The Hot Potato of GenAI: Designing Prompts to Enhance Learning and Teaching of Written and Visual Texts

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In 2024, a small working party from amongst the ALEA Meanjin Local Council Committee members developed a series of online professional dialogues to promote substantive conversations on high-interest topics for literacy educators. Drawing on a *flipped learning* approach to English and literacy teaching (Willis, 2017), registered participants were invited to engage with relevant stimulus materials (e.g., articles and news items) as well as consider three provocations (i.e., BIG questions) before each session. The leaders of each professional dialogue used the questions to guide the discussions.

Led by Nathan Lowien, the first professional dialogue was titled, *Writing in an Age of GenAI Writing and Image Tools.* Figure 1 provides details of the invitation to participants.

Figure 1. Professional dialogue 1 invitation

ALEA Meanjin Local Council Committee: 2024 Professional Dialogue Series

Professional Dialogue 1: Writing in an Age of GenAI Writing & Image Tools

Date and time: 20 March 2024 @ 7:00pm to 7:45pm

Dr Nathan Lowien – *University of Southern Queensland*

The second quarter of the 21st Century will see a growing influence in Generative Artificial Intelligence (GenAI) writing tools such as ChatGPT and Bing Image Creator. If you have an interest in GenAI and image creation or you are wanting to find out more, come join the Professional Dialogue session. The BIG questions that will be explored are:

- How will GenAI change writing?
- What are the implications for teaching writing in Early Childhood, Primary & High school settings?
- What does this mean for the teaching of grammar?

Prepare for Professional Dialogue 1 with Dr Nathan Lowien by looking at the following:

1. ***Practical Literacy: the Early and Primary Years*** **(PLEPY) Article**: *Generative AI Writing Tools and the Australian Curriculum: English* (Lowien & Thomas, 2023)

2. **Examples of GenAI tools**:
   https://www.youtube.com/watch?v=DU0IeYwVJHg

   https://www.youtube.com/watch?v=JzkZGGX3MxY

3. **Examples of Image Creator tools**:
   https://www.youtube.com/watch?v=cfCArxrQXgk

Ten participants (the authors of this article) joined the professional dialogue. Subsequently, members of Meanjin's professional dialogue working party met to *metalogue* about what was discussed. A metalogue is a pedagogical tool for educators to engage in "instructive dialogue" (e.g., talking about a previous conversation for the express purpose of probing for deeper meaning and insights) (Willis & Exley, 2016, p. 74).

From the metalogue, three key strategies for writing GenAI *prompts* to enhance student learning and classroom practice in the context of teaching written and visual texts emerged. A prompt refers to the language instructions a user might design for an AI tool in order to generate a particular text outcome (Lowien & Thomas, 2023). The strategies were:

Strategy 1—Bumping up texts
Strategy 2—Co-crafting texts
Strategy 3—Using grammar metalanguage.

The pedagogical approaches together with illustrations of each strategy are briefly discussed below. The benefits, limitations, and implications for effective literacy learning and teaching follow.

Strategy 1—Bumping up texts

The most commonly-used strategy discussed in the professional dialogue was *bumping up* texts. A bump-it-up text refers to a prompt which students or teachers develop as a basis or *springboard* for writing a better text. The pedagogical approach that underpins bumping up texts thus involves asking the question: *How can I improve the original text?* Within a narrative text, for example, users might want to change the language so it is more interesting or engaging for readers. The sentence, *I saw a butterfly on the flowers* might be enhanced so it reads, *Yesterday, I espied a black and white butterfly quietly feeding on the wattle flowers in my garden*. A sports text might be improved with the addition of more technical vocabulary. Teachers might use GenAI to develop a *mentor text* which students bump up for a certain purpose. Teachers might also create an initial general text (e.g., for a student graduation event) to which they add information and specific details (i.e., they bump it up) so as to personalise the text for each student.

Strategy 2—Co-crafting texts

The second key strategy discussed in the professional dialogue was *co-crafting* texts. Co-crafting texts connects to the strategy of bumping up texts as it describes how users work in concert with GenAI tools to design prompts to continually refine texts. The pedagogical approach involved relies on users' knowledge of the GenAI tool they may be using, which includes the capacity to exploit its capabilities, while simultaneously understanding its limitations. Since different GenAI tools can be used for different purposes, co-crafting texts may be more possible if a GenAI tool is able to operate as a *chatbot*, which refers to its capability for simulating human conversation.

Strategy 3—Using grammar metalanguage

Using grammar metalanguage, the third key strategy discussed in the professional dialogue, refers to the pedagogy of teachers to engage with students in discussions about the use of grammar resources in written and visual texts. For example, teachers might talk with students about how an author has used language to phrase a sentence or explain an idea or how a photographer has used camera angles or visual elements (e.g., lighting or perspective) to convey meaning in an image. The ability to deconstruct the grammar of written and visual texts thus allows students to develop a metalanguage, which can be used to design prompts for GenAI tools including chatbots to realise the kinds of texts and images desired. It follows that using grammar metalanguage together with bumping up texts and co-crafting texts (i.e., Strategies 1 and 2) maximises the student literacy learning and classroom teaching possibilities of GenAI tools.

Benefits, limitations, and implications for effective literacy learning and teaching

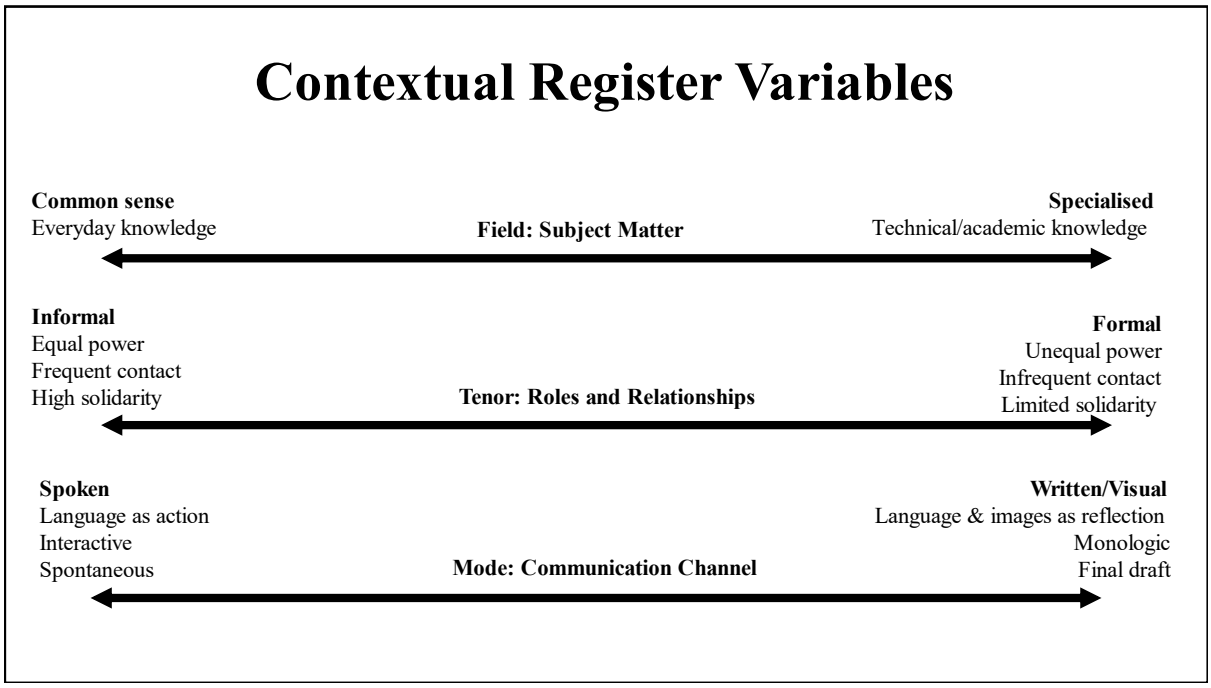
The professional dialogue participants noted the benefits for students and teachers of using GenAI tools, which included mitigating the cognitive and physical workload often associated with creating and improving texts (see above). In contrast, the participants highlighted several limitations related to the:

- range and richness of language in AI-generated texts which often felt "bland", "stereotypical", "scripted", or "lacking in emotion";
- ability of GenAI tools to cater for diverse perspectives or reflect cultural differences;
- production of complex texts such as infographics which combine written and visual information.

The participants emphasised the need for users to critically appreciate the nature of GenAI tools. Similar to other digital tools such as videogames, GenAI tools are programmed using coded algorithms that convey meaning potential (Lowien, 2022). Two factors namely different variables in a GenAI algorithm and the entered prompt influence the meaning potential. For example, variables in a GenAI algorithm may consider words and sentence structures. When a word is placed in a sentence, the algorithm relies on a high percentage of probability to indicate if the word has been placed correctly in the sentence to accurately make sense. In this way, the variables of an algorithm influence the meaning potential. Additionally, the entered prompt is developed by a user's contextual register and implied socio-cultural values. Hence, the chatbot function of GenAI tools poses the risk of becoming an *echo chamber* that reflects similar language and implied socio-cultural values to those of the entered prompt.

To fully exploit the potential of GenAI tools, the professional dialogue participants thus signalled the need for students and teachers to design prompts that reflect a socio-cultural view of language consistent with the Australian Curriculum Version 9.0 (AC V9.0) (ACARA, 2024). This view accords with a functional grammar approach to language learning and teaching in which the social purpose of texts is emphasised (Humphrey et al., 2022). Figure 2 shows how an understanding of contextual register variables namely field (subject matter), tenor (roles and relationships), and mode (communication channel) can support the design of prompts when using GenAI tools to create and improve texts. Teachers can use the contextual register variables to effect more careful, nuanced classroom teaching. Students can use the variables to design prompts to *shift* a text's written language and images towards being more sophisticated, specialised, inclusive, culturally responsive, or complementary.

Figure 2. Functional grammar contextual register variables: Field, tenor, and mode (Lowien & Thomas, 2023, p. 26 [Adapted from Humphrey et al., 2022])



Summary and conclusions

This article illuminated the value of dialoguing and subsequently metaloguing as contemporary forms of effective professional learning amongst literacy educators—in

particular when topics such as the use of GenAI tools remain education *hot potatoes* (e.g., at the time of writing, state school students in Queensland, Tasmania and New South Wales have been banned from accessing ChatGPT [Caldwell, 2023]). The conversations revealed three key classroom strategies and associated pedagogical approaches for developing GenAI prompts: bumping up texts, co-crafting texts, and using grammar metalanguage. Student and teacher knowledge and understanding of contextual register variables (i.e., field, tenor, and mode) to improve the effectiveness of GenAI prompts emerged in the discussions as an important implication. Such knowledge and understanding affords users more opportunities to actively exploit the potential of GenAI while simultaneously navigating the limitations of current tools to realise desired written and visual texts. Readers are encouraged to examine the AC V9.0: English to identify opportunities in each of the strands (i.e., language, literature, and literacy) for creating and improving texts using GenAI prompts. Readers are further encouraged to develop a table, which lists the identified opportunities together with learning and teaching suggestions for the use of contextual register variables.

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Made up of ALEA members from Brisbane and Environs, the Sunshine Coast and Hinterland, and Toowoomba and the Darling Downs, the **Meanjin Local Council** is a vibrant group of educators committed to advancing literacy education locally, nationally, and internationally. The Meanjin Local Council Committee actively seeks to serve members through the development of innovative professional learning opportunities, which especially cater to the real and emerging needs of practising and preservice teachers. The Meanjin Local Council was proud to receive ALEA's Honour Council Award (2023–2024) (https://www.alea.edu.au/grantsawards/alea-honour-council/). Email: narelledaffurn.meanjin@gmail.com

Meanjin Local Council Committee Members: Nathan Lowien (left front), Frances Hoyt (left middle), Michelle Relton (left back), Narelle Daffurn (right back), Linda-Dianne Willis (right middle, and Allaana Bills (right front).