Talking to Learn 2.0

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About the Author
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Teaching then can be likened to a conversation in which you listen to the speaker carefully before you reply.

— Clay, 1985, p. 6

Just over 50 years ago, James Britton (1969) published his now famous essay entitled, “Talking to Learn.” At the time, Britton was a professor of English at the Institute of Education, University of London (now University College London), and his seminal work on language, literature, and writing was making a major contribution to thinking about education in England, the United States, and other countries. Many educators associate Britton with the prescient phrase “reading and writing float on a sea of talk” (e.g., Myhill, Jones, & Wilson, 2016, p. 23; see Britton, 1972, p. 52). At the time, Britton, along with other language luminaries such as Douglas Barnes and Harold Rosen, had recently participated in the 1966 Anglo-American conference on the teaching of English known as the Dartmouth Seminar. Following close on the heels of that conference, Britton’s 1969 essay was one of the first major publications to draw attention to the importance of talk for developing students’ thinking and learning.

In this article, with apologies to James Britton, I humbly offer a 50-year update on “Talking to Learn — Talking to Learn 2.0.” I use Britton’s essay as a vehicle to take stock of the latest theory and empirical evidence on the power of talk for nurturing students’ literate futures. I organize my essay in three major parts. First, I revisit Britton’s essay and ask, What did we know then about talk and learning? Second, I ask, What do we know now? Third, I look into a somewhat murky crystal ball and ask, What does the future hold for talk and learning? I conclude by considering what the recent work on dialogic pedagogy means for literacy learning and teaching.

What Did We Know Then?
So, what did we know then about talk and learning? Just over 50 years ago, Britton (1969) was trying to discern how we know when learning happens, “what learning looked like” (p. 81). Eschewing numbers from test scores, he assumed that “glimpses of it [learning] are to be found, first, in what people say to each other” (p. 82).

To that end, he closely analyzed transcripts of conversations among high school students, sometimes just among themselves and sometimes with a teacher present. In his essay, we see a group of girls sharing stories about their parents and growing up in their families; another group of girls talking together to translate English into Latin; two other girls

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Britton essentially asked, “Is anything (in the way of learning) happening here?”

His orientation towards talk seems to have owed allegiance to both cognitive and sociocultural theories of learning. He argued that, in conversation, a less expert student could benefit from having things explained to them by a more expert peer. Conversely, he made clear that a more expert student might benefit from explaining things to a less expert student. Presumably, cognitive rehearsal and cognitive restructuring would help explain these benefits (cf. Webb, 1995). Nonetheless, he fully subscribed to a sociocultural view of learning that would align with Vygotsky’s (1962, 1978) theories. Through talk, Britton argued, students can arrive at an understanding that extends beyond what each alone is capable of — using talk to jointly construct knowledge and understanding (what Mercer, 2000, now refers to as interthinking). Britton saw talk as a means to an end rather than an end in itself.

Britton was not entirely transparent on what he looked for in the transcripts for glimpses of learning, but he identified at least two markers of productive talk. One was making generalizations to explain events (e.g., “I think that’s a good thing … to have a row [a verbal fight] is good … it gets it out of your system,” “I think this signifies that whatever might happen between you and your parents, no matter what … they are there … and it means something, you know, just that they’re there, even”). A second was discussion of alternative possibilities. We see this in the class discussion of a science experiment where the teacher seeks explanations for why copper turns a different color when exposed to a flame. For example:

Teacher: Well, what about it then, A…?

Student A: Well, sir, it got … with something in the copper.

Teacher: Well, where do you think it’s coming from, this black powder?

Student A: From the flame.

Teacher: From the flame? … something coming out of the flame? … See if you can think up something … You think it’s coming out of the flame. Do you think it’s coming out of the flame?

Student B: I think it’s coming out of the copper, sir.

Teacher: You think it’s coming out of the copper? Well, B … see if you can think of things you could do … another experiment which would show which of you’s correct.

(Britton, 1969, p. 112)

Britton also distinguished between different types of talk. He described expressive speech as a relaxed, self-revealing type of talk where speakers share their feelings and explore different ideas. He described the language of scientific hypotheses as a spare, more specific type of talk used in scientific activity (i.e., experimentation). This type of talk is used to help perform the mental operations that accompany hypothesis testing. He described referential speech as a type of talk that designates things more accurately and more explicitly. It could include the language of reasoning and argument.

Britton clearly privileged expressive speech and the language of scientific hypotheses over referential speech as tools for learning. He argued, connecting to Vygotsky (1978), that expressive speech served as a bridge by which the learner progresses from an understanding of common-sense concepts to an understanding of more-objective, scientific concepts. Echoing Rosenblatt’s (1978) personal response theory, he argued that by making a personal connection to ideas, the learner is able to engage in deeper analysis of them and that the learner’s prior knowledge and experience play a vital role in shaping the way the learner understands new and less familiar information. For Britton, expressive speech was more accessible and develops earlier, whereas the language of scientific hypotheses was more rarefied and develops later.

He was quite dismissive of the value of argument for learning, at least of the level of argument he thought the students he studied were capable of. He noted that students of this age and ability might not yet have the capabilities to engage in productive argument. Moreover, even if they were capable of such an argument, it might not lead to learning in the moment. Whereas expressive speech is more likely to be productive at the time of speaking, he noted that argument might not be productive until afterwards.
Britton had relatively little to say about the role of the teacher in promoting productive talk. For talk to be productive, he noted, teachers need to provide a safe, supportive atmosphere for students to be able to share their ideas and learn from each other. He also heralded Wood, Bruner, and Ross’s (1976) notion of scaffolding, stating that teachers need to “enter into the talk at the right moment and in the right way” (p. 101).

What Do We Know Now?
Having established some of the essential understandings from Britton’s (1969) seminal essay, I now turn to the present day — “Talking to Learn 2.0.” Moving forward 50-plus years, what do we know now? In the following, I identify four topical areas in which we have made considerable progress. I base these areas on a broad array of theory and empirical research that shows substantial convergence of ideas among scholars of dialogic pedagogy, and I include examples from my own work to illustrate the essential understandings.

Better understanding of what productive talk looks like
Whereas Britton (1969) was not entirely sure what productive talk looked (well “sounded”) like, today we have a much better understanding of its essential features. One of the key features of productive talk is that students have more control over the flow of talk and, hence, more agency in the construction of knowledge and understanding. If the teacher is present, typically, this agency is enacted by teachers asking authentic questions that have no prespecified answer and follow-up questions that build on students’ responses or ‘uptake’ (Nystrand, 1997; Nystrand, Wu, Gamoran, Zeiser, & Long, 2003). This might also be enacted by the teacher asking questions that elicit high-level thinking, defined as generalization, analysis, or speculation (Nystrand, 1997) and, in discussions about text, questions that elicit extratextual connections. These questions about extratextual connections include questions that prompt students to make connections to their own lives or feelings (affective), to other texts or media (intertextual), and to knowledge or understanding established by the group in prior discussions (shared-knowledge; Allington & Johnston, 2002; Applebee, Langer, Nystrand, & Gamoran, 2003; Bloome & Egan-Robertson, 1993; Edwards & Mercer, 1987; Taylor, Pearson, Peterson, & Rodriguez, 2003). Of course, students can, and usually do, ask these sorts of questions; but, when teachers ask them, they signal to students that they are being listened to, that their ideas are being valued, and that they are shaping the direction of the talk.

Examples of some of these moves can be seen in Figure 1 (see page 36). The excerpt comes from a Quality Talk discussion (Wilkinson, Soter, & Murphy, 2010) among fourth graders in Ohio. The students were discussing a story they had just read called Victor by James Howe (1995). The story is about a young boy named Cody who is incapacitated, lying in a coma in a hospital bed. To pass the time, because he can’t move his head, Cody creates an imaginary world which he calls “the land above,” inspired by the ceiling tiles in the hospital. During his stay in hospital, a mysterious man named Victor comes to visit Cody. He pulls up a chair next to Cody’s bed and tells Cody stories about what his life will be like when he comes out of the coma and he grows up. The teacher and students were trying to understand, Who is Victor?

Notice how the students largely had control of the talk. Most of the contributions came from students and there were several consecutive exchanges among students with only brief, occasional comments from the teacher. Notice, too, that the students had responsibility for constructing their understanding and interpretation of the story. They asked questions, managed turn taking, and evaluated each other’s answers. We cannot see in the excerpt, but the students did not raise their hands to speak. They conversed with each other much as adults do, waiting for a space to talk and building on each other’s ideas.

Another key feature of productive talk is students engaging in individual and collective reasoning. Students give long, elaborated explanations for their thinking (Chinn, O’Donnell, & Jinks, 2000; Webb, 1989) and engage in extended episodes of exploratory talk (Mercer, 1995, 2000). We also see examples of these in the above excerpt. Students were reasoning individually—justifying their ideas and making their thinking public—and they were also reasoning collectively. Following the teacher’s question (Can you tell me why you think so?) is an episode of exploratory talk. The students offered alternative perspectives about Victor, challenging and counterchallenging each other’s ideas constructively, all the while giving reasons and evidence from the text to support their ideas. Keywords such as I think, I don’t think, so,
maybe, because, how, why, and could are good indicators that students are engaged in reasoning (Wegerif & Mercer, 1997; Wegerif, Mercer & Dawes, 1999).

These features of productive talk are particular to classroom discussions about text and it must be remembered that the function talk serves is conditioned by context and culture—be it the culture of the classroom, school, or wider society (Alexander, 2001, 2020; Wells, 1999). “It is culture that gives talk the power that it has and, at the same time, it is talk that constitutes the culture” (Kim & Wilkinson, 2019, p. 83). Nonetheless, there is considerable consensus among scholars of dialogic pedagogy as to the indicators of productive talk. Conceptual analysis of a broad range of perspectives on dialogic pedagogy (Kim & Wilkinson) and recent empirical work (Howe, Hennessy, Mercer, Vrikki, & Wheatley, 2019) confirms that such indicators include open-ended questions that elicit extended, thoughtful responses; elaborated responses from individual students; and responses that are built upon and form a coherent line of inquiry.

**Better understanding of the benefits of talk for learning**

Not surprisingly, we now have a much better understanding of the benefits of talk for student learning. As noted earlier, Britton did not examine any measures of learning. Rather, he analyzed transcripts of conversations for glimpses of learning. Over the past 50 years, especially recently, a considerable body of evidence has amassed that converges on the conclusion that particular patterns of classroom discourse have positive, and sizeable, impacts on students’ academic achievement and reasoning. What is surprising is how large and durable the gains seem to be. In this section, I summarize some of the major studies.

*Project Challenge* involved a 4-year math intervention conducted from 1998–2003 in one of the lowest-performing school districts in Massachusetts (Chapin & O’Connor, 2012; O’Connor, Michaels, & Chapin, 2015). Each year, the researchers worked with a new cohort of 100 fourth-grade students and engaged them in a variety of math activities. Classroom discussion was not originally part of the intervention but it quickly became a signa-

![Figure 1. Excerpt from Quality Talk Discussion Among Fourth Graders](image)

Michelle: I think Victor’s an angel.

Teacher: You think Victor’s an angel? Can you tell me why you think so?

[Authentic question, uptake, question that elicits high-level thinking]

Michelle: Because he, well maybe he comes from like the land above, and that’s where he’s talking to him. And that’s why maybe Cody can’t see Victor ‘cause he’s from the land above and he’s talking to him from up there.

[Elaborated explanation]

Nancy: Maybe he’s just a figure, but he always has this thing on his face that he doesn’t have…

Matt: But he, Cody kept saying “three tiles up, two to the left.”

Teacher: That was interesting.

Andrew: You mean “three tiles down, two to the left.”

Nancy: Yeah, he was talking about the ceiling.

Sam: He thought it was a real place where people lived and stuff, but he said the funny thing about it was, he never gave them a name.

Andrew: And also, the reason why I don’t think Victor was in the land above, well how could he be talking from the land above because remember when Cody said he could hear him, hear the screeching on the floor from when Victor was pulling up a chair to keep Cody company.

[Elaborated explanation]

Teacher: So that’s. Are you saying that’s evidence? [Uptake]

Andrew: Yeah.

Teacher: Interesting.

Andrew: So how could he be from the land above? I mean he could be from the land above, but how could he be talking from the land above?

[Authentic question, uptake, question that elicits high-level thinking]

Matt: But how do you know people can’t travel from and to [the] land above?

[Uptake]

Nancy: This isn’t realistic. This isn’t like nonfiction, so anything can happen.

tural reasoning. They studied a talk-based pedagogy on students’ reasoning. A study by Topping and Trickey (2007a) provided data on the effects of another talk-based pedagogy on science.

A study by Topping and Trickey (2007a) sought to replicate the Topping and Trickey (2007a, 2007b) findings in a low-income, middle school in Texas. They used the same outcome measure as the Scottish study, and the same version of P4C, but for a shorter duration (6 months). Here, 186 seventh-grade students participated in the discussions in their language arts classes for 1 hour per week. At the end of the program, results showed substantial gains in reasoning relative to a control group (Fair et al., 2015a). Again, when students were followed up three years later, Fair et al. (2015b) found that the gains had persisted. Tellingly, eighth graders who participated in only 4–10 weeks of discussions showed no such gains.

These results of individual studies are reflected in findings from several meta-analyses. Some years ago, my colleagues and I conducted a meta-analysis synthesizing results of 42 quantitative studies of the effects of different approaches to conducting text-based discussion on reading comprehension (Murphy, Wilkinson, Soter, Hennessey, & Alexander, 2009). We found some approaches were effective at promoting students’ literal and inferential comprehension, producing effect sizes as large as 0.80 in experimental group comparisons; some were also effective at promoting students’ critical thinking, reasoning, and argumentation about text, producing effect sizes as large as 0.40 in group comparisons. Interestingly, the approaches showed greater effects for students of below-average ability than for students of average or above-average ability. In a follow-up meta-analysis, limited to studies of discussion that provided evidence of transfer to new texts and interpretive tasks (Wilkinson, Murphy, & Binici, 2015), we again found mostly positive effects, ranging from –0.09 for comprehension monitoring to 0.93 for writing a reflective essay. Hattie’s (2018) updated synthesis of 1,500 meta-analyses of factors relating to student achievement shows classroom discussion has an effect size of 0.82. Many of the effect sizes reported in these studies would be considered medium to large by conventional standards (Cohen, 1969) and those with standardized achievement outcomes might be regarded as quite large by recent empirical benchmarks (Kraft, 2020).

These findings would surely make Britton proud. Talk-based pedagogy is no educational panacea but there are enough studies producing sufficiently positive results, conducted in a variety of educational contexts, to make us appreciate the powerful
The potential of talk for student learning. What is most encouraging is how large the benefits for students can be, that they can be sustained for 2 or 3 years, and that they can even transfer from one subject area to another. Especially encouraging is that the benefits of such pedagogy are especially apparent for students whom, for whatever reason, might be educationally disadvantaged (e.g., Gorard, Siddiqui, & See, 2017). Talking to learn seems to open up space for all students to benefit.

**Better understanding of what teachers need to do (and how to support them)**

We now have a much better understanding of what teachers need to do to promote productive talk, and how we can support them. As noted earlier, Britton (1969) had little to say about the role of the teacher in promoting talking to learn, though, it must be said, this was not his focus. Current understandings about how to promote productive talk are perhaps best embodied in five principles of dialogic teaching described by Alexander (2017):

- **collective**: teachers and children address learning tasks together, whether as a group or as a class, rather than in isolation;
- **reciprocal**: teachers and children listen to each other, share ideas and consider alternative viewpoints;
- **supportive**: children articulate their ideas freely, without fear of embarrassment over ‘wrong’ answers; and they help each other to reach common understandings;
- **cumulative**: teachers and children build on their own and each other’s ideas and chain them into coherent lines of thinking and enquiry;
- **purposeful**: teachers plan and facilitate dialogic teaching with particular educational goals in view. (p. 38)

The first three principles relate to the more social aspects of learning and establish the collaborative culture or ethos of the classroom for talking to learn. Interestingly, they resonate with Britton’s thinking. He also noted that, for talk to be productive, teachers need to provide a safe, supportive atmosphere for students to be able to share their ideas and learn from each other.

The last two principles relate to the more cognitive aspects of learning. They are more challenging to implement as they require contingent responsivity on the part of the teacher. They require the teacher to (a) monitor the quality of students’ talk at any point in time, (b) understand what the talk should look like to achieve the desired outcome, and (c) scaffold students’ talk towards that outcome. This again resonates with Britton’s thinking. He also noted that, for talk to be productive, teachers need to provide a safe, supportive atmosphere for students to be able to share their ideas and learn from each other.

The meaningful principle reflects the importance Lefstein and other scholars of dialogic pedagogy attach to having students interrogate the issue at hand and engage in argument. The meaningful principle reflects an epistemic commitment on the part of the teacher and students towards the affordances of talk for the meaningful exchange of ideas and for learning.

Encouraging teachers to embrace the principles of dialogic teaching has been a challenging endeavor (Hennessy & Davies, 2020). It requires not only a substantial change in teachers’ discourse practices but also a shift in their knowledge and beliefs about teaching, about knowledge, and about the role of talk in learning and its potential benefit for students (see Richardson, Anders, Tidwell, & Lloyd, 1991; Windschitl, 2002).

Some success has been achieved in helping teachers implement the more socially oriented principles (Hennessy & Davies, 2020). Teacher professional development efforts aimed at fostering more dialogic pedagogy have shown that teachers can make progress towards more open discussion, giving students more control over the talk and allowing them to share and elaborate on each other’s ideas. Studies of such efforts show increases in teachers’ use of open-ended, authentic questions, uptake, questions that prompt high-level thinking, and questions that prompt students to build on each other’s ideas (e.g., Chinn, Anderson, & Waggoner, 2001; Michaels & O’Connor, 2015; Sedova, Sedlacek, & Svaricek, 2016).
However, professional development efforts have shown only limited success in encouraging teachers to embrace the more cognitively oriented principles, especially the cumulative and critical principles. Teachers struggle with helping students to chain their comments into a coherent line of inquiry and to critically evaluate competing claims (Hennessy & Davies, 2020). Encouraging students to provide reasons and evidence to support their claims is achievable, but helping them analyze the strength of the reasons and evidence and test competing arguments remains a somewhat elusive goal.

One program that has shown some success in this regard was a recent research and professional development effort conducted by me and my colleague, Alina Reznitskaya. Our aim was to help elementary school teachers develop expertise in facilitating discussions about text to promote argumentation (Wilkinson et al., 2017). Over the course of a school year, we provided intensive and sustained professional development by means of multiple workshops, study group meetings, and individual coaching sessions. Teachers learned about concepts and principles of dialogic teaching, argumentation, and a particular type of talk called inquiry dialogue. Following Walton (1998), inquiry dialogue is a type of talk where participants work together towards the goal of reaching the most reasonable conclusion to a contestable question. Students are expected to defend their own positions when warranted, to critically examine the positions of others, and to give up or qualify their viewpoints in the face of previously overlooked evidence or faulty reasoning (Gregory, 2007).

**Teacher professional development efforts aimed at fostering more dialogic pedagogy have shown that teachers can make progress towards more open discussion, giving students more control over the talk and allowing them to share and elaborate on each other’s ideas.**

Much of our program focused on helping teachers enhance the quality of students’ argumentation through the use of strategically chosen talk moves. Although teachers struggled with certain aspects of the program, they made substantial progress in acquiring facilitation moves aimed at improving the quality of argumentation during discussions (Wilkinson et al., 2017).

Key to the success of the program was use of the Argumentation Rating Tool (ART; Reznitskaya & Wilkinson, 2019). The ART is an observational rating scale designed to examine the quality of teacher facilitation and student argumentation in elementary language arts classrooms. It embodies key criteria of quality argumentation each connected to set of talk moves. In our professional development program, we used the ART to structure coaching sessions around specific argumentation criteria and talk moves, thus helping teachers to “develop an ear” for the quality of argumentation during discussion. During coaching, for example, the teacher and the discourse coach would use the ART to assess the quality of arguments in students’ talk and then consider the opportunities (taken or missed) to use a particular talk move. Because teachers’ facilitation practices needed to be contingent on the quality of students’ arguments, they were best learned by teachers when they were situated in the context of student talk during inquiry dialogue. The ART helped foster contingent responsivity on the part of teachers.

**Better understanding of different talk for different purposes**

Britton recognized that there were different types of talk and he privileged some—expressive and hypothesis testing talk—over another — referential talk—as far as promoting learning was concerned. Today, we have a more nuanced understanding of talk and how different types of talk serve different purposes.

One of the principles of dialogic teaching promulgated by Alexander (2017) is the idea that teachers have a repertoire of approaches for organizing interaction and engaging in talk, and that they are able to strategically draw from this repertoire to meet educational goals for their students. Different types of talk include both teaching talk (e.g., rote, recitation, discussion) and learning talk, the latter being the discourse practices we want students to acquire (e.g., to narrate, to explain, to argue). Although all types...
of talk serve a purpose, Alexander and others involved in dialogic pedagogy privilege discussion and dialogue. According to Alexander, discussion and dialogue “have by far the greatest cognitive potential” (Alexander, 2017, p. 31) and are “the forms of talk which are most in line with prevailing thinking on children’s learning” (Alexander, 2008, p. 103). Discussion and dialogue afford students greater agency in the construction of their knowledge and understanding, and are more likely to advance students’ thinking on a given topic or idea.

Even within the broad classes of talk referred to as discussion and dialogue, different talk serves different purposes, at least for teachers of literacy. In a forthcoming book (Wilkinson & Bourdage, in press), my colleague and I provide a menu of approaches for conducting classroom discussion about text that teachers can use to foster high-level thinking and comprehension. We organize the book by vis-à-vis discussion to promote

- Personal response
- Knowledge building
- Argumentation

These goals correspond in large measure to different stances or orientation towards the text. Discussions that promote personal response privilege an aesthetic (Rosenblatt, 1978) or expressive (Jakobson, 1987) stance toward the text. The focus is on the lived-through experience of the text during reading — the “associations, feelings, attitudes, and ideas” (Rosenblatt, 1978, p. 25) that the words in the text arouse. Discussions that promote knowledge building privilege an efferent stance (Rosenblatt) toward the text.

The focus is on “the ideas, information, directions, conclusions to be retained, used, or acted on after the reading event” (Rosenblatt, p. 27). And discussions that promote argumentation privilege a critical-analytic stance (Wade, Thompson, & Watkins, 1994) toward the text. The focus is on a more critical reading of the text in search of the underlying arguments, assumptions, worldviews, or beliefs.

Different ways of conducting discussion promote different types of talk, and that talk encourages different ways of thinking about or orientations towards the text. Of course, while a particular approach to discussion might privilege one goal or stance, other goals or stances can still be operating, albeit below the surface. Nonetheless, unlike in Britton’s day, we are now in a position to realize that different kinds of talk serve different purposes and our role as teachers is to use talk purposefully to accomplish the goals we have for our students.

What Does the Future Hold for Talk and Learning?

Having established where we are now with talk and learning, what of the future? In this section, I try to predict what’s coming next — “Talking to Learn 3.0” if you like. I base my predictions on emerging, yet still inchoate developments in the field of dialogic pedagogy. Automated analysis of classroom discourse

One of the most intriguing innovations is the ongoing development of technological systems to automate the analysis of classroom discourse. Based on research identifying features of classroom discourse that are productive for student learning, computer scientists and computational linguists are collaborating with educational researchers to develop speech recognition and analysis techniques for coding classroom discourse. Using natural language processing and machine learning methods with large data, these systems are able to learn how to identify various features of talk that are predictive of student learning.

There are already several commercial apps being marketed for analysis of classroom discourse. These include Visible Classroom (https://visibleclassroom.com), based on Hattie’s (2009) ’Visible Learning’ work, and TeachFX (https://teachfx.com). Another is the Language Environment Analysis system (LENA; Ford, Baer, Xu, Yapanel, & Gray, 2008) originally designed to record and analyze the language environment of young children in home and early childhood settings. LENA has recently been adapted to identify aspects of classroom discourse in elementary school classrooms (Wang, Pan, Miller, & Cortina, 2014). These systems provide diagnostic information about basic features of classroom interaction such as amount of teacher talk, student talk, whole-class discussion, and student-led group work. There is evidence, at least with math classrooms, that providing teachers with automated feedback on such basic features can enhance their discourse practices (Wang, Miller, & Cortina, 2013) and improve student achievement (Wayne, Garet, Wellington, & Chiang, 2018). More sophisticated systems for automated coding of more nuanced features of classroom discourse are in development. These research efforts
are targeting discourse in specific disciplines. In English Language Arts (ELA), Amanda Godley and colleagues are developing Discussion Tracker (Godley & Olshefski, 2019; Olshefski, Lugini, Singh, Litman, & Godley, 2020), a computer-based system that automatically codes features of students’ collaborative argumentation in high school ELA classrooms. Their focus is on three features of student talk: argument moves (e.g., claims, evidence, reasoning); content specificity; and collaboration.

In science, Amy Hogan and colleagues are using ClassInSight, a computer-vision system, to help middle and high school teachers improve the quality of their classroom discussion (https://www.hcii.cmu.edu/research/classinsight). Using sensors to record speech and gesture, the system transforms these data into analytics about classroom discussions. Teachers view graphic representations of their classroom talk in an app immediately following a lesson. The goal is to provide teachers with a visual representation of their classroom discourse to promote reflection and teacher learning.

Finally, in math, Tamara Sumner and colleagues are developing TalkBack (Suresh, Sumner, Jacobs, Polanik, & Ward, 2019). This project uses deep learning models to detect teachers’ and students’ use of talk moves based on the Accountable Talk framework (Michaels, O’Connor, & Resnick, 2008; O’Connor, Michaels, & Chapin, 2015). Currently, they are developing a model to classify the talk moves based on transcribed audio from teacher and student classroom interactions in math classrooms. The long-term goal is to incorporate this model into a larger application that will enable teachers to upload video through a web-based interface and obtain personalized feedback on their classroom discussions.

All of these systems have the goal of providing teachers with feedback on their classroom talk to promote reflection on their practice. Early results indicate that fully automated analysis of classroom discourse is feasible and can be achieved, at least for now, with moderate degrees of reliability; most research programs report agreement between the system and human coders in the range of 65–77%. It is likely that higher levels of agreement, with a broader range of discourse features, will be achieved in the not too distant future. The power of these systems is their capacity to promote teacher reflection as a catalyst to enhance their discourse practices.

More dialogic pedagogy with very young children

Increasingly, educators are turning their attention to talking in early childhood settings and asking what can be achieved with younger children, and what the pedagogy might look like. Britton’s (1969) analyses focused on students in secondary school. He seemed to have had some reservations about whether younger students would be capable of engaging in productive argument and similar talk for learning. Today, the majority of the work with dialogic pedagogy is conducted with students in upper elementary school, aged 10–12. In the future, I expect to see more deliberative use of dialogic pedagogy with children in the early years.

Glimpses of what this might look like are readily found in findings from the Effective Provision of Pre-school Education (EPPE) Project in Britain (Sylva, Melhuish, Sammons, Siraj-Blatchford & Taggart, 2004). In this project, the researchers followed 3,000 children as they moved from preschool to school and identified sustained shared thinking as the interaction that best supported children’s learning. They defined sustained shared thinking as occurring when “two or more individuals work together” in an intellectual way to solve a problem, clarify a concept, evaluate an activity, extend a narrat-
Both parties must contribute to the thinking and it must develop and extend the thinking” (p. 36). They noted that this was most likely to occur when children were engaged in one-to-one interaction with an adult or peer partner and during focused group work.

A recent observational study by Vezzani (2019) also sought to identify the conversational contexts in preschool that might be most productive for student learning. Recording 44 conversations in four schools around Reggio Emilia, Italy with children aged 3–5 years, Vezzani found two conversational contexts stood out as most promising. One, not surprisingly, was a narrative context where the teacher engaged children in a conversation following the viewing of a short film, book reading, or oral storytelling. The other was a shared knowledge context where the teacher sought to elicit knowledge the children had constructed together from a prior story or experience. In both situations, teachers asked lots of open questions, and children offered longer, more complex utterances and engaged in frequent child-initiated interactions.

Van der Veen, de Mey, Van Kruistum, and Van Oers (2017) developed and tested an intervention specifically designed to promote productive talk in early childhood classrooms. Called MODEL2TALK and based on Michaels and O’Connor’s (2012, 2015) talk moves, they implemented it over 6 weeks with children aged 4–6 in the Netherlands. The intervention was design to support teachers in opening up space for children to talk and think together. By way of example, the following excerpt comes from a class of preschoolers who were talking about ladybugs after watching a short video:

Dex: Look, I saw that red part [the part that shields the wings] when it was going to fly.

Dana: And then—that was actually. I think he means that it’s protection for his wings. Not for itself.

Bo: But also for itself a little bit.

Dex: Yea, that’s also what I meant.

Teacher: But, um, um—Dana, were you saying that it gives protection for its …?

Dana: Um, um—[wings]. For his wings [yeah]. Because otherwise it will damage its wings and then, he won’t be able to fly very well.

Achmed: Like a butterfly [yeah].

Van der Veen et al. (2017, p. 689) Notice how the children built on each other’s responses, gave reasons for their ideas (“Because …”) and disagreed with each other, again giving reasons (“No, because …”). The teacher spoke only twice in this episode. At the conclusion of the intervention, results showed that the children had made substantial gains in their oral communicative competence compared to children in a comparison condition who participated in more highly structured discussions. Curiously, the children did not make greater gains in their subject matter knowledge (about animals). Presumably, in this case, the content was well covered in the more structured conversations in the comparison condition.

How young can we go? White’s (2016) provocative exploration of dialogic pedagogy in the early years suggests that even children under 2 years old can participate in learning dialogues with others. Similarly, developmental studies suggest that very young children can engage in and benefit from rich discussion. Between 18 and 24 months of age, research has shown that children can use sentences to argue with their parents and siblings (Kuczynski & Kochanska, 1990; Perlman & Ross, 2005). Conversational turn taking at this age is highly predictive of children’s cognitive outcomes 10 years later (Gilkerson et al., 2018). At 36 months of age, children are able to produce reasons to justify their positions (Stein & Bernas, 1999). Even more advanced elements of argumentation, such as challenges and rebuttals, can be found in the talk of preschool children (Eisenberg & Garvey, 1981). The promises (and perhaps perils!) of immersing very young children in deliberative discourse have yet to be realized.
Digital technologies to augment dialogic pedagogy

Increasingly also, we are seeing the use of digital technologies with dialogic pedagogy. Some, such as interactive whiteboards, are not specifically intended to promote talk but have affordances for talk (Warwick, Mercer, Kershner, & Staarman, 2010), whereas others, such as Talk Factory (http://talkfactory.uk) and Talkwall (https://talkwall.uio.no/#) are designed specifically to capitalize on the power of talk for learning. Talk Factory is an online tool and app designed to support productive discussion in the classroom. It enables teacher and students to track their use of ground rules for exploratory talk (e.g., give reasons, invite others to talk) and thereby enables students to monitor and review the quality of their talk (Kerawalla, 2015; Kerawalla, Petrou, & Scanlon, 2013). Talkwall is a web-based microblogging tool designed for dialogic pedagogy. It enables students to post their ideas to a shared “wall” where they can edit and rearrange their contributions as discussion evolves (Cook, Warwick, Vrikki, Major, & Wegerif, 2019). Students’ contributions are made visible to all so they can extend their own ideas and build on those of others.

Digital technologies alone are unlikely to have direct effects on learning or associated skills (McNaughton, Rosedale, Jesson, Hoda, & Teng, 2018) but they offer affordances for talking to learn in at least two ways. Because these technologies help make students’ thinking visible, they open up “dialogic spaces” for learning, problem solving, and creativity (Wegerif & Major, 2019). A dialogic space is a shared space of reflection and exploration of new ideas that is opened up “when two or more incommensurate perspectives are held together in the creative tension of a dialogue” (Wegerif & Yang, 2011, p. 312). The relation of difference is fundamental to the creation of a dialogic space as it is the difference or tension between perspectives that gives rise to meaning and the generation of new ideas — without difference there can be no meaning and no true dialogue (Wegerif, 2010). It is argued that certain digital technologies create a shared space for representing students’ thinking and that, within this shared space, students can manipulate their ideas “so different perspectives can interact and new learning can occur” (Wegerif & Major, p. 113).

Relatedly, such technologies give students more agency. As mentioned in the beginning of this article, one of the key features of dialogic pedagogy is that it affords students more agency over their construction of knowledge and understanding. Digital technologies can support this process (Omland & Rodnes, 2020). By displaying students’ contributions to the class, and using the contributions as a basis for further discussion, students realize that their ideas matter and that they can actually influence the direction of a lesson. Omland and Rodnes documented how one teacher’s use of Talkwall served as a powerful form of uptake of students’ utterances. By making students’ contributions the focus of joint attention and allowing them to influence the lesson, the teacher positioned the students as important sources of knowledge whose ideas had the power to shape new knowledge and understandings.

Such technologies are in their infancy and we have yet to realize their full potential as a means of supporting talking to learn. More important than the specific digital technologies, of course, are advances in our theoretical understanding of how they support dialogic pedagogy and how we can capitalize on their affordances for using talk as a resource for advancing students’ knowledge and understanding. As the saying goes, “watch this space.”

What Does This Mean for Literacy Learning and Teaching?

Scholarship on dialogic pedagogy reminds us of several important lessons about literacy learning and teaching. First, of course, it reaffirms the extraordinary power of talk for learning, possibly in ways that Britton and his contemporaries could not have fully imagined 50 years ago. Research on various pedagogies for enacting talking to learn has provided compelling evidence of their positive impact on students’ content knowledge, reading comprehension, and reasoning, and other aspects of literate thinking. The benefits have often been shown to be large and to maintain well beyond the time of initial engagement with the discourse. There are even indications that the benefits transfer from one content area to another (e.g., math to English Language Arts). It can now be taken as a given that particular patterns of talk have a powerful, positive impact on students’ learning and development.

Second, and perhaps less well understood, is the idea that different talk serves different purposes. As seen
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from recent work, as well as from Britton’s early work, there are a number of options available to us when it comes to engaging students in talk. Discussion has its purpose if we want to further students’ thinking, understanding, and learning (Alexander, 2017). Dialogue has its purpose if we want to scaffold students’ thinking (Bruner, 1978, 1995). Even recitation has its purpose if we want to recap with students what they have covered or assess their knowledge and understanding (Mercer, 1995). The important point to keep in mind is that different kinds of talk serve different purposes, and our role as teachers is to use talk purposefully to accomplish the goals we have for our students. For literacy, in particular, different types of talk encourage different ways of thinking about and orientations towards text.

Third, scholarship in dialogic pedagogy underscores the important role of context and culture in which they are used (Alexander, 2018). What is said before and after, and the wider classroom and school culture, matters to how language functions. In some situations, for example, a teacher question might prompt only a brief response from students; in others, where there is a culture of respect for different ideas and students feel supported in interrogating those ideas, the same question might elicit a more elaborated response and an extended series of student-student interchanges. Even a closed question or a didactic statement can be viewed as dialogic if it is “in service of a dialogic teacher stance” (Boyd & Markarian, 2011, p. 518). Dialogic pedagogy foregrounds the close relationship between talk and culture. Attending to the interconnection between the two, and not just talk, is necessary to foster productive contexts for furthering students’ thinking, learning, and problem solving (Kim & Wilkinson, 2019).

I began this article with a quotation from Marie Clay (1985): “Teaching then can be likened to a conversation in which you listen to the speaker carefully before you reply” (p. 6). In this statement, Marie is proposing conversation as one model of good teaching (see Clay, 1998). What is so interesting about this statement is its dialogic quality. On the one hand, it can be taken metaphorically or analogically. On the other hand, from the perspective of talking to learn, it can be taken literally. Either way, it embodies one of the fundamental principles of dialogic teaching and of teaching generally — reciprocity, the need for reciprocal sharing of ideas and consideration of alternative viewpoints between students and between teacher and student. Dialogic pedagogy offers “a powerful way of giving authority to, and demonstrating respect for, children’s ideas” (Jenkins & Lyle, 2010, p. 464). When children’s voices are valued, when they are given space to engage deeply with their own and others’ ideas, they can demonstrate a level of competence that far exceeds what one might conventionally expect. Good teaching is “teaching with the reciprocity of conversations in mind” (Clay, 1998, p. 34).

References


About the Cover

Robert enjoys life with an infectious smile and is always looking for ways to help others. He worked hard and made great gains during Reading Recovery, and his lessons were discontinued after 15 weeks. His parents saw huge changes in both his reading and writing, reporting that he was more confident and wanted to read beyond his required reading — our ultimate goal! Now in sixth grade, Robert continues to be successful in school. He likes to read fantasy (The Last Kids on Earth), fiction (Dogman Series) and nonfiction (I Survive). In addition to reading, he enjoys hanging out with friends outside of school and playing video games — good experience for his plan to make video games when he grows up.