



# Changing partners: Dancing with the disciplines in embedding academic literacy into the curriculum

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Academic Skills



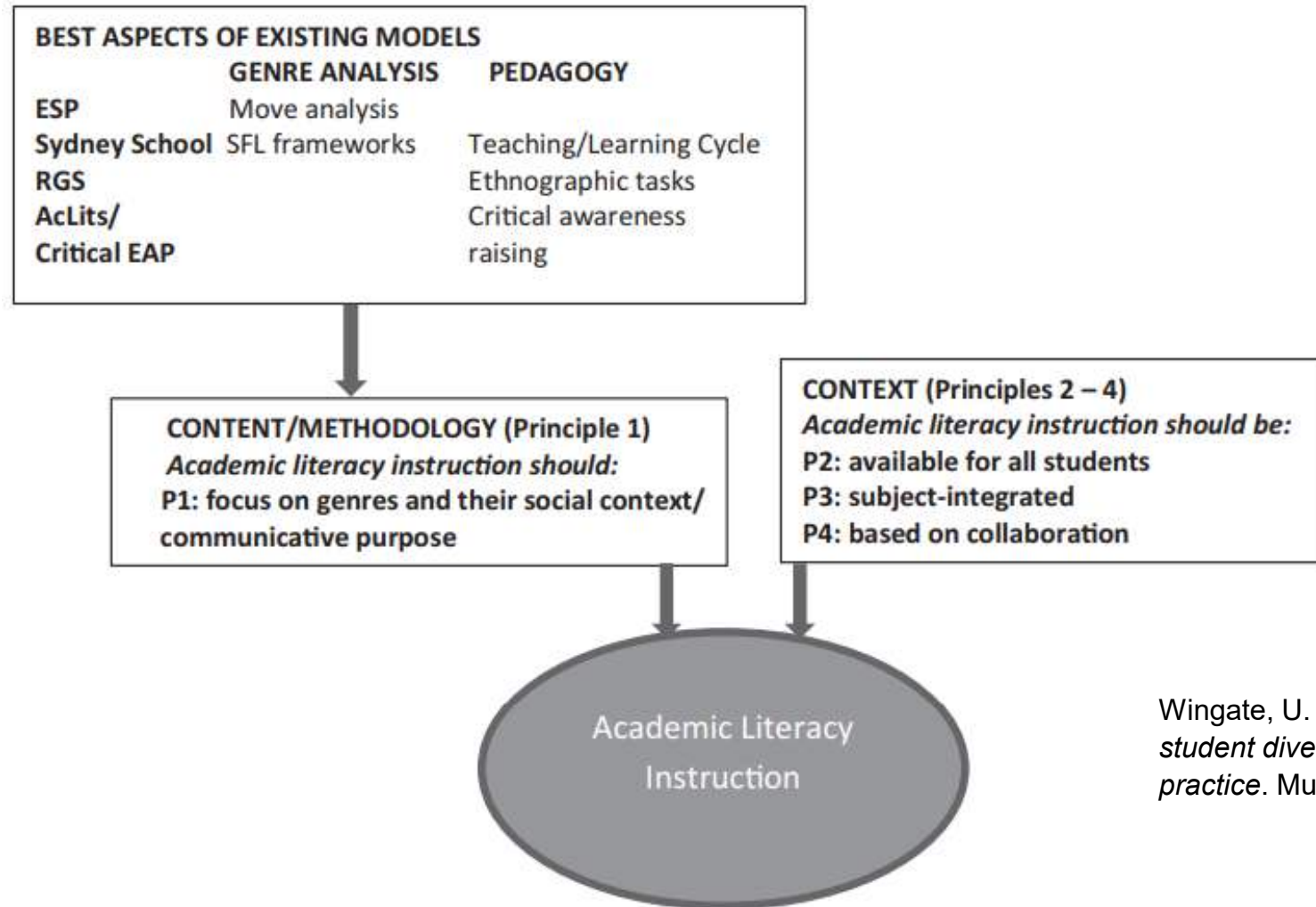
# Leading questions on curriculum embedding

- Why is embedding academic literacy into the curriculum important? Embedding makes academic literacy available to all students.
- What do we embed?
- What pedagogical approaches do we use?
- What makes for effective embedding?

Work in progress, learnings, examples (dances), evaluation results



# An inclusive model of academic literacy instruction



Wingate, U. (2015). *Academic literacy and student diversity: The case for inclusive practice*. Multilingual Matters.



# What do we embed? A work in progress

Academic literacy area	What is it?	Examples
<b>1. Information, digital and AI literacies</b>	Task-focused evaluative judgment of quality in research, reading and writing activities.	Appropriate use of GenAI in writing and reviewing the literature; using digital tools for note-taking and writing; critical thinking.
<b>2. Disciplinary discourse engagement</b>	Effective use of reading strategies for different purposes; active understanding and use of disciplinary concepts and language.	Dynamic reading skills using instrumental, critical and aesthetic reading stances; appropriate use of disciplinary vocabulary.
<b>3. Communication skills</b>	Linguistic, cultural and social capabilities that enable effective participation in learning activities, group work and social life.	Giving peer reviews, developing intercultural competencies, speaking and presenting, responding to feedback, improving English language skills.
<b>4. Learning to learn</b>	The development of good learning habits, metacognitive skills, lifelong learning, and a regular practice of self-reflection and self-assessment.	Reflective practice, learning with a growth mindset, self-directed learning, time management, self-management.
<b>5. Meaning-making and knowledge construction</b>	Capabilities to add to knowledge and understandings in a field and/or apply insights learned to improve or transform one's own life.	Creativity, voice, originality, discussing the significance of one's research, drawing conclusions, making inferences and interpretations, reflective writing.



## (Re)learnings

- ✓ 1. The literacies embedded may slide along a continuum from general principles to specific genres, depending on what the students need at strategic points in time.
- ✗ Vs. Embedded literacies always need to be genre-specific.
- ✓ 2. LMS resources are highly reusable and recyclable across semesters and subjects, but establishing and maintaining good relationships tends to be key in this reusing and recycling.
- ✗ Vs. A resource needs to be built and reserved for just one subject to be effective.
- ✓ 3. Generative AI could provide a great entry point into new subjects and could be used to discuss discipline-specific expectations and genres in depth.
- ✗ Vs. What's the point of giving writing advice now that GenAI can do the job?! Or: What? That fake thing?
- ✓ 4. Getting academics and students to collaborate on preparing/delivering a resource/service by providing discipline-specific advice and exemplars is one of the most effective and enjoyable embedding methods.
- ✗ Vs. Academics and students in a subject are end receivers or consumers of ALL services.



# Dance #1: Big first-year subject

## Active learning set-up

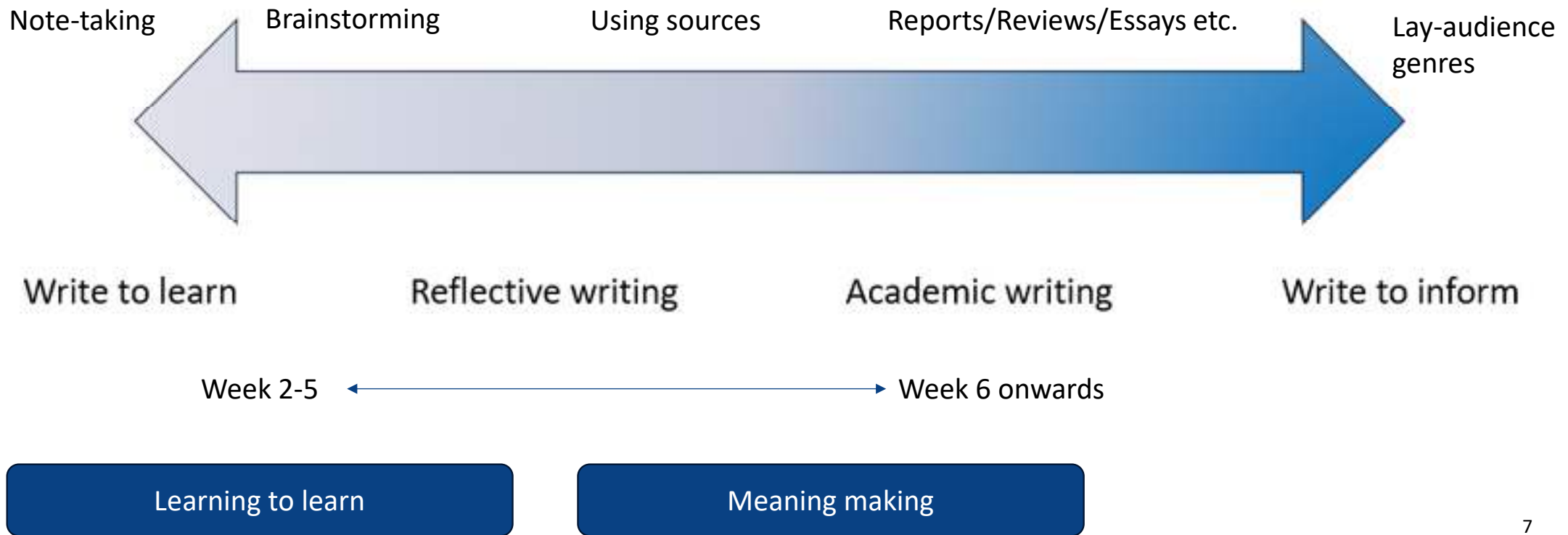


Learning to learn

What	Engage	Apply	Reflect
<b>Content</b>	Explore, read, listen, absorb, search, take notes, summarise	Tailor, modify, contextualise, specify, exemplify, argue, reference	Conceptualise, interpret, evaluate, link, challenge
<b>Practice</b>	Try, investigate, record, test	Perform, undertake, report, produce, solve	Create, model, innovate, identify problems, propose solutions
<b>Others</b>	Reach out, participate, respect, connect, discuss	Collaborate, partner, support	Co-design, impact, influence, develop
<b>Self</b>	Recognise one's own beliefs and assumptions	Adapt thinking and behaviours to context	Monitor changing self-perceptions, aspire to continuing self-discovery



# A writing spectrum





## Staff evaluation: Foundational skills are needed

*'I believe that the students, particularly those in their first year, benefit from academic skills and library components.'*

*I have observed that the students **actively participated in the sections on active learning and reflective learning**, as well as in the discussion about the process of peer-reviewed articles. Further, information for searching relevant data/information sources is beneficial as some students have only used Google and Google Scholar. Students also **love to learn how to give feedback** as they learn what information they can expect from the professors/tutors.'*





# Dance #2: Undergrad and grad subjects

ChatGPT - What is it and can I use it? <sup>AI</sup>

ChatGPT is a generative artificial intelligence (AI) that is built on a predictive language model and trained on open-access Internet data.

Consider how the following quotes might relate to these kind of tools:

'Most people would die sooner than think - just think - and wonder why they die.'

'Few people think more than two or three times a day.'  
Bernard Shaw

This resource introduces a critical thinking a

Time: Allow 15 minutes

GenAI doesn't have to be shallow!



**Generative AI  
and your  
writing**

Information, digital and AI literacies



# Dance #3: Core graduate coursework subject

- Assignment 1: Literature Review, 20%
- Embedded resources
- Worked exemplar in assignment brief
- Student genre



Are possums (*Trichosurus vulpecula* and *Pseudocheirus peregrinus*) in Melbourne at risk due to contamination with PFAS and PCBs?

**Introduction**

Polychlorinated biphenyls (PCBs), and per- and polyfluoroalkyl substances (PFAS) are man-made, toxic chemicals that have been produced since the mid-20<sup>th</sup> century (Iatrou et al., 2019). PFAS and PCBs can have a range of detrimental effects on humans and wildlife. These classes of toxic chemicals can be carcinogenic and neurotoxic, they are endocrine disruptors, and they can reduce immune system function (Mizukawa et al., 2013; Ross, 2002). They can bioaccumulate within organisms and can be biomagnified up trophic levels (Letcher et al., 2010; Sinclair et al., 2020). PFAS and PCBs have been found in almost every environmental medium (Sinclair et al., 2020).

There are approximately 5000 different types of PFAS, and 209 different PCB congeners (Johnson et al., 1996; Wang et al., 2021). PFAS are long-chain carbon atoms that are saturated with fluorine atoms, which results in a very strong bond between carbon and fluorine, leading to a prolonged duration of degradation in the environment (Cleary et al., 2021). PFAS have been in production since the 1940s, and have widespread industrial and consumer-based applications, from fire-fighting foam to electroplating, ammunition, artificial turf, clothing, and food packaging (Cleary et al., 2021; Glüge et al., 2020). Due to their widespread use, large amounts of PFAS-containing products end up in landfills and incinerators (Benskin et al., 2012), and high concentrations of PFAS are found in waterways and soils in regions with high industrial activity and densely populated cities – including in Victoria, Australia (Simmons, 2019; Szabo et al., 2018).

**[Academic]** The title of a literature review can be formed as a question, and this works well to focus the reader's attention from the start on the main inquiry of the review

**[Academic]** This whole first part starts with the basics, which is good. This orientates the reader nicely right at the beginning.


**[ALL Adviser]** There's clear sense of purpose and argument for presenting these facts – to demonstrate the extent of the problem.

Disciplinary discourse engagement



# Dance #4: Capstone subject

- State of knowledge report (50%) – intersection of expert and student genres
- Expert exemplar in online resource
- Student exemplars in in-person workshop and student showcase



## Background information/introduction

In this part, aim to provide:

- An overview of what the problem is and why it matters. This builds the rationale for your research.
- The aim and scope of your report.

Read the example introduction excerpts below, from the report titled [Understanding the Western Port environment](#) (State Government Victoria, Port Phillip & Western Port CMA & Melbourne Water, 2018, pp. 20-21), and work through the activity to explore the key elements of an effective introduction.

You have made 1 attempt. You got 0% correct on your last attempt. ✕

Drag the words into the correct boxes to indicate the structure of this example introduction.

A robust scientific understanding of ecosystem processes will help us to understand what ecosystem states are possible and which ones are not. To underpin flexible management, our science also needs to be updated periodically.

This review is broadly asking how Western Port has changed, what the current threats are to this ecosystem, and what kind of scientific knowledge we need to be able to effectively manage these threats into the future.

The scope was marine waters, up to the high tide mark, including mangroves and saltmarsh. Although consideration is given to the threats that are likely to be most significant to the health of Western Port, this review is not a formal 'risk assessment'. In regards to threats, this document focuses on the scientific evidence linking these environmental assets and threats and the scientific knowledge that is needed to inform potential management actions.

Genre analysis: Textual moves

Disciplinary discourse engagement



# Genre analysis – discourse semantic & lexico-grammatical

- The argument and its development
- Analytical themes and their relationship

Linguistic devices for criticality and discussion

Disciplinary discourse engagement

Meaning making

The screenshot shows a learning management system interface. At the top, there is a header with a gear icon and the text 'Current understanding'. Below this, there are two tabs: 'Organising information' and 'Critiquing Ideas', with the latter being selected. The main content area contains a paragraph of text: 'Critique or discussion is an important part of reporting current understandings on a topic. The following example from the same report (p. 93) demonstrates the role of certain types of language in framing a discussion, particularly well-selected verbs and adjectives. Work on the activity below to learn how you can make your report more critical.' Below the text is a feedback message: 'You have made 3 attempts. You got 93.1% correct on your last attempt.' followed by a close button (X). The main text continues: 'Click on any words that carry the writers' evaluation, critique or interpretation of the information being reported. To choose a phrase, click on all its component words.' Below this is a large block of text: 'All of these modelling approaches involve a series of trade-offs. It is impossible to represent all of the complexity of a natural ecosystem, so decisions must be made about how much of the ecosystem detail should be included. Less detail means that the models are less realistic and may not capture the response of the full ecosystem, but it also means that the models can be run more easily and can explore a wider range of scenarios. Complex models may require much greater investment in building the model and in accurately characterising the data that need to be fed into it. These decisions are generally made on a case-by-case basis. For example, the Atlantis model for Port Phillip Bay model has limited details about higher trophic levels, particularly individual fish species, whereas its implementation elsewhere includes considerable detail on individual fish and fisheries (Link et al. 2010).' At the bottom of the content area is a blue 'Submit' button.



# Dance #5: Honours subject

Pictures of soils for more sustainable agriculture



Communication skills

Did the pitch build on the audience's background knowledge?

Did the pitch extend the audience's knowledge in the field?

How was the information structured?

What sort of language was used?

What can you learn from this pitch for your own presentation?



## What did you like about the service?

*'the support is **tailored** to the assignment of my subject, so students get to learn the skills that they can apply in their assignment.'*

*'The team are **fantastic to deal with, responsive, and always eager** to support student learning.'*

*'The support has been **actively offered and provided** - I haven't had to seek it which is hugely appreciated!'*

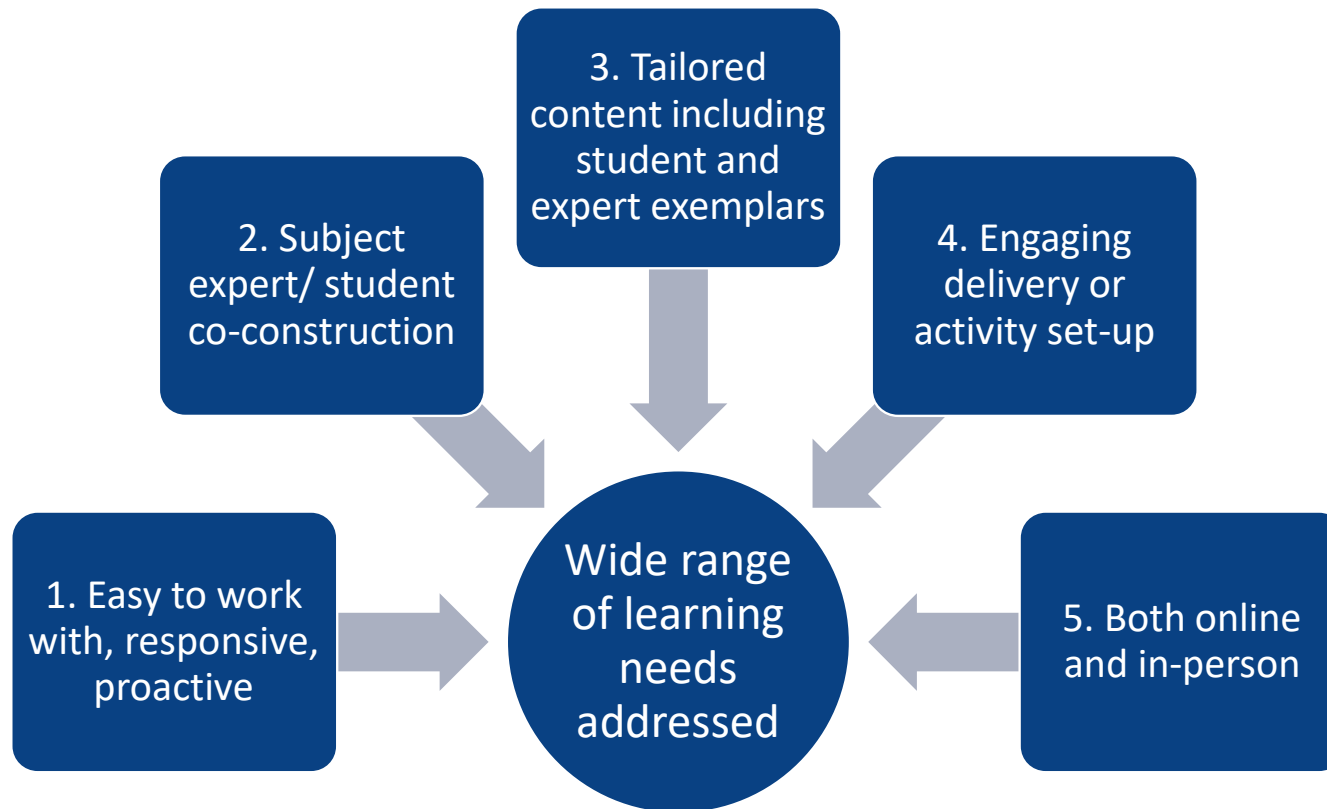
*'The Specialist Librarian and Academic Skills Expert were **entirely collaborative, enthusiastic and straightforward** in their dealings. The whole experience was positive and the **benefits to the students are already felt**.'*

*'I love how the academic services team **works with us** to get the best learning materials and workshops for our students. They **work with us** to get **relevant case studies** and to **use former student assessment** to develop **relevant and tailored** sessions and materials. It's great how **they work with us each year** to make the sessions and materials even better. And our **students loved it** - we got **wonderful feedback**!'*

*'The **collegiality** and **flexibility** the unit has provided.'*



# What works based on our evaluation results?





## (Re)learnings

1. The literacies embedded may slide along a continuum from general principles to specific genres, depending on what the students need at strategic points in time.
2. LMS resources are highly reusable and recyclable across semesters and subjects, but establishing and maintaining good relationships tends to be key in this reusing and recycling.
3. Generative AI could provide a great entry point into new subjects and could be used to discuss discipline-specific expectations and genres in depth.
4. Getting academics and students to collaborate on preparing/delivering a resource/service by providing discipline-specific advice and exemplars is one of the most effective and enjoyable embedding methods.





## Future work

- Continue to make academic literacy needs **visible** to academics and the institution
- Increase a **reading** focus: both reading to read and reading to write (academic socialisation)
- Advocate academic literacies as an **integral part** of disciplinary teaching and learning
- Adopt an inclusive **English as an International Language** discourse in embedding work
- Strengthen **psychological flexibility** to keep moving towards these values.



## Discussion

- What have you learned about embedding academic literacy into the curriculum this year?
- What is a dance you've had this year that you're proud of? If this metaphor doesn't resonate, use your own metaphor or words to describe your experience.
- What would you like to continue doing or change in your approach to embedding next year?