REGULAR ARTICLE

Re-Thinking Monologicality: Multi-Voiced, Mono-Perspectival Classroom Discourses

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Abstract The purpose of this study is to conceptually explore and investigate the attributes of varying monologic discourses in the classroom, in order to develop a more nuanced understanding of monologicality. Data for this study comprised transcripts of lessons conducted by a teacher from a larger national study on Year 7 classroom practices. Constant comparative analysis of these lessons revealed a continuum of monologicality involving different variants of monologic discourses that arose from the decoupling of voice and perspective. Along this continuum, there are varying configurations of voice and perspective: ranging from mono-voiced, mono-perspectival discourse to multi-voiced, mono-perspectival discourse. This can potentially provide a bridge to the dialogic side of the continuum, where multi-voiced, multi-perspectival discourse is represented. This conceptual framework provides a basis to examine teaching and classroom discourse along this continuum. Further interrogation using this framework can inform teaching practice, future classroom discourse research, as well as teacher education curriculum.

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Introduction

Much of the research literature on classroom discourse over the last two decades has privileged the dialogic over monologic (Alexander, 2020; Cazden, 2001; Howe & Abedin, 2013; Teo, 2019). Monologicality has often been used as a strawman to advance the argument for dialogic classrooms. In doing so, a kind of paradox emerges. In proposing dialogism as the general pedagogical framework of choice, one is, as Linell (2009) argues, ironically assuming a monologic position, i.e., ignoring the possibilities of monologic pedagogical approaches alongside the dialogic. This forced dichotomy limits how pedagogy can be played out in a classroom.

There may be a place for monologic interactions in the classroom. But to examine this place, monologicality as a monolithic construct has to be broken down to reflect its nuances. Seeing monologicality as a monolithic construct glosses over the different qualities it may have and the impact it can have on student learning. Consequently, the concept of monologicality within classroom discourse studies has remained underdeveloped and undertheorized. In the section below, we argue that there could be different types of monologicality, just as there are different types of dialogicality (Linell, 2009; Mercer & Howe, 2012; Vrikki et al., 2019).

Framing Monologicality

A number of studies have found a persistence of monologic discourses in some classroom settings (Tan et al., 2017;

Teo, 2016). In analyzing some of these data (Tan et al., 2017; Tee et al., 2018b), we have noticed different shades of monologic discourses – on the one hand, a type of monologicality that is entirely dominated by the teacher, and on the other hand, a type of monologicality where student talk is evident but converges around a single position.

The latter type of monologicality has been discussed by Linell (2009), where he described how a conversation between several actors only contained a single perspective. In doing so, Linell proposed the possibility of departing from the essential Bakhtinian (1981, 1984) assumption that a speaker's voice is always intricately intertwined with his or her perspective. Linell's observation that voice and perspective may be decoupled in some settings provides a possible pathway to work out the nuances in monologic discourse. In this study, we attempt to use Linell's idea of decoupling voice and perspective in classroom settings to highlight the nuances of monologic discourse. In other words, we are arguing that dialogic assumptions should not be used to describe and analyze monologic discourse.

In re-examining monologicality in classroom settings, we hope to explore how different kinds of monologic discourses can potentially be useful for learning. In the past, monologic discourse has been characterized as not being open to questions or alternative perspectives – and consequently, resists dialogue (Tan et al., 2017; Mortimer & Scott, 2003; Teo, 2016; Wells, 2006). However, Wells (2006) and Lotman (1988) also argue that there is a place for monologic discourses in the classroom. Monologic discourses serve to convey or pass on authoritative understandings within specific school subjects, such as science (Mortimer & Scott, 2003). They argue that monologic discourses are used to provide structure to the interaction by clarifying canonical knowledge, normative content, or a "common memory" (Lotman, 1988, p. 35) intended for classroom learning.

Yet, the concept of monologicality within classroom discourse studies has remained underdeveloped and hence, undertheorized. While there has been much development in conceptualizing and operationalizing dialogicality (Alexander, 2018, 2020; Cazden, 2001; Mortimer & Scott, 2003), monologic discourses in classrooms have often been evoked only as a contrast to dialogic discourses. Numerous studies carried out in the Asian region have investigated classroom discourses in light of dialogic standards (e.g., Tan et al., 2017; Tee et al., 2018b; Teo, 2019) and have found classroom discourses to be primarily monologic. As such, this *strawman* approach towards monologicality has left it without much nuance. Describing and explaining essentially monologic classrooms grounded in dialogic assumptions have led to a *blind spot*, in the sense that we know very little about the *conceptual nature* of

monologicality, and eventually, how monologic and dialogic discourses can work together for more effective teaching and learning (Mercer, 2003). For this reason, there is a need to study monologicality on its own terms, recognizing the possibility of different types of monologic discourses.

To do so, we draw from Linell (2009), who argued that it becomes possible to describe various combinations of monologic discourse once we conceptually decouple "the physical voice of the 'sounding-box' from the voice as a perspective on a topic" (p.117). By doing so, it becomes possible to see various types of monologicality. In the context of a classroom, for example, a common type of monologicality is to have a single, dominant voice expressing a single perspective (e.g., Tan et al., 2017). Likewise, it is also possible to have a classroom situation where multiple voices (comprising the voices of the teacher and a number of different students) contribute to the ongoing interaction, but their physical voices may converge on a single perspective. If however, the students express different perspectives and these voiced perspectives are taken up in the classroom discussion for meaning-making, then the discourse begins to transition from being monologic to becoming more dialogic.

In other words, if we recognize that monologicality is not a monolithic construct, it gives rise to the possibility of a continuum of monologic discourses in the classroom. On one end is monologic discourse solely dominated by teacher talk; on the other end is monologic discourse that involves student talk, but always converging around a dominant perspective. This continuum is what we want to investigate in this study to present a more nuanced reading of monologicality, and consider how this may interact with the dialogic within a classroom context. These variations in monologic discourses may only become apparent when one decouples the notions of voice and perspective, seeing them as separate but also potentially merging as they approach the dialogic part of the discourse continuum.

In the following section, we will discuss the methods for addressing the following research questions: (1) What are the variations of monologic discourses in the classroom? and (2) How do these variations play out in the classroom?

Method

The purpose of this study is to conceptually explore and investigate the attributes of varying monologic discourses in the classroom, in order to develop a more nuanced understanding of monologicality. Data were derived from a national classroom practice study in Malaysia (Tee et al., 2016; Tee & Samuel, 2017; Tee et al., 2018a) and analyzed based on the afore-discussed framing.

This national video study from which the data was drawn, involved 24 randomly sampled public schools out of a total of over 2000. In total, more than 400 Year 7 lessons from 140 teachers were recorded. Informed consent at the individual and institutional levels were obtained before data collection. In most cases, at least three lessons were recorded for each teacher. Based on this data set, this study found remarkably homogeneous patterns of teacher classroom practices in Malaysia, characterized by persistent monologicality (Tan et al., 2017; Tee et al., 2018a, b).

In the process of analyzing findings from this large-scale study, we began noticing differences in the types of monologic discourses taking place in classrooms. While there seemed to be a glass wall that prevented classroom discourse from becoming dialogic (Tan et al., 2017), the monologic discourses seemed to exhibit different variations. It was at this point that we began to explore the possibility of studying more nuanced forms of monologic classroom discourses by focusing specifically on the more interactive lessons in the video data. Analyzing the more interactive lessons in our overwhelmingly monologic data set provided the opportunity to study the nuances of monologic discourses more closely.

A science teacher was selected from the pool of 140 teachers for closer examination because she stood out among the other teachers in the data set. The researchers' initial interest was to examine the few teachers who had managed to demonstrate high interactivity and engagement with students, in order to understand and learn from their discourse patterns, which could act as bridges to dialogicality. The teacher was selected as she scored the highest in the aforementioned national study (Tee et al., 2016) based on four dimensions of classroom interaction adapted from Danielson's (2011) *Framework for Teaching*: questioning and discussion, communicating with students, flexibility and responsiveness, and culture for learning.

Three video-recorded lessons of this science teacher were analyzed using the constant comparative technique (Strauss & Corbin, 1998). The constant comparative technique provided an emergent analysis approach to explore the nuances of monologic discourse. The initial open coding was done recursively by two different groups of researchers (two researchers per group)—the first group identified the preliminary codes, and this was then re-examined and refined by the second group of researchers. The two groups then met to review and discuss the open codes. Following the initial open coding of each lesson, salient episodes were identified across the three lessons for comparison. These salient episodes were then selected based on the exhibited variations in monologic discourses, three of which are presented and discussed below. All names mentioned in this study are pseudonyms.

During the open coding phase, the researchers realized that there was a need to explain how the classroom discourses tended to be dictated by a single perspective despite numerous students attempting to contribute to the discussion. The researchers came to the conclusion that despite the teacher's rapport and frequent interaction with her students, her lessons were in fact still monologic. This is to say, although she attempted to engage students with various discourse variations, the lessons never quite became dialogic, as will be described in the findings section.

The eventual codes from the final selective coding phase are explained and described in the findings section below, and are synthesized in Table 3 and Fig. 1. The emergent coding was derived from the constant comparison between the salient episodes across multiple lessons. This led to further rounds of open coding using the idea of decoupling voice from perspective, discussed in the framing monologicality section above. Trimming and synthesis of axial coding occurred after this. The axial and selective coding phase also used the same recursive analysis process utilized in the open coding phase, involving the two groups of researchers.

Findings

In analyzing the data, we initially grappled with a puzzle where there were instances when classroom interactions came close to dialogicality but stopped short. There was evidence of multiplicity of student voices but these voices did not lead to a plurality of perspectives and meaning-making. It was at this point that we took the lead from Linell (2009) to decouple voice (v) from perspective (p), as discussed in the "framing monologicality" section. This conceptual lens allowed us to develop a more nuanced analysis of monologic discourses. The details of the findings are described below.

A continuum of monologicality emerged from the data analysis involving different types of monologic discourses. In other words, although all discourses were found to be monologic (mono-perspectival) they were different, in how they were single- or multi-voiced, in terms of the physical voices of the participants in the interaction. With regards to the first research question, we identified three variants on a monologic classroom discourse continuum: Variant 1 on the far left where discourses were found to be single-voiced and mono-perspectival; and, on the right Variant 3 where discourses were found to be multi-voiced but mono-perspectival. Between them were discourses that had varying combinations of single- and multi-voicedness, while maintaining a single perspective. For ease of discussion, we shall call these collectively, Variant 2.

Monologic discourse | **Dialogic discourse**

Var$_1$ Var$_2$ Var$_3$ Var$_x$

Mono-voiced, mono-perspectival | Multi-voiced, mono-perspectival | Multi-voiced, multi-perspectival

Fig. 1 Continuum of types of monologic discourse and dialogic discourse
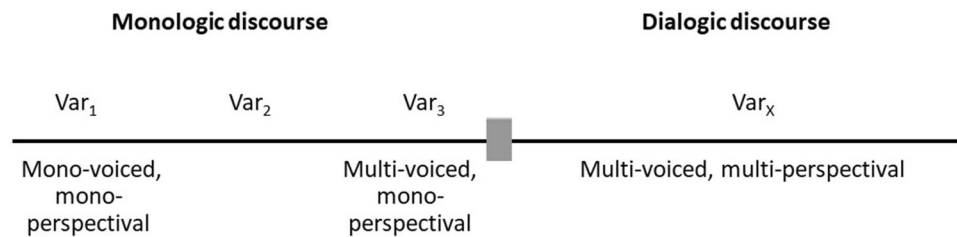
With regards to the second research question, we describe how these three monologic variants play out in the classroom. To illuminate and describe these variants, illustrative exemplars of each variant are explicated below. We will begin with an episode illustrating Variant 1, and then proceed to Variants 2 and 3 to illustrate how voice and perspective are decoupled as we move to the right of the monologic continuum.

Episode 1: Mono-Voiced, Mono-Perspectival Discourse (Variant 1)

This first episode took place in a science laboratory where the students were boiling water in the beaker for an experiment. The teacher gave instructions to the students to ensure that the water had to be boiling. In a stunning sequence, the teacher asked the students to raise their hand to ask "Is mine boiling already?" and proceeded to say "I will come to you and I will say 'yes or no'". In doing so—the pedagogical value of these interactions notwithstanding – the teacher asserted her voice (v_t) in being the sole arbiter in deciding if the water had reached a boiling point. This establishes the dominant perspective (dp) on ascertaining if the water was boiling. The only student voices heard involved different variants of this question: "Is it boiling?".

While the teacher responded to these calls for help, these student voices (v_s) did not constitute a perspective (p) because, although they were acknowledged, the students' utterances were fundamentally a re-voicing of the teacher's earlier instruction. In other words, the v is heard, but does not amount to a p. Critically, the analytical decoupling of v from p makes it possible, as subsequent episodes will show, to describe different types of monologicality (Linell, 2009).

Episode 2: Basic Multi-Voiced, Mono-Perspectival Discourse (Variant 2)

In this episode, the class is discussing the difference between heat and temperature, and the corresponding units of measurement. We will see students' voices (v_s) becoming perspectives (p) because they are taken up by the teacher through an acknowledgement or affirmation, but it is not utilized for co-construction of meaning. This is a sharp contrast to the Variant 1 episode, where students' voices never expressed a perspective because they were tightly bound by instructions of the teacher who was quick to impose a dominant perspective (dp). In the Variant 2 episode described in Table 1, we will also see how multiple students' voices expressing a perspective ($v_s \rightarrow p$) were taken up by the teacher to express a dominant perspective ($p \rightarrow dp$). These dominant perspectives, in this case, are derived primarily from the teacher's authority, though it can be reinforced by the authorized textbook.

In the second episode detailed in Table 1, there were multiple instances of student voices which constituted a perspective (p) because they were acknowledged by the teacher (in lines 2, 6, 8, 10, 12, 14), but in neither of these instances was there any co-construction of meaning. Instead, they were directly affirmed as the dominant perspective (dp in lines 3, 5, 7-7a, 9, 11-11a, 13a, 15) as prescribed by the teacher or the textbook, or both. Again, this decoupling of the physical voice (v) from perspective (p) makes it possible to distinguish the different types of monologic discourse.

In Episode 1, typifying what may be referred to as extreme monologicality, the students' voices are heard but do not amount to a perspective. The only perspective (dp) that shapes the entire discourse is prescribed by the teacher. By contrast, in Episode 2, there were some instances where students' voices were taken up by the teacher through acknowledgments or affirmations, and therefore constituted a perspective (p). However, the teacher's take-up never led to a discourse where meaning was co-constructed. The meaning constructed in this discourse was entirely shaped by a dominant perspective (dp) derived from either the teacher or the textbook, or both. Episode 2 may be typified as a basic form of a *multi-voiced, mono-perspectival monologic discourse*, unlike the mono-voiced, mono-perspectival monologic discourse of Episode 1.

Episode 3: Expanded Multi-Voiced, Mono-Perspectival Discourse (Variant 3)

This episode begins with an open-ended question posed by the teacher, prompting her students for examples of how heat can be produced. The students suggest that heat could

Table 1 Coding of a basic multi-voiced, mono-perspectival episode

		Classroom discourse (codes in parentheses)	Explanation of coding
1	T:	Is temperature and heat … same or different? … (v_t)	Teacher voices (v_t) a question
2	S:	Different. ($v_s \rightarrow p$)	Student **v**oices (v_s) a response which constitutes a **p**erspective because it is taken up by the teacher's acknowledgement (see next line), but it is not utilized for co-construction
3	T:	Okay … different… ($v_t \rightarrow dp$)	Teacher **v**oices affirmation of student response, acknowledging and affirming a **d**ominant **p**erspective
4	S:	Teacher, what is the definition of heat? (v_s)	Student **v**oices a question from the workbook, addressed to the teacher
5	T:	A form of energy… ($v_t \rightarrow dp$)	Teacher answers the student's question, expressing a **d**ominant **p**erspective derived from a normative knowledge source, i.e., textbook
5a		[What is the unit of 'temperature'?] (v_t)	Teacher **v**oices a question, paraphrasing from the workbook
6	S:	Kelvin. ($v_s \rightarrow p$)	Student **v**oices a response which constitutes a **p**erspective because it is taken up by the teacher's acknowledgement (see next line)
7	T:	Yes, very good	Teacher affirms the students **p**erspective, thus confirming it as the **d**ominant **p**erspective based on a normative knowledge source, i.e., textbook. Teacher then voices (v_t) a follow-up question
7a		It's Kelvin. ($v_t \rightarrow dp$)	
7b		And [the] symbol is? (v_t)	
8	S:	Capital K. ($v_s \rightarrow p$)	Student **v**oices a response which constitutes a **p**erspective because it is taken up by the teacher's acknowledgement (see next line)
9	T:	Capital K. ($v_t \rightarrow dp$)	Teacher affirms the student's **p**erspective, thus confirming it as the **d**ominant **p**erspective. And then **v**oices a follow-up question
9a		[How about] 'heat'? (v_t)	
10	S:	Joules. ($v_s \rightarrow p$)	Student **v**oices a response which constitutes a **p**erspective because it is taken up by the teacher's acknowledgement (see next line)
11	T:	Ok, Joules… ($v_t \rightarrow dp$)	Teacher affirms the student's **p**erspective, thus confirming it as the **d**ominant **p**erspective. And then **v**oices a follow-up question
11a		Ok, heat is a form of energy. (dp)	
11b		And what is temperature? (v_t)	
12	S:	Not a form of energy. ($v_s \rightarrow p$)	Student **v**oices a response which constitutes a **p**erspective because it is taken up by the teacher's acknowledgement (see next line)
13	T:	So, he answered "not a form of energy". (v_t)	Teacher acknowledges the student's **p**erspective, but does not take it up for co-construction. The teacher **v**oices a prompt for a correct answer in line with the **d**ominant **p**erspective
13a		I still can accept the answer but the correct answer will be? (dp) (v_t)	
14	Ss:	Degree of hotness or coldness. ($v_s \rightarrow p$)	Students collectively **v**oice a response which constitutes a **p**erspective because it is taken up by the teacher's acknowledgement (see next line)
15	T:	Ok, degree of hotness or coldness of an object. ($v_t \rightarrow dp$)	Teacher affirms the students' **p**erspective, thus confirming it as the **d**ominant **p**erspective
15a		Ok, thank you very much. (v_t)	

Note on coding nomenclature:

v_t = teacher's voice

v_s = student's voice

p = perspective

dp = dominant perspective

be produced by the sun, our breath and a hair dryer – all of which were acknowledged by the teacher.

One of the segments of this discourse is triggered by a student rubbing his hands. The teacher notices it, and takes it up (see Table 2).

In line 6 (Table 2), a student, Sam, initiated a question: when people rub their hands together, why is there heat? This question was taken up by the teacher when she re-voiced the student's query (lines 7–9). When the student's voice (v_s) was taken up by the teacher, it constituted a p. However, the teacher chose to answer the question herself (line 9a), thus establishing a dominant perspective (dp) as defined by the teacher's answer. Although the student's question was re-voiced and acknowledged by the teacher, it was not taken up for co-construction of meaning. Thus the student's voice remained decoupled from perspective.

Table 2 Coding of an expanded multi-voiced, mono-perspectival episode

	Classroom discourse (codes in parentheses)	Explanation of coding
1	S: (student rubs hands without saying anything) ($v_s \rightarrow p$)	Student signals or *voices* a response which constitutes a perspective because it is taken up by the teacher's acknowledgement (see next line)
2	T: Did you see that? (v_t)	Teacher notices student's non-verbal signal, and re-directs it to the class
3	Ss: Yes. (v_s)	Students voice a response
4 4a 4b	T: Do you want to try it? (teacher rubs hands, a few students do the same) … [Place it on] your face [Is it hot?] … (v_t)	Teacher voices a question, inviting students to perform the action and then voices a follow-up question
5	Ss: (students nod) (v_s)	Students signal or *voice* a response
6	(discourse goes on to other examples until one of the students, Sam, asks a question revolving around, why is there heat when our hands are rubbed together?) ($v_s \rightarrow p$)	Student voices a response which is taken up by the teacher
7	T: You know what Sam said? (v_t)	Teacher voices a probe to clarify if students heard Sam's question
8	Ss: No. (v_s)	Students respond
9	T: Sam said "when people rub their hands together, why is there heat?" (v_t)	Teacher re-voices Sam's (student's) question
9a	… it (is) actually because of friction. ($v_t \rightarrow dp$)	Teacher voices her response to the student's question, establishing the **d**ominant **p**erspective
9b 9c 9d	It is just like your tires, your car tyres on the road, when the tyres [are used] after [a] long [journey]. [What happens when you put your hand there?] The tyres will be? ($v_t \rightarrow dp$)	Teacher reinforces the **d**ominant **p**erspective with an illustration
10	Ss: Hot… (v_s)	Students respond to teacher's question
11	T: Become hot. ($v_t \rightarrow dp$)	Teacher affirms the students perspective, thus confirming it as the **d**ominant **p**erspective

The question that does not get discussed here is the essence of Sam's question: Why does friction cause heat? If this question were taken up for co-construction of meaning, this would have necessitated a discussion of related substantive concepts such as the conversion of kinetic energy (friction) into thermal energy (heat). In doing so, Sam's question and the ensuing dialogue would have assumed a social quality in that other members of the class would have been actively involved in exploring in depth the relationship between friction and heat. This exploratory discourse could have created important learning and teaching opportunities.

In Episode 3, to sum up, the student's voice (v_s) was initially taken up by the teacher but she put a halt to a potentially dialogic discussion by immediately imposing a dominant perspective (dp). If the teacher had probed further – for example, by exploring how friction and heat are connected, as suggested above – then there is a possibility that this may have become more dialogic. In other words, v_s is taken up by the teacher's acknowledgement and therefore, it becomes a p; and if that p is taken up for further co-construction of meaning, it would have become

a P. We distinguish between a lowercase p and an uppercase P. A lowercase p is a student voice that constitutes a perspective because it is taken up by the teacher, usually through an acknowledgement, but is not utilized for co-construction of meaning. By contrast, an uppercase P is a student's perspective that is taken up by the teacher – or potentially by other students – for co-construction of meaning, not just for acknowledgement. Differentiating the v, p and P makes it possible not only to distinguish the different types of monologic discourse but also to indicate how monologic discourses can transit into dialogic discourses. It is this kind of nuance that can help inform classroom discourse research and teacher practice, a point that we will expand on in the discussion section.

Summary of Findings

Potentially, every physical voice embodies a perspective. However, in monologic classroom situations, the perspectives (p) in these voices (v) are not taken up for co-construction of meaning by the classroom community. This

Table 3 Variants and discourse sequences of monologic and dialogic discourse

Variant 1 (Var_1)	Variant 2 (Var_2)	Variant 3 (Var_3)	Variant X (Var_X)
Mono-voiced, mono-perspectival	Multi-voiced (but with a clear dominant voice), mono-perspectival	Multi-voiced (with a less clear dominant voice), mono-perspectival	Multi-voiced, multi-perspectival (dialogic)
Basic discourse sequence structure:	Basic discourse sequence structure:	Basic discourse sequence structure:	Basic discourse sequence structure:
v-dp-v-dp-v-dp	*p-dp-p-dp-p-dp*	*p-p-p-dp*	*p-p-p-P-dp-P-p-p-p*
(e.g., Episode 1)	(e.g., Episode 2)	(e.g., Episode 3)	

reduces the voice to just a physical voice, depriving the perspective from realizing its meaning-making potential. In such a case, *voice* becomes decoupled from *perspective*. In Episodes 2 and 3, for example, the students' voices did get taken up by the teacher, but was done solely for acknowledgement or reinforcement purposes. We refer to this perspective as lowercase *p*, as it is not utilized for co-construction of meaning. When these *p*'s are taken up by the teacher, they are used by the teacher to express a dominant perspective (*dp*) reinforced by normative knowledge often expressed by the authorized textbook. On the other hand, if *p* is utilized for meaning-making, this will advance the *p* to become *P*. When *P*'s emerge in classroom discourse, i.e., when *p* is taken up by the teacher or students to further advance the construction of knowledge, then the discourse ceases to be monologic and tends to the dialogic.

Against this backdrop, we mapped out the three variants of monologic discourses (designated as Var_1, Var_2 and Var_3) described above, along a continuum of monologi-cality (see Table 3). We have inserted a Variant X (Var_X) to refer to dialogic episodes, which may arise when the *p* becomes a *P*, as discussed above.

Discussion

Monologic discourse, especially in classroom settings, have often been framed as the antithesis to dialogic discourse, where dialogic discourse is characterized by the presence of multiple, sometimes mutually opposing perspectives, coming into contact with each other, in the process of meaning-making by multiple interlocutors (Alexander, 2018, 2020; Teo, 2019). Monologic discourse, by contrast, has often been characterized by a single dominant perspective, where there is an absence of multiple voices contributing to multiple perspectives on the topic at hand. We refer to this as Var_1, as illustrated in Episode 1 and summarized in Table 3. Var_1 is often presented as a strawman, by advocates of dialogic classroom discourse, in making the case for dialogicality.

Seeing all monologic discourses simply as Var_1 overlooks the more subtle variations in monologic discourse.

These subtle variations in monologic discourse can be more clearly discerned if the "physical voice of the 'sounding-box'" is "analytically severed" from "the voice as a perspective on a topic" (Linell, 2009, p.117). In this paper, we describe the different types of monologic discourse that arise from the severing or the decoupling of voice and perspective. By doing so, we can begin to discern various types of monologic discourse (i.e., Var_1, Var_2, and Var_3) seen along a continuum potentially leading to and transitioning into dialogic discourse (i.e., Var_X) further along the continuum. This is represented in Table 3 above and summarized as a continuum in Fig. 1 below:

By discerning the different discourse variants (i.e., Var_1, Var_2, Var_3, …Var_X), we propose a continuum that can function as a framework to inform both teaching practice as well as future classroom discourse research, which can eventually inform teacher education curriculum. This conceptual framework can be used as a means for teachers to develop their awareness of what happens when students' voices are not taken up by the teacher. Conversely, teacher awareness could also be developed to reflect on how students' voices may be taken up by the teacher or other students in the co-construction of meaning, to enhance the students' learning experiences. This was examined in the discussion in episode 3 which explored the possible consequences on student learning if the teacher had taken up (the student) Sam's questions to flesh out the connections between friction and the generation of heat.

Thus, the continua of variants of monologicality (and possibly, dialogicality) can help sensitize teachers on how to respond to students' physical voices, keeping in mind the eventual intended learning goals. For example, in the simplest sense, if conveying canonical or normative knowledge is the primary goal (Lotman, 1988; Mercer et al., 2009; Mortimer & Scott, 2003; Wells, 2006) it may be better done in the context of Var_1, where the students' voices are limited so that they can focus their attention on the teacher's explanation. As it progresses to the right of the continuum, classroom discourse becomes open to more voices (in Var_2 and Var_3), and eventually to more perspectives (in the context of Var_X). It is in this realm where more research is needed.

In light of research, this conceptual framework can be the basis for seeking answers to a fundamental research question: how do the different sequences and combinations of Var_1 to Var_3 (and by extension, Var_X) affect student learning? At least three different branches of research could be derived from this question:

- *Descriptive studies*, which would address questions like what type of learning is Var_2 or Var_3 supportive of? Under what conditions should Var_1 (or Var_2 or Var_3, or for that matter, the different sequences and combinations of Var_1, Var_2, Var_3, and by extension Var_X) be used?
- *Effectiveness studies*, which could address questions such as could moving classroom discourse along the continuum from Var_1 to Var_X be more effective for learning than moving from Var_X to Var_1? Or even more specifically, is it more effective to move from Var_3 to Var_1 as compared to Var_2 to Var_1?
- *Teacher education curriculum research* can take findings from the descriptive and effectiveness studies to inform research into the design, development and implementation of the teacher education curriculum. This branch of research could address questions such as what do teachers need to know in responding to students' voices in the classroom, and in what conditions and under what learning goals should the different discourse variants (and its different sequences and combinations) be utilized?

Conclusions

The conceptual reframing makes the case for teaching along a continuum, rather than privileging the dialogic over the monologic, and vice versa. While much of the research literature on classroom discourse over the last two decades has privileged the dialogic over monologic (Alexander, 2020; Cazden, 2001; Howe & Abedin, 2013; Teo, 2019), this conceptual continuum has the potential to help us holistically re-evaluate the types of classroom discourses that can support better learning.

The continuum invites us to consider the processes and conditions under which monologic *as well as* dialogic discourses (and, the interplay between the two) can be useful for learning. By decoupling voice and perspective, we have conceptually brought to light different variants of monologic discourses – some of which could be profitable for learning, and some perhaps less so. The pedagogic value of these different variants of multi-voiced, mono-perspectival discourses remains to be investigated. These questions, when answered, can inform teacher education curriculum and teaching practices.

Declarations

Conflict of interest The authors declare that they have no conflict of interest.

References

Alexander, R. (2018). Developing dialogic teaching: Genesis, process, trial. *Research Papers in Education, 33*(5), 561–598. https://doi.org/10.1080/02671522.2018.1481140

Alexander, R. (2020). *A Dialogic Teaching Companion* (1st ed.). Routledge.

Bakhtin, M. (1981). *The dialogic imagination: Four essays*. University of Texas Press.

Bakhtin, M. (1984) Problems of Dostoevsky's poetics (C. Emerson, Ed. & Trans) University of Minnesota

Cazden, C. (2001) *Classroom discourse: The language of teaching and learning* (2nd ed). Heinneman

Howe, C., & Abedin, M. (2013). Classroom dialogue: A systematic review across four decades of research. *Cambridge Journal of Education, 43*(3), 325–356. https://doi.org/10.1080/0305764X.2013.786024

Linell, P. (2009) *Rethinking language, mind, and world dialogically*. Information Age Publishing

Lotman, Y. M. (1988). Text within a text. *Soviet Psychology, 26*(3), 32–51. https://doi.org/10.2753/RPO1061-0405260332

Mercer, N. (2003) The educational value of 'dialogic talk' in 'whole-class dialogue'. *New Perspectives on Spoken English in the Classroom: Discussion Papers* (pp. 73- 76). London: Qualifications and Curriculum Authority

Mercer, N., Dawes, L., & Staarman, J. K. (2009). Dialogic teaching in the primary science classroom. *Language and Education, 23*(4), 353–369. https://doi.org/10.1080/09500780902954273

Mercer, N., & Howe, C. (2012). Explaining the dialogic processes of teaching and learning: The value and potential of sociocultural theory. *Learning, Culture and Social Interaction, 1*(1), 12–21. https://doi.org/10.1016/j.lcsi.2012.03.001

Mortimer, E., & Scott, P. (2003). *Meaning making in secondary science classrooms*. Open University Press.

Strauss, A., & Corbin, J. (1998) *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Sage Publications, Inc

Tan, S. Y., Tee, M. Y., & Samuel, M. (2017). Persistent monologicality amidst variation in teachers' questioning practices in Malaysian English language classrooms. *Journal of Asia TEFL, 14*(4), 621–637.

Tee, M. Y., & Samuel, M. (2017). Teachers and teaching in Malaysia. In M. Samuel & M. Y. Tee (Eds.), *Education in Malaysia: Developments and challenges* (pp. 85-99). Springer.

Tee, M. Y., Samuel, M., Norjoharuddeen Mohd Nor, & Shanthi Nadarajan. (2016). A methodological approach for researching national classroom practices. *Journal of International and Comparative Education (JICE), 5*(1), 1–17.

Tee, M. Y., Samuel, M., Nor, N. M., Sathasivam, R. V., & Zulnaidi, H. (2018a). Classroom practice and the quality of teaching: Where a nation is going? *Journal of International and Comparative Education (JICE)*, 7(1), 17–33.

Tee, M. Y., Tan, S. Y., & Symaco, L. P. (2018b). Socio-historical transformation and classroom discourse in Malaysia. *Espacio, Tiempo y Educación*, 5(2), 123–142.

Teo, P. (2016). Exploring the space for dialogic teaching: A study of teacher talk at the pre-university level in Singapore. *Teaching and Teacher Education*, 56, 47–60. https://doi.org/10.1016/j.tate.2016.01.019

Teo, P. (2019). Teaching for the 21st century: A case for dialogic pedagogy. *Learning, Culture and Social Interaction, 21*, 170–178. https://doi.org/10.1016/j.lcsi.2019.03.009

Vrikki, M., Wheatley, L., Howe, C., Hennessy, S., & Mercer, N. (2019). Dialogic practices in primary school classrooms. *Language and Education, 33*(1), 85–100. https://doi.org/10.1080/09500782.2018.1509988

Wells, G. (2006). Monologic and dialogic discourses as mediators of education. *Research in the Teaching of English, 41*(2), 168–175.