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Integrated academic literacy development: Learner-teacher autonomy for MELTing the barriers

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Keywords

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Introduction

Effective and continuing development of tertiary students' academic literacy during their undergraduate years has become a crucial issue for anglophone universities into the 21st century. There is widespread consensus across Australian universities on an overriding need for students to graduate with a broad range of communication skills for employability. Communication skills are listed in the public Graduate Attributes statements of all Australian universities as one of the characteristics to be developed by undergraduate students, and much effort has been expended in mapping curriculum integration of graduate attributes into core discipline curricula (Barrie, Hughes & Smith 2009; Oliver 2013). A recent report found that while communication skills were among the three highest-ranked by industries, these remained 'in most short supply' (DeakinCo 2017).

While there is widespread consensus about the need for students to graduate as competent 'communicators', there is still little agreement as to how, when and where the specific aspects of language and literacy required in tertiary study should be developed. The lack of effective and concerted institutional strategies to cater for the diversity of students' literacy and learning requirements has hindered progress in Australian universities, as in those of other anglophone countries, towards providing equitable opportunities and outcomes (Arkoudis 2014; Northedge 2003; Wingate 2015).

Remedial 'study skills' strategies that have been provided in Australian learning support centres since the 1980s (Chanock 2011) have long been found to be ineffective in the context of widening participation in higher education and the growing student diversity in English-medium universities. Remedial models have not only been found inadequate, as they have not always reached those students who most needed additional support, but a 'skills' focus has also been identified as 'trivialising' the complex processes of academic language and literacy development (Wingate 2006). Higher education research has instead called for discipline-embedded and curriculum-integrated approaches on the principle that genuine inclusivity would require the learning needs of *all* students to be addressed in discipline course curricula, as learners find their way into the epistemologies, the ways of thinking and knowing, of their disciplines.

Recommendations of studies that have been funded through the Australian Learning and Teaching Council and the Office for Learning and Teaching have echoed calls for the integration of academic literacy and English language proficiency (Arkoudis et al. 2014). However, while increasing numbers of reports are appearing in the literature describing collaborative approaches between discipline experts and literacy specialists (e.g., Arkoudis 2014; Briguglio 2014; Drury & Mort 2012; Hunter & Tse 2013; Purser et al. 2008), conflicting institutional as well as personal priorities and beliefs have presented barriers to widespread and sustained acceptance of curriculum integration.

A major barrier to acceptance of the concept of curriculum-integrated literacy has been the 'invisibility' of language (Coffin & Donohue 2014), meaning that its development as part of content learning is often taken as self-evident, and is assumed to occur naturally, simply as a result of learning. From this perspective, the learning of language and the learning of content are seen as two separate issues, and discipline academics with this view can be reluctant to sacrifice classroom time to 'the teaching of writing' (Wingate 2012). Students, especially those who are native English speakers, are often unaware that they need to develop their communication skills (Arkoudis 2014). In this, they betray a belief that academic literacy comes naturally to proficient speakers of

English, which may therefore cause resentment at the diversion of class time from content learning to a language focus. From an institutional perspective, financial considerations are likely to predominate. Collaboration between a discipline lecturer and language specialist is resource-intensive. The cost of programs that require sustained or repetitive collaborations would therefore constitute a major barrier to large-scale implementation across a discipline, faculty or institution, and be considered incompatible with the university's other priorities.

Overcoming the Barriers with MELT

My personal interest in academic literacy is based on my experience of two decades as an academic developer for staff and students, and earlier employment as a lecturer in German language and literature and English as a second language. The question for me as academic staff developer was how to overcome these barriers to curriculum-integration, that is, how to gain acceptance by students, academics and the institution, that their own priorities would be served by the integration of academic literacy. I had formed the view that to be sustainable, an integrated approach would need to start *small*, be *simple* and include the explicit aim of learner and teacher *autonomy*, that is, have the potential for learners to make the literacy development strategy their own, develop it further within their current course and apply it to different contexts (Willison, Sabir & Thomas 2017).

I drew on my earlier experience as academic language and learning adviser where I developed a self-help genre analysis approach by which students learnt a strategy for 'harvesting' discipline-specific language from their readings for re-use in their own written assignments. Autonomy is the foundation for this tool, which is designed to set learners on a path of Accelerating (their own) Academic Literacy Development (AALD; McGowan 2017). The subject of my current research is the case of a STEM (Sciences Technology Engineering & Mathematics) lecturer who successfully integrated the AALD strategy, with my collaboration, into a second-year course curriculum. My initial involvement as language specialist was relatively small, the tool was simple to understand and apply, and the lecturer independently maintained and developed her use of the AALD within the same course curriculum for three further years. She also ensured that the integration would be continued when she took leave.

Reading was the key for the AALD self-help tool for academic writing development. The strategy depended on discipline-specific academic readings that could serve as models for assignment writing. Students were shown how to analyse an article for its overall structure, ways of citing, and aspects of language usage to employ as a model for their own writing. Because of the AALD specification that the academic journal articles should be discipline-specific, the students' attention could remain fixed on course content, even while their specific focus was being directed to the structure, language and citation codes in which that content was being communicated.

In this paper, the AALD approach to curriculum integration of academic literacy development is demonstrated by two Models of Engaged Learning and Teaching (MELT 2017) that were derived from the Research Skill Development framework (Willison & O'Regan 2006/2018; see the first article in this issue). The first model visualises the conceptual basis for the AALD as an academic literacy development tool for novice writers, while the second demonstrates the phases of a learner's progress from being dependent on direction and guidance to becoming an independent user of the self-help tool for Accelerating Academic Literacy Development in learning and teaching.

The purpose of this paper is to describe the self-help approach of the AALD learning tool, and an

associated AALD pedagogy, and to suggest how the aspect of learner and teacher autonomy might contribute to overcoming some current barriers to the integration of academic literacy into mainstream curricula. My aim in promoting the AALD strategy is to contribute towards improved access for all students to the learning of discipline-based language and content knowledge, their development of scholarly writing for avoiding inadvertent plagiarism, and the ability to develop and adapt their graduate communication skills to workplace contexts.

Academic Literacy Development

The term ‘literacy’, or being literate, derived from the Latin ‘littera’, a letter of the alphabet, denotes the ability to read and write, or the state of being educated (The Macquarie Dictionary 1991). Literacy has long been synonymous with learnedness, as the mark of an educated, knowledgeable, cultured person. Academic literacy ‘support’, however, has been associated with literacy in the narrower sense of fostering a command of correct grammar, spelling and punctuation, and the ability to write competent essays. A more broadly-based understanding of academic literacy that embraces multiple academic contexts is ‘the ability to communicate competently in an academic discourse community’ (Wingate 2015, p. 6). This definition presupposes, for an anglophone university, a proficient command of the English language, and extends beyond the essay writing and citing conventions that have been commonly taught as ‘academic literacy skills’ in Academic Language and Learning (ALL) support services (Chanock 2011). Academic literacy is increasingly viewed as situated in a disciplinary context, and to be ‘academically literate’, as formulated by Wingate (2015), requires not only linguistic proficiency, but also:

(1) an understanding of the discipline’s epistemology – the ways in which subject knowledge is created and communicated, (2) an understanding of the sociological context, i.e. the status of the participants and the purpose of the interactions occurring in the community, and (3) a command of the conventions and norms that regulate these interactions (Wingate 2015, p. 7).

Academic literacy development therefore means becoming familiar with the genres of specific disciplines, the structures, language patterns and conventions of texts, whether written or oral, by which the experts of that discipline communicate their knowledge.

Language-Based Theory of Learning

In Halliday’s language-based theory of learning, discipline knowledge is communicated as ‘written language’ (Halliday 1993). Unlike ‘spoken language’, which is learnt naturally in the process of constructing meanings in interactive contexts, written language is a constructed form and is learnt as a ‘second language’. Although spoken language can be put into writing, and written language can be spoken or read aloud, the usage here refers to fundamental differences, not only in the manner of communicating, but also in the kinds of knowledge that are able to be communicated in each mode.

The ‘spoken’ form of language relates knowledge in terms of experiences, while the ‘written’ form deals in abstract technical terms and nominalised scientific concepts that can build on each other and move ever further away from experiences of everyday reality. In Halliday’s words: ‘writing is

learnt as a second order system, with symbols standing for other symbols' (Halliday 1993, p. 109). Knowledge that is conceptual often has no counterpart in lived reality and is therefore said to 'exist' only in language. This reasoning underlies the language-based theory of learning which is conceived as a threefold formulation of 'learning language, learning through language, learning about language' (Halliday 1993, p. 113).

Academic Discourse Communities – Knowledge Communities

From a sociocultural perspective, language is a social form of meaning-making (Halliday & Hasan 1985; Lave & Wenger 1991; Vygotsky 1934/1986). Northedge (2003) refers to an academic discipline as a 'knowledge community', that is: 'a discourse community' whose members communicate in a style that is 'highly focused, analytical and critical' (Northedge 2003, p. 19). The language of communication within a knowledge community is of the 'written' form. Novice learners are admitted into their discipline as apprentices, or 'peripherally legitimate' participants (Lave & Wenger 1991). They are inductees into the knowledge community while learning the 'code' of their discipline (Maton et al. 2015). Learners gradually adopt this code by reading academic texts and writing university assignments. By engaging with these practices, they may progress from 'peripheral participant' status, in the early years of study, towards full or 'legitimate' membership of that discipline towards the end of their degree course or at the level of a higher degree.

Issue for all Novice Learners

As many international students who are non-native English speakers may begin their Australian degree programs with a very basic English proficiency level (Arkoudis & Doughney 2014), they must continue to develop their own English language fluency. However, as novice learners in different discourse communities, they have the additional task of learning to read and write in the language of their disciplines. But in this, they are not alone. For native English speakers, from the perspective of Halliday's 1993 language-based theory of learning, the written language can be regarded as a 'second language' which is generally not learnt until the start of primary schooling, but then continues to develop throughout all stages of schooling and into adult life. The 'first language', or 'mother tongue' is spoken language, that develops in early childhood in the process of 'meaning-making' in an environment that is rich with models of spoken language to draw upon and imitate (Hasan 1994, p. 308). When parents or carers react to their children's attempts at meaning-making, the adults' responses can act as feedback, thus providing opportunities for the young learners to appropriate new words and syntax. By mimicking what they hear, they then further develop the meanings they are trying to share.

The development of written language for communicating in a particular discipline at university requires a parallel environment to that for spoken language development. The academic learning environment needs to contain plentiful models of written language on which learners can draw. It needs to afford opportunities for learners to practise writing for communicating their conceptual understandings of course content. As for spoken language development, the environment for written language development also needs to provide space and time for learners to receive formative feedback on their progress, and experience opportunities to modify and improve the effectiveness of their written communication.

Reading for Modelling Writing

In primary and secondary schooling contexts, reading is the means by which writing is modelled

(Martin 2009; Rose & Martin 2012). At university, readings that would be appropriate models for scholarly writing are also readily available. Discipline experts communicate with each other in journal articles. However, learning to read journal articles means ‘unpacking’ often densely-packed writing that is heavy with nominalisations (Martin 1993; Ventola 1996). The process of unpacking specialist texts can be laborious and time-consuming. It is often too difficult for novice learners, without some initial guidance in translating the nominalisations, to clarify their meaning, into the ‘spoken’ form of language used in everyday communication. However, the language of lectures, slide presentations and handouts, by which learners are introduced to discipline content, tends to be that of ‘didactic’ genres. These texts are unsuitable as models for scholarly writing, precisely because they are written in a more spoken, everyday style, and also because they do not follow the citing conventions that students must use in their writing. It therefore stands to reason that students be guided into reading academic articles and have opportunities to imitate the writings of discipline experts, receive feedback, and learn from their errors in a safe environment.

Avoiding Plagiarism by Achieving Scholarly Writing

A safe learning environment can be created if curriculum space is made for inducting neophytes into strategies for reading academic texts for the purpose of developing discipline-specific scholarly writing practices. If academic readings are neither specified nor developed in the learning, teaching and assessment processes of higher education curricula, novice learners are deprived of models for the literacy ‘code’ and scholarly citing conventions that are required to be used in their assignments. Yet at the same time, in order to avoid inadvertent plagiarism, students are expected to provide ‘proper acknowledgment’ of source texts from the very start of their studies. They are, in effect, expected to be competent in the written language and norms of scholarship that they have yet to learn.

This anomaly, where neophytes are expected to begin their studies as competent in the use of textual ‘codes’ of their disciplines, has been identified by academic learning advisers and researchers who have argued for the separation of unintentional plagiarism from deliberate cheating behaviours. Vardi (2012) highlighted the incongruousness of ‘placing the correct use of referencing conventions within the same moral framework as cheating’ by comparing it with ‘placing the correct use of grammar and punctuation conventions within such a moral framework’ (Vardi 2012, p. 129). Researchers have been warning that a moral dimension to student errors in textual citations can inhibit appropriate educational responses that would promote learners’ understanding of the essence of scholarly endeavour (East 2005; Howard 1999; Horacek 2009; O’Regan 2006; Pecorari 2008). As Blum (2009, p. 169) put it, learners ‘need to be shown how to do what we, their teachers, are asking of them’. Students themselves have made that point in a large Australian online survey (n=15,304), reporting that while they had understood the message of their plagiarism policies, they needed to be taught ‘how to do it properly’ (Bretag et al. 2014, p. 1161).

The AALD is a self-help approach by which students, as budding researchers, can be inducted into the deliberate use of readings so that they can proceed to ‘teach themselves’ how to write and cite ‘properly’ in any given discipline.

Accelerating Academic Literacy Development (AALD)

Research Skill Development and MELT Frameworks

The explicit induction of students into the scholarly ways of university learning was given impetus by the Boyer Commission (1998) with its manifesto ‘reinventing undergraduate education’. This has spawned many initiatives for promoting undergraduate research, including the creation of centres, journals and conferences in the USA, the UK and Australia (Brew 2010). The main emphasis of the activities within these fora has been on opportunities for undergraduate students to engage in ‘doing’ research projects, with little emphasis on the development of the multifaceted skill development required for students becoming researchers.

In contrast, the Research Skill Development (RSD) framework (Willison & O'Regan 2006/2018) describes each of the six facets that comprise the composite skill that a researcher develops. The RSD has been found ‘more effective than mentored undergraduate research’ in promoting undergraduate students’ scholarly writing as, for example, in their capacity to formulate research questions (Willison 2012, pp. 918-9). Importantly from a language-based perspective on learning, the stages of autonomy for the facet ‘*communicate & apply*’ are detailed in terms of progress in the learner’s use of language and genres. The autonomy stage of ‘bounded researching’ represents the point at which students:

use some discipline-specific language and genre to relate their prior and newly developed knowledge to tasks and then to a specified audience.

At the ‘scaffolded’ researching stage, students include the use of ‘some discipline-specific language’. At the ‘open-ended’ stage of autonomy, learners are able to:

choose appropriate language, genre and performance to extend the knowledge of an audience they have selected. Apply the knowledge developed to diverse contexts and specify ethical, cultural, social and team issues in initiating, conducting and communicating. (www.adelaide.edu.au/rsd)

Although the RSD framework is presented in matrix form, it does not represent a hierarchical or obligatory temporal sequence of action. The facets are all inter-related. This characteristic allows for the representation of the facets in a variety of formats. The metamorphosis of the RSD into Models of Engaged Learning and Teaching (MELT 2017; Willison 2018, this issue) has occurred naturally over several years, driven by users who have recognised potential applications for the research skill facets in their own learning-teaching contexts. MELT are powerful representations of the interrelationship of thinking, communicating, learning, teaching and researching (MELT 2017). In this paper, two versions of MELT serve to illustrate the theory and practice of the AALD tool and pedagogy. The models highlight, firstly, the language-based nature of learning, and secondly, the developmental stages of a learner in a particular context, from being dependent on a teacher or guide, to becoming an autonomous user of the AALD, capable of applying it to different contexts and levels of learning.

Addressing Barriers to Curriculum Integration - the AALD Concept

In order to address barriers to curriculum-integration of academic literacy development, I have used the AALD method as a starting point. I had devised the concept initially to help international and local students to augment their vocabulary, and in particular, to identify and imitate the language choices that are typically made by experts of their discipline in academic journal articles. The AALD concept is based on the language theory of Systemic Functional Linguistics (SFL) that posits language as integral to knowledge building (Halliday 1993; 1994; Maton et al. 2015).

The AALD concept was inspired by the SFL-based genre movement of the Sydney School, and in particular of the 'Write it Right' phase of the 1990s (Rose & Martin 2012, ch. 3). Genres that secondary students had to learn to read and write (e.g., 'explanations', 'procedures', 'reports', 'arguments') were named and analysed by linguists, and their structures were described. The writing pedagogy for classroom use was visualised as a 'genre wheel' in three parts, comprising 'deconstruction', 'joint construction' and 'individual construction' of a text (Rose & Martin 2012, p. 66). The focus of genre pedagogy was to empower students by helping them learn the internal structure, or 'stages' of a particular genre, and, in the context of secondary schooling, to produce their own texts in appropriate genre formats (Rose & Martin 2012, p. 130).

In adapting the principles of genre pedagogy for the integration of a language focus into a mainstream tertiary curriculum, two factors were taken into account: that *time* is tight in the contemporary academy, and that, generally speaking, both discipline specialists and their students have tended to be reluctant to engage with literacy in favour of *content*. The development of the detailed pedagogy reported here was an outcome of my collaboration with a STEM lecturer for integrating academic literacy development into her mainstream curriculum. This collaboration forms part of my current ongoing research. Ethics approval was obtained for this research in 2014 from the University of Adelaide's HREC (Human Research Ethics Committee).

In my collaboration with a STEM lecturer, the following procedures for the approach were jointly developed to ensure that the focus on language was conducted seamlessly within content learning:

- It was a minimalist approach, allocating just four one-hour AALD lecture timeslots.
- Student engagement was prompted by an associated assignment, which required their 'individual construction' of a response to the essay topic.
- The objective for students' induction into self-help literacy development was that they perform their own mini analysis, rather than learn the structures of genre templates.
- The practice of 'deconstruction' and 'joint construction' of text was simple and intuitive, and served to reinforce course content rather than divert students' attention from it.
- Students' learning was scaffolded by the opportunity to submit a small homework task for formative feedback after each of the first three sessions.
- Relevance of the AALD workshops to students' learning of content was made explicit in the assignment topic, as it required students to draw on technical content that was introduced in the first four weeks of the course.
- Content relevance was reinforced by ensuring that only those journal articles that were immediately relevant to the course were used for joint classroom genre analyses.

The assignment was a short essay, based on the course content of the first four weeks. It was set at the start of the semester for submission by week 8. The guided introduction into the reading of academic texts served students simultaneously for the learning of discipline content and the

language for writing assignments, and could therefore help students to overcome the barrier of a perceived language-content dichotomy. The minimalist approach and the simplicity of the AALD discourse analysis allayed concerns in relation to time commitment.

The Pentagon Model of the AALD Tool

The pentagon model of the AALD tool (Figure 1; McGowan 2017) is a representation of the centrality of language to the other five facets of learning. The central position of the facet '*communicate & apply*' indicates that communication is part of each of the other five facets of learning. In this case, the learning objective for four interactive lessons is mastery of the tool for accelerating the learning of specific vocabulary, word sequences, sentence structures and discourse patterns, with added attention to the patterns for introducing citations and providing references. 'Communication' in this context is explained as an internal dialogue in which the reader receives the writer's content information and relates it to personal existing knowledge to build new knowledge. For knowledge of suitable language, the learner needs to identify 'common language', that is, items that are content-free and are appropriate for re-use in the learner's particular discipline. I named this process 'harvesting' language (McGowan 2005; 2008).

The steps of learning and applying this process are listed in Figure 1 in a clockwise progression, following the other five MELT facets. The process begins with *clarifying* the learner's purpose, which is to collect a stock of words and grammatical structures from academic articles, and *finding* articles that are appropriate for modelling academic writing. Thereafter, the actions of *evaluating*, *organising* and *analysing* discourse structure and language items that are suitable to be 'harvested' for re-use in the learner's own writing can be repeated in a non-sequential way, as needed. The culmination is returning to the centre to *apply* items that were harvested from the academic readings when writing their own assignments in a scholarly manner.

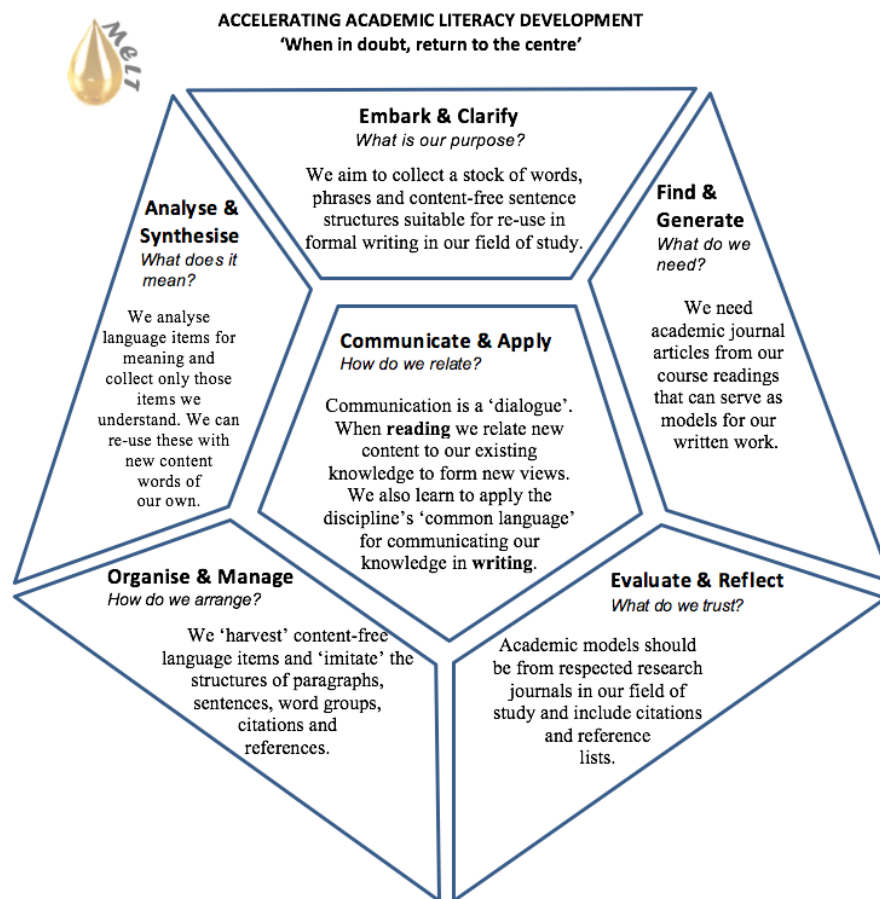


Figure 1. The AALD Pentagon (McGowan 2017) is an adaptation of the Optimising Problem Solving (OPS) MELT framework www.melt.edu.au for visualising the facets of Accelerating Academic Literacy Development, by Ursula McGowan 2017, ursula.mcgowan@adelaide.edu.au

In order to assist learners to overcome other barriers to curriculum-integrated language development, such as 'writing aversion' and lack of motivation, time and self-confidence in relation to academic reading and writing, my collaborator and I agreed on a number of procedural principles. As an introductory approach to language awareness, the language for teaching needed to be simple and delivered with persuasiveness and immediacy. Care was therefore taken to:

- avoid the abstractions of grammatical terminology
- deal with reading material that was relevant to students' content learning
- model ways of extracting the discourse structure and its relationship to the topic
- model ways of extracting grammatical word sequences (that are free of content items)
- model ways of in-text citing and reference list construction, and
- always relate talk about language back to course content and the assignment topic.

In addition, as the lectures were interactive, opportunities were provided in class for students to perform some analysis of their own. Time was allowed for practice, with guidance and feedback, for verifying which aspects of an analysed text could be re-used in students' own writing, without risk of inadvertently plagiarising.

My second MELT model – in the matrix formation of the original RSD framework – represents engagement with the AALD tool and pedagogy as a continuum of increasing Academic Learner and Teacher Autonomy (ALTA; adapted from McGowan 2017) in two versions (Figure 2 & Figure 3).

Academic Learner-Teacher Autonomy (ALTA) Model, Version 1: Students

The potential for students to become independent users of the AALD tool in other higher education courses, or even in the workplace, would depend on the level of their initial engagement in classroom and assessment activities (Figure 2).

The autonomy framework applies both in planning and documenting the learning of the AALD approach through two levels of learner dependence towards the desired level of learner independence. It demonstrates how the pedagogy potentially serves to overcome the barriers of writing aversion, and students' lack of time and low self-confidence in relation to academic reading and writing. Figure 2 outlines the scaffolding process designed for students to develop autonomy, from 'following', to 'improvising', to 'initiating' a harvesting approach for accelerating their own academic language and literacy development.

Academic Learner-Teacher Autonomy (ALTA) Framework:
AALD Tool - Students

MELT facets	FOLLOW bounded	IMPROVISE scaffolded	INITIATE open-ended
Embark & Clarify What is our purpose Find & Generate What do we need?	In class: learners READ academic article: identify role of structures & language	At home: learners individually identify structure & language in OTHER course readings	In various courses: learners find and read context based texts as models for writing in any new CONTEXT
Evaluate & Reflect What do we trust? Organise & Manage How do we arrange?	Interactively learners analyse structures & identify re-usable language items for HARVESTING	Learners PLAN own assignment based on article structure. SUBMIT for formative feedback	Learners EVALUATE relevance of context-specific texts as models for writing in any new context
Analyse & synthesise what does it mean? Communicate & Apply How do we relate?	Interactively learners imitate structures & practise RE-USE of harvested language with their own content	Learners (guided by rubric) apply academic structure and language in ASSIGNMENT for assessment grade & feedback	Learners initiate & autonomously adapt AALD pentagon steps of harvesting from readings for WRITING in any new context

Figure 2. AALD tool: Learner–Teacher Autonomy – scaffolding students.

At the early, 'bounded' stage of autonomy development, learners follow the teacher's directions in an interactive, workshop-style class setting, with opportunities to discuss and practise the processes of analysing different aspects of a model text. The purpose of the workshops is explicitly linked to the written assignment that relates to the content dealt with in the first third of the course. There is therefore an incentive for learners to engage with the course *content* from the start. Learners are also provided with the assignment topic at the start of the course, together with an associated assessment rubric that details the expectations and relative weightings of the

elements of academic writing.

Three voluntary homework tasks - for which feedback is offered by the teacher - represent the 'scaffolded' level of autonomy development. Here, the learners are provided with the opportunity to improvise and apply the analysis of the model texts towards planning their own, individual assignments. The 'open-ended' level of autonomy is achieved if learners have found the 'bounded' classroom activities sufficiently stimulating to undertake the homework tasks, and have experienced some successes at the autonomy level of 'scaffolding', so that they are motivated to attempt an analysis of a different article on their own initiative. It is at this stage that learners can be said to be at the cusp of learner autonomy, meaning that they are ready to become 'their own teacher', and a life-long learner of literacies in any new reading-writing environment.

The simple tasks performed in the interactive sessions have the potential to provide learners with success experiences for building their self-confidence in dealing with language. The AALD sessions are scheduled in the formal course timetable, thus overcoming the barrier of lack of time. The ultimate success for learners would be at the 'open-ended' level of autonomy, when they are confident enough to apply the method independently in a different course or discipline. At this level, learners deliberately accelerate their facility of using academic readings to inform their own discipline-specific writing practice.

Academic Learner-Teacher Autonomy (ALTA) Model, Version 2: Lecturer

The ALTA autonomy framework (McGowan 2017) details strategies that indicate the discipline lecturer's level of autonomy in adopting and maintaining the AALD pedagogy (Figure 3). Parallel to student resistance to engagement with academic literacy, there can also be barriers for academics in terms of lack of motivation, time, or confidence in dealing with matters of literacy. For lecturers to accept a pedagogy for the integration of literacy into the teaching of their discipline content, the approach needed to address a compelling learning objective, be simple enough to implement and show rewards for effort expended.

Discipline lecturers, like students, generally also experience a lack of motivation, confidence or time for engaging with academic literacy, over and above their prime focus on discipline content. By applying the principles of 'constructive alignment' (Biggs 1996) of learning objectives with assessment criteria and teaching-learning activities, the AALD academic literacy intervention needs to be (1) assessed, (2) taught, and therefore (3) stated as a learning-teaching objective for literacy learning outcomes. In this way, the position of academic literacy as an integral part of the learning curriculum is assured.

As the AALD draws on the theory of language as integral to the learning of content (Halliday 1993), it was my expectation that the discipline lecturer would be rewarded with a sense of satisfaction if students' engagement with accelerating their own academic literacy contributed to better content learning outcomes. In my collaboration with the STEM lecturer, this did in fact occur. The lecturer's objective had been to ensure students' engagement with course content from the start of the course, improvement in their planning and writing of assignments, and success in their attempts at appropriate citing and referencing.

Figure 3 demonstrates the development of the lecturer's autonomy from 'following' language specialist advice and teaching, to 'improvising', that is, modifying the approach while maintaining the basic AALD principle of using readings to promote writing.

Academic Learner-Teacher Autonomy (ALTA) Framework:
AALD Pedagogy – Lecturer

MELT facets	FOLLOW bounded	IMPROVISE scaffolded	INITIATE open-ended
Embark & Clarify What is our purpose Find & Generate What do we need?	Literacy: identified by discipline specialist as gap for students & seeks language specialist's collaboration	Continuation: Discipline specialist repeats AALD workshops – minimal request for further support	Transfer: discipline specialist uses AALD pedagogy and handouts as models for similar courses in similar contexts
Evaluate & Reflect What do we trust? Organise & Manage How do we arrange?	Adoption of AALD innovation: times for workshop, learning objectives & assessment in alignment	Modification of structural aspects of AALD pedagogy in light of constraints	Re-organisation of AALD pedagogy by discipline specialist in continuing or different courses
Analyse & synthesise what does it mean? Communicate & Apply How do we relate?	Co-teaching: between discipline & language specialists; grades & feedback for assignment	Adaptation of workshops in light of students' engagement & learning outcomes	Scalability: Discipline specialist autonomously inducts colleagues into AALD pedagogy

Figure 3. AALD pedagogy: Learner–Teacher Autonomy – Lecturer.

At the bounded stage on the autonomy scale, the discipline specialist is in the role of 'following' the method as presented by the adviser. In our collaboration, the lesson plans and worksheets were my task, and I also took the lead in the four interactive class sessions. However, the STEM lecturer was deeply engaged with the process from the start, and was clearly operating at the scaffolded level. It was the lecturer's decision to schedule the workshop times uncompromisingly as part of the regular course timetable, to set an assignment, prepare an assessment rubric, take a co-teaching role, and to give formative and summative feedback on homework tasks and the final assignment. The role of the assignment, which was valued at a substantial percentage of the semester's assessment, was not only to engage students with course content at the very start of the course, but also to demonstrate to students the high value placed by the lecturer on their application of the discipline's basic discourse features in producing a scholarly piece of writing of their own.

At the scaffolded level, the discipline specialist repeats the AALD sessions without explicit involvement by the adviser, although there may be occasional contact for clarification. After our collaboration, the STEM lecturer used the processes and worksheets to continue the curriculum-integration of the AALD approach in successive years of the same course. The lecturer autonomously modified aspects of the original processes, adapting them in the light of students' engagement and learning outcomes and newly evolving constraints, such as increasing class sizes. *At the open-ended level of autonomy, the lecturer would be prepared to initiate her own version of AALD worksheets and teaching strategies in different course curricula.*

In the event, my collaboration and co-teaching with the STEM lecturer was not a one-way process; it was a mutual learning experience. Each party learnt from the other regarding issues to be addressed, selecting appropriate source material as models for students' academic writing, constructing and teaching with worksheets based on the chosen texts, setting the assignment task and designing a rubric of assessment criteria. The same applied to co-teaching, where discipline and language specialist alternately dealt with issues of language and content, enabling both of us to witness the interrelationship of language and content in practice.

Discussion and Conclusion

The AALD self-help tool was the cornerstone for the success of a STEM lecturer's collaboration with a linguistic adviser, that led to the sustained integration of an academic literacy innovation into a semester-length undergraduate course at an Australian university. It was the existence of the tool for 'harvesting' the language and discourse structure from model texts, which could be learnt and taught without a need to engage with linguistic meta-language, that provided the STEM teacher with the confidence to adopt and maintain the innovation. It removed a sense of uncertainty in dealing with linguistic matters that has been one of the causes of student and staff resistance to a language focus in discipline curricula. Moreover, as a key characteristic for the AALD was the use of course-specific readings to model students' writing development, one of its potential advantages has been, in fact, to raise students' understanding of the technical course content. This is because academic reading and writing are learned skills that demand and provide deeper understanding not only of syntactic features but also of the content itself.

The other key characteristic that distinguishes this tool and the associated pedagogy from many other academic literacy innovations reported in the literature is the explicit inclusion of learner and teacher autonomy in the processes it describes. The implication for students' literacy development is that their learning focus can remain fixed on their content knowledge, while they *deliberately* accelerate the appropriation of elements of the discipline discourse that might otherwise appear to occur *intuitively*, but only after much reading over a long period of time. The AALD tool therefore has the potential to raise learner and teacher awareness that the process of 'harvesting' may be applied in any other situation where examples of communication strategies are available as models. Thus, for undergraduate students, the initial focus on *academic* literacy development, for the purpose of improving content learning and writing with scholarly integrity, could equally become the strategy for a graduate's *workplace* literacy development. Similarly, for the lecturer, the principles of the AALD pedagogy (McGowan 2017), developed in collaboration with the language adviser, are potentially capable of being re-purposed with different model texts in different courses or across disciplines.

Current barriers to the sustained and large-scale integration of academic literacy development into mainstream curricula are addressed by the AALD tool and pedagogy (McGowan 2017), on the individual level of students and staff who prioritise content over language learning, as well as institutionally in terms of financial considerations. At the institutional level, the possibility of achieving a significant step towards teacher autonomy within one semester of collaboration suggests that the AALD approach could be made self-sustaining and financially viable with some just-in-time support available through designated academic literacy and learning specialists. At the individual level, the barrier of staff and students' lack of motivation, time, and confidence in dealing with language as an additional issue is overcome by the practical realisation of the language-based theory of learning, which is the basis of the simultaneous, integrated development of language and content knowledge.

The AALD innovation as described here is a viable beginning to overcoming barriers to curriculum integration, because it is small, simple and potentially self-sustaining. However, while the possibility for the AALD to be sustained without continuing collaboration can be demonstrated in an individual set of circumstances, more research is needed. It needs to be established whether the context and conditions in which sustained integration was successful can be replicated, in order that equitable access to academic literacy development along similar lines may become the norm rather than the exception for the diversity of students in higher education of the 21st century.

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