The miniature guide to critical thinking*. Foundation for Critical Thinking.
- Playsted, S. (2021). Encouraging critical thinking through a dialogic teaching approach in the beginner-level English language classroom. *Humanising Language Teaching, 23*(1), 1–10. <https://www.hltnmag.co.uk/feb21/encouraging-critical-thinking>
- Redhana, W., & Karyasa, W. (2017). Development of critical thinking disposition inventory. *Advances in Social Science, Education and Humanities Research, 134*. Atlantis Press.
<https://doi.org/10.2991/icirad-17.2017.37>
- Roseline, J., & Zakiuddin, M. (2024). Dialogic discourse analysis of Steve Chang's "A Temporary Arrangement": A Bakhtinian perspective. *Middle East Research Journal of Linguistics and Literature, 4*(5), 82–92.
-

<https://doi.org/10.36348/merjll.2024.v04i05.001>

Shea, D. P. (2018). Trying to teach dialogically: The good, the bad, and the misguided. *Language Teaching Research*, 23(6), 787–804.

<https://doi.org/10.1177/1362168818768982>

Skaftun, A. (2019). Dialogic discourse analysis: A methodology for literary research and school practice. *Tidskrift for Literaturvetenskap*, 40(3). <https://doi.org/10.5195/dpj.2019.277>

Sudwan, O. W. (2022). *The implementation and impact of dialogic teaching in higher education in Thailand* (Doctoral dissertation). University of York.

Tsegaye, G., Marew, A., & Sefa, M. (2025). Effects of question-and-answer relationship strategy on students' reading comprehension and critical thinking. *Bahir Dar Journal of Education*. <https://doi.org/10.4314/bdje.v25i1.6>

Ucan, S., Kılıç Özmen, Z., & Taşkın Serbest, M. (2023). Understanding the cognitive and socio-emotional dimensions of dialogic teaching and learning. *International Journal of Curriculum and Instructional Studies*, 13(1), 158–175.

<https://doi.org/10.31704/ijocis.2023.007>

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.

Wegerif, R. (2019). Dialogic education. *Oxford Research Encyclopedia of Education*. Oxford University Press. <http://education.oxfordre.com/>

Zare, M., Barjasteh, H., & Biria, R. (2021). The effect of critical thinking-oriented dynamic assessment on EFL learners' learning potential: A study of reading comprehension skill. *Journal of Teaching Language Skills*, 40(2), 193–227.

<https://doi.org/10.22099/jtls.2021.39475.2935>

Wegerif, R. (2019). Dialogic education. *Oxford Research Encyclopedia of Education*. Oxford University Press. <http://education.oxfordre.com/>

Zare, M., Barjasteh, H., & Biria, R. (2021). The effect of critical thinking-oriented dynamic assessment on EFL learners' learning potential: A study of reading comprehension skill. *Journal of Teaching Language Skills*, 40(2), 193–227.

<https://doi.org/10.22099/jtls.2021.39475.2935>