THE IMPACT OF [META] TALK ABOUT WRITING ON METALINGUISTIC UNDERSTANDING AND WRITTEN OUTCOMES

A Review

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Abstract

Classroom talk about language use may support young writers' capacity to enact choice and control over their written production and is thus a key pedagogical tool in writing instruction (Myhill & Newman, 2016, 2019). However, relatively little is known about the nature of learning transfer in writing instruction, particularly how what is spoken in the classroom influences learners' written outcomes. This paper, therefore, examines the L1 (first language) and L2 (second and additional language) literature for evidence of how talk about writing influences learners' metalinguistic understandings (knowledge about language use) and writing choices. It also draws out from the literature approaches that promote the kinds of talk conceived of as impactful in the development of these understandings about and *for* writing. The findings might usefully inform pedagogical and methodological approaches to instructional interventions that seek to both establish and advance the impact of talk about writing.

Keywords: writing, metalinguistic understanding, dialogic talk, metalinguistic talk, metatalk, languaging

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1. INTRODUCTION

A large body of research emphasises the relationship between talk and learning, with successive studies arguing the pedagogical potency of talk characterised as 'exploratory' or 'dialogic' (Alexander, 2018, 2020; Barnes, 1992; Jay et al., 2017; Mercer & Littleton, 2007; Wegerif, 2013). For Alexander, dialogic teaching—a pedagogic approach which utilises a repertoire of talk forms and functions—harnesses the '*the power of talk*' to engage learners' '*interests, stimulate thinking, advance understandings, expand ideas and build and evaluate arguments, empowering [learners] for lifelong learning and democratic engagement*' (2020, p. 1). Underpinning much of the dialogic research are theoretical perspectives that view learning as social, communicative and situated (Wells, 1994). From a Vygotskian (1978) perspective, learners' interactions become internalised as resources for individual thinking; therefore, language is central to cognitive development. Compatible with this perspective are also social-semiotic theories of language development which view language as '*a meaning-making resource through which speakers and writers create messages that construe experience and enact social relationships*' (Schleppegrell, 2017, p. 384), thus emphasising the interactive and situated nature of learning (Halliday & Matthiessen, 2014; Hammond, 2016; Wells, 1994). From this social-semiotic perspective, learning about language occurs through talking *about* and *using* language (Halliday & Matthiessen, 2014; Gibbons, 2018), recognising that '*when children learn language…they are learning the foundations of learning itself*' (Halliday 1993, p. 93).

There is a strong empirical and theoretical basis for the role of talk in the teaching of writing. Yet, whilst the use of talk to support learning about and for *writing* is promoted by various pedagogical programmes (e.g., *Talk for Writing*, Corbett & Strong, 2017), research that illustrates *how* talk may be orchestrated in the classroom to support learning about language use, and what the impact of this talk may be on writing, is relatively recent. A small—yet growing—body of research draws attention to the potential of a particular type of talk that develops understanding about language use and thus enables learners to enact more choice and control in their written production (Myhill & Newman, 2019; Newman & Watson, 2020; Watson et al., 2021). A particular purpose of this talk is to draw out and make explicit for learners the relationship between linguistic form and function, aligning with a view of language as a meaning-making resource (Halliday, 1993). This talk, itself a tool for meaning making, is characterised by discourse features associated with dialogic talk (Alexander, 2020; Edwards-Groves et al., 2013; Hennessy et al., 2023; Howe et al., 2019), but also by its authoritative subject-matter discourse (Love & Sandiford, 2016; Myhill & Newman, 2016), functioning together to foster learners' thinking about how language shapes meaning in written text.

Myhill et al. have referred variously to this dialogic talk about writing—or language use—as 'metalinguistic talk', 'writing talk' and 'metatalk' (Myhill & Newman, 2016, 2019; Myhill et al., 2020a; Myhill et al., 2020b; Myhill et al., 2022).

Whilst the research by Myhill et al. is concerned with L1 (first language) writing, this work draws on and is complemented by studies of talk in L2 (second or additional) language learning. In fact, Swain coined the term 'metatalk', appropriated by Myhill et al., in reference to L2 learners' talk about their written or spoken 'output', describing it as *'language used to reflect consciously on language use…one sort of collaborative dialogue—dialogue in which speakers are engaged in problem-solving and knowledge-building'* (Swain & Lapkin, 2002, p. 286). Drawing on Vygotsky, Swain (2008) later adopts the word 'languaging' (a term also used by e.g., Schaeffer-Lacroix, 2016, Wigglesworth & Storch, 2012, and Yang, 2016) to emphasise dialogue with others as a cognitive tool that *mediates* language learning. For Swain and others, this 'languaging' is used to reason *about*—and through—language: '*to mediate problem solutions, whether the problem is about what word to use, or how best to structure a sentence so it means what you want it to mean…a dynamic, never-ending process of using language to make meaning*' (Swain, 2008, p. 96).

Empirical manifestations of 'metatalk' or 'languaging' are shaped by instructional context and pedagogical purpose. In L2 learning contexts where the focus is primarily the acquisition of the target language (e.g., in university language programmes), instructional approaches increasingly emphasise 'focus on form' (Dornyei, 2009; Ellis, 2016). Learners often engage in pre-planned tasks designed to prompt learners' attention to linguistic problems as they arise in communicative contexts and according to communicative need (Ellis, 2016). Attention to form in L2 instruction therefore refers not to a sole focus on grammatical form, but to form-meaning mapping, for example, '*the use of the -ed morpheme to denote past time or the pronunciation of a word like 'alibi' so that its meaning can be understood by listeners*' (Ellis, 2016, p. 409). The transcript below (Watanabe, 2004 as cited in Swain, 2006, p. 101) exemplifies the 'languaging' that arises between Ken and Yoji (adult Japanese learners of English) as they talk *about* a reformulated version of their joint writing (with form corrected so that it would be acceptable to fluent speakers of English), completed in response to a stimulus about transportation vehicles.

Y: 'People in the'…{reading}

K: in the, in the, in the, in THE nineteenth century.

Y: Here, 'in nineteenth-century Japan'. {referring to the first reformulation}

K: Ahhh! {the moment of insight}

Y: So this is a different…so if we put 'the'.

K: Yeah, it sh-, it should be noun, noun. {=we should put 'the' if 'nineteenth century' is a noun}

Y: In the nineteenth century.

K: If we, if we, if we want to use 'nineteenth century' as a noun…

Y: Mm

K: …maybe we need an article.

> Y: Article. If we don't put articles…
>
> K: We don't have to put in article for 'in nineteenth-century Japan' because this 'nineteenth century is adjective…difference. Okay.

In their languaging, Ken and Yoji grapple with reformulated versions of their sentences. Ken initially rejects the reformulated feedback, but by talking it through with his partner reconstructs his understanding. Ken reasons here that 'nineteenth century' is a noun—different to their use in the second sentence of 'nineteenth century' as an adjective—and therefore requires the preceding article, 'the' (Swain, 2006). The transcript here shows how the learners, by comparing their original writing to a reformulated version, are prompted to 'notice' linguistic differences (Storch, 2008; Swain, 2006; Swain & Lapkin, 2002), then how they verbalise this difference and reason together to make sense of the change.

Additionally, research with EAL (additional language) learners in mainstream classes has explored the teacher's role in fostering dialogue that incorporates simultaneously a focus on linguistic form and acquisition of the additional language *with* attention to disciplinary learning, for example, when exploring how linguistic choices contribute to narrative development in English Language Arts (Klingelhofer & Schleppegrell, 2016; Moore & Schleppegrell, 2014; Moore et al., 2018). Metatalk in this context shares characteristics of metatalk as it is conceptualised by Myhill and Newman in their L1 writing research (2016, 2019): talk that is concerned distinctively with understanding linguistic choice as *functionally* oriented (e.g., *how* present tense form creates a sense of immediacy in narrative writing or how a proper noun can be selected to convey something particular about a character). This 'metatalk' can occur in various pedagogical forms, for example, whole class, small group, or during one-to-one discussions between teacher and learner; it may take as its focus, for example, learners' authorial intentions or written production, or the writerly decisions made by authors of published texts. As such, this talk about writing draws explicit attention to the linguistic repertoires that realise particular purposes and intentions in textual contexts, thus writing is conceived of as an act of linguistic choice (Halliday & Matthiessen, 2014). The example below, taken from Newman and Watson (2020, p. 6) illustrates how teachers can support upper L1 primary aged learners to make connections between linguistic choice and effect in text. Focusing students' attention at first on the words '*small, ratty-looking man*', the teacher invites students to think about the nature of Mr Wormwood, a character in Roald Dahl's *Matilda*.

> Teacher: … So, let's look at this quote now: (reads) Mr Wormood was a small, ratty-looking man…What kind of person do you think Mr Wormwood is? From the description?
>
> Sam: He's quite an untidy person.
>
> Teacher: He looks quite untidy. You've taken something physical, but what kind of person is he?
>
> Suzie: He's small.

> Teacher: He's small, again, you've taken from the description. Read between the lines.
>
> Brooker: I think Mr Wormwood is a bit of a dirty man.
>
> Teacher: Ok, why do you think that?
>
> Brooke: In the text it says that he has a ratty moustache.
>
> Teacher: And what do you think of when you think of 'ratty'?
>
> Brooke: Like he's really dirty…has a lot of food in it when he's been eating.
>
> Teacher: Now, Brooke's starting to make inference. It doesn't say Mr Wormwood is a dirty man, it says that he has a thin, ratty moustache, and that has given the idea that all is not quite as it seems with this man.

The teacher's exploratory questioning elicits various responses from learners, chained into a cumulative line of enquiry that supports learners to recognise the effect of Dahl's lexical choices. Even in the absence of grammatical terminology, this episode illustrates how teachers can interject authoritative explanations into exploratory dialogue in a way that supports and extends thinking. This is particularly evident in the teacher's final utterance, beginning '*Now, Brooke's…*', which functions as, what Myhill et al. (2020a) refer to as 'verbalisation': in this case, the articulation of the effect of Dahl's word choice which draws together the discussion and offers clarification for non-participating students.

Though providing only a snapshot of different ways of talking about language, the episodes above indicate broadly the different processes involved in L1 and L2 language learning. A 'focus on form' reflects the need for L2 learners to attend explicitly to form-meaning relationships in order to become proficient in the target language (Dornyei, 2009). For L1 learners, it may be necessary to make explicit what is implicitly understood, to foster deliberative, purposeful control of the language of written production. Language learning—and learning to write—therefore requires 'conscious' attention to language (Halliday, 1993). The potential of talking *about* language use may lie in its capacity to be 'consciousness-raising' (Newman, 2017; Schleppegrell, 2013). The [meta] talk described by authors above makes language itself an explicit object for consideration, deepening learners' *attention* to language and its function. Storch (2008) argues that a '*deeper level of attention occurs when learners talk about the language they have produced*', that metatalk '*may deepen the learners' knowledge about language use, about the relationship between meaning, form and function'* (p. 96). Similarly, Myhill and Newman argue that metatalk about writing develops writers' understanding of linguistic choice by making *'often covert decision-making available for reflection and argumen*t' (2016, p. 38), and that the '*verbalisation*' of this metalinguistic thinking is critical to enabling the transfer of learning about linguistic choice into learners' own writing. Pointing also to the importance of metatalk that is *dialogic* in quality, prompting learners to verbalise and explain their thinking, Storch (2008) notes that depth of *attention* to language may depend on the depth of learners' engagement during dialogue, and particularly the extent to which learners *elaborate* on their thinking. Resonant with

these perspectives, Song (2017) argues that participation in meaningful spoken *and* written metatalk that serves to explore learners' writerly objectives, heightens metalinguistic awareness, enabling '*more control over artistic produc*tions' (p. 235) and catalysing '*personal and artistic transformations'* (p. 237).

Common to these perspectives then is that meaningful, dialogic talk about language raises awareness of how language shapes meaning, developing *metalinguistic* understanding. Gombert (1992) argues that metalinguistic understanding, considered a subset of metacognition concerned particularly with language and its use, enables writers to '*monitor and plan their own methods of linguistic processing'* (p. 13) and may be '*of primary importance in the acquisition of writing*' (p. 152). Yet metalinguistic understanding resists neat explanation or categorisation: conceptualisations differ according to discipline, and variously problematise matters of metalinguistic 'consciousness', 'explicitness', and 'awareness', all constructs referred to above. In relation to writing, and adopting an interdisciplinary theoretical frame, Myhill et al. (2012) define metalinguistic understanding as *'the explicit bringing into consciousness of an attention to language as an artifact, and the conscious monitoring and manipulation of language to create desired meanings grounded in socially shared understandings'* (p. 250). For these authors, metalinguistic development in writing, therefore, involves the purposeful selection of linguistic structures that reflect socio-cultural understanding of how language creates and communicates meaning (Myhill & Jones, 2015).

From a socio-cultural perspective, metalinguistic understanding emerges from social interaction, with verbalisation playing an important role in raising *'consciousness about patterns of language'* (Schleppegrell, 2013, p. 168). Whilst writing might be considered a solitary activity, from this perspective, learning to write is a social, communicative process: '*Written language is a function of language that develops through differentiation from oral language. At a certain level it becomes an autonomous function with its own structure and functioning, but with its roots in social interaction*' (Camps, 2020a, p. 62). For Camps and Milian (2000), drawing on theories of metalinguistic development and Vygotskian ideas, 'metalinguistic activity' is in fact the source for metalinguistic knowledge. Metalinguistic activity arises in discursive activities about language: as learners strive to adjust the mediating instrument of language to its situation of use, metalinguistic knowledge is activated and constructed (Camps & Milian, 2000; Camps & Fontich, 2020; Fontich, 2016). Camps and Fontich (2020) argue therefore for '*the enormous importance of opening widespread spaces for reflection in the classroom, spaces which will allow students to get involved in reflecting processes while writing*' (p. 34). For these authors, it is these discursive opportunities, triggering reflection on language use, that connects the grammar system with language use, leading to metalinguistic knowledge.

Yet research varies in the extent to which it establishes a connection between the spoken and written, raising questions about the means and nature of learning transfer between talk and writing. And whilst this introductory section has

attempted to draw together lexical definitions and descriptions of what is referred to broadly throughout the article as talk about writing—or language—the notion of *'language mediating language'* is clearly difficult to conceptualise (Swain, 2000, p. 110), with implications for both empirical observation (Swain, 2000), and for those seeking to develop this talk in the classroom. Accordingly, this critical review examines L1 and L2 studies of 'talk about language' (and lexical variants) for evidence of the impact of talk on metalinguistic understanding and writing, drawing attention to methodological approaches that might usefully be adopted in the future to establish this connection. Moreover, to inform pedagogy, this review sets out to explore evidence for approaches that promote the kinds of interaction conceived of as impactful in the development of metalinguistic understanding and writing. The review therefore contributes to understandings of learning transfer between talk and writing in writing instruction, and of how talk about writing is manifest and supported in the classroom.

2. METHODS

Informed by the lexical variations noted above, Boolean terms ("talk*" or "metatalk" or "dialog*" or "discuss*" or "interact*" or "languag*" and "writ*" or "text*" and "metalinguistic*") were used to search three electronic databases (British Educational Index, Education Research Complete, and ERIC) for peer-reviewed literature published between January 2000 and December 2022, producing 1132 results. After removing duplicates, titles and abstracts were screened for relevance and a subset of 93 articles, including those also identified through citations and manual searching, were assessed for eligibility, resulting in 33 included studies. Inclusion criteria required a focus on/consideration of talk as a *mediating mechanism* in the teaching and learning of language/writing. For example, analyses of how verbal interactions between teacher and learners *construct* metalinguistic understanding were considered more relevant to the focus of this review than studies investigating *manifestations* of metalinguistic understanding in learners' verbalisations. Studies were excluded where there was an insufficient focus on talk/interaction related to learning about language/ writing. However, as noted above, the constructs under focus in this review—'*talk'* about *'language'* and *'metalinguistic'* learning—are variously defined and conceptualised. It is important to acknowledge the possibility therefore that studies, particularly those using different terms but perhaps developing similar concepts, may have been overlooked.

2.1 Summary of included studies

L2 studies focus particularly on how talk about language, often 'metatalk' or 'languaging' between peers engaged in collaborative writing tasks, develops learners' knowledge and accurate use of the target language (Kassim & Ng, 2014; McNicoll & Lee, 2011; Niu, 2009; Schaeffer-Lacroix, 2016; Storch, 2008; Swain, 2000;

Swain & Lapkin, 2002; Wigglesworth & Storch, 2012; Yang, 2016). In both L1 (Al-Adeimi & O'Connor, 2021; Rojas-Drummond et al., 2020) and L2 (Halbach, 2015), 'exploratory' or 'dialogic' talk is explored for its potential to strengthen written composition. In the L1 research, the reflective interview or 'writing conversation', a method used to explore learners' writerly choices and intentions, is shown to extend learners' metalinguistic reflection (Chen & Myhill, 2016; Love & Sandiford, 2016; Song, 2017; Watson & Newman, 2017). In L1 and multilingual classrooms, studies shed light on the nature of meaning-focused classroom talk about writing—both teacher led and small group—that extends and develops learners' metalinguistic understandings (Camps & Fontich, 2020; Gibbons, 2018; Jesson & Rosedale, 2016; Jones & Chen, 2016; Klingelhofer & Schleppegrell, 2016; Macnaught et al., 2013; Moore & Schleppegrell, 2014; Moore et al., 2018; Myhill et al., 2012; Myhill et al., 2016; Myhill & Newman, 2016, 2019; Myhill et al., 2020a; Myhill et al., 2020b; Myhill et al., 2022; Newman & Watson, 2020; Watson et al., 2021).

3. THE IMPACT OF TALK ABOUT LANGUAGE ON LEARNERS' WRITING

Several of the L2 included studies focused on 'metatalk' (Storch, 2008; Swain, 2000; Swain & Lapkin, 2002) or 'languaging' (Yang, 2016) in the context of peer-to-peer collaborative tasks reveal a connection between what is verbalised and subsequently written. In a multi-staged design, Swain and Lapkin (2002) explored what two French immersion students—Dara and Nina, both aged 12—notice when discussing the differences between their collaboratively written story (based on a series of pictures and taken as pre-test) and a native-speaker's reformulation of the same story (revised to reflect target language usage and preserve meaning). Subsequently, in stimulated recall, Dara and Nina were shown a video recording of their discussion and were invited by a researcher to comment on the differences that they rejected or accepted. Dara and Nina were then given a typewritten copy of the original story and revised their story individually (taken as post-test). When re-writing their individual stories, Dara and Nina corrected approximately 78% of the items identified as incorrect in their original story, representing improved accuracy in their L2 writing. Qualitative analysis of Language Related Episodes (LREs), defined as '*any part of the dialogue where learners talk about the language they produced, and reflect on their language use*' (Swain & Lapkin, 2002, p.292), indicate that dialogue between the students, and dialogue with researchers during stimulated recall, informed subsequent revisions: '*Multiple opportunities to ''talk it through'' meant that the learners could reflect on the language point in question and come to a deeper understanding of the proposed change*' (Swain & Lapkin, 2002, p.299).

The potential for collaborative dialogue to mediate understanding and solutions is also evident in an earlier examination (Swain, 2000) of the written output and collaborative dialogue of two French immersion students which closely interconnects the act of writing and talking about writing in the language learning process by tracing the cognitive steps (the language 'produced') forming the basis of

students' written products (e.g., written versions of a dictated text). In similar vein, Yang (2016) traced features discussed by L2 university students during a collaborative writing task (to re-write a story from the perspective of different characters) to their subsequent individual story writing, to establish whether languaging influenced later revisions. During co-construction, students discussed the content of their story, generated ideas, and searched for proper expressions, for example, by examining lexical choice or grammatical structure. Yang (2016) indicates that the opportunity for peers to 'language' about drafts and model texts can facilitate learners' individual internalisation and application of the L2 language features discussed. However, Yang (2016) also notes that L2 proficiency affected the quality and focus of peers' languaging results, and that interaction may be influenced by factors related to beliefs and attitudes, thus raising important considerations about the dynamic of student dyads or groups. Yang (2016, p. 250) also reveals that the effects of languaging may not be immediate but delayed, as some learners need time to internalise the noticed language expressions.

Focusing on the particular qualities of metatalk that may mediate language learning, Storch (2008) explores the nature of 22 University ESL students' 'attention' to language when working in pairs on a grammar-focused reconstruction task (to accurately reconstruct a paragraph from a newspaper article). Storch (2008) reveals the qualitative nature of learners' 'engagement' (used to describe the quality of learners' metatalk) with the linguistic items attended to and whether the nature of the engagement affected language learning. Whilst the study also reveals the benefit for learners of engaging in metatalk, Storch (2008) reveals the particular value of 'elaborate' engagement—where learners deliberate over alternatives, question and explain their suggestions. Elaborate metatalk as it is described by Storch (2008) shares characteristics of 'exploratory' talk (see e.g., Mercer & Littleton, 2007) in featuring deliberation, questioning, explanation; it may also be considered 'dialogic' because of its capacity to 'open up' a space for exploring thinking.

Storch's (2008) emphasis on the importance of elaborate engagement is resonant with studies in L1 and L2 that explore the impact of promoting 'exploratory' or 'dialogic' talk among peers to support students' writing (Al-Adeimi & O'Connor, 2021; Halbach, 2015; Rojas-Drummond et al., 2020). In a qualitative sequel to an intervention study that revealed the benefits for primary aged learners of promoting dialogic interaction and collaborative problem-solving for textual production (see Rojas-Drummond et al., 2016), Rojas Drummond et al. (2020) present a fine-grained analysis of the interactions of four focus triads (two experimental, two control) during the process of producing a magazine article. The analysis reveals how the experimental triads who participated in the *Learning Together* programme came to interact in a more collaborative, dialogic, reflexive and co-regulatory way; these triads were more strategic in their approach to the post-test task, structuring writing more carefully to organise ideas, construct new content, whilst taking a more recursive approach to planning, writing and revising. Also illustrating the potential influence of collaborative dialogue on writing choices, Halbach (2015), in a small-

scale study promoting the principles of the *Thinking Together* programme amongst university EFL students (see e.g., Mercer et al., 2004), surmises that developing the exploratory nature of students' dialogues, e.g., encouraging reasoning and elaboration, influences the coherence and cohesion of students' jointly written information texts. Examining the relationship between the dialogic quality of whole class debate (across different grades and subject areas) and students' subsequent L1 argumentative writing on the same topic, Al-Adeimi and O'Connor (2021) also highlight the potential benefits of exploratory talk for writing. In particular, dialogic talk that featured, for example, open-ended, contestable questions, was associated with the presence of claims, reasoning, counter-claims and conclusions in students' writing. Although students in this study were not engaged in dialogic talk *about* their writing, but about the topic of their writing, this study indicates that verbal, dialogic argumentation may enhance the persuasive qualities of written argumentation.

Although Rojas Drummond et al. (2020) and Halbach (2015) attribute the changes observed to the promotion of collaborative dialogue, the authors provide less insight into how the talk is manifest in students' written compositions. Al-Adeimi and O'Connor (2021) establish the presence of dialogic markers in classroom talk and writing, but the study does not allow for causal inferences. As Rojas Drummond et al. note, their analytical framework (see Hennessy et al., 2016) does not account for processes that might be more specific to writing, such as metatalk as it is conceptualised by Myhill and Newman (2019). It is possible that drawing explicit attention to the nature of dialogic interaction (Halbach, 2015; Rojas-Drummond et al., 2020) may generate more attention to both spoken and written language, supporting learners' metalinguistic thinking. Halbach (2015), considering the generative relationship between talk and writing, concludes that '*talk and writing are closely related and that, while the focus of teaching often is on the differences between written and oral language, the underlying strategies that increase the quality of both modes of production may actually have similarities'* (p. 294). Rojas-Drummond et al. (2020) also note that students in their study reflected more on dialogue and activity, contributing to a greater capacity to co-regulate their actions. This is significant in the context of writing, which draws heavily on metacognitive thinking and self-regulatory processes (Myhill & Newman, 2019).

The studies included in this section reveal that opportunities to engage in talk about language—particularly between peers in collaborative tasks—may have an impact on students' language learning and subsequent writing. However, the complex multi-stage designs utilised by several studies, for example, Swain (2000, 2002) and Yang (2016), illustrate the complexity of both promoting and establishing learning transfer between talk and writing. The included studies differ in the extent to which they examine the talk itself, and/ or in how they trace what is verbalised in discussion to written outputs, often making it difficult to draw conclusions about how the talk and writing interrelate. It is also important to note that measures of 'quality' in L2 writing, often focused here on accuracy, may be different from 'quality' as it may be conceptualised in L1 studies, where there may be more emphasis, for

example, on how writers have recognised specific compositional or rhetorical goals. However, these studies do point to the value of exploratory forms of interaction as a mediating mechanism in language learning.

4. THE IMPACT OF TALK ABOUT LANGUAGE ON METALINGUISTIC UNDERSTANDING FOR WRITING

Studies included in this section make explicit a focus on the development of metalinguistic understanding, revealing how expressions of metalinguistic understanding are manifest and shaped in contexts of collaborative text production and whole class interaction. Arising from the long trajectory of research conducted by the GREAL group in Spain (*Grup de Recerca sobre Ensenyament i Aprenentatge de Llengües, Research Group on Teaching and Learning of Languages*), and captured through case studies collated in a recent volume by Camps and Fontich (2020), is a particular concern with 'metalinguistic activity' during collaborative writing tasks in the Language Arts classroom. During collaborative writing tasks, learners grapple with proposals, reformulations and revisions, and thus 'metalinguistic activity' is conceptualised '*as the continuous adaptation of the discourse to the demands of the communicative situation in which writers put their linguistic, textual, discursive knowledge into play, and apply them, evaluate, and modify*' (Camps, 2020d, p. 239). Through analyses of learners' oral reformulations and metalinguistic utterances, the GREAL research explores how metalinguistic activity operates at different degrees of explicitness—procedural, using common language, with metalanguage—and how the process of reformulation can lead to explicit metalinguistic knowledge which can be drawn on during text production (Camps & Fontich, 2020).

However, the GREAL research suggests that this metalinguistic learning is dependent on sustained engagement in metalinguistic activity, in which students commit to pursuing the shaping and re-shaping of written text. Ribas et al. (2020) illustrate how adolescents committed to the joint construction of an argumentative text contribute proposals, suggest reformulations, expand on and grapple with different linguistic possibilities. Yet, examining the transfer of oral interactions between three students (aged 13-14) and their jointly constructed argumentative text, Camps (2020b) shows how fruitful interaction between learners may not immediately inform written production, raising questions about transfer between declarative and procedural activity. This body of research, therefore, indicates the promise of sustained metalinguistic activity during collaborative text production, but contributes to problematising important issues of transfer and metalinguistic development.

Focused on raising metalinguistic awareness of register and written genres, a growing body of research explores the potential for the explicit use of the metalanguage offered by systemic functional linguistics (SFL) to simultaneously support the language and disciplinary learning of second or additional English language learners in mainstream classes. Different from traditional grammatical

metalanguage, '*the SFL meaning-based metalanguage offers a rich repertoire of terms for referring to different aspects of meanings in a text or discourse and for tracing meaning beyond the clause and across a text*' (Schleppegrell, 2017, p. 388). SFL metalanguage has been used to support reading and writing in various domains, including History, Science and English Language Arts (see Schleppegrell, 2017) and Geography (see Walldén, 2019). Whilst this research has shown the value of integrating SFL metalanguage, Schleppegrell (see 2017) suggests that further research is needed to analyse how metalanguage is used in classroom discussion, to '*help us understand the conditions under which talk about grammar is most fruitful*' (p. 394). This is important if SFL functional metalanguage is not intended for grammatical labelling, but as a means of exploring different linguistic choices in textual content: to '*show how, and why, the text means what it does*' (Halliday & Matthiessen, 2014). Moore et al. (2018) caution that there is potential for misalignment between SFL metalanguage and meaning, suggesting that there is little value in using SFL concepts in instruction for their own sake, without focus on meaning.

In relation to English Language Arts, studies have illustrated how meaning-focused classroom interaction that integrates SFL can support English learners' verbal and written analyses of literary text (Klingelhofer & Schleppegrell, 2016; Moore & Schleppegrell, 2014) and argument writing (Moore et al., 2018). For example, Klingelhofer and Schleppegrell (2016) capture how, after working in small groups to identify language that intensifies a character's feelings of fear in a narrative text (focusing explicitly on the system of 'Graduation'), the teacher invites students to elaborate on their decisions and consider how alternative linguistic choices might alter the feelings conveyed, thus making explicit connections between the SFL focus and meaning in the literary text. Moore and Schleppegrell (2014) argue that meaning-focused classroom interaction about literary text can result in extended, elaborated discourse by learners that prepares them for analytical writing. In a different subject domain, Gibbons's (2018) fine-grained analyses of classroom talk in two multilingual Australian classrooms also shows how teachers' *interactional scaffolding* can 'bridge' learners' everyday language with the academic register of science. Metalinguistic talk in this study promoted awareness of different text types and the differences between spoken and written language, supporting learners to formulate their ideas and apply disciplinary language in written form.

Working with upper primary, junior and middle secondary school Australian teachers on the development of their functionally-oriented LSK (Linguistic Subject Knowledge), Love and Sandiford (2016) also emphasise the role of teachers' interactional scaffolding in developing metalinguistic understanding. Reflecting on their pedagogy, teachers in this study described the particular value of 'big' conversations about narrative writing: highly dialogic discussion that scaffolded learners' metalinguistic knowledge, ensuring that new linguistic knowledge was '*cognitively accessible…and connected to everyday experiences*' (Love & Sandiford, 2016, p. 212). The authors argue that students' reflective metatalk about their

writing, captured in interview, revealed '*how their appropriation of dialogically scaffolded and functionally oriented language knowledge…opened up more extensive and deliberate "webs of meaning"* (Love & Sandiford, 2016, p. 215).

Also utilising the 'writing conversation' interview, Watson and Newman (2017) and Chen and Myhill (2016) also provide insights into how teachers' talk and authoritative knowledge manifests in L1 learners' verbalised metalinguistic understanding. Through a series of vignettes, Chen and Myhill (2016) show that the extent to which dialogues in the classroom make connections between linguistic features and their meaning and application in text influence the extent to which learners aged 9-13 are able to apply their knowledge in their narrative and diary writing. In similar vein, and resonant with Moore et al.'s (2018) cautionary observation above, Watson and Newman (2017) found that students aged 14-15 who reflected on their non-fiction writing in conversation with researchers had a tendency to reify form-function relationships, often echoing messages conveyed by their teachers. These findings align with analyses of whole class dialogue in L1 classrooms that capture how in less effective metatalk, teachers may foster a view that particular linguistic features should be used in writing, without consideration of purpose in the textual context (Myhill et al., 2016; Myhill & Newman, 2016; Myhill et al., 2020a; Myhill et al., 2020b; Newman & Watson, 2020).

Providing an insight into the nature of metalinguistic discussion in L1 classrooms, Myhill et al. (2012) combined an RCT with complementary qualitative strand including lesson observations, teacher interviews and writing conversations, to explore the impact of contextualised grammar teaching on students' narrative writing and metalinguistic understandings. Results indicate the beneficial impact of the pedagogical intervention on writing attainment, particularly amongst more able writers; but of particular relevance to the focus of this review, the study revealed the learning benefit of high-quality functionally oriented metalinguistic discussion that makes explicit the relationship between linguistic choice and effect in written texts. Like Love and Sandiford (2016), teachers in Myhill et al.'s (2012) study reported the value of this discussion, particularly for developing writerly independence. Significantly, however, the triangulation of qualitative data by Myhill et al. (2012) reveals how students' comments mirrored what was said by teachers in lessons, with more comments made by intervention students defined as evidence of metalinguistic understanding. Qualitative data also enabled an insight into the qualities of effective metatalk, as well as the strength of teacher subject knowledge, that may advance metalinguistic learning and may have mediated the success of the intervention.

Myhill and Newman (2016) explore further teachers' management of classroom conversations about writing that facilitate the development of metalinguistic understanding, revealing through analysis of classroom dialogue, how *dialogic* metatalk about writing can help students to recognise the inter-relationship of form and meaning in narrative writing. Also indicating the impact of metalinguistic discussion on students' learning, a qualitative analysis of observational data drawn

from a follow-up RCT, with participants from English primary schools rather than secondary schools (in which the RCT did not reveal a positive result; Tracey et al., 2019), indicated that the cumulative development of students' metalinguistic understanding hinges on teachers' orchestration of metatalk repertoires across lessons (Newman & Myhill, 2020). Drawing on the same dataset, Watson et al. (2021) investigated how declarative and procedural knowledge manifested in intervention classrooms and revealed how classroom talk may mediate learning transfer.

The limitations of these studies highlight further the methodological challenges involved in establishing a relational chain between talk, writing and metalinguistic understanding. In tracing students' metatalk and writing back to teachers' self-report about their practice, Love and Sandiford (2016) do not provide an insight into teacher-student interactions as they occurred in the classroom. The studies focused more specifically on empirical manifestations of metalinguistic talk (Myhill, et al., 2016; Myhill & Newman, 2016; Newman & Watson, 2020; Watson et al., 2021) do not reveal the nature of students' metalinguistic thinking, or how verbalised understandings may translate to writing. In similar vein, these studies point to the complexity of conceptualising metalinguistic knowledge and learning—and, as Swain, puts it, of being *'certain of what one is observing empirically'* (2000, p. 110). However, like others included in this review, these studies are important in 'blurring' the apparent distinction between declarative knowledge and procedural knowledge and in highlighting learning transfer from metatalk to writing as a complex, prolonged process. Although the verbalisation of metalinguistic understandings may not immediately mirror or manifest in writing, the act of verbalising may represent the internalisation—or partial internalisation—of processes that are yet to be enacted. This prolonged learning 'transfer' perhaps reflects the complexity of metalinguistic learning and the writing process, while also drawing attention to the fundamental difference between oral verbalisation, internal speech and written text.

5. PROMOTING LEARNERS' ENGAGEMENT IN IMPACTFUL TALK ABOUT LANGUAGE

The studies reviewed above point to the importance of pedagogical strategies and tasks that promote learners' elaborate, dialogic engagement in talk about language. Several included L2 studies emphasise the value of collaborative writing tasks which prompt L2 learners to produce and reflect on 'output', particularly discussion focused on how best to represent learners' intended meaning (e.g., Swain & Lapkin, 2002). Niu (2009) argues that the interaction of oral and written production during collaborative reconstruction tasks that involve talking about *and* collaboratively producing writing, and the cognitive demand involved in writing, push the L2 learner to process the language more deeply. Such collaborative activity might prompt learners to notice 'gaps' between what they intend to express and can express—the act of writing itself becoming a language awareness-raising activity—whilst

encouraging the co-construction of language knowledge (Niu 2009; Swain, 2000; Swain & Lapkin, 2002; Wigglesworth & Storch, 2012).

L2 collaborative tasks, designed to raise learners' knowledge and accurate use of the target language, take various forms, including: 'jigsaw' tasks where students discuss and construct a story based on a set of pictures (Swain & Lapkin, 2002); 'dictogloss' where learners listen to a dictated passage, take notes and then jointly discuss and reconstruct the text (McNicoll & Lee, 2011; Swain & Lapkin, 2002); collaborative 'repair' or 'reconstruction' of texts with grammatical features removed (McNicoll & Lee, 2011; Niu, 2009; Storch, 2008). These collaborative tasks may differ in terms of demand, and in the way in which they prompt noticing and discussion between learners. When comparing dictogloss and text repair tasks, McNicoll and Lee (2011) found that significant EAL learning gains resulted from text repair tasks, with transcript analysis revealing more discussion and instances where learners talked about the L2 (in Language Related Episodes, LREs), likely accounting for learning gains. The authors suggest that the listening demand involved in dictogloss tasks results in more emphasis on remembering details from the dictated passage, whilst the text repair task, in providing written text, enable students to more easily discuss, reason about, and manipulate language features.

The benefit of providing written text is also seen in tasks incorporating the use of model or altered versions of text. In Swain and Lapkin's (2002) reformulation task, as noted in section 3, learners write a story collaboratively (a jigsaw task), before comparing their story to a reconstructed version written by a native speaker; learners then identify differences between versions, accepting or rejecting changes made, and later re-write their original stories individually. This sequence 'opens up' dialogue, inviting students to reason about the revisions. Furthermore, rejecting an alteration, which learners in Swain and Lapkin's study often did on the basis that the changes did not reflect their intended meaning, might prompt further elaboration and reasoning. In a similar approach, the treatment in Kassim and Ng (2014) involved comparing original drafts and corrected versions, whilst in Yang (2016), student dyads re-wrote a story from the perspective of a different character then compared their version to a written model of the same task, before revising individually. Creating tensions or 'gaps' between versions may prompt noticing, elaborate and reasoned dialogue between learners, whilst altered versions or model texts may also provide content or rhetorical support and even 'implicit feedback' (Yang, 2016, pp. 253-254).

Metalinguistic activity in the context of collaborative text production in L1 classes, discussed in section 4, is also fruitful when spaces open up in which different linguistic possibilities arise, and in which learners can reflect on and modify their proposals (Camps & Fontich, 2020). Yet the depth and quality of learners' metalinguistic activity during collaborative writing is likely influenced by the wider instructional sequence within which discursive activity is located. The instructional sequences designed by the GREAL group (Camps & Fontich, 2020) distinguish between text production and learning the characteristics and purpose of the text to

be written. This approach utilises text models, not as '*inert materials that must be imitated, but rather, live models that can be used to solve the problems and to know the thoughts of others who have written before*' (Camps, 2020c, p. 124). Another feature is 'live writing' which involves the teacher in making explicit their thinking processes as they write. Exemplifying the process of writing 'live' an interview with a character from a novel, Fontich (2020) recounts how he verbalised the introduction of the character and scene, the inclusion of elements of modality, and proposed questions to ask. The rich, complex instructional sequences, exemplified by Camps and Fontich (2020), illustrate the need to interconnect different opportunities for exploring written text with recursive opportunities for writing and reflection, but they also point to the important role of the teacher in mediating these learning episodes through classroom interaction.

The use of model texts—and crucially, talk about model texts—is also a key principle of the L1 pedagogy for writing which emphasises exploring and exemplifying through dialogic discussion the relationship between linguistic choice and effect in authentic texts (e.g., Myhill et al., 2012). Informed by SFL and genre pedagogy (see Derewianka & Jones, 2023; Rose & Martin, 1992), Myhill's approach utilises authentic model texts to exemplify linguistic form and effect, as springboards or stimulus for learners' own writing, and to connect learners to broader communities of writers. Drawing also on genre pedagogy, Moore and Schleppegrell (2014) and Moore et al. (2018) use model texts to support English learners in mainstream classrooms, also drawing explicit attention to their linguistic systems, and as starting points for metalinguistic discussion.

Like 'live writing' (Camps & Fontich, 2020), a component of metatalk, metalinguistic modelling, in which teachers share or facilitate the co-construction of text whilst making explicit linguistic decision-making, may also be a key strategy in supporting transfer of learning from talk about model texts to learners' own writing (Myhill et al., 2022; Watson, et al., 2021). The emphasis placed on purpose and authorial intention in this approach may 'open up' exploratory spaces between writerly intentions and imagined readers, supporting learners' metalinguistic thinking (Newman & Watson, 2020). The deconstruction of model texts and the subsequent co-construction of text between teacher and learners is a key feature of the Teaching and Learning Cycle which seeks to make explicit the language used for purpose within a genre (see Derewianka & Jones, 2023; Rose & Martin, 1992). This approach is seen in a study by Macnaught et al. (2013) which explores a Year 11 Biology teacher's first attempts at the joint construction of an exam response. Macnaught et al. (2013) argue that the value of joint construction lies in its capacity to make explicit the writing process. Its success, however, is dependent upon teacher and learners' participation in the process of 'text negotiation': involving '*complex and intricate interactions with students… shared metalanguage, [a] supportive rapport between the teacher and students (and between students themselves), and careful mediation of students' suggestions*' (p. 62).

As noted in section 4, the 'writing conversation' interview (Chen & Myhill, 2016; Watson & Newman, 2017), resonant with teacher-student 'conferencing' (Song, 2017), is a method intended to draw out learners' authorial intentions and elicit their metalinguistic thinking. Research using the writing conversation interview has highlighted its potential as a pedagogical strategy that supports the extension of metalinguistic understanding through questioning and dialogue (Watson & Newman, 2017). Song (2017) argues the empowering potential of teacher conferencing which develops students' understanding of rhetoric through engagement in one-on-one spoken *and* written 'metatalk'. In written metatalk, students respond to teachers' questions on initial drafts, recording and exchanging thoughts during composition. This conferencing approach, whilst intensive in practice, suggests the value of verbal and written metalinguistic dialogue alongside multi-stage composition. In similar vein, Love and Sandiford (2016) argue that the opportunity to reflect on learning may be an initial stage in shifting from guided work in the classroom to appropriation of knowledge in writing, also highlighting, therefore, the potential of verbalising and exploring writing choices in conversation with a guiding 'other'.

Evident in both the L1 and L2 literature and discussed further in section 6, is that crucial for mediating the development of metalinguistic understanding is the exploratory and dialogic quality of discussion. However, as noted in relation to collaborative tasks, learners' talk together independent of the teacher can vary in quality (Camps & Fontich, 2020; Yang, 2016). Wigglesworth and Storch (2012) also caution that the evidence is unclear when it comes to establishing the extent to which students learn from interactions during collaborative writing tasks, pointing to issues around transfer and retention. To improve the quality of learner interactions, teachers might demonstrate metatalk to students before asking them to complete tasks jointly (e.g., Swain, 2000). As discussed in section 3, teaching exploratory forms of talk explicitly may promote the dialogic quality of learners' interactions (Al-Adeimi & O'Connor, 2021; Halbach, 2015; Rojas-Drummond et al., 2020). It seems, given the importance of achieving elaborate, reasoned dialogue, that addressing explicitly the form of metatalk may be a valuable strategy, for example, modelling metatalk for L1 learners new to forms of discussion that probe linguistic choice. Crucially, however, the literature points to the important role of the teacher—or guiding 'other' (Love & Sandiford, 2016)—in managing and promoting metatalk: important if teachers provide a model of interaction that may be appropriated by learners collaborating on tasks or reflecting on their writing.

6. TEACHERS' MANAGEMENT OF IMPACTFUL TALK ABOUT LANGUAGE

The L1 and multilingual studies above, often aligning with a Hallidayan view of language, highlight particularly the mediating role of the teacher in fostering dialogue that makes meaningful connections between language and meaning. Gibbons (2018) argues that '*both language and content learning depend on the*

nature of the dialogue between teacher and students, the role that teachers play in the construction of discourse, and the specific assistance that the teacher gives to students' (p. 204). By drawing attention to the mediating role of the teacher, and the importance of talk that explores the meaning-making potential of writerly choices, studies highlight how teachers' authoritative knowledge—or Linguistic Subject Knowledge (LSK)—can enable or constrain talk. For example, limited LSK may constrain dialogue by limiting questioning and authoritative explanations (Love & Sandiford, 2016; Myhill et al., 2012; Myhill & Newman, 2016), as well as teachers' capacity to develop cumulative lines of enquiry (Myhill et al., 2020a; Newman & Watson, 2020). Conversely, in effective examples of metatalk, authoritative input is interwoven skilfully with discourse moves that *'*open up' and *exten*d thinking about the infinite possibilities of linguistic choice (Myhill & Newman, 2016, 2019). Also in high-quality metalinguistic discussion, Watson et al. (2021) draw attention to the interweaving of declarative knowledge in procedural activity: where teachers contextualise declarative linguistic knowledge within procedural activities (e.g., shared writing) and contextualise procedural experimentation with language within declarative talk. This interplay in metatalk of authoritative—or declarative knowledge—and experimentation and exploration perhaps mediates learning transfer between what students can say about language and what they can do in their writing (Newman & Watson, 2020; Watson et al., 2021).

Illustrative of the interactional scaffolding teachers might provide, Watson and Newman (2017) demonstrate how the writing conversation method itself, in probing learners' own writing decisions, can serve to scaffold students' ability to articulate what were initially tacit language choices. Similarly, for Song (2017), teacher 'conferencing' involves posing questions that support reflection and problem solving, helping '*reveal students' authorial intentions and encourage them to become more self-aware as writers'* (p. 236). Analysis of L1 classroom dialogue also indicates the value of encouraging learners to articulate and elaborate on their writerly decisions, bringing to the surface half-formed or sub-conscious choices (Myhill et al., 2016; Newman & Watson, 2020). Supporting learners in verbalising and exploring these choices are interactions that foster the justification of language choices, challenge cliché or forced writing, generate questions and pursue misunderstandings, and encourage experimentation and language play (Myhill et al., 2012).

In emphasising the need for experimentation and exploration, several studies place particular importance on the potential of dialogic talk about language. Jones and Chen (2016) illustrate the complementarity of dialogic teaching and educational linguistics, arguing the potential of dialogic approaches to transform the way in which linguistic concepts are introduced successively to build and consolidate learning, mediating students' metalinguistic understandings. Schaeffer-Lacroix (2016) also points to the dialogic management of linguistic instruction, noting the important role of the teacher in managing interventions and guidance during corpus

informed languaging activities, whilst allowing enough 'space' for learner engagement and response.

Investigations of dialogic metatalk have led to some reconceptualization of the dialogic space, challenging in particular the way that monologic—or authoritative talk—has often been pitted against dialogic talk. Drawing on a study that explored the dialogic and less dialogic characterisations of metatalk, Myhill et al. (2016) found that half of teachers led discussion that included both dialogic and less dialogic talk. Thus, Myhill and Newman (2016, 2019) argue that metatalk about writing occurs along a dialogic-monologic continuum, influenced by various contextual factors. Critical to the development of metalinguistic understanding is the way in which teachers manage talk on this continuum, where teachers enable open discussion about linguistic possibilities but also interject authoritative explanations that develop and support metalinguistic thinking (Myhill & Newman, 2016, 2019).

Building on these studies, Myhill et al. (2022) set out to synthesise the findings from two large-scale studies (reported in e.g., Myhill et al, 2016; Myhill & Newman, 2016) to propose a theoretically and empirically informed pedagogical approach to foster dialogic metatalk. The authors consider in particular how existing research on talk moves, talk repertoire and authoritative teacher talk needs to be adjusted to accommodate the particular demands of metatalk. Drawing on research in the English classroom, the authors propose a taxonomy of dialogic metalinguistic talk moves (Table 1), which captures, for example, how teachers may *initiate* an interaction sequence, and then make different talk 'moves' in response to learners to develop coherent lines of enquiry. This taxonomy is intended to support teachers in professional discussion and reflection on practice, yet it also illustrates the complexity and challenge involved in managing metatalk, perhaps particularly the need to be responsive to learners in the moment and to adjust questioning according to understandings expressed. However, whilst dialogue is by its nature 'spontaneous', there is clearly some merit in thinking through and formulating in advance questions or strategies which might drive and focus discussion.

Table 1. Dialogic metalinguistic talk moves (Myhill et al., 2022)

Talk Move	*Explanation*
Initiating	A question or elicitation which opens up a line of thinking about a language choice
Elaborating	An invitation to a student, or a peer, to expand on their answer, offering a fuller explanation of their metalinguistic thinking
Justifying	An invitation to a student, or a peer, to justify their metalinguistic response with reasons or evidence
Challenging	A question or elicitation which offers a counter metalinguistic perspective on a student response, inviting students to re-think or raise new questions
Verbalising	An invitation to students to articulate the link between a grammatical choice and its rhetorical effect, with or without grammatical metalanguage
Reflecting	A question or prompt which invites students to reflect on, evaluate and consolidate their learning about language choices

Aligning	A question or statement which steers the metalinguistic talk towards the learning focus, perhaps through re-orienting the line of enquiry, or through a correction

In a study framed by notions of dialogic teaching and systemic functional linguistic (SFL), Klingelhofer and Schleppegrell (2016), drawing on prior work by Hammond (e.g., Hammond, 2016; Hammond & Gibbons, 2005), reveal particular strategies that support teachers and learners in developing cumulative and purposeful talk about written text. In the context of a unit of study focused on analysing character development, with a focus on Graduation, scaffolding strategies, specifically 'designed-in' and 'interactional contingent moves' supported cumulative talk about text. 'Designed-in' moves—planned in advance of teaching—included driving questions, persuasive prompts and record sheets, whilst 'interactional contingent moves'—discursive moves taken *in response* to teaching and learning opportunities—included soliciting ideas, clarifying misunderstandings and reinforcing key points. Interactional moves included drawing attention to word alternatives to illustrate the various choices available to writers, encouraging learners' incorporation of these alternative words into their language repertoires. Whilst the interactional moves in this study resonate with those identified by Myhill et al. (2022), the notion of drawing attention to word alternatives is a specific strategy that might usefully be adopted by teachers to steer the talk and make explicit to learners how different choices alter meaning. Importantly, Klingelhofer and Schleppegrell's (2016) study recognises the demand on teachers 'in the moment' of teaching, but also emphasises the ways in which teachers—through 'designed in' moves—might *plan* in advance for talk: an important consideration, and potential focus for professional development.

Jesson and Rosedale (2016), drawing on data from 15 classrooms in New Zealand, examine the ways in which teachers provide opportunities for the incorporation and inter-animation of different 'voices'—textual, social and personal—within dialogic spaces. Through their analysis of transcripts, Jesson and Rosedale (2016) offer a taxonomy of ways in which teachers make these different voices available for consideration in writing lessons. The authors identify four 'sites' for dialogic interaction: when students construct text, when teachers demonstrate through example, when teachers used text as a site for discovery, and when teachers summon students' textual knowledge. The authors draw attention to the potential for the inter-animation of voices—between texts, readers, and writers—as a means of developing authorial voice and an awareness of how to realise communicative intentions and effects in writing. However, by examining how voices manifest, or not, in different sites, the authors are able to show how some voices—in this case, for example, students' diverse textual histories—are perhaps constrained or silent (Jesson & Rosedale, 2016). Resonant with Song (2017), this research, highlights the importance of the 'inviting function' that draws students' voices and experiences beyond school into the dialogue. Like others discussed in this review, Jesson and

Rosedale (2016) note the expertise required for teachers to orchestrate these multi-voiced spaces, which intersect text, student talk, and personal histories. Considered together, the studies reviewed in this section provide different yet complementary perspectives on the 'dialogic metalinguistic spaces' managed by teachers, raising various considerations about how these spaces are opened, sustained, and voices drawn in.

7. DISCUSSION

It is important to consider first the empirical and theoretical issues inherent in the research: establishing the impact of talk about language on writing and metalinguistic understanding presents a methodological challenge, and verbalisation and written text may provide only a narrow lens through which to view metalinguistic understanding. Some of the literature provides evidence of the impact of metatalk on learners' writing, for example, taking improved writing outcomes as an indicator of L2 language learning. These studies raise questions, however, about the extent to which learning through talk or collaboration is retained or re-contextualised and point to considerations around how to view a written artefact and the learning it represents. Whilst several authors note that written text is not itself a representation of internal cognition, it is possible to argue that metalinguistic understanding can be inferred from written production (Gutierrez, 2008). In fact, van Lier (1998) argues that '*conscious control of language is more truly manifested in linguistic performance than in talking about linguistic performance*' (p. 132).

Different from written text, oral verbalisation does permit an overt *expression* of metalinguistic understandings, enabling teachers and researchers an insight into the knowledge and processes utilised by learners in thinking about and constructing text. Yet, as noted elsewhere (Gombert, 1992; Gutierrez, 2008; Kassim & Ng, 2014; Myhill & Newman, 2019), verbalisation as a representation of metalinguistic understanding is not without issue: verbalisations may echo what teachers have said without understanding; learners' verbalisations may represent emerging or partially formed understandings; furthermore, a failure to verbalise may not be an indicator of the absence of knowledge. It is important to acknowledge, therefore, that in focusing on what is empirically observable and 'overt' in the evidence—particularly in what is verbalised—the *implicit* may be overlooked. Furthermore, whilst separating a focus on the impact of metatalk on *writing* and the impact of metatalk on *metalinguistic understanding for writing* is an attempt to untangle theoretical complexities, there is a need to recognise the theoretical blurriness and overlap that arises in consideration of these constructs.

The notion of talk supporting the development of metalinguistic understanding *for* writing also implies a relational chain—from talk to metalinguistic understanding to writing. Yet some of the literature indicates that declarative knowledge may arise from procedural knowledge, and this may not be captured by research designs that examine written output as an 'end-point' in a learning sequence. Learners might

appropriate taught grammatical structures implicitly in their writing before, through discussion that surfaces these choices, they are able to verbalise explicitly their metalinguistic understandings (Jones, 2023; Watson & Newman, 2017). As noted by Love and Sandiford (2016), new metalinguistic understanding may not in fact be operationalised immediately in writing, but various studies show that learning can be extended through repeated and retrospective reflection on language use.

Studies point to the varying theoretical—and sometimes binary, for example, declarative/procedural, explicit/implicit—conceptualisations of metalinguistic understanding, offering differing perspectives on the knowledge that may underlie or be manifest in written text. The relationship between declarative/procedural or explicit/implicit learning may also differ between L1 and L2. Differences in how L1 learners become proficient writers and L2 learners acquire implicit knowledge of the target language, and differences in the ways that implicit and explicit learning interacts, has pedagogical implications (Dornyei, 2009). As Camps (2020d) suggests, '*If a speaker already "knows" the grammar of her language, the task of the teacher will consist of making this knowledge come into consciousness and turn it into conscious and systematic knowledge*' (pp. 234-235); yet, '*in the learning of second languages and foreign languages, some linguistic constructions that end up being automated have their origin in an explicit reflection*' (p. 241). As Camps (2020d) argues, not all linguistic knowledge '*follows a process that spans from the implicit to the explicit*' (p. 241). This aligns with Cleermans' point (as cited in Dornyei, 2009) that with developments in cognitive research '*many existing distinctions that were previously described in binary terms, such as the explicit–implicit or the declarative–procedural distinction, are now being increasingly reconceptualized in terms of graded characterizations*' (p. 102).

The complex, multi-directional transfer of learning between talk and writing points to the need for multiple opportunities, as observed in some studies, to engage *recursively* in talk, writing and re-writing activity. The research, however, demonstrates the empirical challenge involved in drawing connections *between* what is verbalised and written. Several L1 studies (e.g., Newman & Watson, 2020) focus on capturing verbalised metalinguistic understandings but do not capture how this manifests in writing. Where connections between talk and writing are made, it is difficult to know in what ways what is spoken is applied to writing: learners might incorporate an idea or feature in their writing that may not mirror the object of earlier discussion; learners engaged in e.g., the same collaborative tasks will focus on different things; it may be unclear if learners have imitated features or used them with control in their writing; and, there may be evident tensions between what is written and verbalised (Kassim & Ng, 2014; Swain & Lapkin, 2002; Yang, 2017). The research, therefore, reveals a partial picture of how talk might relate to the development of metalinguistic understanding and writing. However, several studies offering rich qualitative analysis of, for example, pairs working in collaboration, teacher-student interaction during lessons, or reflective conversations between teachers and individual learners, do provide evidence of the ways in which focused

and purposeful talk about language can draw out and extend verbalised metalinguistic understandings. Though clear challenges remain in establishing the less immediate effects of metalinguistic discussion, promising approaches that intersect multimodal methods to capture 'live writing', for example, the Ramos method used by Calil (2020), might enhance future approaches to examining how verbalisation informs what is written in the moment.

The studies reviewed provide strong theoretical arguments for social interaction and verbalisation as a mediating mechanism in the development of metalinguistic understanding, often drawing on the extensive and complementary evidence base for the benefits of dialogic approaches for learning (Alexander, 2020; Myhill et al., 2016; Myhill & Newman, 2016, 2019; Rojas-Drummond et al., 2020) and for the role of producing—or *attempting*—'output' in L2 language learning (Storch, 2008; Swain, 2000). Crucially, explicit metalinguistic knowledge is needed by learners to monitor their writing (Storch, 2008), and if a core element of metalinguistic understanding is that it is verbalisable (Roehr, 2008), then dialogic metalinguistic discussion creates opportunities for that verbalisation—for the surfacing and exploration of knowledge about language (Myhill et al., 2016).

8. CONCLUSION

This review is not without limitation, with issues of definition and lexical variants on talk about language and metalinguistic understanding in the literature contributing to conceptual and theoretical 'fuzziness'. Nevertheless, the evidence reviewed points to the role of carefully orchestrated classroom talk in the development of writing and understanding for writing and raises important considerations for practice and professional development. The literature reveals the potential challenge for teachers in developing impactful dialogic talk about language. Whilst limited linguistic subject knowledge might affect teacher confidence, shifting from monologic to more open dialogic discourse roles may also present a challenge (Alexander, 2020; Myhill & Newman, 2016, 2019; Rojas Drummond et al., 2020). Some of the studies discussed, however, consider or draw attention to practices and strategies that might support teachers in the development of talk about language. Syntheses of 'talk moves' are potentially useful tools to support teacher reflection on practice (Myhill et al., 2022), whilst exemplifying how teachers might *plan* for talk (e.g., Klingelhofer & Schleppegrell, 2016) is helpful in supporting cumulative dialogue. Whilst writing tasks in L1 and L2 often serve different learning purposes—writing to learn vs learning to write –it seems that L2 tasks might well enrich L1 practice (and vice versa). For example, L1 practice might draw more heavily on L2 approaches by making more use of collaborative tasks, particularly tasks that create tension between different versions of the same text, opening a space for learners to explore together meaning achieved through different language choices. In both L1 and L2, however, close attention to the ways in which teachers manage talk may be crucial—in mediating metalinguistic learning and modelling ways of talking about

language. Whilst this review points to the need for further research that explores the relationship between metatalk and writing, it, crucially, highlights the importance of an increasing attention to the ways in which teachers might be supported to develop practice through professional dialogue, reflection and collaboration (Gibbons, 2018; Moore et al., 2018; O'Connor & Michaels, 2019; Love & Sandiford, 2016).

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REFERENCES

Al-Adeimi, S., & O'Connor, C. (2021). Exploring the relationship between dialogic teacher talk and students' persuasive writing. *Learning and Instruction*, *71*, 101388. https://doi.org/10.1016/j.learninstruc.2020.101388

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*. Routledge.

Barnes D. (1992). The role of talk in learning. In Norman K. (Ed.), *Thinking voices: The work of the national oracy project* (pp. 123–128). Hodder & Stoughton.

Calil, E. (2020). Ramos System: Method for multimodal capture of collaborative writing processes in pairs in real time and space in the classroom. *Alfa: Revista de Linguística (São José do Rio Preto)*, *64*, e11705. https://doi.org/10.1590/1981-5794-e11705

Camps, A. (2020a). Towards a renewal of written composition in schools. In A. Camps & X. Fontich (Eds.), *Research and teaching at the intersection: Navigating the territory of grammar and writing in the context of metalinguistic activity* (pp. 59-66). Peter Lang.

Camps, A. (2020b). Some observations about adolescents' capacity to revise written texts. In A. Camps & X. Fontich (Eds.), *Research and teaching at the intersection: Navigating the territory of grammar and writing in the context of metalinguistic activity* (pp. 67-93). Peter Lang.

Camps, A. (2020c). Language "projects" between theory and practice. In A. Camps & X. Fontich (Eds.), *Research and teaching at the intersection: Navigating the territory of grammar and writing in the context of metalinguistic activity* (pp. 113-128). Peter Lang.

Camps, A. (2020d). Learning grammar. In A. Camps & X. Fontich (Eds.), *Research and teaching at the intersection: Navigating the territory of grammar and writing in the context of metalinguistic activity* (pp. 233-252). Peter Lang.

Camps, A., & Fontich, X. (Eds.). (2020). *Research and teaching at the intersection: Navigating the territory of grammar and writing in the context of metalinguistic activity.* Peter Lang.

Camps, A., & Milian, M. (2000). *Metalinguistic activity in learning to write.* Amsterdam University Press.

Chen, H., & Myhill, D. (2016). Children talking about writing: Investigating metalinguistic understanding. *Linguistics and Education*, *35*, 100-108. https://doi.org/10.1016/j.linged.2016.07.004

Corbett, P., & Strong, J. (2017). *Talk for writing across the curriculum, how to teach non-fiction writing to 5-12 year olds*. McGraw-Hill Education.

Derewianka, B., & Jones, P. (2023). *Teaching language in context.* Oxford University Press.

Dornyei, Z. (2009). *The psychology of second language acquisition*. Oxford University Press.

Edwards-Groves, C., Anstey, M., & Bull, G. (2013). *Classroom talk: Understanding dialogue, pedagogy and practice*. PETAA.

Ellis, R. (2016). Focus on form: A critical review. *Language Teaching Research*, *20*(3), 405-428. https://doi.org/10.1177/1362168816628627

Fontich, X. (2016). L1 grammar instruction and writing: Metalinguistic activity as a teaching and research focus. *Language and Linguistics Compass*, *10*(5), 238-254. https://doi.org/10.1111/lnc3.12184

Fontich, X. (2020). And what did you feel when…? Interview with a character. In A. Camps & X. Fontich (Eds.), *Research and teaching at the intersection: Navigating the territory of grammar and writing in the context of metalinguistic activity* (pp. 161-174). Peter Lang.

Gibbons, P. (2018). *Bridging discourses in the ESL classroom: Students, teachers and researchers*. Bloomsbury Academic.

Gombert, J. E. (1992). *Metalinguistic development*. University of Chicago Press.

Gutierrez, X. (2008). What does metalinguistic activity in learners' interaction during a collaborative L2 writing task look like? *Modern Language Journal, 92*(4), 519-537. https://doi.org/10.1111/j.1540-4781.2008.00785.x

Halliday, M. A. (1993). Towards a language-based theory of learning. *Linguistics and education*, *5*(2), 93-116. https://doi.org/10.1016/0898-5898(93)90026-7

Halliday, M. A. K., & Matthiessen, C. M. (2014). *Halliday's introduction to functional grammar*. Routledge.

Halbach, A. (2015). 'Thinking together' and its effect on students' language performance. *ELT Journal*, *69*(3), 286-296. https://doi.org/10.1093/elt/ccv007

Hammond, J. (2016). Dialogic space: Intersections between dialogic teaching and systemic functional linguistics. *Research Papers in Education*, *31*(1), 5-22. https://doi.org/10.1080/02671522.2016.1106693

Hammond, J., & Gibbons, P. F. (2005). Putting scaffolding to work. *Prospect*. http://hdl.handle.net/10453/6610

Howe, C., Hennessy, S., Mercer, N., Vrikki, M., & Wheatley, L. (2019). Teacher–student dialogue during classroom teaching: Does it really impact on student outcomes?. *Journal of the learning sciences*, *28*(4-5), 462-512. https://doi.org/10.1080/10508406.2019.1573730

Hennessy, S., Rojas-Drummond, S., Higham, R., Márquez, A. M., Maine, F., Ríos, R. M., Torreblanca, O., & Barrera, M. J. (2016). Developing a coding scheme for analysing classroom dialogue across educational contexts. *Learning, Culture and Social Interaction*, *9*, 16-44. https://doi.org/10.1016/j.lcsi.2015.12.001

Hennessy, S., Calcagni, E., Leung, A., & Mercer, N. (2023). An analysis of the forms of teacher-student dialogue that are most productive for learning. *Language and Education*, *37*(2), 186-211. https://doi.org/10.1080/09500782.2021.1956943

Jay. T., Willis, B., Thomas, P., Taylor, R., Moore, N., Burnett, C., Merchant, G. & Stevens, A. (2017). *Dialogic teaching: Evaluation report and executive summary.* Education Endowment Foundation.

Jesson, R., & Rosedale, N. (2016). How teachers might open dialogic spaces in writing instruction. *International Journal of Educational Research*, *80*, 164-176. https://doi.org/10.1016/j.ijer.2016.08.003

Jones, S. (2023). The value of knowing: Conscious and unconscious writing choices. *Language and Education*, *37*(1), 71-87. https://doi.org/10.1080/09500782.2022.2109421

Jones, P., & Chen, H. (2016). The role of dialogic pedagogy in teaching grammar. *Research Papers in Education*, *31*(1), 45-69. https://doi.org/10.1080/02671522.2016.1106695

Kassim, A., & Ng, L. L. (2014). Investigating the efficacy of focused and unfocused corrective feedback on the accurate use of prepositions in written work. *English Language Teaching*, *7*(2), 119-130.

Klingelhofer, R. R., & Schleppegrell, M. (2016). Functional grammar analysis in support of dialogic instruction with text: Scaffolding purposeful, cumulative dialogue with English learners. *Research Papers in education*, *31*(1), 70-88. https://doi.org/10.1080/02671522.2016.1106701

Van Lier, L. (1998). The relationship between consciousness, interaction and language learning. *Language awareness*, *7*(2-3), 128-145. https://doi.org/10.1080/09658419808667105

Love, K., & Sandiford, C. (2016). Teachers' and students' meta-reflections on writing choices: An Australian case study. *International Journal of Educational Research*, *80*, 204-216. https://doi.org/10.1016/j.ijer.2016.06.001

Macnaught, L., Maton, K., Martin, J. R., & Matruglio, E. (2013). Jointly constructing semantic waves: Implications for teacher training. *Linguistics and Education,* 24, 50-63.

https://doi.org/10.1016/j.linged.2012.11.008
McNicoll, J., & Lee, J. H. (2011). Collaborative consciousness-raising tasks in EAL classrooms. *English Teaching: Practice and Critique*, *10*(4), 127-138.
Mercer, N., & Littleton, K. (2007). *Dialogue and the development of children's thinking: A sociocultural approach*. Routledge.
Mercer, N., Dawes, L., Wegerif, R., & Sams, C. (2004). Reasoning as a scientist: Ways of helping children to use language to learn science. *British Educational Research Journal*, *30*(3), 359-377. https://doi.org/10.1080/0141192041000168968 9
Moore, J., & Schleppegrell, M. (2014). Using a functional linguistics metalanguage to support academic language development in the English Language Arts. *Linguistics and Education*, *26*, 92-105. https://doi.org/10.1016/j.linged.2014.01.002
Moore, J., Schleppegrell, M., & Palincsar, A. S. (2018). Discovering disciplinary linguistic knowledge with English learners and their teachers: Applying systemic functional linguistics concepts through design-based research. *TESOL Quarterly*, *52*(4), 1022-1049. https://doi.org/10.1002/tesq.472
Myhill, D., & Jones, S. (2015). Conceptualizing metalinguistic understanding in writing. *Culture and Education*, *27*(4), 839-867. https://doi.org/10.1080/11356405.2015.1089387
Myhill, D. A., Jones, S. M., Lines, H., & Watson, A. (2012). Re-thinking grammar: The impact of embedded grammar teaching on students' writing and students' metalinguistic understanding. *Research Papers in Education*, *27*(2), 139-166. https://doi.org/10.1080/02671522.2011.637640
Myhill, D., Jones, S., & Wilson, A. (2016). Writing conversations: Fostering metalinguistic discussion about writing. *Research Papers in Education*, *31*(1), 23-44. https://doi.org/10.1080/02671522.2016.1106694
Myhill, D., & Newman, R. (2016). Metatalk: Enabling metalinguistic discussion about writing. *International Journal of Educational Research*, *80*, 177-187. https://doi.org/10.1016/j.ijer.2016.07.007
Myhill, D., & Newman, R. (2019). Writing talk: developing metalinguistic understanding through dialogic teaching. In N. Mercer, R. Wegerif, & L. Major (Eds.), *The Routledge international handbook of research on dialogic education* (pp. 360-372). Routledge.
Myhill, D. Newman, R. Watson, A., & Jones, S. (2022). Writing dialogues: Metalinguistic talk about writing. In R. Solheim, H. Otnes, & M. Rijs-Johansen (Eds.), *Samtale, Saskrive, Samhandle* (pp.71-93). Universitetsforlaget.
Myhill, D., Newman, R., & Watson, A. (2020a). Going meta: Dialogic talk in the writing classroom. *Australian Journal of Language and Literacy, 43*(1), 5-16.
Myhill, D., Watson, A., & Newman, R. (2020b). Thinking differently about grammar and metalinguistic understanding in writing. *Bellaterra Journal of Teaching & Learning Language & Literature*, *13*(2), e870.
Newman, R. (2017). Let's talk talk: Utilising metatalk for the development of productive collaborative dialogues. *Thinking Skills and Creativity*, *26*, 1-12. https://doi.org/10.1016/j.tsc.2017.04.006
Newman, R., & Watson, A. (2020). Shaping spaces: Teachers' orchestration of metatalk about written text. *Linguistics and Education*, *60*, 100860. https://doi.org/10.1016/j.linged.2020.100860
Niu, R. (2009). Effect of task-inherent production modes on EFL learners' focus on form. *Language Awareness*, *18*(3-4), 384-402. https://doi.org/10.1080/09658410903197256
O'Connor, C., & Michaels, S. (2019). Supporting teachers in taking up productive talk moves: The long road to professional learning at scale. *International Journal of Educational Research*, *97*, 166-175. https://doi.org/10.1016/j.ijer.2017.11.003
Ribas, T., Farrera, N., & Camps, A. (2020). Metalinguistic activity in group writing situations: the influence of pedagogic situations and group characteristics. In A. Camps, A. & X. Fontich (Eds.), *Research and teaching at the intersection. Navigating the territory of grammar and writing in the context of metalinguistic activity* (pp. 213-230). Peter Lang.
Roehr, K. (2008). Metalinguistic Knowledge and Language Ability in University-Level L2 Learners. *Applied Linguistics, 29 (2),* 173-199. https://doi.org/10.1093/applin/amm037
Rojas-Drummond, S., Márquez, A. M., Hofmann, R., Maine, F., Rubio, L., Hernández, J., & Guzmán, K. (2016). Oracy and literacy in the making: Collaborative talk and writing in grade 6 Mexican classrooms. In A.Surian (Ed). *Open spaces for interactions and learning diversities* (pp. 69-108). Springer. https://doi.org/10.1007/978-94-6300-340-7_6

Rojas-Drummond, S., Olmedo, M. J. B., Cruz, I. H., & Espinosa, M. V. (2020). Dialogic interactions, coregulation and the appropriation of text composition abilities in primary school children. *Learning, Culture and Social Interaction*, *24*, 100354. https://doi.org/10.1016/j.lcsi.2019.100354

Rose, D., & Martin, J. R. (2012). *Learning to write, reading to learn: Genre, knowledge and pedagogy in the Sydney School*. Equinox.

Schaeffer-Lacroix, E. (2016). Talking about German verb particles identified in concordance lines–from spontaneous to expert-like metatalk. *Language Awareness*, *25*(1-2), 127-143. https://doi.org/10.1080/09658416.2015.1122023

Schleppegrell, M. J. (2013). The role of metalanguage in supporting academic language development. *Language Learning*, *63*, 153-170. https://doi.org/10.1111/j.1467-9922.2012.00742.x

Schleppegrell, M. J. (2017). Systemic functional grammar in the K–12 classroom. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 384-396). Routledge.

Song, A. Y. (2017). "Meta-talk" as a composition tool: Promoting reflective dialogue during the drafting process. *Multicultural Perspectives*, *19*(4), 234-238. https://doi.org/10.1080/15210960.2017.1373570

Storch, N. (2008). Metatalk in a pair work activity: Level of engagement and implications for language development. *Language Awareness*, *17*(2), 95-114.

Swain, M. (2000). The output hypothesis and beyond: Mediating acquisition through collaborative dialogue. *Sociocultural Theory and Second Language Learning*, *97*(1), 97-114.

Swain, M. (2006). Languaging, agency and collaboration in advanced second language proficiency. In H. Byrnes (Ed.), *Advanced language learning: The contribution of Halliday and Vygotsky* (pp. 95-108). Continuum.

Swain, M., & Lapkin, S. (2002). Talking it through: Two French immersion learners' response to reformulation. *International Journal of Educational Research*, *37*(3-4), 285-304. https://doi.org/10.1016/S0883-0355(03)00006-5

Tracey, L., Boehnke, J., Elliott, L., Thorley, K., Bowyer-Crane, C., & Ellison, S. (2019). Grammar for Writing: Evaluation report and executive summary. Education Endowment Foundation.

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

Walldén, R. (2019). Scaffolding or side-tracking? The role of knowledge about language in content instruction. *Linguistics and Education*, *54*, 100760. https://doi.org/10.1016/j.linged.2019.100760

Watson, A. M., & Newman, R. M. C. (2017). Talking grammatically: L1 adolescent metalinguistic reflection on writing. *Language Awareness*, *26*(4), 381-398. https://doi.org/10.1080/09658416.2017.1410554

Watson, A. M., Newman, R. M., & Morgan, S. D. (2021). Metatalk and metalinguistic knowledge: The interplay of procedural and declarative knowledge in the classroom discourse of first-language grammar teaching. *Language Awareness*, *30*(3), 257-275. https://doi.org/10.1080/09658416.2021.1905655

Wegerif, R. (2013). *Dialogic: Education for the internet age*. Routledge.

Wells, G. (1994). The complementary contributions of Halliday and Vygotsky to a "language-based theory of learning". *Linguistics and Education*, *6*(1), 41-90. https://doi.org/10.1016/0898-5898(94)90021-3

Wigglesworth, G., & Storch, N. (2012). What role for collaboration in writing and writing feedback. *Journal of Second Language Writing*, *21*(4), 364-374. https://doi.org/10.1016/j.jslw.2012.09.005

Yang, L. (2016). Languaging in story rewriting tasks by Chinese EFL students. *Language Awareness*, *25*(3), 241-255. https://doi.org/10.1080/09658416.2016.119723