

Threshold Concepts in TESOL: A Thematic Analysis of Disciplinary Guiding Principles

Neil Morgan

Abstract—The notion of *Threshold Concepts* has offered a fertile new perspective on the transformative effects of mastery of particular concepts on student understanding of subject matter and their developing identities as inductees into disciplinary discourse communities. Only by successfully traversing essential knowledge thresholds can neophytes achieve the more sophisticated understandings of subject matter possessed by mature members of a discipline. This paper uses thematic analysis of disciplinary guiding principles to identify nine candidate Threshold Concepts that appear to underpin effective TESOL practice. The relationship between these candidate TESOL Threshold Concepts, TESOL principles, and TESOL instructional techniques appears to be amenable to a schematic representation based on superordinate categories of TESOL practitioner concern and, as such, offers an alternative to the view of Threshold Concepts as a privileged subset of disciplinary core concepts. The paper concludes by exploring the potential of a Threshold Concepts framework to productively inform TESOL initial teacher education (ITE) and in-service education and training (INSET).

Keywords—TESOL, threshold concepts, TESOL principles, TESOL ITE/INSET, community of practice.

I. INTRODUCTION: THE NOTION OF THRESHOLD CONCEPTS

THIS opening section presents and defines the construct of the disciplinary *Threshold Concept*. Following its introduction in the seminal paper by Jan Meyer and Ray Land [1], the notion of *Threshold Concepts* has offered a fertile new perspective on the transformative effects of mastery of particular concepts on student understanding of disciplinary subject matter and their identities as inductees into disciplinary discourse communities. Drawing on Mezirow's [2] earlier work on perspective transformation, the essential idea is that only by successfully traversing key knowledge thresholds can a neophyte gain access to the more sophisticated, qualitatively superior understandings of subject matter possessed by mature members of the discipline in question. Meyer & Land [3, p.3] offer the following definition of a Threshold Concept: "A threshold concept can be considered as akin to a portal, opening up a new and previously inaccessible way of thinking about something. It represents a transformed way of understanding, or interpreting, or viewing something without which the learner cannot progress. As a consequence of comprehending a threshold concept there may thus be a transformed internal view of subject matter, subject landscape, or even world view." The act or process of traversing such thresholds of

disciplinary understanding is additionally seen as constitutive of professional identity, in which connection Meyer et al. [4] maintain that "an ontological shift or change in subjectivity accompanies change in cognitive understanding, often as part of a recognition that such shifts are necessary and appropriate for membership of a given community of practice."

Meyer & Land [3, p.6] posit five principal characteristics of Threshold Concepts. Based on the authors' conclusions, two classes of characteristic may be distinguished: a) the two characteristics that are central and ever-present – namely, the *integrative* and *transformative* nature of Threshold Concepts – and b) the three characteristics – namely, their *irreversible*, *bounded*, and *troublesome* nature – that are perhaps less central, these being prefaced by the authors by the respective qualifiers: 'probably', 'often', and 'potentially'. Taking each characteristic in turn, Threshold Concepts are held to be: *integrative*, in that, by explicitly highlighting that which might previously have remained implicit or hidden, learners are better able to appreciate the often subtle interrelatedness of aspects of subject matter and thereby make valuable and perhaps essential connections between these; *transformative*, in that, once internalized, learners experience a qualitative change not only in their cognitive apprehension of subject matter, but also in affective stance or even subjective identity as inductees into a disciplinary discourse community; *irreversible*, in that, following the all-important qualitative shift in perspective, learners find they have crossed a cognitive Rubicon, as it were, and 'there is no going back' or reverting to the prior state of non- or partial understanding; *bounded*, in that, "any conceptual space will have terminal frontiers, bordering with thresholds into new conceptual areas" [3, p.8]; and *troublesome*, in that, being themselves organizing principles of a different order or demanding prerequisites for subsequent understanding, learners may have difficulty making the associations necessary to ensure a smooth progression through the cognitive terrain of the subject. Within the literature on disciplinary Threshold Concepts, examples regularly quoted as prototypical include: *limit* (Pure Mathematics); *deconstruction* (Literary and Cultural Studies); *opportunity cost* (Economics); *depreciation* (Accountancy); and *deep time* (Geosciences). Such examples are illustrative of the fundamental significance, the far-reaching implications, and the often counter-intuitive character of disciplinary Threshold Concepts, as well as the point that their mastery and internalization effectively demarcates the understandings of mature members of disciplinary discourse communities from those of disciplinary novices.

A review of both the TESOL literature and the literature on

Neil Lloyd Morgan is with Saudi Aramco, Saudi Arabia (e-mail: neil.morgan@aramco.com).

Threshold Concepts indicates that *Threshold Concepts in TESOL* is an area that has not hitherto been the subject of serious, in-depth investigation. In response, this paper addresses the question “What are the candidate Threshold Concepts that underpin – or appear to underpin – effective TESOL practice?” and considers the potential of a) the notion of disciplinary Threshold Concepts and b) the specific candidate TESOL Threshold Concepts identified here to productively inform TESOL ITE and INSET.

II. THRESHOLD CONCEPTS AND THE TESOL ENTERPRISE

TESOL ITE is the initial, formal learning context in which novices are inducted, or enculturated, as it were, into the disciplinary practice of TESOL, and TESOL INSET its counterpart in respect of ongoing professional development. With regard to such Threshold Concepts as might be identified within the field of TESOL, then, it is pre-service and in-service TESOL *instructors* who are the disciplinary learners, and it is they who may stand to benefit by first encountering, and then crossing, these thresholds of disciplinary insight.

The notion of Threshold Concepts was initially associated with the acquisition of discipline-specific knowledge and understanding at a theoretical or declarative level. Questions might therefore arise as to the appropriateness of extending the construct to essentially practical endeavours, such as TESOL, where the concerns of learners – i.e., novice teachers in training – often centre on the procedural application of knowledge, methodology, and the acquisition of a set of interpersonal skills and classroom management techniques. But perhaps it would be a mistake to assume a dichotomy here, for, as Davies [5, p.70] (author’s emphasis) notes, “Ways of *thinking* in a subject necessarily entail particular ways of *practising*.” And Meyer & Land themselves [3, p.15] (emphasis added), in referring to “ways of thinking *and practising* within a discipline”, appear to come close to ruling out the need for or desirability of such a dichotomy. Questions might arise, too, as to the final authority and arbiter where disciplinary Threshold Concept status is concerned. Is disciplinary consensus required? If so, in what degree? Referring to the potential of Threshold Concepts to ‘colonise’ or ‘normalise’ the curriculum, Meyer & Land [3, p.16] (emphasis in original) suggest the presence of a political dimension, such that “‘*whose* threshold concepts?’...becomes a salient question.” Regarding the matter of consensus, Donald [6] notes that: “Scholarly disciplines have been described as communities, networks, or domains with defining modes of enquiry and conceptual structures...Disciplines are defined epistemologically by their distinctive sets of concepts, the logical structure of propositions, the truth criteria by which propositions are assessed, and the methodology employed to produce the propositions.” Both of these aspects, the political and the consensual, may be expected to carry implications, especially in view of the provisional nature – whether acknowledged as such or not – of much disciplinary knowledge.

To the extent that the accumulation of knowledge within a discipline is centripetal, that is, where induction into a

disciplinary community is marked by convergence towards incrementally developed and widely agreed-upon knowledge propositions, the notion of Threshold Concepts – perhaps viewed as a privileged subset of disciplinary core concepts – appears relatively unproblematic. But what of disciplines that are more centrifugal in character, that is, where academic reputations are made by contesting prior knowledge claims; where agreement as to what is to be regarded as ‘core’ or significant is rarer; and where *divergence*, as new territorial ground is continually being staked out in deliberate opposition to existing positions, is the norm? As Widdowson [7] observes, “In the field of EFL/TESOL, there is, it seems to me, a striking absence of cumulative development or intellectual continuity.” Indeed, despite, or, in some cases, because of the findings of its exponential research agenda, Marckwardt’s [8] reference to the “changing winds and shifting sands” of TESOL methodologies appears equally valid today. It may also be noted that, behind the burgeoning applied linguistics research field of *teacher cognition* (see, for example [9]), with its concomitant emphasis on situated approaches to TESOL [10], lies the implication that *it is entirely appropriate* that L2 teachers’ cognitions should be personal constructs, the continually evolving products of a particular constellation of context- (e.g., institutional; learner factors; learning purpose) and person-specific factors, such as teachers’ values, philosophies, and beliefs [11]. If this is so, then non-trivial issues of compatibility may be anticipated; despite the shared, constructivist orientation, Mead & Gray [12, p.98] (authors’ emphasis), for example, state that: “The goal of the disciplinary educator is to work with students to bring the structure of their evolving *personal* conception into alignment with that of the *disciplinary* conception.”

For their part, Meyer & Land [3, p.15] acknowledge the existence of differences across disciplines, and link the degree of disciplinary consensus (i.e. convergence) with the ease or otherwise of identification of disciplinary Threshold Concepts: “Threshold concepts would seem to be more readily identified within disciplinary contexts where there is a relatively greater degree of consensus on what constitutes a body of knowledge.” Nevertheless, the authors go on to acknowledge that: “However, within areas where there is not such a clearly identified body of knowledge it might still be the case that what might be referred to as ‘ways of thinking and practising’ within a discipline also constitutes a crucial threshold function in leading to a transformed understanding” [3, p.15]. So, are concerns related to the contested terrain and the seemingly fragmented landscape of TESOL unwarranted? It would seem that all disciplines, even those characterized by a relatively high degree of convergence, are necessarily subject to revision, and appear to manage, in one way or another, to accommodate heterodox or unconventional views. In any case, as Davies [5, p.78] notes, “insofar as there are different schools of thought within disciplines, there will also be integrating ‘school threshold concepts’”. While mindful of the potential pitfalls, therefore, it should be possible at the very least to identify *candidate* Threshold Concepts within the field of TESOL. Should the notion of Threshold Concepts in

TESOL find favour and gain traction, then its significance and potential for application in respect of both TESOL ITE and INSET would follow as a logical consequence.

In attempting to identify a set of candidate Threshold Concepts that appear to underpin effective TESOL practice and which would be amenable to schematic representation, the present study follows Mead & Gray [12], who examine the conceptual structure and localization of disciplinary Threshold Concepts, and the work of Breen et al. [13] on the identification of superordinate categories of TESOL practitioner concern. Such a configuration, implying as it does a higher-order, qualitative difference, offers an alternative to the view of Threshold Concepts as a privileged subset of disciplinary core concepts. Indeed, Davies [5, p.79] sounds a cautionary note regarding the consequences of a failure to differentiate candidate *Threshold* Concepts from the more familiar ‘key concepts’ that characterize disciplines: “there is a considerable risk that any search for threshold concepts will get derailed by slipping into a familiar discourse. This is a likely outcome if researchers try to find threshold concepts through dialogue with [subject specialists] about the nature of the subject. An attempt to identify a threshold concept should employ a mode of enquiry that is distinctive and necessary given the characteristics of threshold concepts.” Thus, the various techniques manifested at the level of classroom practice are reflective of underlying, common denominator principles, which in turn may be underpinned by an integrating Threshold Concept. This focus on the ontological (structural) aspect is evident in Mead & Gray’s [12, p.101] notion of a concept’s ‘integration logic’, which the authors see as providing, within a disciplinary context, “a conceptual structure within which threshold concepts can be localized”. While the potentially troublesome and destabilizing nature of Threshold Concepts forms a central theme of much of the concerned literature, it is perhaps worth noting that, because the fact or extent of any difficulty or destabilization occasioned by a given disciplinary concept – Threshold or otherwise – will be wholly contingent upon learner factors, any such difficulty should not be viewed as inherent in or intrinsic to the concept itself. As Mead & Gray [12, p.101] point out: “the emphasis on student reaction to threshold concepts hides the importance of how the threshold concept is situated within the discipline.” While not wishing to downplay this aspect, the present paper will therefore limit its focus to the *integrative* and *transformative* character of Threshold Concepts.

Drawing on the insights of Kinchin et al. [14] into the visualization of expertise within the field of clinical education, a parallel with Johnson’s [15] conception of practitioner knowledge, held to be characteristic of the TESOL knowledge base, may be suggested. For their part, Kinchin et al. [14, p.81] see expertise as being “composed of the dynamic links between chains of practice and underlying networks of understanding”, while Johnson [15, p.23] views practitioner knowledge as “integrated in such a way that it is not easily separated out into typologies but instead is organized around making connections among and between types of knowledge

to address problems of practice”. In both cases, the emphasis on the integration of elements or facets of the disciplinary knowledge base is clear, suggesting the potential of such conceptions to inform a quest for candidate Threshold Concepts within a practice-oriented field such as TESOL. Indeed, Kinchin et al. [14, p.83] take the view that “The principal characteristic of experts in any domain is that they possess an extensive and highly integrated body of knowledge related to their discipline.”

TESOL principles and instructional techniques correspond to Kinchin et al.’s ‘chains of practice’, while the posited superordinate TESOL Threshold Concepts reflect their ‘underlying networks of understanding’. In this connection, Breen et al. [13, p.472] observe that: “the diverse reasons... teachers gave for particular techniques that they adopted during language lessons revealed a finite set of guiding principles... The principles, in turn, appeared to derive from underlying beliefs or personal theories the teachers held regarding the nature of the broader educational process, the nature of language, how it is learned, and how it may best be taught”.

III. TESOL DISCIPLINARY GUIDING PRINCIPLES

The focus now moves to the identification of the ‘finite set of guiding [TESOL] principles’ [13, p.472]. In this regard, Richards [16], Ellis [17], and Brown [18] offer a possible point of departure:

Reflecting on the “beliefs and principles held by scholars and TESOL leaders that have determined the issues and priorities characterizing the recent history of the subject”, Richards [16, p.213] posits a “core set of assumptions [that] can be thought of as constituting the underlying ideology of TESOL”. For Richards [16, pp.213-217], the nine ‘recurring themes’ in Table I constitute the ‘core set of assumptions’ that he identifies. In a similar vein, Ellis [17, pp.1-5] proposes 10 ‘Principles of Instructed Second Language Acquisition’, reproduced in Table II.

TABLE I
RICHARDS’ [16] CORE SET OF ASSUMPTIONS FOR TESOL

R1	The contexts of teaching and learning play an important role in shaping processes and in determining learning outcomes.
R2	Learners shape the process of learning in powerful ways.
R3	Learning is facilitated by exposure to authentic language and through using language for genuine communication.
R4	Language teaching is informed by an understanding of language processes.
R5	TESOL is shaped by an informed understanding of the nature of language and of the English language in particular.
R6	Research and theory have an important role to play in TESOL.
R7	TESOL is an autonomous discipline.
R8	Successful language teaching assumes a high level of professional expertise and skill on the part of language teachers.
R9	Successful L2 learning is dependent upon effective instruction and the use of sound instructional systems.

For his part, Brown [18, pp.12-13] lists 12 principles which he sees as underpinning current approaches to TESOL in the belief that: “there is perhaps a finite number of general research-based principles on which [L2] classroom practice is grounded”. Brown [18, p.12] views these principles as

“relatively widely accepted theoretical assumptions about second language acquisition”. The 12 principles identified by Brown [18, pp.12-13] are summarized in Table III.

TABLE II

ELLIS' [17] 10 PRINCIPLES OF INSTRUCTED SECOND LANGUAGE ACQUISITION

E1	Instruction needs to ensure that learners develop both a rich repertoire of formulaic expressions and a rule-based competence.
E2	Instruction needs to ensure that learners focus predominantly on meaning.
E3	Instruction needs to ensure that learners also focus on form.
E4	Instruction needs to focus on developing implicit knowledge of the second language while not neglecting explicit knowledge.
E5	Instruction needs to take into account the learner's built-in syllabus.
E6	Successful instructed language learning requires extensive second language input.
E7	Successful instructed language learning also requires opportunities for output.
E8	The opportunity to interact in the second language is central to developing second language proficiency.
E9	Instruction needs to take account of individual differences in learners.
E10	In assessing learners' second language proficiency, it is important to examine free as well as controlled production.

TABLE III

BROWN'S [18] 12 PRINCIPLES UNDERPINNING CURRENT APPROACHES TO TESOL

B1	Automaticity – Efficient second language learning involves a timely movement of the control of a few language forms into the automatic processing of a relatively unlimited number of language forms.
B2	Meaningful learning – Meaningful learning will lead toward better long-term retention than rote learning.
B3	The anticipation of reward – Human beings are universally driven to act, or 'behave,' by the anticipation of some sort of reward – tangible or intangible, short-term or long-term – that will ensue as a result of the behaviour.
B4	Intrinsic motivation – Sometimes, reward-driven behaviour is dependent on extrinsic ... motivation. But a more powerful category of reward is one which is intrinsically driven within the learner.
B5	Strategic investment – Successful mastery of the second language will be, to a large extent, the result of a learner's own personal 'investment' of time, effort, and attention to the second language in the form of an individualized battery of strategies for comprehending and producing the language.
B6	Language ego – As human beings learn to use a second language, they develop a new mode of thinking, feeling, and acting – a second identity.
B7	Self-confidence – The eventual success that learners attain in a task is partially a factor of their belief that they indeed are fully capable of accomplishing the task.
B8	Risk taking – Successful language learners, in their realistic appraisal of themselves as vulnerable beings yet capable of accomplishing tasks, must be willing to become 'gamblers' in the game of language, to attempt to produce and to interpret language that is a bit beyond their absolute certainty.
B9	The language-culture connection – Whenever you teach a language, you also teach a complex system of cultural customs, values, and ways of thinking, feeling, and acting.
B10	The native language effect – The native language of learners will be a highly significant system on which learners will rely to predict the target-language system.
B11	Interlanguage – Second language learners tend to go through a systematic or quasi-systematic developmental process to full competence in the target language.
B12	Communicative competence – Given that communicative competence is the goal of a language classroom, instruction needs to point toward all of its components: organizational, pragmatic, strategic, and psychomotoric. Communicative goals are best achieved by giving due attention to language use and not just usage, to fluency and not just accuracy, to authentic language and contexts, and to students' eventual need to apply classroom learning to heretofore unrehearsed contexts in the real world.

Given the concerns alluded to above regarding the diffuse, not to say contentious knowledge base of TESOL, it is worth

noting that Ellis [17, p.1] prefaces his list of principles with the following caveat: “Second language acquisition (SLA) researchers do not agree how instruction can best facilitate language learning. Given this lack of consensus, it might be thought unwise to attempt to formulate a set of general principles for instructed language acquisition.” Such reservations notwithstanding, the lists compiled by Richards [16], Ellis [17], and Brown [18] in respect of TESOL surely represent worthy attempts to set out the underlying, common denominator disciplinary principles posited earlier.

IV. THEMATIC ANALYSIS

A thematic analysis at what has been termed the 'latent' level was then performed on the three data sets above in order to identify a limited set of overarching themes that would correspond to the integrating, superordinate categories alluded to earlier. The following description of a 'theme' is offered by Braun and Clarke [19, p.82] by way of a definition: “A theme captures something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data set.” Braun and Clarke [19, p.84] set out the relationship between latent (interpretive) and semantic (surface item) levels of thematic analysis thus, in a manner which presupposes a prior engagement with the relevant literature: “a thematic analysis at the latent level goes beyond the semantic content of the data, and starts to identify or examine the underlying ideas, assumptions, and conceptualizations – and ideologies – that are theorized as shaping or informing the semantic content of the data. ... Thus, for latent thematic analysis, the development of the themes themselves involves interpretative work, and the analysis that is produced is not just description, but is already theorized.” The present study proceeded on the assumption that if Threshold Concepts are integrative in nature, that is, if a single Threshold Concept functions to integrate a number of principles, then the Threshold Concepts will be fewer in number than those principles, just as the 'finite set of guiding principles' posited by Breen et al. [13, p.472] is assumed to be narrower than the range of instructional techniques that manifest them. A central concern *passim* the Threshold Concepts literature is that the task of identification involves uncovering or making explicit that which was previously implicit or tacit. By working back from the principles identified by Richards [16], Ellis [17], and Brown [18] towards what is implied by them, the existence of a finite set of superordinate TESOL Threshold Concepts was inferred.

V. NINE CANDIDATE TESOL THRESHOLD CONCEPTS

The present study identifies what are here termed nine *Primacies*, each one representing a superordinate candidate TESOL Threshold Concept. Listed in no particular order, these nine Primacies are as follows:

Candidate TESOL Threshold Concept # 1: *The Primacy of Context*

Essentially, the idea here is that appropriate TESOL

methodology is context-dependent. The implication is that factors such as learning purpose, learner age, geo-cultural setting, and L1 background will, that is to say, should, to a very considerable extent, shape practitioner decisions relating to TESOL approaches, the nature and content of the TESOL syllabus, and TESOL methodologies. In many ways, this is the primary primacy; contextual exigencies may require that other primacies be modified or even overridden on occasion.

Candidate TESOL Threshold Concept # 2: *The Primacy of Concept*

From the perspective of candidate TESOL Threshold Concept # 2, concept should, as a general rule, precede form. *Concept* here refers to 'meaning in context'. By first establishing the intended meaning within a recognizable context, that is, by leading learners to an awareness that a recognized meaning requires expression in L2 form, the need for the not-yet-encountered L2 form as a realization of this recognized meaning is created. The fact that the need for a suitable L2 form is present immediately prior to its introduction will likely facilitate its acquisition, since there is no delay while its meaning is discerned and a suitable context for its application identified.

Candidate TESOL Threshold Concept # 3: *The Primacy of Self-Performance*

Candidate TESOL Threshold Concept # 3 holds that self-performance is the primary TESOL learning experience. In this respect, L2 learning is seen as mirroring the experiential nature of so much of the learning that occurs in our everyday lives: we learn to swim by swimming; we learn to drive a car by driving a car; as children, we learn to tie our shoelaces by tying our shoelaces. The corollary of this is twofold: the need for due recognition of the centrality of *learner performance* in L2 *learning*, and the need for due recognition of the centrality of *learner performance* in L2 *teaching*. Scrivener [20] emphasizes a) the non-causal relationship between teaching and learning and b) the inadequacy of a transmission view of this relationship in respect of learner acquisition of L2 competence. In view of the clear parallels that exist as a result of the self-performance requirement, novice TESOL practitioners could perhaps learn a great deal from a consideration of the professional role of driving instructors as facilitators of experiential learning.

Candidate TESOL Threshold Concept # 4: *The Primacy of Active Command*

Essentially, the idea here is that TESOL's terminal objective is learner acquisition of an active command of L2. Here, *active* applies equally in respect of the skills of listening and reading. For Brown [18, p.13], that "communicative competence is the goal of a language classroom" is axiomatic – a given. Similarly, Ellis [17, p.2] takes the view that, because the ability to communicate fluently in L2 is a function of implicit, procedural knowledge, "this type of knowledge should be the ultimate goal of any instructional program." A distinction is often drawn between learning L2 English and learning *about* L2 English, and it is the former that, in

accordance with the *Primacy of Active Command*, is to take precedence as a terminal objective. The latter, which would usually be termed *declarative* L2 knowledge, may well serve as an enabling factor in learner acquisition of an active command of L2 – the so-called *interface* [21] or *weak interface* [22] positions – but it should rarely, if ever, be assigned the status of a terminal learning objective of the TESOL enterprise.

Candidate TESOL Threshold Concept # 5: *The Primacy of Mediation*

From the perspective of candidate TESOL Threshold Concept # 5, the pragmatic mediation of theory defines the TESOL enterprise. Widdowson [23, p.1], for example, views L2 teaching as "a self-conscious, enquiring enterprise whereby classroom activities are referred to theoretical principles ... These principles essentially define the subject..." Widdowson [23] maintains that a principled, continuous, bi-directional process of mediation, linking theory and practice lies at the heart of the TESOL enterprise. The Language Awareness construct [24], [25] is here seen as an important additional point of reference in this connection.

Candidate TESOL Threshold Concept # 6: *The Primacy of Reference*

Candidate TESOL Threshold Concept # 6 holds that L2 learning is always a bilingual endeavour. Widdowson's [7] critique in respect of the marginalization of the cross-linguistic dimension in many theoretical accounts of second language acquisition is based on the premise that second language learners proceed via a process of 'compound bilingualization' through stages of interlanguage development, i.e. L2 learning is essentially a 'compound bilingual experience'. The nature of this learning experience must, by implication, share features characteristic of the nature of more general human learning, of which it is a subset, wherein prior knowledge is extended to the area of new knowledge and existing knowledge is a crucial reference and mediating factor in the internalization of new information [26]. Clearly, in the domain of L2 learning, 'existing knowledge' is constituted primarily in terms of knowledge of L1. Widdowson [7, p.154] (emphasis in original) observes that: "one of the most striking features of monolingual second language *teaching* is that it would appear to take no principled account whatever of a major factor in second language *learning*". Indeed, Hammerly [27] estimates that EFL instruction which takes full account and makes judicious use of the L1 may be up to twice as efficient as instruction which excludes all consideration of the L1. Rather than be airbrushed out of TESOL practice by monolingual instructors seeking to make 'a virtue of necessity' [7], the learners' L1 needs to be appropriately implicated in the construct of Teacher Language Awareness (TLA) [24], [25]. Thus, the language awareness of the L2 teacher may be defined as: 'the capacity of a given L2 instructor to develop, co-ordinate and reflectively engage with multiple language-related knowledge bases and competences, and to effectively mediate learning input in light of this reflective engagement in

both the advance planning and moment-to-moment delivery of learning-centred L2 instruction, irrespective of medium of instruction and often in the presence of severe time constraints'. The *Primacy of Reference* therefore implies that L2 TLA may not be maximized without a reflective awareness on the part of the L2 instructor of a) the learners' L1 and b) the nature of the L1-L2 cross-linguistic influence.

Candidate TESOL Threshold Concept # 7: *The Primacy of Complements*

Essentially, the idea here is that TESOL instruction must provide for both the acquisition of a formulaic repertoire and the development of a generative capacity, and should seek to recognize the value of, accommodate, and attend to both aspects of complementary binaries such as fluency/accuracy, input/output, and top-down/bottom-up processing. In noting a previous tendency to view such binaries within an either/or, zero-sum mindset, what is here termed the *Primacy of Complements* showcases well the integrative capacity of the Threshold Concept notion.

Candidate TESOL Threshold Concept # 8: *The Primacy of the Learner*

From the perspective of candidate TESOL Threshold Concept # 8, effective TESOL practice requires the capacity to identify and respond appropriately to the cognitive and affective needs of learners as individuals. Beyond this consideration of individual differences, it is ultimately at the level of the *individual* that learning occurs.

Candidate TESOL Threshold Concept # 9: *The Primacy of Means*

Candidate TESOL Threshold Concept # 9 holds that, while authentic L2 use (input/output) may be the target, "contrived" materials/activities may well offer a superior learning route to the destination or means to this end. Citing Breen's [28] contribution on issues of authenticity, Widdowson [23, p.46] (emphasis in original) argues against the confusing of ends and means, that is, he argues against the assumption that ends can and should function as (the most effective) means in and to themselves: "The central question is not what learners have to do to use language naturally, but what they have to do to *learn* to use language naturally." Scrivener [20, p.266] makes essentially this point in respect of the learning of reading skills: "Real-life purposes are not the only way of measuring the usefulness of classroom reading work. Often, we might want to train students in specific reading techniques or strategies, things that will help their future reading, even if the immediate classroom work doesn't itself reflect a real-life purpose."

VI. SCHEMATIC REPRESENTATION

The nine candidate TESOL Threshold Concepts, or nine Primacies as they are here termed, may be represented schematically as occupying the nine primary squares on a Sudoku-type grid, as set out in Fig. 1.

<i>Primacy of Context</i>	<i>Primacy of Concept</i>	<i>Primacy of Self-Performance</i>
<i>Primacy of Active Command</i>	<i>Primacy of Mediation</i>	<i>Primacy of Reference</i>
<i>Primacy of Complements</i>	<i>Primacy of the Learner</i>	<i>Primacy of Means</i>

Fig. 1 Nine candidate Threshold Concepts for TESOL

Sub-dividing the primary squares to complete the Sudoku grid makes it possible to mirror the hierarchical arrangement posited earlier, that is to say, the primary squares – the nine candidate TESOL Threshold Concepts – represent a superordinate class, and the internal shaded squares within each primary square represent the various TESOL principles that both derive from them and are integrated by them. To illustrate this, Fig. 2 maps 29 of the 31 TESOL principles collectively identified by Richards [16], Ellis [17], and Brown [18] to the Sudoku squares representing the relevant primacy:

					E3			
	R1		B2	E2			R3	
						E8		E7
E4	E10		R7		R5		E2	
	B12	E8		R4	R9		R2	
			R6		R8	B11		B10
E1	E3	B1	E5	B4	E9			
E7	R4	E6		R2	B5		R9	
R5	E4	E2	B7	B6	B8			

Fig. 2 Richards' [16], Ellis' [17], and Brown's [18] TESOL principles mapped to the nine candidate Threshold Concepts

R3 signifies principle # 3 in the list from Richards [16]; E2 signifies principle # 2 in the list from Ellis [17]; B10 signifies principle # 10 in the list from Brown [18], and so on. Thus, E4, E8, E10, and B12 are TESOL principles that have been mapped, or assigned to the candidate TESOL Threshold Concept here termed the *Primacy of Active Command*. Note that the same principle may derive from more than one primacy or Threshold Concept. Thus, within this scheme, the principle E7 – "successful instructed language learning also requires opportunities for output" – is seen as deriving from both the *Primacy of Self-Performance* and the *Primacy of Complements*. Additional 'TESOL principles' of the type identified by Richards [16], Ellis [17], and Brown [18] may be articulated, and these, too, would be located within what might be termed the *integration frame* of a Threshold Concept or Primacy. It is important to emphasize that, because the process is one of mapping within a multi-layered framework, nothing is reduced, and so nothing is or need be lost. That techniques exist as manifestations of identified TESOL principles, and

will likely manifest multiple principles, together with the fact that a single principle will likely give rise to a number of different techniques suggests that significant forces of integration are implicitly at work within the TESOL enterprise. Taken together, these nine candidate Threshold Concepts, or primacies, may be said to constitute the profession's 'underlying network of understanding' and to form a generative canvas capable of accommodating the three-dimensional panorama of TESOL principles and instructional practice.

VII. IMPLICATIONS FOR ITE AND INSET

The notion of disciplinary Threshold Concepts has a clear correspondence to the notion of Communities of Practice [29]; induction into disciplinary discourse communities and acquisition of mature member status will be dependent on, among other things, the crossing of subject-specific knowledge thresholds, and a Threshold Concepts perspective fully acknowledges the ontological as well as the epistemological transformations that this will involve. As Davies [5, p.74] notes, "The transformative character of threshold concepts reflects the way in which they can change an individual's perception of themselves as well as their perception of a subject. In gaining access to a new way of seeing, an individual has access to being part of a community." Thus, to take Candidate TESOL Threshold Concept # 3, the *Primacy of Self-Performance* as an example, an internalized understanding that 'self-performance is the primary TESOL learning experience' will likely promote an internalized appreciation of the role of a TESOL professional as a facilitator of performance-based L2 learning. This realization and its attendant transformation of subjectivity may in turn be reinforced by an awareness that 'TESOL's terminal objective is learner acquisition of an active command of L2', as per Candidate TESOL Threshold Concept # 4, the *Primacy of Active Command*. If, as Kinchin et al. [14] and Johnson [15] maintain, expertise involves the dynamic interplay of 'chains of practice' and 'underlying networks of understanding', then, at some point, novice TESOL professionals will need to develop an awareness of the latter if they are to develop the requisite expertise.

The Threshold Concepts literature is replete with references to the need to make explicit for learners what so often is left implicit, tacit, or hidden, including the crucial interconnectedness of much of the subject matter to which they are exposed. This, of course, presents something of a dilemma: can it be assumed that an early encounter with a set of putative 'Threshold Concepts' will facilitate the assimilation and integration of TESOL principles and the myriad instructional techniques that manifest them? Davies [5, p.80] raises one possible concern in respect of such an approach: "An immediately apparent problem in trying to make threshold concepts explicit for students is that if these concepts integrate a way of thinking, they necessarily operate at a high level of abstraction." An alternative approach in respect of TESOL ITE and INSET would, therefore, involve delaying explicit reference to the integrative potential of

TESOL's 'underlying networks of understanding' until such time as novice professionals had acquired the disciplinary building blocks – TESOL principles and instructional techniques – that constitute the objects of integration. Nevertheless, the *transformative* character of Threshold Concepts – applying both to conceptions of subject matter and, crucially, to personal identities vis-à-vis disciplinary discourse communities – appears to accord well with the shift in emphasis within L2 teacher education away from a transmission-based focus on content and its application and towards teacher-learners' ongoing development as reflective practitioners [30]. There is a sense in which the notion of Threshold Concepts is itself a Threshold Concept, and a consideration of the place and role of *TESOL Threshold Concepts* in L2 teacher education may be expected to lead on, fairly naturally, to a consideration of *Threshold Concepts in L2 Teacher Education*.

In stating the belief that the nine candidate Threshold Concepts identified above "constitute the profession's 'underlying network of understanding' and form a generative canvas capable of accommodating the three-dimensional panorama of TESOL principles and instructional practice", this paper is expressing a particular view of the TESOL enterprise. Given a) the inherently subjective nature of encounters with thresholds of understanding, and b) the relative lack of consensus on a definitive TESOL knowledge base, it is entirely possible that notions of Threshold Concepts in respect of TESOL should contain an individualized element that relates to the personal understandings and/or interpretations of individual TESOL practitioners. Nevertheless, it should be possible to reconcile the requirement for "disciplinary constructs that have emerged from the crucible of disciplinary scrutiny as definable abstractions agreed upon, at least implicitly, by members of the discipline" [12, p.97] with the acceptance of the legitimacy of individualized understandings and/or interpretations implied by a teacher-cognition paradigm. Alternatively, it may be that Threshold Concepts, as they relate to the TESOL enterprise, defy any search for commonality/objectivity, and exist only as the personal cognitions of individual practitioners. Either way, the potential value of the notion of TESOL Threshold Concepts in TESOL ITE/INSET is undiminished; the relevant question being not *whether* but *how best* the notion is to be incorporated.

VIII. CONCLUSION

While a Threshold Concepts framework offers a promising perspective from which to view the TESOL enterprise, the issue of identification looms large. The myriad failures of the economics profession, many of whose central tenets simply do not accord with reality [31], [32], offer a salutary lesson in the dangers of formalising and elevating assumptions over observational data. Rather, the provisional nature of non-technical knowledge should be a guiding principle across the disciplines. This paper, then, is offered as an invitation to the TESOL/applied linguistics community to initiate a productive conversation on the notion of Threshold Concepts and its

potential to inform both teleological and subjective understandings of the profession.

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