Monograph Series, No. 1

Classroom Talk, Dialogic Teaching and Inquiry through Dialogue

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Introduction

This monograph, 'Classroom Talk, Dialogic Teaching and Inquiry through Dialogue', provides a synthesis of research in the areas of classroom talk, and examines how types of teacher talk and student talk contribute to the effective teaching of oral communication and other English Language skills. In so doing, it explores dialogic teaching and dialogic approaches to inquiry-based learning.

The monograph thus seeks to meet the professional learning needs of English Language educators who are tasked with implementing the pedagogic emphasis of Inquiry Through Dialogue (ITD), introduced in the English Language Syllabus (ELS) 2020. The research synthesis and the links to relevant resources in the monograph will enable English Language Master Teachers and Teacher Leaders, as well as Key Personnel and School Staff Developers, to understand ITD more deeply so that they can offer stronger support for teachers enacting ITD in their classrooms.

Aims

The monograph has three main aims:

1. foster understanding of the importance of developing students' oracy through a review of the research background on classroom talk and dialogic teaching;
2. help readers understand the types of talk teachers and students can use in the classroom, and to know how these types of talk can contribute to more effective teaching and learning of English Language (EL);
3. provide readers with information and resources to better support the use of Inquiry Through Dialogue (ITD) in face-to-face and online teaching and learning contexts.

Overview

The monograph is organised into four main chapters:

Chapter 1 sets the context by unpacking notions of oracy and relating these to the ELS 2020, and highlighting the potential for classroom talk to enhance student learning.

Chapter 2 explores classroom talk in detail, examining findings from research on teaching talk and learning talk, and their role in building the quality of teacher-student and student-student classroom interaction.

Chapter 3 provides a brief synthesis of research on dialogic approaches to teaching, making connections between inquiry approaches to teaching EL and the pedagogical emphasis of ITD in the ELS 2020.

Chapter 4 briefly discusses dialogic teaching and ITD in the context of online learning.

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Chapter 1

Oracy, Classroom Talk and Learning

Chapter Outline

1.1 Oracy as Oral Skills Development

1.2 Oracy as Pedagogy

1.3 Classroom Talk and the Quality of Learning

1.4 Summary

1 Oracy, Classroom Talk and Learning

Many of the researchers cited in this monograph believe that the development of students' oracy has long been neglected by traditional curricula, overshadowed by the privileged literacies of reading and writing as represented in high stakes examinations in most school systems. At the same time, research in classrooms in many countries has repeatedly shown that much of the business of learning is still mediated largely through classroom talk – quintessentially, teacher talk. Interest has grown in pedagogical approaches that promote students' engagement in spoken classroom interactions which nurture their thinking skills and deepen their understanding of disciplinary academic content. In addition to the importance of student talk in school contexts, it can be argued that students will encounter learning or working environments after they leave school that put a high premium on spoken communication skills, such as negotiation, problem-solving, idea-generating discussion and persuasive presentations.

In recent years, therefore, there has been a renewed focus on developing students' oracy. One of the earliest uses of the term 'oracy' in an educational context was by Wilkinson (1965), who saw it as the "the ability to use the oral skills of speaking and listening" (p. 13), a definition which focuses on the skills of speaking and listening that have conventionally been associated with the teaching and learning of English. However, he also argued that "oracy is not a 'subject' – it is a condition of learning in *all* subjects; it is not a 'frill' but a state of being in which the whole school must operate" (Wilkinson, 1965, p. 58). This dual sense of oracy as both competency in oral communication skills and as 'a condition of learning' was echoed by Edwards and Westgate (2005), who in their investigation of classroom talk in the UK claimed that "oracy is a concern within the English lesson but also and essentially beyond that, in all teaching and learning, at every age and phase" (p. 4). More recently, reviewing the research on oracy, Alexander (2020) summarised these two different understandings as 'oracy as oral skills development' and 'oracy as pedagogy'. Before exploring classroom talk and its impact on learning in more detail, it is important to elaborate on this distinction.

1.1 Oracy as Oral Skills Development

Oracy as oral skills development can be understood as "the development of young people's skills in using their first language, or the official/educational language of their country, to communicate across a range of social settings" (Mercer, Warwick, & Ahmed, 2019, p. 395). The development of students' communication skills is a specific aim of the ELS 2020, which states that they are expected to "speak, write and represent in standard English that is grammatical, fluent, intelligible and appropriate for different purposes, audiences, contexts and cultures" (ELS 2020, p. 9).

The development of oral communication skills in ELS 2020 extends beyond the grammatically correct and fluent use of language, to encompass the development of a broad range of communication skills. EL teachers are expected to foster positive classroom interaction in order to encourage "respectful, confident exchanges as well as a love and enjoyment of the language that will greatly enhance the motivation to learn it" (ELS 2020, p. 15). In addition, they need to "facilitate personal and/or critical responses to what is heard in the moment, read or viewed, including complex and ambiguous issues, to promote exploratory talk" (ELS 2020, p. 15). The promotion of 'exploratory talk' is a key aspect of the pedagogical emphasis of Inquiry Through Dialogue (ITD) found in ELS 2020 and will be explored further in later chapters.

Developing students' oral communication skills contributes to them becoming effective and empathetic communicators

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> who possess the values, dispositions and skills to listen actively to different perspectives, communicate confidently, effectively and sensitively while collaborating with others to work towards shared goals, and balance an appreciation of the Singapore spirit with multi-ethnic and multicultural sensitivities (ELS 2020, p. 8).

Yet developing students' oral communication skills can also lead to positive impacts beyond competency in those skills, such as equipping students with the potential to enhance their "learning of other subjects and personal effectiveness" (Goh et al., 2005, p. 146). What teachers do with talk in the classroom, and what students are enabled to do through talk, underlies the view of oracy as pedagogy.

1.2 Oracy as Pedagogy

Alexander (2020) described 'oracy as pedagogy' as the teacher's skilled use of classroom talk to mediate learning, whether this be in the English classroom or for other subjects. Teachers who can facilitate high quality spoken interactions between themselves and students, and between students, enable those students to construct knowledge and deepen their thinking within the relevant disciplinary context. Summing up the common thread to researchers' views over a thirty-year period on what has been termed 'talk for learning', Hammond (2016) highlighted the importance of "dialogic interaction between teacher and students, where students have the opportunities to engage in extended, in-depth exploratory talk about substantial curriculum knowledge" (Hammond, 2016, p. 5).

The value of dialogic forms of talk for learning has also been recognised in research on language skills other than oral communication. The use of exploratory talk can play a mediating role in the teaching and learning for all Areas of Language Learning (AoLL), as for example writing, where the use of 'writing conversations' was found to foster metalinguistic learning about writing and language choices (Myhill, Jones & Wilson (2016). These ideas will be elaborated in the next section.

1.3 Classroom Talk and the Quality of Learning

A growing number of researchers believe that if teachers improve the quality of classroom talk, they can improve the quality of student learning. In the international context, research has presented compelling evidence of high quality talk in classrooms contributing to the development of student thinking and learning. However, although research has identified a positive association between classroom talk and positive student test results in English and other subjects (Alexander, 2013; Alexander et al., 2017; Howe et al., 2019), it has also reported that many students do not have enough opportunities for high quality talk in classrooms (Alexander, 2020).

In Singapore, as part of the CORE Research Programme[1] developed by the National Institute of Education (NIE), Hogan et al (2014) examined the intellectual quality of the enacted curriculum in Secondary 3 Mathematics and EL lessons. The authors reported that classroom talk in EL classrooms was "overwhelmingly factual" (Hogan et al., 2014, p. 133) and characterised by short teacher-student exchanges rather than more dialogical exchanges. In another study under the CORE programme, Kwek (2020) investigated the subject-domain pedagogies of 191 teachers in 15 primary and secondary schools, and identified classroom discussion and the use of pair or group work as areas for improvement[2].

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[1] This programme is a multilevel analysis of Singaporean schooling, pedagogy, youth, and educational outcomes that seeks to examine the impact of changes to Singapore's education system.

[2] Except in Primary 5 and Secondary 3 PE classrooms.

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Despite finding a significant increase in the frequency of discussion and pair or group activities in EL classrooms following the introduction of a new English Language Syllabus in 2010 (ELS 2010), Kwek (2020) argued that it was important that these activities continue to increase in frequency "as they are important for student knowledge construction" (p. 2). A key implication from the study was that there should be "a greater focus on questioning techniques to better elicit extended responses from students" (p. 2).

Classroom talk plays a significant role in the teaching of EL by supporting effective learning and developing essential communicative competencies for students at the primary and secondary levels. As noted earlier, ELS 2020 introduced a pedagogical emphasis on ITD, as well as the promotion of exploratory talk, with the goal of increasing the amount and quality of classroom discussion. ITD is one means to develop students' knowledge of language and to ensure effective and affective language use for all EL learners (ELS 2020). We would argue that the introduction of ITD to ELS 2020 addresses the recommendation by Kwek (2020) to further increase the frequency of discussion in EL classrooms described above. Moreover, ITD can be interpreted as a response to Alexander's (2013) call for teachers to extend their instructional repertoires to encompass a range of types of talk, and for students' talk repertoires to extend beyond providing recall responses or 'guess-what-the-teacher-is-thinking' answers.

1.4 Summary

Chapter 1 has discussed the different meanings encompassed by the term 'oracy' in relation to the work of EL teachers guided by the ELS2020, as well as to the broader context of talk for learning across all subjects. It has also briefly summarised research on classroom talk and the quality of learning, with reference to Singapore EL classrooms. Chapter 2 will examine more closely the types of talk teachers and students can engage in to develop oracy and adopt dialogic and inquiry approaches to learning in EL classrooms.

Resources for Chapter 1

1. English Language Syllabus 2020 Secondary (Normal Academic/Express). Ministry of Education, Singapore.

2. English Language Syllabus 2020 Primary. Ministry of Education, Singapore.

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Chapter 2

Exploring Classroom Talk

Chapter Outline

2.1 Classroom Talk and Learning

2.2 Types of Learning Talk

2.3 Types of Teaching Talk

2.4 Summary

2 Exploring Classroom Talk

This chapter provides a synthesis of research on the classroom talk used by students and teachers in the process of EL teaching and learning. The aim is to provide an evidenced-based account of the types of talk that are effective for EL teaching and learning. The chapter begins with a broad overview of research into classroom talk and claims about its potential for improving the quality of learning. Following this, Section 2.2 describes talk used for learning and Section 2.3 describes talk used for teaching. These sections provide the context for examining exploratory talk and productive academic discussion, which feature in the ELS 2020 and the Singapore Teaching Practice (STP) respectively. Finally, Section 2.4 discusses how such types of talk can be integrated as part of a 'repertoire of talk' (Alexander, 2020) for effective teaching and learning of EL.

2.1 Classroom Talk and Learning

From the 1970s to 1990s, research on classroom talk focused on the structure of teachers' spoken discourse (Cazden, 2001; Mehan, 1979; Sinclair & Coulthard, 1975). Researchers then began to shift their focus to examine how teachers' use of talk could increase the positive effects of teacher-student interaction on teaching and learning (Mercer & Dawes, 2014). This shift in research focus resulted in a deeper understanding of the role of classroom talk for teaching and learning, and has informed approaches to learning through talk found in the ELS 2020, such as the pedagogical emphasis of ITD and the use of exploratory talk.

Wells (2000) stressed the role of talk as an essential component of all teaching and learning, with knowledge being "created and recreated in the discourse between people doing things together" (p. 16). This perspective is broadly the same as Alexander's (2020) framing of oracy as pedagogy, which was discussed in Chapter 1. Wells (2000) identified the central role of the student's spoken language as a medium for learning, as shown in the following description of the student's learning processes whilst building knowledge through dialogue:

> S/he has to interpret the preceding contribution(s) in terms of the information it introduces as well as the speaker's stance to that information, compare that with her or his own current understanding of the issue under discussion, based on her/his experience and any other relevant information of which s/he is aware, and then formulate a contribution that will, in some relevant way, add to the common understanding achieved in the discourse so far, by extending, questioning or qualifying what someone else has said. It is frequently in this effort to make his or her understanding meaningful for others that the speaker has the feeling of reaching a fuller and clearer understanding for him or herself. (Wells, 2000, pp. 17-18)

The value of student talk for teachers can also be found in the potential it has as a form of 'responsive assessment' (ELS 2020), enabling both teachers and students to "know where the students are, where they are going and how to get there" (ELS 2020, p. 120). Student talk can make students' thinking 'visible', helping teachers to gauge their students' level of understanding about the topic being taught. This understanding can then inform the actions teachers need to take to close students' learning gaps. The value of classroom talk for teachers as well as students is underlined by Alexander's statement: "if students need talk in order to learn about the world, teachers need talk in order to learn about students" (Alexander, 2020, p. *x*).

Accepting that research has recognised the value of classroom talk for learning, it is important to understand the distinct types of talk teachers and students can use to bring about effective teaching and learning. The next section will focus on the types of 'learning talk' (Alexander, 2020) which teachers need to facilitate for effective learning in EL classrooms.

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2.2 Types of Learning Talk

Section 2.2 describes the types of talk which students engage in to deepen their learning of EL. With a deeper understanding of types of learning talk, teachers will be better able to plan and develop their students' use of talk to learn EL.

Learning talk is talk which students engage in to fulfil the "educational tasks of learning and making sense" (Alexander, 2020, p. 143). Teachers need to engage their learners in this type of talk for them to learn through interaction with one another. Students need learning talk to enable them to do more than answer teachers' questions; they need learning talk "to ask questions of their own, to explain and expand their ideas and explore the ideas of others. They must listen and respond, respect others' viewpoints and their right to put their case, and think carefully about what is said" (Alexander, 2020, p. 142). Creating opportunities for students to engage in learning talk requires "both active student engagement and constructive teacher intervention" (Alexander, 2020, p. 13). For example, when a teacher sets a learning task for group work, the students may need to articulate their expectations of the task to their peers. This would require the use of 'transactional' learning talk, where the communicative function is to manage the students' interaction with other students in the group. Specifically, students would probably need to give instructions to others in the group, explain aspects of the learning task where necessary, and respond to any questions the group have.

Table 1 presents a summary of the several types of learning talk found in Alexander (2020), with the type of learning talk shown in the left-hand column. The communicative function of each type of learning talk is shown in the centre column and examples of specific student actions are shown in the right-hand column.

Table 1

Summary of Types of Learning Talk (Alexander, 2020, pp. 143-144)

Type	Communicative Function	Student Action (e.g., 'the student asks')
Transactional	manage encounters and situations	ask, answer, instruct, inform, explain, discuss
Expository	narrate, expound and explain	tell, narrate, explain, describe, expound, expand
Interrogatory	ask different kinds of question in diverse contexts	bid, ask, enquire, answer
Exploratory	venture, explore and probe ideas	suggest, venture, speculate, soliloquise, hypothesise, probe, clarify
Deliberative	reason and argue	reason, ask, argue, question, hypothesise, challenge, defend, justify, analyse, synthesise, persuade, decide
Imaginative	contemplate and articulate what might be	speculate, visualise, soliloquise, tell, describe, envisage, create
Expressive	put thoughts into words, nuance ideas, articulate feelings and responses	narrate, speculate, qualify, argue, insist, wonder, exclaim
Evaluative	deliver opinions, form and articulate judgements	opine, estimate, assert, argue, judge, justify

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The ELS 2020 represents many of the types of learning talk shown in Table 1 under the 'Speaking and Representing' progression of language skills. In the focus area of 'Speaking and Representing Confidently and Effectively for a Variety of Purposes, Audiences, Contexts and Cultures, both Individually and Collaboratively', students are expected to produce texts that "recount, entertain, instruct and respond" at Primary levels 1-4. At Secondary levels, the expectation expands to include producing texts that "describe, inform, explain, evaluate and persuade" (ELS 2020, p. 26).

In Table 1, 'expressive talk' and 'imaginative talk' can be equated with 'creative self-expression' in the ELS 2020, which is described as fundamental to language learning. One important type of learning talk which features predominantly in the ELS 2020 is 'exploratory talk'.

2.2.1 Exploratory talk

Most research on exploratory talk has described it as involving speakers agreeing on and adhering to a set of interactional norms or 'ground rules' (Mercer & Littleton, 2007; Mercer & Dawes, 2008; Mercer, 2019), in order to generate an equitable and reasoned discussion. Mercer and Dawes (2008) described exploratory talk as a way of thinking aloud together, "taking the risk that others can hear, and comment on, partly-formed ideas [...] in a genuinely collaborative interaction" (pp. 65-66). In exploratory talk, speakers have opportunities "to try out ideas, to hear how they sound, to see what others make of them" (Barnes, 2008, p. 5) and, as a result, "hesitancy, false starts and changes of direction are unavoidable and perhaps essential" (Alexander, 2020, p. 142).

When presenting ideas that they have developed through exploratory talk to the whole class, students may need to repackage these ideas in 'presentational talk' (Barnes, 2008), adjusting "the language, content and manner to the needs of an audience" (Barnes, 2008, p. 5). Presentational talk is different from exploratory talk, having a focus on the clarity of a message "for display and evaluation" (Barnes, 2008, p. 5).

In the context of the EL classroom, presentational talk occurs when students share their ideas with the whole class. Students engaged in a learning task could use exploratory talk in pairs or small groups to work out their thinking and prepare their ideas, before presenting their responses to the whole class. Some EL educators, such as Willis & Willis (2007), have argued that the switch from private informal interactions in a pair or small group engaged in task-based learning to a post-task plenary where they report back in public to the whole class, provides the necessary motivation for students to use a more correct formal language, thus reinforcing the development of language competency.

The ELS 2020 recognises that exploratory talk is one way to deepen collaborative language learning, when used to "encourage respectful, confident exchanges as well as a love and enjoyment of the language that will greatly enhance the motivation to learn it" (ELS 2020, p. 15). Exploratory talk provides opportunities for students to "think for themselves before they truly know and understand" (Alexander, 2020, p. 14), while also giving them opportunities to develop their oracy skills through speaking and listening with their peers and teacher.

This section has described types of learning talk, their related communicative functions and the specific actions or speech acts they entail. In addition, it highlighted the types of learning talk which feature in the ELS 2020. Learning talk can be seen as contributing to 'oracy as oral skills development' (Alexander, 2020) as described in Section 1.1. In particular, the importance of exploratory learning talk was elaborated and how it mediates the development of critical and inventive thinking skills, and collaborative communication skills. Next, in Section 2.3, we will explore the teachers' use of talk and show how this is instrumental in engaging students in learning talk.

2.3 Types of Teaching Talk

Teachers use teaching talk to engage their students in learning. Teaching talk “triggers and shapes the process of learning talk” (Alexander, 2020, p. 145) and builds the students’ thinking skills and oracy skills. There are two main types of teaching talk described by Alexander (2020): ‘talk that limits students’ learning talk’ and ‘talk which enables students’ learning talk’.

‘Talk that limits students’ learning talk’ comprises the types of talk teachers use to manage student learning. Although these types of talk do not usually elicit extended student responses, students can learn by listening to the teacher state the class activities, explain learning points and clarify questions the students might have. Despite the lack of opportunities for students to engage in learning talk, teacher talk is important for regulating the learning environment, as teachers need to manage lesson activities, lesson pace and the general direction of the learning.

‘Talk which enables students’ learning talk’ comprises the types of talk teachers use to engage students in learning talk, whether in pairs, small groups or whole class discussion. When a teacher uses these types of teacher talk, he or she has the specific aim of promoting a high quantity and quality of learning talk, by facilitating extended student responses, such that multiple students’ voices are heard and play a vital role in their own learning.

Table 2 illustrates further the two types of teaching talk described above. It is important to stress that both types of teaching talk illustrated in Table 2 are essential for teaching and learning. Alexander (2020) proposed that teachers use both as part of a broader ‘repertoire of talk’ – the benefits of which will be discussed further in Section 2.4.

Table 2

Two Types of Teaching Talk (from Alexander, 2020, pp. 144-145)

Talk That Limits Learning Talk	Talk That Enables Learning Talk
Rote Memorising facts, formulae, routines or texts through constant repetition	**Discussion** Exchanging ideas and information, uncovering and juxtaposing viewpoints
Recitation Using short teacher question/student answer sequences to recall what has previously been encountered, or to test what is presumed or required to be already known	**Dialogue** Working towards a shared understanding through structured questioning, probed and elaborated responses and an interactive dynamic that strives to be collective, reciprocal and supportive as well as cumulative, deliberative and purposeful
Instruction Telling students what to do and/or how to do it	**Argumentation** Making or testing a case by reference to reasons or evidence
Exposition Imparting information, explaining ideas or procedures, narrating	**Deliberation** Weighing the merits of ideas, opinions or evidence

The following sections will elaborate on teaching talk that limits learning talk, and teaching talk that enables learning talk.

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2.3.1 Teaching talk that limits learning talk

With this type of teaching talk, the teacher takes on an authoritative role and is in full control of the talk occurring in the classroom. Examples of teaching talk which limit learning talk are 'rote' and 'recitation'. Rote teaching talk, in the EL classroom context, can be equated with the teacher's "drilling of language items through sustained repetition" (Chappell, 2014, p. 4). An example of rote teaching talk is a teacher presenting a list of vocabulary items, asking students to repeat the vocabulary items several times, then checking individual students by asking questions to see if they can recall the list of items.

Research has shown that recitation teaching talk is predominant in most classrooms (Alexander, 2020). In Singapore, Hogan et al. (2014) reported similar findings for EL classrooms, with most classroom talk being characterised by short teacher-student 'performative orientated' exchanges. The purpose of recitation is "to transmit information to students and review it with them" (Nystrand, 1997, p. 9). An example of recitation is a teacher giving an explanation and asking closed questions that require the students to produce short responses to recall what they have heard in the explanation.

Some researchers have portrayed recitation in a negative light. One depiction states that it comprises "closed teacher questions, brief recall answers and minimal feedback, which requires children to report someone else's thinking rather than think for themselves, and to be judged on their accuracy or compliance in doing so" (Alexander, 2020, p. 15). Stressing the limited impact of recitation on learning, Nystrand (1997) claimed that "when recitation starts, remembering and guessing supplant thinking" (p. 6). Resnick et al. (2019) challenged the value of recitation by highlighting the disparity between how adults and children learn: "if adults learned through discussing problems and debating solutions with one another, then why were children expected to learn by listening and repeating what their teachers said?" (p. 561). Hardman (2019) argued that rote and recitation teaching talk can hinder students from thinking for themselves and result in students' responses being evaluated on their compliance with what teachers had in mind.

Although the rote and recitation types of teaching talk have been described as not offering many opportunities for students to engage in learning talk, Alexander's (2020) concept of a repertoire of talk which teachers employ in class includes teaching talk that limits learning talk. Teachers need to be aware that "recitation is not categorically ineffective; rather, its effectiveness varies depending on whether and how teachers expand IRE [Initiate-Response-Evaluate] sequences" (Nystrand & Gamoran, 1997, p. 72). IRE sequences are the exchanges between a teacher and a student which are characteristic of recitation talk. They begin with the teacher initiating the exchange, usually with a question (the 'I' or Initiate stage), followed by a student responding with an answer to that question (the "R' or Response stage), and finally the teacher's evaluation of the student response (the 'E' or Evaluate stage). The Evaluate stage of the IRE sequence, referred to as 'the third turn' (Alexander, 2020), will be discussed further in Section 2.3.3.

Recitation can feature positive teacher-student exchanges if student responses that are "short and almost always in response to the teacher's requests are incorporated by the teacher into relatively extended lines of reasoning that may last across several teacher-student exchanges" (Resnick et al., 2010, p. 175). With the teacher taking action to shape students' responses into coherent chains of meaningful discourse, this type of teaching talk can enable more learning talk.

According to Alexander, to move away from recitation talk, some teachers may attempt a form of classroom talk using questions that appear to enable more learning talk, when in fact it is recitation teaching talk in disguise, as shown in the following example:

> A teacher spent 20 minutes repeatedly asking more or less the same ostensibly open question, 'What do you see?', – of children examining fabric with magnifying lenses,

> glossing over their many varied answers before eventually running out of time and telling them the 'correct' answer. (Alexander, 2020, p. 18)

Despite the question in the example being open to multiple responses, the teacher had decided on a single correct answer and therefore did not follow up on the students' responses, missing the opportunity to facilitate discussion and build a coherent thread of meaning with them. Alexander (2020) has described this practice as using "ostensibly open questions that stem from a desire to avoid overt didacticism but which may be no less closed" (Alexander, 2020, p. 17). This example illustrates the challenge some teachers may face when aiming to have more learning talk in the classroom. Despite demonstrating good intentions by giving students opportunities to voice their ideas, the outcome may not result in learning talk.

Although categorised as teaching talk that limits learning talk in Table 2, 'instruction' and 'exposition' are common and essential for teaching. The two types of teaching talk are critically important for language learning purposes. Instruction teaching talk can inform students of learning activities and processes for them to conduct those activities. Exposition teaching talk can impart information and help to explain concepts or other points related to learning in the classroom. In the Singapore context, Hogan et al. (2014) found that instruction teaching talk, or what they termed 'procedural talk'[3], had value for student learning, especially if the talk was linked with conceptual understanding.

2.3.2 Teaching talk that enables learning talk

This section describes the types of teaching talk that research has identified as beneficial for engaging students in learning talk. As shown in Table 2, 'discussion', 'dialogue', 'argumentation' and 'deliberation' are types of teaching talk that open up more opportunities for learning talk, having the potential "to enable students to ask questions of their own, to explain and expand their ideas and explore the ideas of others" (Alexander, 2020, p. 142).

Discussion, dialogue, argumentation and deliberation are specified in the ELS 2020. In the Progression of Skills chart for 'Speaking and Representing' (see Figure 1), it is stated that students are to participate respectfully in discussion; explore, develop and organise ideas as individuals; and collaboratively (dialogue), and pay attention to producing texts that argue (argumentation) and evaluate (deliberation). For the skills of Speaking and Representing, 'discussion' features predominantly, with references to students needing to participate respectfully in discussion and for students to be able, across all school levels, to "write about and discuss topics of relevance and interest to them" (ELS 2020, p. 19).

[3] Hogan et al. (2014) define procedural talk as "talk that focuses on how students complete a process or task specific to a discipline, subject or area of study. This is talk around genres, rules, procedures, resources, tools involved in solving a problem or doing knowledge work" (p. 142).

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Progression of Skills from Primary 1 to Secondary 4E/5N

<table>
<tr><th rowspan="3">AREA OF LANGUAGE LEARNING</th><th rowspan="3">FOCUS AREAS</th><th colspan="6">PRIMARY</th><th colspan="5">SECONDARY</th></tr>
<tr><th colspan="2">LOWER PRIMARY</th><th colspan="2">MIDDLE PRIMARY</th><th colspan="2">UPPER PRIMARY</th><th colspan="3">LOWER SECONDARY</th><th colspan="2">UPPER SECONDARY</th></tr>
<tr><th>P1</th><th>P2</th><th>P3</th><th>P4</th><th>P5</th><th>P6</th><th>S1N</th><th>S2N/1E</th><th>S3N/2E</th><th>S4N/3E</th><th>S5N/4E</th></tr>
<tr><td rowspan="8">Speaking and Representing</td><td rowspan="2">Knowledge Base for Speaking and Representing</td><td colspan="2">Develop knowledge of the basic features of spoken language and recognise that language is used to fulfil different purposes.</td><td colspan="9">Attain deeper knowledge of the features of spoken language, including variation in register according to situation.

Recognise the conventions of speech and the roles of speakers in different situations.</td></tr>
<tr><td colspan="11">Develop fluency and accuracy in pronunciation with use of appropriate prosodic features.</td></tr>
<tr><td rowspan="6">Speaking and Representing Confidently and Effectively for a Variety of Purposes, Audiences, Contexts and Cultures, Both Individually and Collaboratively</td><td colspan="2">Plan and set goals.

Explore, gather and develop ideas from a variety of texts combining linguistic and other semiotic modes.</td><td colspan="9">Plan and set goals.

Gather, select and evaluate information.

Develop and organise ideas from a variety of texts combining linguistic and other semiotic modes.</td></tr>
<tr><td colspan="2">Participate respectfully in discussion by upholding agreed-upon rules of exchange.</td><td colspan="9">Participate respectfully in discussion to develop, articulate and represent ideas in real time in response to the listener(s).</td></tr>
<tr><td colspan="11">Speak and represent with confidence, coherence and cohesion using different semiotic modes appropriately to fulfil different purposes.</td></tr>
<tr><td colspan="4">Pay increasing attention to producing texts that recount, entertain, instruct and respond.</td><td colspan="2">Pay increasing attention to producing texts that recount, entertain, instruct, describe, inform, respond and evaluate.</td><td colspan="2">Pay increasing attention to producing texts that recount, entertain, instruct, describe, inform, explain and evaluate.</td><td colspan="3">Pay increasing attention to producing texts that respond, argue, evaluate and/or persuade.</td></tr>
<tr><td colspan="4">Monitor self and others in order to correct mispronounced words and adjust inappropriate use of prosodic features.</td><td colspan="7">Self-adjust planned speech, monitor and revise speech to adjust and improve communication based on intended purposes and response of the listener immediately after and upon reflection.</td></tr>
</table>

Figure 1 Progression of Skills: Speaking and Representing (Curriculum Planning & Development Division (2020) *English Language Syllabus 2020 Secondary (Express/Normal Academic)*. Singapore, Ministry of Education, p 26).

2.3.3 Productive academic discussion

Researchers have used the term ‘discussion’ to encompass a range of types of learning talk. For example, discussion has been described as ‘argumentation’ (Barnes & Todd, 1995; Mercer, 2000) and as “an ideal medium for unpicking and developing argument” (Alexander, 2020, p. 100). Despite different interpretations of discussion with respect to classroom contexts, researchers appear to agree on a common set of features of classroom discussion where students are productively engaged with the content of the subject they are learning. In the following scenario, Michaels and O’Connor (2012) identify some of those features:

> Students put forth competing ideas in their clearest and strongest form, even though some ideas may turn out to be more correct than others. Students explain their ideas in detail with evidence. They listen carefully to each other with respect. Students take seriously and evaluate their own and others’ competing ideas. In other words, they are intellectually engaged. (p. 1)

In such productive academic discussions, the teacher’s talk is used to guide students in thinking through and solving problems relevant to the academic discipline they are studying. The students “hold themselves responsible for getting the facts right, for thinking through challenges together, and for following rules that encourage participation (such as respectful listening)” (Resnick et al., 2018, p. 17).

Facilitating Productive Academic Discussion is a teaching action included in the Singapore Teaching Practice (STP), under the Teaching Area of ‘Encouraging Learner Engagement’, where it is described as follows:

> In a *productive academic discussion*, the teacher guides the students in articulating their understanding of concepts through spoken interaction with the teacher and with other students. Teachers can use *talk moves* (Michaels & O’Connor, 2012, 2015) to facilitate

> such discussions. *Talk moves* can take the form of questions or sentence prompts to initiate discussion and guide the spoken interaction as the discussion progresses. As a result, students have opportunities to clarify their own thinking, deepen their reasoning, listen to and engage with one another's reasoning, and consolidate their understanding. (Academy of Singapore Teachers, 2020)

As indicated above, a key component of productive academic discussion is the use of 'talk moves', a term derived from the work of Michaels et al. (2008), Michaels and O'Connor (2012; 2015), O'Connor and Michaels (2017), and Resnick et al. (2010). Using talk moves, a teacher can both facilitate productive academic discussions with her students in class and model the type of talk that students need to engage in so that they participate in such discussions. The next section describes the use of talk moves in more detail.

2.3.4 Using talk moves to facilitate discussion

Talk moves are "roughly utterance-sized units of talk, intended (as a 'move' in a game) to get the other player(s) to respond in some way, to bring something particular to the table" (O'Connor & Michaels, 2017, p. 9). Talk moves serve to position students as "thinkers and reasoners, rather than getters of the right answer" (O'Connor & Michaels, 2017, p. 8), by encouraging them to elaborate on their ideas. It is important to understand that silence or 'wait time' is also a talk move which teachers can employ to give their students time to think (Michaels & O'Connor, 2012), and therefore that it can be effective as a move to elicit student responses. In a large-scale research project involving 5,000 pupils in UK primary schools and examining dialogic teaching, Alexander (2020) reported that the use of talk moves by teachers resulted in increased test score gains for students.

Talk moves are designed to be employed by the teacher in the third turn, which is conventionally used to close an IRE teacher-student exchange (see the discussion of IRE exchanges in relation to Recitation teaching talk in Section 2.3.1 above). The teacher can use the third turn as an opportunity for 'extending' teacher-student exchanges into longer chains of interaction (Alexander, 2020), rather than cutting them short with simplistic evaluation responses. Such extended interaction in the discourse occurs "when the third move of the interaction is made to prompt elaboration of the student's point of view" (Scott et al., 2006, p. 612). The teacher's skilful use of talk moves, such as wait time, probing questions, and requests for other students' perspectives and challenges, can scaffold more elaborated student contributions. The potential for teacher-student interactions to develop into extended sequences of productive talk in this way depends on the teacher's awareness of teaching talk that enables more learning talk, and her ability to exploit the third turn. Conversely, a lack of awareness of the 'dialogic potential' of the third turn can lead to the teacher prematurely closing down interaction, such that classroom talk remains in the less productive IRE sequences common to many classrooms (Alexander, 2020).

There is clear potential for talk moves to transform the third turn in a teacher-student exchange from merely evaluating a student response to following up or extending the student's response. The use of talk moves can address the need for teachers to "ask authentic questions and follow up student responses" (Nystrand, 2019, p. 107) in order for transformative learning to take place. Researchers have identified and recommended teacher talk moves to deepen students' thinking and understanding through talk, with the most valuable talk moves for learning being ones "that encourage students to elaborate their own and each other's ideas" (Alexander, 2020, p. 114). Several studies have also identified a positive association between the use of talk moves and positive student test results in English and other subjects (Alexander et al., 2017; Howe et al., 2019), reinforcing the value of talk moves for teaching and learning EL. Moreover, EL teachers can use resources such as the *Let's Talk!* card game (English Language Institute of Singapore, 2015) to help students learn the talk moves and thus become more competent in participating in discussions.

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An important consideration for using talk moves is the teacher and student grouping planned by the teacher when setting up a classroom discussion, namely, whole class interaction or small groups. When planning to facilitate a productive academic discussion, teachers need to be aware of the grouping that best matches their learning aim and their students' familiarity with talk moves. Researchers have reported that regular use by teachers of talk moves with different groupings in class resulted in students using the talk moves themselves, thereby creating new norms for classroom discourse (Resnick et al., 2010).

Talk moves alone cannot improve learning. As researchers have observed, "the simple deployment of talk moves does not ensure coherence in classroom discussions or robust student learning" (Michaels & O'Connor, 2015, p. 358). The teacher, therefore, plays an essential role in facilitating quality talk and learning. The teacher's role is illustrated by Nystrand's (1997) statement that quality learning is dependent on "the quality of teacher-student interactions and the extent to which students are assigned challenging and serious epistemic roles requiring them to think, interpret, and generate new understandings, not just remember someone else's" (p. 11). Believing that the quality of classroom interaction drives the quality of learning, Alexander (2020) argued for developing 'a repertoire of talk' for teachers, rather than promoting or avoiding certain types of talk. The next section outlines the benefits to teachers of having such a repertoire.

2.4 Summary

Alexander (2020) cautioned against rejecting the use of all types of teaching talk that limit learning talk in order to focus exclusively on teaching talk that enables more learning talk. Instead, he argued that a realistic and practical approach would be to promote the need for teachers to develop a repertoire of talk, and to advise them on how to make choices and judgements informed by the specific context of their classroom. He explained that "exposition, recitation and even rote have a place in teaching [...] facts need to be imparted, information needs to be memorised, and explanations need to be provided, and even the deeply unfashionable rote has a place (memorising tables, rules, spellings and so on)" (Alexander, 2020, p. 145).

In summarising the need for a repertoire of talk, Alexander (2020) stated that students' talk could be highly conducive to learning "if the teacher's vocabulary and exchange repertoire are rich, and the teacher values and nurtures reciprocity" (p. 144). Looking at many hours of classroom talk data from Singapore classrooms, Hogan et al. (2014) reached a similar conclusion, stating that dialogue alone did not lead to student understanding, and that IRE sequences could help student understanding. The authors found that classroom talk that focused on conceptual connections and relationships, what the authors termed "epistemic talk", was critical to "working on understanding" (p. 133).

Chapter 2 has described learning talk, the types of talk students need for deep learning, and teaching talk, the types of talk teachers use to manage and enable learning. The concept of a repertoire of talk was introduced to illustrate the understanding that, in practice, teachers need to use both talk which limits learning talk as well as talk that engages students in more learning talk. Chapter 3 will examine dialogic approaches to teaching English language which engage learners in developing their oracy skills and deepening their understanding.

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Resources for Chapter 2

1 Oracy in the learning skills curriculum an article and video (2020), by Dr James Mannion, Oracy Cambridge.

2 What are types of talk? a blog post (2018), by Professor Rupert Wegerif, Faculty of Education, University of Cambridge.

3 A research article on developing oracy in Primary 1-2 students in the UK. Karen Littleton, K., Mercer, N., Dawes, L., Wegerif, R., Rowe, D., & Sams, C. (2005). Talking and thinking together at key stage 1. *Early Years*, *25*(2), pp. 165–180.

4 Learning talk: skills and capabilities infographic from Dalton, J. (2011) *Learning Talk: build capabilities,* reproduced on the website of the Ministry of Education, New Zealand.

5 *Let's Talk!* a card game developed by ELIS and designed by Nanyang Polytechnic School of Design, to help students communicate effectively with their peers using talk moves.

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Chapter 3

Dialogic and Inquiry Approaches to Teaching and Learning English Language

Chapter Outline

3.1 Dialogic Teaching

3.2 Inquiry Approaches to Dialogic Teaching

3.3 Inquiry Through Dialogue

3.4 Summary

3 Dialogic and Inquiry Approaches to Teaching and Learning English Language

This chapter aims to provide a summary of research on the dialogic and inquiry approaches to teaching and learning which underpin Inquiry Through Dialogue (ITD). A deeper understanding of such approaches will be valuable for EL Teacher Leaders and teachers in making clear why the ELS 2020 emphasises the importance of the practice of ITD in the teaching and learning of EL. Moreover, understanding dialogic approaches to teaching EL and their relationship to what can be broadly termed 'inquiry approaches' could help teachers to broaden the repertoire of classroom strategies which they can use to develop oracy.

3.1 Dialogic Teaching

One of the more widely established dialogic approaches to developing students' oracy through enhancing the quality of classroom talk is 'dialogic teaching', proposed by Alexander (2017). Developed through extensive research in UK classrooms, dialogic teaching is:

> a pedagogy of the spoken word that harnesses the power of dialogue [...] to stimulate and extend students' thinking, learning, knowing and understanding, and to enable them to reason and argue. It unites the oral, cognitive, social, epistemic and cultural, and therefore manifests frames of mind and value as well as ways of speaking and listening. (Alexander, 2020, p. 128)

Alexander (2018) described how his conception of dialogic teaching differs from others who have adopted the term, by devoting "equal attention to the quality of teacher and student talk, and to the agency of others – fellow students as well as teachers – in the latter" (Alexander, 2018, p. 563). As we have seen in the previous section, his characterisation of distinct types of teaching and learning talk seeks to open up the potential of talk as a tool for enhancing student learning. Complementing this is a strongly held belief that every teacher should "develop a broad repertoire of talk-based pedagogical skills and strategies and to draw on these to expand and refine the talk repertoires and capacities of their students" (Alexander, 2018, p. 563).

In a comprehensive framework, Alexander (2018) identified five principles of dialogic teaching, as shown in Table 3.

Table 3

Principles of Dialogic Teaching (from Alexander, 2018, p. 566)

Principle	Elaboration
Collective	The classroom is a site of joint learning and enquiry.
Reciprocal	Participants listen to each other, share ideas and consider alternative viewpoints.
Supportive	Participants feel able to express ideas freely, without risk of embarrassment over 'wrong' answers, and they help each other to reach common understandings.
Cumulative	Participants build on their own and each other's contributions, and chain them into coherent lines of thinking and understanding.
Purposeful	Classroom talk, though open and dialogic, is structured with specific learning goals in view.

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Thus, dialogic teaching in Alexander's sense fosters a collective enterprise in the classroom that emphasises collaboration and respectful listening among students and seeks to support the co-construction of understanding within a sustained and coherent discourse that is oriented towards curricular goals.

Illustrating the broad scope of Alexander's approach, research in classroom talk that draws on the notion of dialogic teaching has examined exploratory talk, accountable talk, talk moves and productive discussion. A research compendium produced under the auspices of the American Educational Research Association (AERA) summarised the evidence on dialogic teaching and classroom talk thus:

> Students who had experienced this kind of structured dialogic teaching *performed better* on standardised tests [...] than similar students who did not have discussion experience. The data also showed that some students *retained* their learned knowledge for two or three years. More surprising, in some cases students even *transferred* their academic advantage to a different domain (e.g., from a science instruction to an English literature exam). (Resnick, Asterhan, and Clarke, 2015, p. 1, authors' italics).

An independent study reported in Alexander (2018) of a dialogic teaching intervention in four UK cities, with 208 teachers and 5,000 year 4 students, found student gains of around two months in standardised tests of English and Mathematics, and evidence from classroom video data of changes in teacher and student talk.

One important aspect of dialogic teaching, as conceptualised by Alexander, is that it draws on Bakhtin's (1986) view of the nature of knowledge building as a continuous process of questioning: "If an answer does not give rise to a new question from itself, it falls out of the dialogue" (p. 168). Dialogic teaching, therefore, supports students' learning of subject content by engaging them in a thinking through of concepts and ideas, and by developing their knowledge through an iterative process of asking questions and seeking answers to questions posed by the teacher or learning materials. In this sense, dialogic teaching can be viewed as a form of inquiry.

Section 3.2 provides a synthesis of research on inquiry approaches and shows their relationship to the broad notion of dialogic teaching. In addition, it provides a rationale for the need for EL teachers to use ITD in their classrooms.

3.2 Inquiry Approaches and Dialogic Teaching

Inquiry approaches to teaching foreground inquiry as the focus for student learning, and utilise methods and practices that support dialogic teaching. Wilhelm (2016) defined 'inquiry as a process of addressing problems, expressed by guiding questions with a focus on "how to create powerful classroom interactions and learning through the use of inquiry" (p. 10). According to Wilhelm (2016), these guiding questions create "a clearly focused problem orientation [...] that connects kids to socially significant material and learning" (p. 8). The use of guiding questions brings together the students' lives, curricular content and the real-world context to "consolidate major concepts, vocabulary, strategies and ideas" (p. 8).

Although Wiggins and McTighe (2013) use the term 'guiding questions', this is comparable to the term 'initiating questions' described later, in Section 3.2.2. Both terms relate to questions used to stimulate discussion and deepen learning of content. Effective initiating questions are open-ended, thought-provoking and intellectually engaging; they call for higher-order thinking, require support and justification, and inspire additional questions for further inquiry.

3.2.1 Forms of inquiry dialogue

Chappell (2014, 2017) proposed inquiry dialogue as a means to promote teacher and student learning through talk in the context of teaching English language learners in Australia. The author defined inquiry dialogue as "a type of classroom talk that involves longer stretches of discourse structured in a manner that promotes common understanding and inquiry" (Chappell, 2017, p. 99). For inquiry dialogue, "keeping the interaction moving forward, building on each other's ideas and developing cumulative talk" (Chappell, 2017, p. 108) is paramount: there is a focus on teacher actions in the classroom to engage students in learning through talk.

Chappell's (2014, 2017) description of inquiry dialogue can be related to descriptions of exploratory talk (Mercer and Dawes, 2008). As with exploratory talk, students engage in creating knowledge collaboratively, "weaving together each other's contributions, relating one to the other […] developing ideas in a cumulative fashion" (Chappell, 2014, p. 6). Another similarity between inquiry dialogue and exploratory talk is the importance of "extending the opportunities for students to engage meaningfully with each other, developing their knowledge and understandings as well as their oral/aural language abilities" (Chappell, 2017, p. 100).

As with productive academic discussion, described in Section 2.3.2, inquiry dialogue can be achieved through "explicit instruction in and modelling" (Chappell, 2017, p. 102) over time, and is initiated by an open-ended contestable question or a statement that "stimulates students to think about possibilities" (p. 106). The aim of such initiating questions or statements is to motivate inquiry and not close off student responses. The teacher has a leading role as a facilitator who can open up the dialogue and "explicitly model the kinds of statements and questions that achieve this" (p. 107). Chappell (2017) also stressed the need to "give students time to consider their responses" (p. 106) and "sort out their thoughts" (p. 107), which resembles the 'wait time' talk move of Michaels and O'Connor (2012). Inquiry dialogue, therefore, comprises a set of features that promote more learning talk (Alexander, 2020).

A different approach to inquiry dialogue was proposed by Reznitskaya and Wilkinson (2015, 2018). Using English language arts lessons as the context, Reznitskaya and Wilkinson's (2018) interpretation of inquiry dialogue is "neither teacher-centred nor student-centred; rather, it is truth-centred . . . with the teacher encouraging students to engage in collaborative and rigorous argumentation to support the group's progress toward the most reasonable answer to the question at hand" (p. 36). As depicted in the quotation above, the authors' approach to inquiry dialogue resembles Chappell's (2014, 2017) focus on the role of the teacher to guide the dialogue. However, in Reznitskaya and Wilkinson (2017) there is a more specific focus on using inquiry dialogue to develop students' argumentation skills "to think critically and deeply, assess the validity of their own thinking, and anticipate counterclaims in opposition to their own assertions" (p 24). This focus on the development of specific speaking and thinking skills appears more closely aligned to the goals of ITD than Chappell's (2014, 2017) inquiry dialogue. Although ITD is an approach to deepen language learning through talk, it can be used to develop 21st century competencies such as critical and inventive thinking skills, collaboration skills and communication skills.

In Reznitskaya and Wilkinson's (2015) approach to inquiry dialogue in English language arts classrooms, the "discussion is centred on an open-ended, contestable question that does not have a single right answer" (p. 223). The authors' approach requires that the students work with a class text which had previously been read or listened to as a trigger for the dialogue. The use of a text results in students examining the meanings in the text and engaging in close reading as part of the process of inquiry dialogue. Reznitskaya and Wilkinson's (2015, 2018) description of inquiry dialogue is comparable to ITD, which requires teachers to make "a judicious selection of texts […' which will broaden students' worldviews and enable them to make connections to real-world issues," (ELS 2020, p. 18). This focus on reading or viewing texts as the stimulus for dialogue is

also described in the AoLL of Listening and Viewing for Primary 5–6 and Secondary students: "Apply knowledge from listening to, viewing and responding to texts for different purposes (including arguments and discussions) in a variety of contexts for enjoyment and understanding" (ELS 2020, p. 24).

The aim of inquiry dialogue, as described in Reznitskaya and Wilkinson (2018) is to develop spoken argumentation – the ability to think critically, assess the validity of one's own thinking and anticipate counterclaims – which can be related to the thinking and speaking skills students need to develop through exploratory talk identified in ELS 2020. At the secondary level, students are to "listen and view critically by applying the full range of critical listening and viewing skills and strategies, including evaluating the relevance and soundness of arguments" (ELS 2020, p. 24).

Section 3.2 has described the notion of dialogic inquiry as a stance to guide the teaching and learning of EL. Two representations of inquiry dialogue have also been described as approaches where teachers facilitate learning through engaging students in dialogue to find a resolution for an initiating question that underpins the inquiry. Reznitskaya and Wilkinson's (2015, 2018) inquiry dialogue more closely meets the needs of EL teachers using the ELS 2020, as their approach to inquiry dialogue is preceded by reading or viewing a text carefully chosen by the teacher as the stimulus for dialogic learning. The following section will summarise these approaches in the context of ITD as a pedagogical emphasis in the ELS 2020.

3.3 Inquiry Through Dialogue

Inquiry Through Dialogue (ITD) is one of the three pedagogical emphases of the ELS 2020, along with Multiliteracies and Metacognition. The three pedagogical emphases help to develop knowledge about language and ensure "effective and affective language use for all EL learners" (ELS 2020, p. 23). ITD can be situated within the broader pedagogical practice of inquiry-based Learning (IBL), which is one of the six priority areas of practice in SkillsFuture for Educators (SFEd) for improving teachers' competencies and encouraging lifelong learning (Ministry of Education, 2020)[4].

When enacting ITD, teachers need to adopt an inquiry stance whilst teaching the areas of language learning. They seek to engage students' curiosity and wonder (in the process of learning) by carefully selecting topics connected to real world issues that appeal to students. As with the inquiry approaches to dialogic teaching discussed in Section 3, with ITD teachers can use questions to guide their students in knowledge construction and negotiation of meanings in the process of learning. As part of the support teachers can provide students in the process of learning through discussion, questioning strategies can be employed to guide students in responding and generating sequences of coherent meanings across multiple speakers.

Teachers practising ITD will carefully select questions to develop their students' critical thinking and their negotiation of solutions to the problems posed by the teacher. The negotiation of solutions can take the form of the teacher engaging students in exploratory talk. The focus on scaffolding the students' articulation of their thinking for problem solving reflects the rationale of IBL to "nurture students' voice in learning, while asking meaningful questions and using evidence to address complex problems" (Ministry of Education, 2020). With the rationale and need to enhance teacher practices in carrying out IBL, EL teachers address this priority area identified for teacher professional development through teaching ITD and carrying out exploratory talk in their classrooms.

[4] SFEd is a professional development roadmap by the MOE that guides teachers to strengthen their practice in six prioritised areas of practice.

3.3.1 Inquiry Through Dialogue and Exploratory Talk

Student talk, especially exploratory talk, plays an important role in developing the language skills, learner strategies, attitudes and behaviour (SSAB) for primary and secondary students. Moreover, as the ELS 2020 makes clear, exploratory talk can be a means to the development of 21st century competencies when teaching EL, as shown in the following belief statement.

> Language learning is deepened through exploratory talk in a variety of ways, including inquiry through dialogue
>
> When students are involved in inquiry, they learn first-hand as they co-construct and use language purposefully to explore thematic ideas, language features and multiple perspectives. Such an approach foregrounds the development of oral communication skills, mutual respect, exploratory talk, peer engagement and constructive feedback. (ELS 2020, p. 17).

Equally, exploratory talk can be a means to develop awareness of grammatical and lexical knowledge, and enable teachers to equip their students with the appropriate metalanguage to explore language features.

With ITD as an approach to frame learning through talk, teachers can use the full repertoire of teaching talk, described in Section 2.3, to guide their students in learning talk, especially exploratory talk. This can be done by allowing time for students to discuss in pairs and small groups, to think through their ideas and generate solutions to the discussion topics at hand. In these discussions, the teacher uses instruction teaching talk to set the expectations, offers some open-ended carefully planned questions and organises the discussion groupings. Pair and small group discussions allow students to explore ideas in a safe environment. These groupings increase the potential for individual contributions and reduce the fear of making mistakes due to the small number of participants. Such discussion provides the conditions for exploratory talk to develop ideas and co-construct and negotiate meanings. Teachers can also use these pair and small group discussions to prepare their students for a whole class discussion.

3.4 Summary

The commonalities between dialogic and inquiry approaches to teaching EL reviewed can be summarised as follows. First, the students' experiences and real-world contexts are placed at the centre of their learning. This gives a level of authenticity to the learning, and increases student motivation through the relevance to their lives and the meanings they wish to express. Second, inquiry is framed as an issue to explore or a problem to resolve, which requires groups of students to engage in collaborative meaning-making through the joint construction of solutions. Third, oracy is both the means for learning and a means to develop the thinking skills essential to reasoning and argumentation. Such skills are developed as students articulate and negotiate meaning as they engage in a variety of activities, driven by the need to find answers to their inquiry.

Both Chappell's (2014, 2017) and Reznitskaya and Wilkinson's (2015, 2018) approaches to inquiry dialogue can take place with a whole class, in small groups or in pairs. The use of these different student groupings for deepening learning through exploratory talk and ITD is described in the ELS 2020 (ELS 2020, p. 15). Both dialogic and inquiry approaches are aligned with ITD in terms of students working collaboratively to inquire into a topic to co-construct knowledge through talk.

Chapter 3 has examined dialogic and inquiry approaches to the teaching and learning of EL. Chapter 4 will look at the possibilities for conducting ITD in the context of online learning.

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Resources for Chapter 3

1. Dialogic teaching an overview by Professor Robin Alexander.

2. Institute for Adult Learning. (2019). *Dialogical teaching: Investigating awareness of inquiry and knowledge co-construction among adult learners engaged in dialogic inquiry and knowledge (co-) construction*. Singapore: Institute for Adult Learning.

3. Dialogic Teaching: A Classroom Guide for Better Thinking and Talking by Paul Main. Structural learning.com

4. Making the most of educational dialogue: YouTube video, presentation by Professor Neil Mercer.

5. Resources for teachers and teacher trainers from the Thinking Together Project, Faculty of Education, University of Cambridge, UK.

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Chapter 4

Inquiry through Dialogue and Online Learning

Chapter Outline

4.1 Dialogic Teaching Online

4.2 Using Technology for Inquiry through Dialogue

4 Inquiry Through Dialogue and Online Learning

With the increasing role of online learning in schools, research needs to explore the impact of technology on teaching and learning. This chapter offers a brief synthesis of research that has examined how technology can be used to mediate the teaching and learning of EL.

At the system level, one of the MOE's key initiatives to transform the learning experiences of students through the purposeful use of technology for online learning is the Singapore Student Learning Space (SLS). This platform enables students to engage in alternative learning modes, such as self-directed and collaborative learning. The SLS also enables companies and agencies to integrate their resources within the platform, offering the potential to integrate tools to mediate dialogic teaching. For example, teachers who have access to the Interactive Thinking Tool (ITT) in the SLS can check their students' understanding of the topic they are teaching. The ITT allows teachers to select a thinking routine template, such as 'see-think-wonder', and then customise the content for a particular class and purpose. The teacher can review students' responses and respond, or prompt the students to engage with one another's responses.

The rapid development of technology has also been recognised as shaping understandings of literacy and language skills (ELS 2020). As part of preparing students for the future workplace, teachers need to develop their students' 21st century competencies through teaching EL to "connect themes and texts meaningfully and appropriately to talk, task and technology in the classroom" (ELS 2020, p. 18). The role of technology is central to the development of 21st century competencies, as it is also a "key resource in providing equitable access to digital networked sources of information to develop, complement and augment language learning both within and outside the classroom" (ELS 2020, p. 19).

The equally rapid growth of internet-enabled modes of communication, such as video conferencing and text messaging, had profound implications for how people communicated even before the COVID-19 pandemic emerged in 2020. The pandemic, however, brought about the sudden adoption of technologies that facilitated online synchronous meetings, such as video conferencing software. The role of technology in mediating talk was particularly important, given the advent of the global pandemic and its impact on teaching, which required a sudden reliance on video conferencing software to facilitate on-screen learning interactions and the sharing of learning materials.

At the time of writing, relatively few studies have focused on the use of such technologies in EL teaching and learning. Nevertheless, as more digital communication technologies are developed and are adopted within and outside classrooms, they will likely have a greater impact on teaching and learning EL.

4.1 Dialogic Teaching Online

Wegerif (2019) proposed that teachers should harness technology to teach dialogue explicitly. The author considered developing students' ability to "be better at dialogue" (p. 20), which included "learning how to ask better questions, how to listen better, hearing not only words but also implicit meanings" (p. 20). Wegerif (2019) stated that education could focus on constructing dialogues in the internet age, and this could be done by engaging students in "cutting edge debates in every area using online videos of talks, following Twitter accounts or by participating more directly in citizen science projects mediated by the Internet" (p. 20). The author highlighted the role of the Internet in supporting peer-to-peer learning, in which students engage in learning talk by carrying out an internet search for a problem they have

and find the solution on an internet forum. How the different types of teaching and learning talk can be mediated with technology, however, remains in need of further research.

An established approach to using technology for dialogic teaching is Knowledge Building (Scardamalia & Bereiter, 2002), which involves students becoming engaged in dialogue within a shared online discourse space that allows ideas to be generated, tracked and stored using various forms of technology-enhanced scaffolding. Scardamalia and Bereiter (2002) stressed that although internet technology was used for the exchange of ideas, typically ideas were "lodged within conversational threads", with contributions being unmodifiable and there being "no way of linking ideas in different threads or assimilating them into larger wholes" (p. 1372).

In response to the perceived limitations in the use of the technology they had observed, the authors created a customised platform which supported "idea development, graphical means for viewing and reconstructing ideas from multiple perspectives, means of joining discourses across communities, and a variety of other functions that contribute to collaborative knowledge building" (p. 1372). According to the authors, an affordance of this approach was that it offered opportunities to learn within and across different learning communities, enabling sustained collaborative work as opposed to "providing a discussion forum that serves as an add-on to regular work or study" (p. 1372). According to Chan et al. (2019), Knowledge Building "is synonymous with the continued pursuit of inquiry and evolution of dialogue" (p. 472). Although Knowledge Building harnesses technology to support dialogic teaching, it does not specifically address the development of oracy skills for EL. The next section examines how technology might be harnessed for this purpose.

4.2 Using Technology for Inquiry Through Dialogue

There is a growing body of research examining how teachers using dialogic approaches to teaching oracy can harness technology. Major and Warwick (2019) stated that technology can "provide both a tool and an environment for the creation of a shared 'dialogic space' where ideas can be put forward, respected, scrutinised, and challenged in a supportive discursive environment", which leads to "joint action and a high level of collaboration" (p. 398). This is recognisable in the Knowledge Building approach described above. However, the authors cautioned that "it is the technology use in a particular context" (p. 405) that is productive in supporting classroom dialogue.

Mercer, Hennessy and Warwick (2019) emphasised that how technology was used in a particular pedagogical context was important, and not the technology itself. Using an interactive whiteboard as an example, the authors described how the interactive whiteboard played a vital role in facilitating dialogue and collaboration to co-construct artefacts which could be "saved, revisited, modified or repurposed at a later time" (p. 194). Their example described a secondary English literature class teacher annotating and highlighting a poetry text and a series of related images in real time during a class discussion, to explore a character's feelings and the relationships between the poem and the visual images.

EL teachers in Singapore already avail themselves of digital communication technologies such as *Zoom* and mobile device applications such as *Padlet*, to meet their students' needs. A more relevant technology which has been developed for dialogic teaching and learning is the micro-blogging tool *Talkwall*, a joint initiative between the University of Oslo in Norway and the University of Cambridge in the UK. *Talkwall* was developed as a digital tool to support learning through exploratory talk. This tool is used in both face-to-face teaching and for remote synchronous teaching with video conferencing platforms such as *Zoom*. *Talkwall* allows students to make contributions as individuals or as collaborative groups. Students post their contributions, which are projected at the front of the class in a narrow 'contributions' column on the left of a 'talk wall'. Students and the teacher can then move the contributions

to a larger space occupying the remainder of the interface, enabling them to arrange the ideas in a particular manner relevant to the topic and activity at hand. *Talkwall* was part of the research project 'Digitalised Dialogues Across the Curriculum (DiDiAC)' to develop and enhance classroom talk to think together (Warwick & Rasmussen, 2020). This resource has potential for promoting exploratory talk and encouraging greater participation by students, as well as showing teachers and students how important talk can be for learning.

A related resource is the instructional technology platform *Parlay*, which provides teachers with a tool for facilitating, measuring and assessing student-driven discussions. The online platform was designed to support blended learning and features two main activity types: live round table for synchronous verbal discussion and online round table for asynchronous written discussion. Live discussion can be conducted in class (with each student having a PC or online using technologies such as *Zoom* to connect students. For verbal discussions, students are prompted to contribute a new idea, challenge what another student has said, build on what a student has said, or ask a question of the speaker. They can also be given sentence stem prompts for how to do this verbally. *Parlay* also provides users with resources such as a library of discussion prompts designed by teachers for a range of subjects. In addition, it can provide feedback data on discussions, in the form of data visualisations of students' participation.

Chapter 4 has touched on how technology can play a significant role in facilitating dialogic approaches to teaching and learning. Examples of how technology is being used to mediate the teaching and learning of EL were briefly described.

Resources for Chapter 4

1 Literature review on adolescents' in and out of school literacy practices – global and local perspectives. Sun Baoqi and Heidi Layne (2020). NIE Working Paper Series No. 16.

2 Local Evidence Synthesis on Information and Communications Technology (ICT) in Education. Seow, Wong & Wu (2020) report on 126 studies conducted through NIE, EduLab and MOE Academies Fund awards from 2008-2017.

3 *Talkwall* – an online platform for learning through exploratory talk, designed by the University of Oslo and the University of Cambridge.

4 *Parlay* – an AI-powered instructional platform that helps teachers facilitate meaningful, measurable and inclusive class discussions (*registration required*).

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