

Threshold Concepts in the Higher Education ESOL Classroom: Overcoming Epistemological Barriers in Teaching and Learning

Marshall Wayne PECK

ESOL 高等教育における“ものの見方を変えるコンセプト” 指導と学習の中の認識論的バリアを克服する

マーシャル ウェイン ペック

Abstract / Short Outline (概要)

Since Meyer and Land (2003) first posited the idea of *threshold concepts*, it has been applied to many different disciplines from economics and physics to mathematics and engineering as an interdisciplinary tool for defining keys to learning. However, very little has been written to apply threshold concepts to the field of language learning, specifically in English for Speakers of Other Languages (ESOL). This is important because, unlike other disciplines, foreign-language learning and teaching requires ideas (grammatical concepts, culture, etc.) to be communicated *through the language being learned*, and the areas covered by threshold concepts can sometimes be tricky to see. Even very experienced ESOL instructors may fail to foresee students' difficulties in learning certain key concepts. Moreover, these cannot simply be dropped from the curriculum nor skirted over blithely but must be identified and incorporated with considerable effort. Only through this process are language students able to make the cognitive leaps required to progress in English-language studies. While threshold concepts are certainly not the primary focus of our curriculum, identifying them and taking special care in the teaching of them remains pertinent to designing “developmentally-appropriate instruction” that assists learners in the “epistemological transformation” that is required in many aspects of English-language learning (Timmermans, 2010, p.16). This paper will explore ways in which the principle of threshold concepts may be applied to ESOL instruction in higher education to help teachers and learners overcome obstacles that are key to language acquisition.

メイヤーとランドによって初めて提示された“ものの見方を変えるコンセプト (threshold concepts)”は、効果的な学習ツールとして、経済学や物理学、数学、工学など複数の異なる分野にまたがって適用されてきた。しかし、言語学習の領域、特にESOL（英語を母語としない人たちのための英語）の分野では、ほとんど用いられていない。“ものの見方を変えるコンセプト”はESOLでこそ重要だ。なぜなら外国語の学習者は他の分野の学習者と違い、文法や文化などの概念を、*言語を学ぶ過程の中で習得していくことを求められるからである*。しかし、“ものの見方を変えるコンセプト”が適用可能な領域は分かりづらい。経験豊かなESOL講師でも、生徒が理解に苦勞する概念を予測できないことが多々あるが、簡単にカリキュラムに組み込むことなど不可能だ。注意深い観察により、鍵となる概念を識別することが必要なのである。そうすれば、生徒たちは英語学習の中で必要とされる認識能力を飛躍的に伸ばすことができる。現在のカリキュラムでは、“ものの見方を変えるコンセプト”は全く重要視されていない。しかしそれを特定し注意深く指導することで、学習者は英語学習の様々な側面で

必要とされる“認識論的転換”を得ることができる。そして、それが“発達上適切な教育”のデザインに寄与することにつながる。

今論文では、ESOL 高等教育に適用できるであろう“ものの見方を変えるコンセプト”の原理を示し、学習者の言語習得を阻む障壁を超える助けとなるものを提示したい。

キーワード: Threshold concepts, higher education, language learning, ESOL

Introduction

To begin, a general overview of threshold concepts (TCs) is needed. TCs, simply put, are keystones of learning. They have been called the “jewels of the curriculum” (Land, Cousin, Meyer, & Davies, 2005, p.57) as they can “serve to identify crucial points in the framework of engagement [...] to help students to gain [...] richer and more complex insights into the aspects of the subjects they are studying” (ibid.) They have also been called ‘doors’ or ‘portals’ because they are barriers that must be crossed in order to achieve understanding in the discipline. They “open up a new and previously inaccessible way of thinking about something” and represent a gateway to “a transformed way of understanding, or interpreting, or viewing something without which the learner cannot progress.” (Meyer & Land, 2003, p.1) This may seem, at first glance, simply to be the definition of core concepts; however, threshold concepts differ from core concepts in several ways. “A core concept is a conceptual building block that progresses understanding of the subject; it has to be understood, but does not necessarily lead to a qualitatively different view of subject matter.” (Meyer & Land, 2003, p.4) By contrast, TCs are particularly troublesome to ‘get’ and yet, when understood, are transformative. Novice educators may not see the difference between core concepts and threshold concepts, and even ESOL professionals can be guilty of seeing them as too obvious, leaving them unstated or underdeveloped in their curriculum (Hall, Romo, & Wardle, 2018). However, understanding and identifying threshold concepts is essential for ESOL educators in order to facilitate the necessary transformations in students. Part 1 is intended as a guide for those unfamiliar with threshold concepts, and is not meant to be comprehensive. Following that is an analysis of specific approaches for working with threshold concepts in ESOL curricula planning and classroom implementation.

Part 1: Defining characteristics of threshold concepts

In order to identify and work with threshold concepts (TCs), it is necessary first to detail an outline of characteristics. Each of the following attributes helps to differentiate TCs from other core concepts. Unfortunately, nearly all of the literature available on this topic uses definitions specific to other disciplinary areas (such as physics and economics) and so is of little use here. Accordingly, these descriptions will include examples from the field of language teaching, specifically ESOL, to give them context and make them useful for language instructors.

1.1 Transformative

Though the acquisition of threshold concepts is often a long journey, when students *do* achieve full integration, they are *transformed*, thus allowing them to move forward in the discipline. Moreover, depending on the type of concepts students are working with, “the shift in perspective may lead to a transformation of personal identity, a

recreation of subjectivity” (Meyer & Land, 2003, p.4). For many, this transformation is very uncomfortable. As noted by Meyer and Land (2003), “students get very disconcerted when they come across ways of expressing familiar concepts in a different way” (p.9). We can see this when students are exposed to different ways of expressing familiar ideas, like defining numbers. The Japanese number classification system is quite different to English, a difference which has broad implications, especially in courses like ‘Business English’. In Japanese, larger numbers are categorized in quantities of ten thousand. For example, while we might say *thirty-five thousand* in English, a speaker of Japanese would say *three ten-thousands and five one-thousands*, or where we may say *one million*, the Japanese structure would be *one hundred mon* (one hundred ten-thousands or 百万). The difference in the way that the numbers are arranged presents a serious conceptual obstacle to Japanese learners of English. These students often have to practice with large numbers (millions, billions, etc.) for weeks or months before internalizing the numerical system and subsequently developing the skill to consistently read numbers correctly in English.

Additionally, the transformation can cause a “shift in values, feeling or attitude” (Meyer & Land, 2003, p.9) An example of this is found in the ‘English onversation’ classroom. Japanese students learn English through an exam-centred curriculum based mainly on passive learning and rote-memorization (grammar, vocabulary, etc.). This has a major impact on students’ willingness and ability to participate in a communicative classroom in higher education. Teaching the students how to use English for communication is, in itself, a threshold concept (Carson, 2017). Subsequently, students must demonstrate a colossal shift in attitude in order to make English conversation possible. This essential transition can take a very long time, and thus represents a threshold concept that must be overcome before students’ real language learning can progress. In this way, English conversation is transformative, causing the learners to adopt different qualities, that is, to have a different feeling or attitude toward the subject than they had previously held.

In a similar way, working with unfamiliar concepts in a foreign language can also be transformative, albeit significantly more difficult because the concept itself is completely unknown as well as the language used to communicate it. In this situation “we see the notion of alien knowledge compounded with the inherently problematic nature of language itself” (Meyer & Land, 2003, p.9).

We see a good example of this in a language that imagines the concepts of *left* and *right*, or orientations of things in relation to the self, in a different way from English. In our daily lives we take it for granted that *left* and *right* are essential in use and incontrovertible in nature. However, ‘sides’ or ‘directionality’ are functions of English that literally shape the perception of reality. The terms *left* and *right* are oriented by the individual, e.g. “It is *my* left hand “The house is on the *left* side of the road” (according to the direction *I* am travelling). However, for the Kuuk Thaayorre people of Australia, there is no concept of *left* and *right*. Rather, there are only cardinal directions, so everything is oriented by the landscape. Accordingly, the speaker might say “Oh, there’s an ant on your southwest leg” or “Move your cup to the north-northeast a little bit” (Boroditsky, 2018). This concept of directionality also extends to the perception of time. Whereas we might arrange images of time passage from left to right in English, the Kuuk Thaayorre would arrange the same images from *east to west* (ibid.) because, for them, the progress of time follows the sun’s passage across the landscape. These examples demonstrate how language shapes our perception of reality and, by extension, how much of a conceptual shift is necessary to cross the threshold of

certain concepts in the English language classroom. These are not simply ‘building blocks’ used to speak the language; they are a conceptual framework that shapes subjective reality. Learning these ideas –absorbing, integrating and using them—is truly transformative and, unlike other core concepts which can be added to students’ existing knowledge and used like new tools in a toolbox, with threshold concepts, students are *changed*, and this change is what allows them to achieve progress in the language that was previously impossible.

1.2 (Probably) irreversible

Another interesting aspect of threshold concepts is that the transformation they bring about is (probably) *irreversible* (Meyer & Land, 2003, p.4). A good example of this is the concept of counting. We all learn to count (in English) at such a young age that it is impossible to remember a time before counting. The ability to count literally shapes the way we perceive the world; for us, counting is an automatic and irreversible ability. However, some languages, like the Amazonian Pirahã language (Pyatt, 2008), do not have counting systems. For such language learners, the concept of counting is tied to the linguistic content. This is a particularly problematic obstacle, and yet, once the *idea* of counting is understood, it cannot be unlearned. The shift is hard-wired into the learner’s mind, and while there may (and almost certainly will be) revisions and upgrades to the comprehension and practice of the concept, the core understanding of the idea remains.

1.3 Integrative

Threshold concepts also help students to bind together core concepts, “exposing the previously hidden interrelatedness” of the concepts (Meyer & Land, 2005, p.373). An example of this can be seen in English composition. Students learn about grammatical syntax, diction, tone, and perspective, but to create the writer’s *voice* requires the integration of all these concepts. Each aspect is a building block of composition, but once the different elements are integrated, the result is a perceptual shift that allows the student writers access to an entirely new level of writing.

Similarly, cognitive strategies (e.g. reasoning deductively, transferring from the native language, word analysis), which can be considered core concepts in language learning, are troublesome and possibly transformative, but do not qualify as threshold concepts. However, when we combine a number of these and teach students the *metacognitive skill* of ‘strategy switching’, or knowing when and how to apply different strategies in the learning process, we see a threshold concept emerge. Students learn many metalinguistic skills (e.g. compensatory, affective, cognitive) in language learning, but knowing when and where to apply them is exceedingly tricky. It requires a shift in perspective from a narrow, classroom-activity focus to a more holistic view of communication in a foreign language and the adaptations necessary for success. ‘Strategy switching’, as an integrated threshold concept, enables students to make significant progress toward higher-level independent language learning.

1.4 Bounded

Very often threshold concepts are *bounded*, meaning that they serve as a threshold “into new conceptual areas” (Meyer & Land, 2003, p.5) Again, using the example of TCs as “doors” or “portals”, they are usually defined by the boundaries of ontological awareness. In ESOL these areas may be defined in terms of grammar, vocabulary,

cognitive or metacognitive strategies, or any number of other aspects of language learning. The idea of *boundaries* specifically refers to the areas that may not overlap necessarily, or not in any practical or obvious sort of way. Moreover, the bounded aspect is what contains the area referred to as *liminal space*, or the space in which students work at understanding and integrating the new material. The boundaries, in this sense would be less about *what* the students know and more about *how* they know it (Timmermans, 2010). Within the borders we find specific material that requires concerted effort, manipulation, and practice in order to achieve mastery and which may, in turn, border on (or create new space for) further excursions in the discipline. This space (discussed in 1.6) is critical because threshold concepts are inherently *troublesome*.

1.5 Troublesome

As threshold concepts are transformative and often comprise foreign concepts, they have been referred to as *troublesome knowledge*. Essentially, troublesome knowledge is not just difficult—it borders on incomprehensible because the concepts cannot be reconciled with the student’s current perspective or subjective view of the information. Perkins (1999) has defined troublesomeness as “that which appears counter-intuitive, alien (emanating from another culture or discourse), or incoherent (discrete aspects are unproblematic but there is no organising principle)” (cited in Meyer & Land, 2003, p.5-6). Many different types of troublesome knowledge have been identified: ritual, inert, conceptually difficult, alien, and tacit, among others (Meyer & Land, 2003), but the important point to note is that often it is a combination of these troublesome qualities that results in the students’ difficulty with comprehension and integration of the new material. For many students who are the products of rote-memorization English programs in public schools, we see difficulties with inert knowledge (passive language required only for testing), ritual knowledge (stock responses to questions learnt by rote), and conceptually difficult knowledge (the use of language for communication purposes) that coincide in a way that is particularly troublesome to a modern, communicative English-language classroom. Such students are unaccustomed, and indeed unwilling, to apply their linguistic knowledge in an active, meaningful, or communicative way. In this case, their fundamental relationship to the course material has to change completely, a shift that is highly troublesome.

1.6 Liminal space

If threshold concepts are represented as a ‘door’ or ‘portal’, then liminal space is what we find on the other side, and it is quite messy. Curriculum is often arranged neatly and in a somewhat linear fashion, and yet with threshold concepts, the time and space needed to truly grasp, to process and integrate, the new material is vast and decidedly non-linear. Threshold concepts require what Land, Cousin, Meyer, and Davies (2005) have dubbed “recursiveness and excursiveness” (p.59). Recursiveness refers to what most educators would recognize as revision of course material, usually multiple times. This looping pattern of study is an important process because it provides time for students to practice with and internalize the material, and also because it allows the instructor to make note of what difficulties the students have and to find ways of systematically addressing those issues.

‘Excursiveness’, by contrast, is a convenient term coined by Land, Cousin, Meyer, and Davies (2005) that speaks to the nature of exploration within the liminal space: having “an intended direction and outcome” while also

acknowledging that there will be deviation, recursion, and unexpected outcomes which may, in turn, lead to a “point of embarkation for further excursion” (Land, Cousin, Meyer, and Davies, 2005, p.60). This is a way of allowing students freedom to explore the new concept, albeit with extensive support and guidance, and creating what Meyer and Land (2012) have dubbed a “supportive liminal environment” (p.200) which is critical in helping students cope with *liminality*, or the state of uncertainty.

Such liminal space is critical to the understanding of threshold concepts. While the TC itself may be a kind of portal or door, it is the liminal terrain that provides the space to move about and experiment with the new material. Liminal space is messy, a crossing and re-crossing of territory, experimenting, failing, and trying new approaches to the material (Cousin, 2006). Because of this troublesome aspect of TCs, maximizing time spent in liminal space is key. This means revisiting the concepts repeatedly as well as giving students opportunities to practice with the material in (and out of) the classroom. They need to explore the liminal space and see how they can make the material work in their own experience. This is especially important because, more often than not, a significant amount of liminal time is required to achieve mastery but, due to the compartmentalization and fragmentation of education in the form of class levels and semesters, as well as other external pressures like excessively large class sizes, exam requirements, etc., “recursiveness gets broken up” (Rhem, 2013, para.12). Students have extremely limited time in the classroom and long breaks between academic terms. Moreover, they often do not understand how to extend their learning beyond the boundaries of the semester in terms of further practice or, at the very least, maintenance of what they have learned. The result is that we often start from the beginning each semester, and both students and educators are frustrated by slow, faltering progress. As educators, we need to find ways to deal with this issue, and be sure to extend our curriculum beyond the classroom borders to ensure that students have sufficient practice with the material during the very limited academic terms.

Part 2: Identifying threshold concepts in language learning

So, using the above criteria as a way of defining threshold concepts, we can apply this idea to ESOL. An example can be seen in English composition. Each step of a student’s journey to academic writing is exceedingly difficult, and when a single step in this process is achieved, it is truly a moment of transformation, representing a new kind of understanding of the subject (Cousin, 2006; Meyer & Land, 2003). However, we must first distinguish between core and threshold concepts.

Core concepts for composition include avoiding sentence fragments and run-on sentences, subject/verb agreement, and providing adequate support sentences for paragraphs. At higher levels, compound and complex sentence structures, sentence variety, and transitions may be considered core concepts. These writing techniques are essential, and vary according to how difficult they are to teach and how quickly students are able to produce the desired compositions, but they are not considered threshold concepts because they do not fit the essential criteria. Moreover, working with the verb ‘to be’, specifically in making declarative and interrogative structures, is a core concept as is the idea of subject/verb inversion to make questions. These are not particularly troublesome in the sense described above, nor do they transform the students’ perceptions of reality. Most students are able to learn and apply this type of new knowledge with minimal discomfort.

By contrast, learning to use 3rd-conditional grammar effectively is not only troublesome but, with successful

mastery, is entirely transformative, thus representing a threshold concept. The grammar structure for the 3rd conditional is relatively difficult, but not particularly troublesome in itself. Students often approach it in the same way as mathematics -simply as a formula to be learned and applied as required. However, the *idea* represented by the 3rd conditional is absolutely troublesome, especially for language learners whose native tongue has no similar structure. However, when students begin to grasp the idea of ‘alternate realities’ or ‘possibilities of outcomes’ (that might have been if I had chosen differently), there is a shift in perception, the opening of an infinite number of realities in which to exist, e.g. “If I hadn’t chosen to attend this university, I might have married my high school boyfriend.” Subsequently, it dawns on the student: “Oh! If I *had* married my high school boyfriend, I would probably have a baby by now!” With understanding comes realization accompanied by an astonishing transformation. In actuality, once students have grasped the idea of the 3rd conditional, the potential arises to imagine and discuss previously inaccessible possibilities.

As a further example, novice English composition students write in a somewhat simplistic and informal style, addressing the reader directly, e.g. “Exercise is good for *you*” and “*You* should not smoke because it is bad for *you*” and “*You* had better do *your* homework or else *your* teacher will be angry with *you*”. This profusion of 2nd-person pronouns and possessive adjectives is distracting to the reader and represents an unsophisticated writing style that is unacceptable in nearly all formal written contexts. Instead, students are taught to remove 2nd person voice from their writing altogether by replacing it with other grammatical structures. Essentially, the students needed to learn that addressing the audience directly in their writing is considered poor form, and that there are other methods for writing that are clearer and more academic. Usually, students are not even aware of the issue, but once the issue is brought to light, it cannot be ignored. Moreover, through careful scaffolding, students at this “threshold” can learn ways to deal with the issue, and so make a large step forward in English composition.

The main problem regarding this change in writing style is that students often lack the grammatical tools to communicate without using 2nd-person grammar. To address this, students are given new grammatical tools (core concepts) with which to write, e.g. gerunds, passive voice grammar, and dummy pronoun constructs. Using these tools, students learn to shift the focus from the audience (‘you’) to stating their ideas more as general concepts. ‘Music is good for you’ becomes ‘Music is relaxing (to everyone)’, or alternatively ‘Relaxing is important’, and ‘Falling asleep is easier while listening to music.’ Similarly, ‘You get more opportunities with education’ becomes ‘Education provides opportunities (for people)’ and ‘You should follow five steps’ becomes ‘There are five steps to follow.’

In this way, we can see the writing style entirely transformed, and a more sophisticated, academic tone emerges. This is essential, and yet, to arrive at this point takes considerable effort in planning and practice. Below we will see how to balance core and threshold concepts and examine ways in which educators might mitigate the process of learning and create the type of liminal environment that can foster understanding and integration of these concepts.

Part 3: How to enable the conceptual shift

Threshold concepts may be the “jewels in the curriculum” (Land, Cousin, Meyer, & Davies, 2005, p.57), but they are not the sole focus of the curriculum. Language learners are required to master a variety of skills, and often the

greatest difficulty is in integrating those skills in order to trigger the perceptual shift. Students, especially in ESOL, constantly juggle a wide variety of these ‘building blocks’, and it is our job as educators to find ways to help students integrate core concepts with each other *and* with TCs. Learning outcomes take many forms depending on the type of course, and it is essential to be clear about those and have specific goals in mind. However, this must be carefully balanced with the ‘messy’ nature of TCs and the awareness that *actual* course outcomes may differ dramatically from what was planned. Sometimes the intended learning outcome *is* the threshold concept, e.g. in ‘Writing and Presentation’, the overall aim is to give a refined presentation that incorporates the target language, correct usage of note cards and visuals, balanced with proper timing, tone, volume, and eye contact. The ability to do this demonstrates mastery of the threshold concept. Similarly, in English conversation the goal is to create students who are not only *able* to converse in English, but *willing to do so*. It has been argued, in fact, that the use of English as a *communication tool* is a threshold concept in itself, especially for students who come from learning systems that focus entirely on passive language skills (Carson, 2017).

3.1 Ideas for implementation

To work with threshold concepts, we first need to identify the source of the “epistemological obstacles” in order to “free up blocked spaces” (Meyer & Land, 2005, p.377). Collaborative learning in the ESOL classroom has proven especially effective in cases which deal with “threshold” or “transformative” concepts which are inherently more difficult than many of the more basic concepts students encounter in class each week (Petty, 2009, p. 21). Most importantly, liminal space must be crossed. Sometimes, the students hold a vague understanding of the general idea but are unable to completely grasp the concept or integrate its full potential. Similarly, the ability to apply the new concept may not be uniform among students, and may take extended periods of time to get right. This is the inherent nature of *liminal space*. So now this begs the question asked by Cousin (2006): “How can teachers design a curriculum which invites students to enter liminal spaces?” (p.2) Many different approaches have been proposed, but they generally fall under one of the following headings. This list includes some the most useful strategies and suggests ways in which ESOL instructors might implement them.

Classroom environment

Winnicott (in Finlay, 2015) has proposed what he calls a “holding environment”, a safe place for students that accounts for students’ affective needs and enables them to learn. Meyer and Land (2006) have referred to this as a “supportive liminal environment” (p.200). This is especially important when dealing with threshold concepts, as they are extremely troublesome and inherently uncomfortable –exactly the type of course content that would cause even the keenest students to clam up and become resistant to learning. Most educators would agree that a classroom should be, in some sense, a ‘safe environment’, yet ESOL classrooms around the world continue to promulgate the strict, authoritarian, teacher-centered classroom that produces terrified, passive learners (Affounh & Hargreaves, 2014). The last half-century of education research has categorically demonstrated that these types of classrooms are not only unproductive, but actively inhibit students’ ability to enjoy learning and, indeed, to learn anything of value at all (ibid.). Indeed, one of the greatest fears that language learners have is being singled

out to answer, and being humiliated by the instructor when a correct answer is not given. Far too many students are still taught this way throughout compulsory education (and across disciplines) in traditional education systems, and this situation creates affective barriers that inhibit participation in the higher education classroom. So, in effect, what we need is a new approach to classroom monitoring.

Classroom monitoring

One excellent method proposed by Chiu (2004) involves (the instructor) monitoring the students as they work (usually in pairs or small groups), encouraging, asking questions, and providing conceptual tools. This helps students to use what they know, self-correct, and “take charge of their learning” (Doyle, 2008, p.95) Another technique that works particularly well is separating individual students from the error correction process. This requires the instructor to observe students using the new material and take notes on common or especially problematic errors. As appropriate, the activity is paused, and the instructor provides feedback to the class as a whole, and offers corrections to close the gap between (current) understanding and project goals (Hattie and Timperley, 2007). After correction, pairs are instructed to resume work. This works well because it separates the students’ egos from their mistakes, allowing them to save face by not being singled out in front of their peers. This technique also saves a great deal of time since the instructor does not have to repeat the same instructions or correct the same errors multiple times.

Alternatively, we can try methods of evaluation such as formative assessment and feed-forward dialogues, both of which provide students with information on what they have accomplished *and* what is expected of them in the future (Bloxham & Boyd, 2007). This creates a cycle, or dialogue, of feedback between the instructor and students that keeps everyone informed during the learning process. Errors and omissions (by either instructor or student) are more likely to be caught and so informational gaps are closed.

One (unfortunately) less popular idea is to grade students on effort, participation, and progress rather than on level of correctness (Carson, 2017). This works well with threshold concepts because it shifts the focus from obtaining a ‘grade’ to actually integrating the material for its own sake. In this way, students are rewarded for their success with the material rather than simply for ‘going through the motions’.

Recursiveness

Recursive teaching and learning should be a core component of classroom work and homework. The curriculum within the course and across the program should be seamless. However, this is often problematic due to the fragmented nature of semesters in higher education as well as “a consumerist notion of higher education that is speeded up” (Rhem, 2013, para.19). Essentially, students have far too little time to spend in liminal space integrating the new material during the semester and, to further complicate matters, there is often little or no recursiveness across language programs. To address this, students need significant time outside of class to practice with TCs, and in-class time should be maximized to integrate concepts. Another problem is that students are pushed through the system whether they have grasped the concepts completely or not (ibid.). This impacts the function of grading systems, e.g. ‘Should a student pass the course when they have not fully grasped an essential, transformative part of the subject?’ This has wider implications for departmental coordination, that is, coordination

and collaboration among instructors, specifically regarding TCs. Because students need to build on existing knowledge and be given the chance to practice in liminal space, instructors from different levels of the same course, e.g. grammar, should be willing to coordinate, integrate, and build upon threshold concepts across levels of the curriculum. As many instructors have their own ideas, their own textbooks, etc. this is often perceived as near impossible, but it can be as simple as having a conversation about threshold concepts that are being addressed, and discussing ways to tackle them. If instructors are aware of the TCs others are struggling with, they may find ways to integrate them into their own classrooms.

Redesign activities and sequences of teaching

For ESOL instructors reflective teaching, especially in the form of teacher notes and the use of a teaching journal (keeping a record of what works and what *doesn't work*, revising curricula each semester) is a key component of good teaching practice (Tompkins, 2009; Stevens & Cooper, 2009). Masterful teachers “take the time to reflect on their teaching in order to expose unwarranted or harmful assumptions they may hold, reveal fallacies in their thinking, illuminate problems, and determine directions for new growth. They see reflection as a necessary part of their day” (Jackson, 2018). Detailed notes on students’ attitudes, classroom activities, feedback, student progress and difficulties are all extremely helpful in assisting instructors in identifying threshold concepts and revising curricula accordingly. This is also useful for keeping track of students’ progress through liminal space and modifying course content to fit the needs of students for subsequent lessons. Additionally, this informs course design and revision *between* semesters, and helps to avoid a recurrence of difficulties in student learning caused by gaps or inadvertent omissions in the curriculum.

Scaffolding

One effective way of tackling threshold concepts is by breaking them into manageable ‘chunks’, and then allowing students to integrate each of those bits in their own time. Scaffolding does *not* mean simplifying the TC. As instructors, we should avoid simplified versions which might lead students to “settle for the naïve version [...] and enter into a form of ritualized learning or mimicry” (Meyer & Land, 2005, p.382). Rather, we can break down the components of the TC, allowing students to take them in ‘small bites’, and later to integrate them as a single, transformative concept. Birjandi & Jazebi (2014), building on the extensive work of Puntambeker and Hübscher (2005) and Pol, Volman, and Beishuizen (2010) have summarized the scaffolding process in such complex learning environments as follows:

- 1) Diagnostic strategies: The first step for the teacher is to diagnose learners’ needs.
- 2) Contingency: Through communicative interactions, a shared common understanding or intersubjectivity will be built which, in turn, creates the foundation for the ongoing assessment and adaptation of the required support through which learning happens.
- 3) Transfer: The gradual transfer of learning responsibility to the learners happens as they become more independent.
- 4) Fading: The teachers’ adjusted support gradually fades as the learners become autonomous.
- 5) Prolepsis: The proleptic feature, inherent in the core of scaffolding, refers to the process of leaving

implicit some information that may be provided subsequently (p.155).

Beginning with diagnosis, i.e. discovering the threshold concept and identifying ways in which students might struggle, the instructor can guide the process, incorporating additional troublesome concepts over time, and gradually enabling the students to work with the TC independently. The aim, of course, is not only to enable learners to use the TC but to *internalize* it, to help them cross the threshold and enter into liminal space.

Collaborative learning

Firstly, we must be aware that students are all coming from different places, and try using this to their advantage. Threshold concepts are “driven by persuasion and consensus” (Meyer & Land, 2005, p.379). In ESOL classrooms, research has clearly demonstrated that social learning, working in pairs or groups to achieve learning goals, is more effective than individual learning as students are more engaged, focused, and productive when they have the chance to work together (Attle and Baker, 2007; Nunan, 1998; Petty, 2009; Wiliam, 2013). In the ESOL classroom, collaborative learning changes what are normally individual tasks and sees the students work together to achieve success (Ur, 1996). They may do this by asking students to explain the new material to each other or “represent it in new ways, [...] apply it in new situations and connect it to their lives” (Land, Cousin, Meyer, Davies, 2005, p.57).

Collaborative learning in the composition classroom has proven especially effective in cases which deal with “threshold” or “transformative” concepts which are inherently more difficult than many of the more basic concepts students encounter in class each week (Petty, 2009, p. 21). Threshold concepts are those which are particularly “troublesome” to acquire and, when achieved, cause an “ontological as well as a conceptual shift” (Cousin, 2006, p.4) which transforms the student’s understanding of the subject as a whole (Biggs and Tang, 2011). In the ESOL composition classroom, students struggle with shifting their writing from simple, vernacular language to writing that is both clear and academic in style and tone. They generally write from their own perspective, as if they were simply speaking and, while this conveys meaning in a communicative sense, it lacks the function and style required in academic and professional settings.

Conclusion

The intention of this paper has been to open up discussion of threshold concepts as “an important but problematic factor in the design of effective learning environments”, (Meyer & Land, 2003, p.10) specifically within the field of ESOL in higher education. “They [TCs] constitute an obvious, and perhaps neglected, focus for evaluating teaching strategies and learning outcomes” (Meyer & Land, 2003, p.11) It is important to note that even experienced instructors sometimes stumble across unexpected threshold concepts while teaching. Other times instructors completely miss TCs because in their expertise they mistakenly believe the concepts are simpler than they actually are. The hope here is that by creating an awareness of threshold concepts (and their distinctness from other core concepts) and demonstrating practical ways to address them in curricula design and classroom implementation, instructors will be better able to identify and work with TCs in a systematic way in order to avoid the many of the pitfalls of teaching and learning in ESOL. Essentially, instructors should be aware of threshold concepts and always try to identify “appropriate ways of modifying or redesigning curricula to enable [...]”

students to negotiate such epistemological transitions” (Meyer & Land, 2005, p.386). In doing so, we can make the journey of language acquisition easier for ourselves and our students.

References

- Affouneh, S. & Hargreaves, E. (2015). Fear in the Palestinian classroom: Pedagogy, authoritarianism and transformation. *Pedagogies: An International Journal*, 10(3), 222-237. doi:10.1080/1554480x.2015.1009837
- Attle, S. & Baker, B. (2007). Cooperative Learning in a Competitive Environment: Classroom Applications. *International Journal of Teaching and Learning in Higher Education*, 19(1), 77-83.
- Biggs, J. & Tang, C. (2011). *Teaching for quality learning at university*. Maidenhead: McGraw-Hill/Society for Research into Higher Education & Open University Press.
- Birjandi, P. & Jazebi, S. (2014) A comparative Analysis of Teachers’ Scaffolding Practices. *International Journal of Language and Linguistics*, 2(3), 154-164. doi: 10.11648/j.ijll.20140203.14
- Bloxham, S. & Boyd, P. (2007). *Developing Effective Assessment in Higher Education: A Practical Guide*. New York, NY: McGraw-Hill Education.
- Boroditsky, Lera (2018, April). How language shapes the way we think. [Video file]. Retrieved from https://www.ted.com/talks/lera_boroditsky_how_language_shapes_the_way_we_think
- Carson, L. (2017). Second Language Use as a Threshold Concept: Reconceptualising Language Learning Journeys. *International Journal of Education* 9(2), 34-43. Retrieved from <http://doi.org/10.5296/ije.v9i2.11315>
- Chiu, M. M. (2004). Adapting Teacher Interventions to Student Needs During Cooperative Learning: How to Improve Student Problem Solving and Time On-Task. *American Educational Research Journal*, 41(2), 365-399. doi:10.3102/00028312041002365
- Cousin, G. (2006). An introduction to threshold concepts. *Planet*, (17), 4-5. doi:10.11120/plan.2006.00170004
- Doyle, T. (2008). *Helping Students Learn in a Learner-Centered Environment: A Guide to Facilitating Learning in Higher Education*. Sterling, VA: Stylus Pub.
- Finlay, L. (2015). *Relational Integrative Psychotherapy: Process and Theory in Practice*, Chichester, Sussex: Wiley. Retrieved from <http://relational-integrative-psychotherapy.uk/wp-content/uploads/2015/02/Chapter-5-Therapeutic-Holding-and-Containing-handout.pdf>
- Hall, R.M., Romo, M., & Wardle, E. (2018) Teaching and Learning Threshold Concepts in a Writing Major: Liminality, Dispositions, and Program Design. *Composition Forum*, 38, [online] Retrieved from <https://compositionforum.com/issue/38/threshold.php>
- Hattie, J. & Timperley, H. (2007). The Power of Feedback. *Review of Educational Research*, 77(1), 81–112.
- Jackson, R. R. (2009). *Never work harder than your students & other principles of great teaching* (2nd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.
- Land, R., Cousin, G., Meyer, J.H.F., & Davies, P. (2005) ‘Threshold Concepts and Troublesome Knowledge (3)*: implications for course design and evaluation’, in C. Rust (ed.) *Improving Student Learning Diversity and Inclusivity*. Oxford: Oxford Centre for Staff and Learning Development. Retrieved from

- <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.644.7648&rep=rep1&type=pdf>
- Meyer, J. & Land, R. (2003). 'Threshold Concepts and Troublesome Knowledge: Linkages to ways of thinking and practising within the disciplines', in Rust, C. (ed.), *Improving Student Learning: Improving Student Learning Theory and Practice –Ten Years On*. Oxford: Oxford Centre for Staff and Learning Development.
- Meyer, J. & Land, R. (2005). Threshold concepts and troublesome knowledge (2): Epistemological considerations and a conceptual framework for teaching and learning. *Higher Education*, 49(3), 373-388. doi:10.1007/s10734-004-6779-5
- Meyer, J. & Land, R. (2012). *Overcoming barriers to student understanding: Threshold concepts and troublesome knowledge*. New York: Routledge.
- Nunan, D. (1998). *Language Teaching Methodology*. London: Prentice Romo International.
- Petty, G. (2009). *Teaching Today: A practical guide, 4th ed.* Cheltenham, UK: Nelson Thornes Ltd.
- Pol, J. V. D., Volman, M., & Beishuizen, J. (2010). Scaffolding in teacher–student interaction: A decade of research. *Educational Psychology Review*, 22(3), 271-296.
- Puntambekar, S. & Hubscher, R. (2005). Tools for scaffolding students in a complex learning environment: What have we gained and what have we missed? *Educational Psychologist*, 40(1), 1-12.
- Pyatt, E.J. (2008). The Language Without Numbers. Retrieved from <http://www.personal.psu.edu/ejp10/blogs/thinking/2008/07/the-language-without-numbers.html>
- Rhem, J. (2013). Before and after students “get it”: threshold concepts. [Online]. Retrieved from <https://teachingcommons.stanford.edu/teaching-talk/and-after-students-get-it-threshold-concepts>
- Stevens, D. & Cooper, J. (2009). *Journal keeping: how to use reflective writing for effective learning, teaching, professional insight, and positive change*. Sterling, VA: Stylus Publications.
- Timmermans, J.A. (2010). Changing our Minds: The Developmental Potential of Threshold Concepts. In J. Meyer, R. Land, & C. Baillie (Eds.). *Threshold concepts and transformational learning*. (pp.3-20) Rotterdam, The Netherlands: Sense Publishers.
- Tompkins, E. K. (2009). A Reflective Teaching Journal: An Instructional Improvement Tool for Academic Librarians. *College & Undergraduate Libraries*. 16(4), 221-38. Retrieved from <https://doi.org/10.1080/10691310903355937>
- Ur, P. (1996). *A Course in Language Teaching*. Cambridge: Cambridge University Press.
- Wiliam, D. (2013). Assessment: The Bridge between Teaching and Learning. *Voices from the Middle*, 21(2), 15-20.

