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Designing an EAP curriculum for transfer: A focus on knowledge

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Defined as occurring when "learning in one context or with one set of materials impacts on performance in another context or with another set of materials" (Perkins & Salomon, 1994, p.6452), transfer is a crucial goal for English for Academic Purposes (EAP) provisions in tertiary settings because EAP modules aim to develop students' academic literacy to enable them to meet the linguistic demands of their discipline (Hyland & Hamp-Lyons, 2002). The EAP literature on transfer tends to look at this issue from a psychological perspective, fronting aspects of the learner's attributes (such as motivation and self-efficacy) as the main variables in the transfer equation and often leaving aside the impact content knowledge may have. However, concepts drawn from Legitimation Code Theory (LCT), such as Specialization and Semantics (Maton, 2014b) provide a means to bring knowledge into the analysis of transfer from an EAP module into disciplinary modules. LCT enables the investigation of the organising principles of knowledge practices and as such it allows for an exploration of the constraints to transfer there may be in an EAP curriculum. This paper first problematizes the issue of transfer from a general EAP provision. It then describes the two LCT dimensions, the questions they raise and the solutions they point to. Specialization provides a means to analyse what is valued in the EAP curriculum and what is missing. Semantics, and in particular semantic gravity, can help to view the syllabus items in terms of context-dependency. Examples of implementation are provided.

Key Words: English for Academic Purposes; Transfer; Legitimation Code Theory; Semantic gravity; Specialization codes.

1. Introduction

Defined as occurring when "learning in one context or with one set of materials impacts on performance in another context or with another set of materials" (Perkins & Salomon, 1994, p. 6452), transfer is crucial for English for Academic Purposes (EAP) provisions in tertiary settings because EAP modules aim to develop students' academic literacy to enable them to meet the linguistic demands of their discipline (Hyland & Hamp-Lyons, 2002). Enabling transfer, however, remains a challenge. While transfer is thought to be occuring more easily from an English for Specific Purposes (ESAP) module because the academic literacy skills are taught for a specific disciplinary context, the challenge is significantly more considerable for English for General Purposes (EGAP) provisions which are often delivered as standalone modules to mixed disciplinary groups of students in their first year at university. Yet these EGAP provisions are common in first year university programmes as pre or in-sessional (Gardner, 2016). These general

provisions tend to deliver what has been called a 'common core' curriculum. This, as Jordan (1997) details, includes study skills, language skills (for example, reading skills such as skimming and scanning; listening skills such as note-taking), process writing (brainstorming, outlining, revising a draft) as well as sourcing and citing skills such as paraphrasing and summarizing. However, little is understood about the ways in which an EGAP module can actually help students navigate the complex academic literacy demands in their various disciplinary contexts. This article first provides an overview of studies that have investigated transfer from EGAP modules to show that *knowledge* itself has rarely been explored for its contribution to transfer. Drawing on the concepts of Legitimation Code Theory (LCT), it is argued that knowledge has real impact and that it should be part of a thorough exploration of transfer. Two dimensions, Specialization and Semantics, of the LCT toolkit, are described for the questions they raise for EAP curriculum design and for the solutions they point towards. LCT is being used in EAP teaching (see accounts in Brooke, 2017; Ingold & O'Sullivan, 2017; Kirk, 2017), and in a range of disciplines to shed light on knowledge practices which in turn can provide a basis for selection of items in an EAP syllabus. However, this paper takes a broader analytical and conceptual approach, enacting two dimensions of the LCT framework to conceptualise an EAP curriculum that fosters transfer. The paper will be useful to the EAP practitioner through the description of the way these concepts are implemented in an EGAP module currently run in a large university in Singapore.

2. Transfer from the EAP module: Knowledge as the unknown variable

When related to EAP, in particular a standalone, general EAP module, the concept of transfer is very complex because the contexts where students are expected to transfer their EAP learning are often vastly different from the initial one (where EAP instruction takes place), invoking what has been termed, from an educational psychology perspective, *far* and *high-road* transfer (Salomon & Perkins, 1989). Far/near transfer describes the similarity or difference across the initial learning context and the context where the knowledge and skills are to be applied. High-road transfer, in contrast to low-road transfer, requires learners to make mindful abstractions of knowledge items in order to use them in the new context. Gardner & Nesi (2013), in their analysis of the BAWE corpus, have identified 13 genre families that the various disciplines rely on to create, share and evaluate knowledge. These genre families include case studies, design specifications, literature surveys, explanations, essays and proposals (Nesi & Gardner, 2012, p. 258). The purpose of each of these genre families has direct implications on the choices the writer makes at the text structure and lexicogrammatical levels (Coffin & Donohue, 2014). Research has also shown that competence in academic discourse requires an understanding of the specific disciplinary epistemological underpinnings, its social-cultural contexts and practices (Street & Lea, 1998), and discourse conventions (Hyland & Tse, 2009; Nesi & Gardner, 2012). A typical group of students taking the EGAP module described in this article consists of about 18 students ranging from Engineering, Chemistry, Computing, Business, Life Science, Maths and a few disciplines in Social Sciences, eliciting very different needs. Designing an EAP curriculum which promotes transfer to these varied contexts represents therefore an undeniable challenge.

This complexity perhaps goes some way to explain why the literature on EAP transfer is limited. Some studies have attempted to measure the impact of EAP quantitatively, using tests such as IELTS to show progression in language ability. Archibald (2001) for example, using pre and post intervention IELTS written tests, found that overall structure and argumentation were better managed after EAP instruction. Storch & Tapper (2009) found that academic vocabulary and structure in postgraduate writing improved after an EAP intervention. However, these studies are usually concerned only with the *immediate* impact of the EAP module on the students' general linguistic performance and measure this impact in the *same* context (the IELTS writing test in the Archibald study), and so the question of 'transfer', or how students use their EAP knowledge in a disciplinary context is eluded. Studies that do focus on the impact of EAP instruction in a disciplinary context are rare and are often solely concerned with students' perceptions of this impact.

Terraschke and Wahid (2011) for example, compared a group of students who had taken an EAP program with a group who had not and found that EAP students seemed better equipped with study skills and an understanding about their course requirements. In an Australian university, Dooey (2010) analysed foreign students' perception of the usefulness of an EAP module showing that students felt better prepared for academic writing in their studies (especially with regards to language-related academic skills such as referencing conventions and academic style). James (2006) found that engineering students reported transferring academic language skills such as listening and speaking, study skills and affective outcomes to their disciplines. In his study of 40 EAP students' levels of motivation to transfer, James (2012) found that students' attitude to transferring knowledge and skills was positive, but only 5% of the participants made conscious efforts to apply their EAP knowledge and skills to their disciplinary modules, most of them saying that the discipline tasks were too different or that the discipline lecturers did not emphasise the importance of the skills/knowledge gained in the EAP module. Students with a high level of self-efficacy were also more likely to deliberately transfer than the self-perceived weaker ones (James, 2012).

These EAP studies tend to describe the concepts of transfer from a psychological perspective, highlighting factors such as individuals' motivation and 'transfer climate' (the perceived support which the new context provides for transfer) as having a strong impact on transfer (James, 2012). Little attention is given to the EAP content knowledge or *what* is taught. In the studies above, the EAP interventions are described in general terms; it is the simple fact of attending an EAP module, regardless of its shape or underpinnings that is taken into account. This state of affairs goes some way to support sociologist of education Karl Maton's grievance about what he terms 'knowledge-blindness' (and 'knowledge myopia') in educational studies (Maton, 2014b, p.7). While knowledge is claimed to be at the heart of our modern societies, Maton (p. 2) explains, "what that knowledge is, its forms and its effects, are not part of the analysis. Instead, knowledge is treated as having no inner structures with properties, powers and tendencies of their own, as if all forms of knowledge are identical, homogeneous and neutral". Maton's Legitimation Code Theory (LCT) is a Social Realist school of thought which has decried the negative impact of this knowledge blindness not only on research but also on pedagogies and curriculum (Wheelahan, 2010). Recently, the concept of transfer, termed 'cumulative learning' (Maton, 2009, 2013) has been revisited through the social realist lens, focusing on the knowledge practices that may constrain or enable transfer. The way LCT develops our understanding of transfer with its focus on knowledge is explained below and put into relation with an EGAP provision.

3. LCT dimensions for EAP and transfer: Bringing knowledge into focus

Legitimation Code Theory is a sociological toolkit, rooted in, among other influences, Bernstein's knowledge structures theorization (Bernstein, 1999). Part of a broad social realist approach which sees knowledge as both socially produced and 'real' (Maton & Moore, 2010), in other words, as having concrete impact and consequences (on learning outcomes for example), LCT aims to provide concrete tools to research and to change educational practices by investigating the underlying codes that are at the heart of what is considered 'legitimate' in knowledge practices across institutions and disciplines (Maton, 2014b). In LCT, the concept of transfer is referred to as 'cumulative learning'(Maton, 2009) and is defined as the degree to which "students can transfer knowledge across contexts and build their knowledge over time" (Maton, 2009, p. 1). Cumulative learning is therefore likened to Salomon and Perkin's high-road transfer (Maton, 2009). This is contrasted with 'segmented learning' where students learn items or skills that are strongly linked to the context and cannot easily be applied elsewhere. Two LCT dimensions are key to our understanding of transfer: Specialization and Semantics.

3.1. Specialization codes

Specialization refers to LCT's conceptualisation of the nature and the structure of knowledge in the disciplines (Maton, 2014b). In particular, specialization distinguishes between epistemic relations (ER) and social relations (SR). ER is the relation between knowledge claims and the object/focus- *what* can legitimately be claimed as knowledge and SR is the relation between knowledge claims and 'who' is making them- *who* can claim to be a legitimate knower (Maton, 2014b, p.29). Specialization therefore analyses 'what' or 'who' is viewed as 'legitimate' in various disciplines. From these relations, specialization codes have been generated: some disciplines can be classified as '*knowledge code*' (where the legitimacy comes from the knowledge itself and the knower carries less significance), '*knower code*' (where the attributes of the knower are more powerful in establishing legitimacy) as well as '*élite code*' (where legitimacy comes from both knowledge and knower's attributes) and finally '*relativist code*' (where legitimation comes from neither knower nor knowledge) (Van Krieken et al., 2013). Specialization analysis of disciplines can show a code characterisation. Maton and Howard (2016) explored students' perceptions of the basis of achievements in a range of disciplines, finding that Music is perceived as an élite code, while English literature is strongly in the knower quadrant, Natural Sciences being perceived as a knowledge code. In some disciplines, it is the tension within the field which can be highlighted by a Specialization analysis. In Design studies, for example, Carvalho, Dong and Maton (2009) showed that Engineering designers emphasised and valued technical knowledge (ER+) over the knower's attributes (SR-). In fashion designers' discourse, on the other hand, it was the designer's aptitudes and dispositions, intuition and sensibility, which mattered over their technical knowledge, exhibiting a knower code. In the same study, Architect designers viewed their discipline as necessitating both technical knowledge and imagination, characteristic of an élite code.

The specialization codes can be charted on a Cartesian plane, giving the 4 quadrants shown in figure 1.
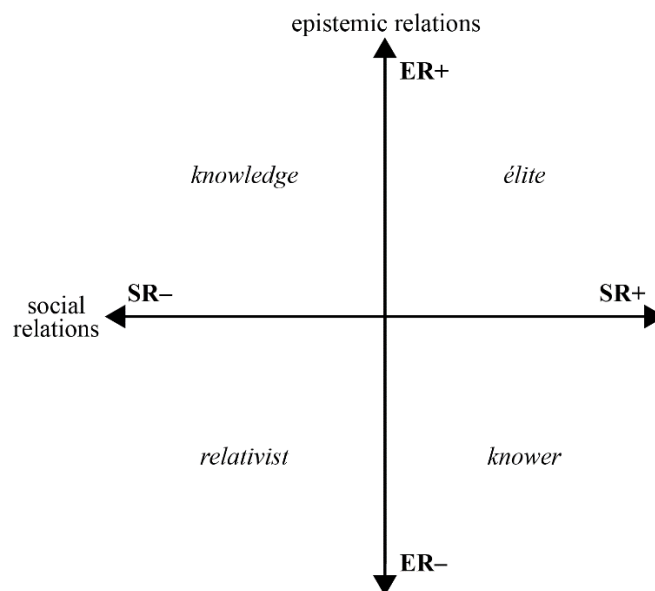

Figure 1. The specialization plane. From *Knowledge and knowers. Towards a realist sociology of education* (p. 30), by K. Maton, 2014, Abingdon: Routledge. Copyright 2014 by Routledge. Reproduced with permission.

For the EAP practitioner, this is important because 'high road' transfer is linked to knowledge codes: a clear articulation of knowledge in a curriculum (stronger epistemic relations) is more

likely to create the opportunity for cumulative learning. For Maton, cumulative learning is promoted by disciplines where knowledge is emphasized and may be constrained by educational practices where knowledge is downplayed and where the basis for achievement is less visible to the learners (Maton, 2014a). Disciplines where the 'knower' is emphasised may lead to fragmented learning if the basis for achievement is implicit.

This then raises important questions for EAP: Where would the EGAP curriculum be situated on the specialization plane? And more importantly, what can be done to shift the EGAP curriculum towards a more knowledge-oriented provision, therefore promoting the opportunities for transfer?

3.1.1. Where would the 'EGAP' curriculum be plotted in the Specialization Cartesian plane?

With this question, we are trying to analyse how epistemic relations (ER) and social relations (SR) are managed in the TEAP (teaching of EAP) field. A first survey of the field of EAP reveals a series of debates about what EAP is, including whether it is even a discipline. TEAP is a field of struggles, characterised by an accumulation of segmented, sometimes opposed approaches to curriculum and syllabus design. Debates, for example, have concerned whether the focus of study should be skills, texts or practices (Hyland, 2006) and whether these should be disciplinary-specific or general (Flowerdew & Peacock, 2001). These various approaches do not simply reflect a historical development but also a disagreement over what EAP is and what constitutes legitimate knowledge to be included in a curriculum.

Beyond the proliferation of approaches, a significant indication of weaker epistemic relations is the lack of theorization that characterizes many EAP provisions. Hyland observed in 2006 that "many EAP courses still lack a theoretical or research rationale and textbooks too often continue to depend on the writer's experience and intuition rather than on systematic research" (Hyland, 2006, p. 5). The BALEAP framework of Accreditation shows an attempt to address this and indeed, there are attempts in various locations to strengthen epistemic relations in both curriculum design and in teacher training (Ding & Bruce, 2017). Yet, the extent to which EAP practitioners ground their practices in theory remains unclear (Cowley-Haselden & Monbec, forthcoming; Ding & Bruce, 2017). Ding and Bruce (2017, p. 151), for example, observe that 'whilst the hostility of practitioners to theory may not be, and is unlikely to be, universal, it does suggest that the relationship might be dysfunctional'.

Weaker epistemic relations are also particularly noticeable when it comes to knowledge about language (KAL), another topic of lively debate in the field. In the EAP common core syllabus, knowledge about language can often be confined to the editing part of the writing process and tends to lean on a formal conception of language as a series of rules which the learners should apply accurately. Language as a meaning-making resource and its role in learning the disciplinary knowledge is often ignored (Coffin, 2010). It is argued that this lack of focus on a functional knowledge about language in some EAP curricula constitutes a form of knowledge-blindness which can have significant impact on learning outcomes. The lack of an explicit and visible knowledge of the way language is used in disciplinary meaning-making hides the basis for achievements and may be a missed opportunity in terms of transfer from the EAP module.

While ER seem to be weaker, SR are often emphasised. English at school has been analysed as exhibiting strong social relations where the knower's opinion is key (Maton, 2014b). Aligning with the wider field of English teaching, some EAP practitioners emphasise the knower, describing EAP as an intuitive practice (Cowley-Haselden & Monbec, forthcoming). The characterisation of the legitimate knower in the TEAP field is also worth investigating. With admittedly less currency than in previous decades, the ideal knower in EAP has often been a Native Speaker of English. Current EAP teaching positions in some parts of the world still place 'native speaker' in their requirements, while the educational level and type is less of a matter (*any* degree is acceptable in some job adverts). George Braine warned of this emphasis on the knower's attributes when

describing the Native English Teaching programmes in Japan and Hong Kong: "These programmes have been strongly criticised for preserving the legitimacy of a special type of knower and locking both the non-legitimate knower as well as knowledge out' (Braine, 1999). It has also been found that non-native English speaking EAP teachers tend to face issues of 'credibility'(Thomas, 1999). The reluctance to engage with theory and the characterisation of the EAP teaching as a non-theoretical, intuition-driven endeavour, a practical skill, also highlights orientation towards SR in some EAP practitioners (Cowley-Haselden & Monbec, forthcoming).

Admittedly, with each setting, curriculum, syllabus and enactment of this syllabus, the place on the specialization plane is likely to shift. However, the above elements of characterisation of the EAP field tend to indicate a knower code.

3.1.2. What can be done to shift the EGAP curriculum towards a more knowledge-oriented provision?

Ding and Bruce (2017) have argued that the EAP knowledge base should include expertise in methods of enquiry to analyse academic practices in the disciplines (such as ethnography) and an expertise in the various theoretical analytical tools to investigate discourse of the disciplines. They highlight, in particular, Genre Theory, Corpus Linguistics, Academic Literacies and key elements of Systemic Functional Linguistics (SFL) as crucial.

For School English, in the Australian context, strengthening of epistemic relations has been achieved by making knowledge about language explicit and by adopting a systemic functional linguistics informed model which, by making visible the knowledge base through the years of schooling, enables better cumulative learning over the years (Christie & Macken-Horarik, 2011; Macken-Horarik, 2011). For the proponents of this approach, a functional approach to English, based on an SFL language theory and metalanguage, helps build cumulative knowledge of text and systems (Christie & Macken-Horarik, 2007). Systemic functional linguistics/Genre approaches as a way to strengthen epistemic relations is not a new concept; educational linguists in the SFL tradition have advocated for a coherent, visible knowledge of language in all disciplines for decades throughout the years of schooling (Christie & Derewianka, 2008; Martin & Rose, 2005; Rothery, 1996). Recently, at the tertiary level, approaches grounded in SFL/Genre that explicitly bring to students' consciousness the way language enables meaning-making in the disciplines have also been developed (Coffin & Donohue, 2014; Dreyfus, Humphrey, Mahboob, & Martin, 2016).

To conclude this first section, an analysis of the field of EAP and of the EGAP curriculum through the LCT specialization dimension can highlight some significant constraints for cumulative learning. This article argues that, while LCT shines a light on the weak epistemic relations characteristic of many EGAP provisions, SFL, as a theory of language that describes language as a context-dependent meaning-making resource can be called upon to boost epistemic relations, contributing an explicit knowledge about the ways language is used in academic contexts into EAP curriculum which can be transferred to various disciplines. For the practitioner, a first step is to analyse the extent to which the curriculum is theoretically grounded, and provides a coherent progression, especially in terms of knowledge about language (including genre and academic linguistic features) which can enable students to become aware of their disciplinary discourse specificities. The rich SFL research into academic and disciplinary discourse has described the linguistic resources that academic meaning-making leans on in various disciplines. These are resources that students need to express 'the high levels of abstraction, judgement, evaluation and interpretation' (Coffin and Donohue, 2014, p. 3) required of them at university. Briefly, this KAL may include genre knowledge, a 'staged, goal-oriented social process' (Martin & Rose, 2007, p. 8). Gardner & Nesi (2013) have classified common academic genres across the disciplines according to social purposes and typical structure or stages. A functional KAL useful for academic writing may also include cohesion features (Halliday & Hasan, 2014; Ravelli, 2004). To express the subject matter, the field, the noun group has been described as crucial, the heart of academic writing (Halliday,

2006). The grammar of logical meaning, with among other resources, the system of clause complex, is used to articulate complex and abstract ideas (Eggins, 1994, p. 255). Finally the system of APPRAISAL (Martin & White, 2003, Coffin, 2002) or broadly the language of evaluation maps out the resources university students need to critically engage with their sources and dynamically position their readers in relation to their argument and these sources. This is done through the features of Engagement, which is grammatically realized through *modality* (to express negotiability and probability) and distancing and endorsing features, used to attribute views and judgements to voices/citations other than the writer's (Coffin, 2002). For the purpose of transfer, these meaning-making features constitute a visible, coherent body of knowledge that may transfer across disciplinary boundaries. The functional KAL taught in the EGAP module described in this article is shown in Table 1 below.

3.2. Semantic gravity

The second LCT dimension that directly impacts on cumulative learning is *semantics*. Semantic density (SD) describes 'the degree of condensation of meaning within socio-cultural practices' (Maton, 2014b, p.129). Semantic gravity (SG) refers to the extent to which knowledge and meanings are dependent on context or are decontextualised. This paper uses semantic gravity only to analyse the syllabus in terms of context dependence. Knowledge items that are tied to the context (and cannot be applied to another) are said to exhibit stronger semantic gravity (SG+) and those that are decontextualized, more abstract and generalizable to other contexts are said to show weaker semantic gravity (SG). Maton argues that cumulative learning is constrained by context dependent knowledge, one that exhibits stronger semantic gravity (SG+) and enabled by context-independent knowledge, one that exhibits weaker semantic gravity (SG-). Variation in semantic gravity is envisaged on a continuum. The strengthening or weakening of semantic gravity over time (for example over a lesson, a syllabus, a moment of classroom interaction or a piece of student writing) can be plotted on a graph to show a semantic profile and a semantic range (see Figure 2 Maton, 2016, p.17). The line tracking the variation of semantic gravity across the elements being studied forms semantic waves. When there is no variation, the line is called a semantic high/low flatline.
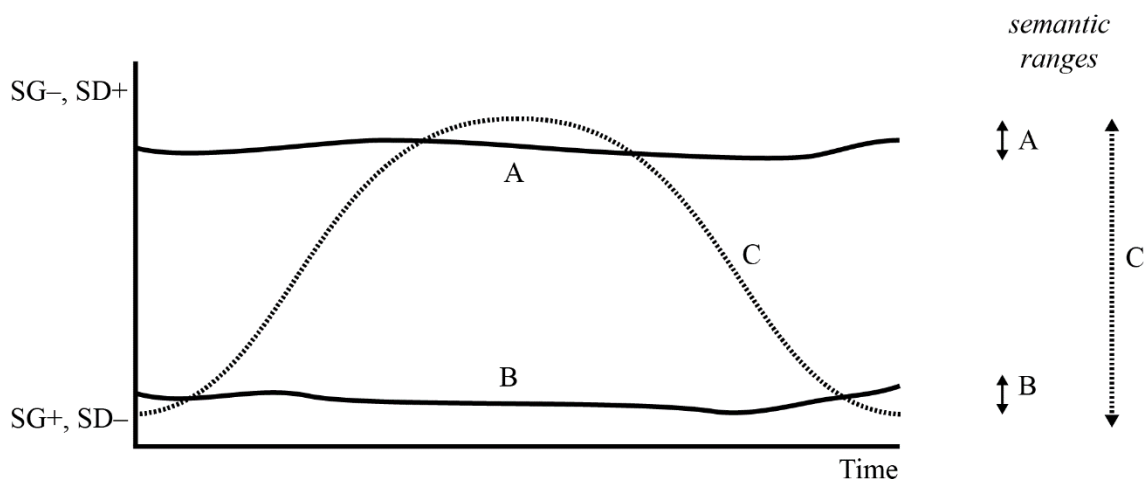

Figure 2. Three semantic profiles. SG = semantic gravity; SD = semantic density; + = stronger; – = weaker. A = high semantic flatline: knowledge and meanings are consistently decontextualized/abstract. B = low semantic flatline: knowledge and meanings are consistently tied to the context. C = semantic wave.
From "Legitimation Code Theory: Building knowledge about knowledge-building," by K. Maton, in K. Maton, S. Hood, and S. Shay (Eds.), *Legitimation Code Theory: Building knowledge about knowledge-building* (p. 17), 2016, London: Routledge. Copyright 2016 by Routledge. Reproduced with permission.

The concept of semantic waves can be applied to the analysis of curriculum structures as well as classroom interaction and students' essays. In recent research, shifts between weaker and stronger semantic gravity have been highlighted as key to cumulative learning which can be constrained if concepts remain closely tied to the immediate context (low semantic flatline) or in the abstract realm (high semantic flatline) (Martin & Maton, 2013; Maton, 2013; Matruglio, Maton, & Martin, 2013). In other words, presenting knowledge at different points on the semantic range continuum may enable learners to practise knowledge in the immediate context and also make connections beyond (Maton, 2014a).

In the teaching of EGAP, semantic gravity can help us revisit the debate over specific and common core/general provisions. Hyland in 2002 expressed the dilemma facing EGAP provisions: "Are there skills and features of language that are transferrable across different disciplines […] or should we focus on the texts, skills and language forms needed by particular learners?" (Hyland, 2002, p.385). This article argues that semantic gravity can be used to bridge over this dichotomy by considering the following questions: "Are the items in an EGAP syllabus exhibiting weak semantic gravity?" and "What knowledge in EAP exhibits the weak semantic gravity which may enable it to travel beyond the confines of the module?"

3.2.1. Are the items in an EGAP syllabus exhibiting weak semantic gravity?

In EGAP provisions, we expect students to apply their EGAP knowledge to a range of disciplinary contexts. EGAP addresses this issue by searching for core knowledge and skills that are considered relevant to any context. A common core curriculum in EAP then assumes that because the syllabus items are not 'disciplinary specific', they are likely to exhibit weak semantic gravity and therefore transfer across contexts. However, this lack of specificity does not necessarily entail that students will transfer this knowledge. In other words, the fact that knowledge items are not disciplinary specific does not mean they are generalizable. In fact, items in the EGAP syllabus might be taught as strongly tied to the EAP module context (SG+) with students never being provided with the opportunity to connect to their disciplinary contexts. This does not suggest that the skills/knowledge approach *cannot* transfer across contexts but that the EGAP syllabus can be tied down by strong semantic gravity, preventing students from seeing the relevance to their own disciplinary needs (Currie, 1999).

The concept of semantic gravity enables us to systematically analyse the EGAP syllabus in order to purposefully weaken the semantic gravity of each and every syllabus item in the pedagogical materials and the classroom activities. More abstract and decontextualized are the elements of knowledge presented in EGAP (principles of text cohesion, for example). These concepts are practised in the written tasks set in the EGAP module. In order to connect back to the abstract, generalizable level, the knowledge is then related to the various disciplines contexts (see Figure 3 for a heuristic of this conceptualisation).
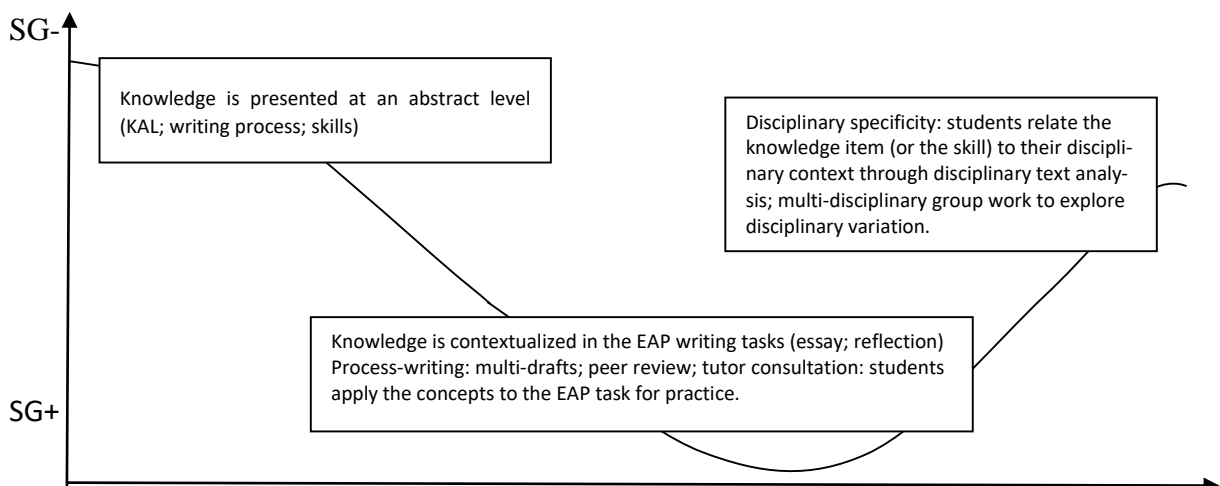

Figure 3. Semantic gravity for the EGAP curriculum.

The semantic wave below (Figure 4) shows how the KAL item 'Thematic progression' can be taught at different semantic gravity strengths to connect the EAP context to future disciplinary contexts. Thematic progression is introduced as a general, abstract principle of information flow. Following a text analysis approach, students explore this concept in an academic text (semantic gravity strengthens with a contextualisation of the concept in a specific text). Students engage with the concept in their EAP writing tasks (which includes peer review, consultations and draft revisions) strengthening the gravity further. At this stage, if no deliberate attempt is made to reconnect to weaker semantic gravity (going up the wave again), some learners may lock this knowledge with the EAP context (the essay written in the EAP module, for example). Therefore, weakening the semantic gravity at this stage (through an activity that sees students analysing their disciplinary texts, for example) may provide an opportunity for transfer to occur. For thematic progression, for example, students are encouraged to observe how their disciplinary texts (as different as a science or engineering lab report, a math proof or a social science essay) organise flow of information. With the SFL KAL, the students are equipped with a theoretical tool to analyse their own disciplinary contexts and discourse.
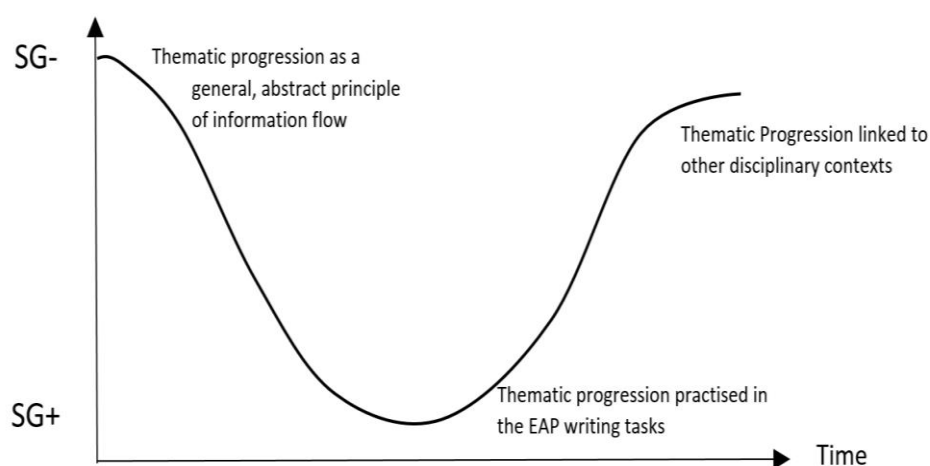

Figure 4. Semantic gravity wave for the teaching of thematic progression.

3.2.2. What knowledge in EAP exhibits the weak semantic gravity which may enable it to travel beyond the confines of the EGAP module?

We draw here again on systemic functional linguistics to analyse the type of knowledge, in this case about language, which exhibits weaker semantic gravity. The reader can consult the following sources for an overview of the theory and detailed accounts of SFL-informed tertiary academic literacy/EAP programmes: The LASS approach (Coffin & Donohue, 2014); and The SLATE Project (Dreyfus et al., 2016). For the purpose of this article, it is sufficient to highlight that systemic functional linguistics is a theory that describes language as a meaning-making resource which users draw on according to the context (Bloor & Bloor, 2003; Halliday & Matthiessen, 2014; Martin, 1992), making it particularly useful for an academic literacy provision concerned with transfer across different disciplinary modules. For EAP practitioners and learners, SFL concepts provide the means to analyse language use in different contexts in a principled way in order to select appropriately from the language system.

At the weakest semantic gravity end of the continuum, then, we could place the simple yet profound premise of systemic functional theory that language is a context-dependent resource. This represents a significant shift in the conception of language in the EGAP curriculum: language can be taught as instantiation. From the types of genres students are required to read and write at university (see the 13 genre families in Nesi and Gardner, 2012) to more delicate levels of lan-

guage, students can learn about common linguistic systems deployed in academic writing (including but not limited to those described in Sub-Section 3.1.2, and shown below in Table 1). Each of these systems can be taught as an abstract principle of academic meaning-making, exemplified in a range of texts, then practised in the EAP writing task the module employs before they are connected to their instantiations, 'the way they behave', in the discipline-specific context.

4. A sample functional KAL syllabus

The selection of knowledge to include in an EGAP module depends on individual contexts. Table 1 below presents a sample functional KAL syllabus which has been used successfully in a large EGAP module offered in Singapore. This KAL syllabus is embedded within a Genre/Process writing approach and represents the knowledge of the main academic meaning-making resources which are taught at both strong and weak semantic gravity in this one-semester, in-sessional module (taught over 48 hours). Language resources are taught around the four metafunctions (textual, experiential, logical and interpersonal). This linguistic knowledge is presented to students as 'toolkits' (after Humphrey, 2017) which have a specific function (shown in the left hand side column), and are used in different ways in various texts and disciplines. Examples are provided in italics in the main column. Throughout the semester, students analyze several texts that exemplify these toolkits in various ways, bringing these resources to visibility for their role in academic meaning-making.

Table 1. Functional Knowledge about Language in an EGAP module.

To create texts that meet the structure expectation and flow logically.	**Textual cohesion** MacroTheme/ macroNew; Hyperthemes/HyperNew • General nouns: *causes, impact, issue…* • Nominalisation: (see below) • Conjunction/linkers: *However, As a result…* Thematic progression patterns (information flow) Cohesion at paragraph level: • Lexical chains: Singapore → *the red dot...* • Referencing pronouns and substitutions: *students → they* • Lexical field/sets (related words): *computers, CPUs, memory chips*
To express the content of your discipline: the technical and abstract concepts as well as the logical links between the concepts.	**Taxonomies** **Expanded noun group** and m**odifiers** • prepositional phrase: *of the auto-immune system* • Adjective • Relative clauses **Nominalisation** (often combined with prepositional phrases) Verb → noun *to expose → exposure* Adjective → noun *complex → complexity*
	Logical links between clauses in complex sentences • Clause complex (sentences with more than one clause) • Time, Manner, Cause, Condition, Concession • Projection

Table 1 continued

To present views persuasively; to show caution and tentativeness when presenting arguments or discussing results; to express a critical stance on external on sources.	**Evaluation/Appraisal**
	
	• Hedging and Modality:
	    Modals: *might, may*
	    Adverbs: *perhaps, probably*; Quantifiers: *some*
	    Verbs: *appear to + V*; Other expressions: *there's a tendency*
	• Reporting structures: *The research report **concludes** [that + SV]. **As Jones (2010) argues**… **According to** Zhang (2009), …*
	• Endorsing and distancing
	    Evaluative reporting verbs: *claim, suggest…*
	    Intensifying/limiting adverbs: *clearly, to a certain extent…*
	    Concessive clauses: *although, while…*

This KAL syllabus is revisited and consolidated throughout the semester in text deconstruction activities (including disciplinary specific), as well as during the process-writing activities (drafting, peer review, feedback and consultations with the tutor). It is argued that such an approach which engages students with knowledge about language at various strengths of semantic gravity may enable them to use this knowledge and see its relevance in their future communication situations.

5. Conclusion

This paper has dealt with two dimensions of the LCT framework: specialization and semantics to re-think the problem of transfer, especially from English for General Academic Purposes provisions. These two dimensions can also be used for what they tell us about the ways disciplines create, recontextualise and evaluate knowledge. A rapidly growing number of studies in a range of discipline from Accountancy to Music and Engineering are providing insights into disciplinary knowledge building. This, in turns, may provide a theoretically sound basis for selecting items to include in the EGAP syllabus. In this article, specialization and semantics were described for the way they can be used to inform the overall EAP curriculum design. First, it has been argued that a comprehensive view of the issue of transfer cannot be satisfactorily obtained without including knowledge itself as a key factor. It has also been argued that some EGAP provisions may downplay knowledge, in particular knowledge about language. It has been suggested that a functional knowledge about language, grounded in systemic functional linguistics, can strengthen the epistemic relations in the module, making knowledge of what successful writers do more visible and explicit to learners. This increased visibility may enable learners to apply this knowledge to other contexts beyond the EAP module. Enacting the dimension of semantics, in particular semantic gravity, has then been used to show how a syllabus can be systematically planned so that items can be taught at various strengths on the Semantic gravity continuum (creating waves for each knowledge items), to avoid fragmented learning. Although this paper is conceptual in nature, examples of how this approach was implemented in an EGAP curriculum design were provided which may be useful for EAP/Academic Literacy programme leaders and practitioners in various contexts. Further research is ongoing to develop a detailed description of a SFL/LCT English for Academic Purposes syllabus, and to evaluate the way this approach impacts transfer from the EAP module to a range of disciplinary contexts.

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