# The Paradigmatic hearts of subjects which their ‘English’ flows through

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**Abstract**

Much research into the use of corpora and discourse to support higher education students on pre-sessional and in-sessional courses champions subject specificity. Drawing on the work of writers such as Bakhtin (1981) and Voloshinov (1973), in this article we extend this research by showing how the specific subject ‘context’ is fundamentally linked with the ‘English’ used within it. We first detail some of the literature related to corpus and genre studies and discuss some of the literature related to the importance of providing a context for language. We then present and discuss data from 21 interviews and 5 focus groups with subject lecturers to illustrate how the ‘English’ used in the subject areas of ‘Design’, ‘Nursing’, ‘Business’ and ‘Computing’ subjects flows through what we term their ‘paradigmatic hearts’. By ‘paradigmatic heart’ we mean the set of values, beliefs, and perceptions that represent the central or innermost engine of the subject, through which its ‘English’ flows. In ‘Design’ the paradigmatic heart is ‘visual’, ‘philosophical’ and ‘persuasive’; for ‘Nursing’ it is ‘emotional’ and ‘empathetic’, yet also ‘technical’; for ‘Business’ subjects it is ‘income generating’, ‘numerical’ and ‘persuasive’; and for ‘Computing’ it may be ‘visual’, ‘numerical’ or ‘code-based’. We demonstrate how ‘English’ flows through the paradigmatic heart of its subject and that to remove the ‘English’ from its subject paradigmatic heart changes its nature. Thus, we argue that if students are not being taught ‘English’ in the context of the subject, the ‘English’ we are teaching them will be different, and that preparation and support needs to be undertaken in the subject itself.

**Keywords:** English; corpus; genre; pre-sessional; in-sessional

Much research into the use of corpora and discourse to support higher education students on pre-sessional and in-sessional courses champions subject specificity. We extend this research by arguing that the ‘English’ of subjects flows through ‘paradigmatic hearts’. By ‘paradigmatic heart’ we mean the set of values, beliefs, and perceptions that represent the central or innermost engine of the subject. By implication, and as we demonstrate below, the ‘English’ of the subject will live or function differently if removed from its paradigmatic heart. We consider four subject areas: ‘Design’; ‘Nursing’; ‘Business’; and ‘Computing’. These four unrelated areas were chosen not for any specific reason but simply because we the authors help students with academic advice and ‘English’ support in them. The theory we develop here of the paradigmatic hearts only emerged after analysis of the interview data. We identify the paradigmatic heart of each of these four subjects. ‘Design’ has a paradigmatic heart that is ‘visual’, ‘philosophical’ and ‘persuasive’; for ‘Nursing’ it is ‘emotional’ and ‘empathetic’, yet also ‘technical’; for ‘Business’ subjects it is ‘income generating’, ‘numerical’ and ‘persuasive’; and for ‘Computing’ it may be ‘visual’, ‘numerical’ or ‘code-based’. We show how each ‘subject’s’ ‘English’ flows through these paradigmatic hearts. By ‘subject’, we mean an umbrella term for a conglomeration of related programmes of study. The paradigmatic hearts of these subjects were largely bounded within each subject domain but occasionally there were elements of them that were transdisciplinary, such as the value of persuasion in Design and Business, and of the importance of the visual in Computing and Design.

By ‘English’, we consider verbal and non-verbal language, and use inverted commas as often what flows through the heart is ‘Language’ rather than a specific linguistic-based category. However, we retain use of the word ‘English’ rather than use the word ‘Language’ because the word ‘English’ framed our investigations, it is ostensibly ‘English’ that we as authors help students with, and through using the term ‘English’ we can show how much of it is guided by the paradigmatic heart. Through demonstrating how the ‘English’ flows through the paradigmatic heart we argue that if this does not happen, the ‘English’ that is used, understood, and interpreted, will be different, and envision this would apply to other languages such as ‘French’, ‘Chinese’ or ‘Italian’.

Our article is structured as follows. We first consider some literature related to corpus and genre studies, and to the importance of context in language use. We then outline our study design of how we collected data (through interviews and focus groups) with subject lecturers. Following this we present, analyse, and later discuss our data regarding how it reveals the subjects’ paradigmatic hearts before concluding.

**Corpora, Genre, and Context**

Many corpus based studies aim to help students with words and lexis for their university studies (e.g. Coxhead & Byrd, 2007) and with longer multi-word combinations (e.g. Liu, 2012; Chen & Baker, 2010). Often, these are based on specific subject corpuses (e.g. Fuentes, 2001) or for different university writing types (Nesi & Gardner, 2012) and concordancers with words in sentences (e.g. compleat lexical tutor). Further, subject dictionaries exist, including ones for Nursing (e.g. Freshwater & Maslin-Prothero, 2005); Business (e.g. Friedman & Barnhill 2012); Design (e.g. Garland, 1989) and; Computing (e.g. Collins, 2012).

Much work has also been done in genre (Swales, 1990), discourse (Paltridge, 2012), and academic literacies (Lea & Street, 1998; Lillis, 2003), also aimed to help students become familiar with their subjects. It is noted that complex sets of discourses, identities and values exist at university (Paltridge, 2004) or that there are academic tribes and territories (Becher, 1989). Further, (e.g. Hyland, 2002; 2013) these words and discourses should be subject specific, and it is often noted (e.g. in humanities) that “it is the quality of engagement with the intellectual subject matter that is crucial” (Turner, 2004, p.102). Other studies note the difficulties students who do not speak English have in the subject (e.g. accounting (Drennan & Rohde, 2002) and also Nursing (Crawford & Candlin, 2013)).

The importance of context is highlighted by Bakhtin (1981) and Voloshinov (1973). Meaning cannot be reified, is part of a “chain of meaning” and “all real and integral understanding is actively responsive” (Bakhtin, 1986, p.68). Dictionary definitions neutralise words, and their real meaning and expression “does not inhere in the word itself. It originates at the point of contact between the word and actual reality, under the conditions of that real situation articulated by the individual utterance” (Bakhtin, 1986, p.88). Thus, context is key, as Voloshinov also notes: “the linguistic form… exists for the speaker only in the context of specific utterances… only in a specific ideological context” (cited in Morris, 1994, p.33). Each subject arguably is a ‘language game’ (Wittgenstein, 1953) that consists of the three elements of *human being, language* and *world-setting* (Finch, 1995). For each ‘language-game’ the lecturer or student (*human being*) will use ‘English’ (*language*) in in its specific subject area (*world-setting*). It is the interrelation of these three elements that constitutes the paradigmatic heart of the subject. For example, the *human being* could be a lecturer, the *language* could be the word ‘empathy’, and the *world-setting* could be Design, in this case, the *language* would have a specific *world-setting* for this *human being* of ‘reaching a solution’ in a visual or semiotic way (as with the visual paradigmatic heart of design). Thus, although the ‘English’ may on the surface look the same, it flows through the paradigmatic heart of the subject. This can only be provided in the context of the subject itself and not outside it (Bakhtin, 1981, 1986). As Fecho writes, “to expect that just because you and I are using the same term or phrase that we have a consensus understanding of its meanings is to deny that context and experience having anything to do with our understandings” (Fecho, 2011, p.19).

**Study Design**

Corpus and genre studies gather data from bodies of spoken or written text. Our initial goals with this study were to complement this text-based data with data gathered from two stages: firstly in-depth interviews and later focus groups. Interviews (twenty-one, averaging 30 minutes) were with lecturers from four different subject areas (Design, Nursing, Business, and Computing). In the interviews, we gave lecturers a simple schematic with the word ‘English’ in the centre and ‘reading’, writing’, listening’, and ‘speaking’ around it. Questions were avoided to not bias the words (cf. Borges, 1979) or their linguistic signifiers (cf. Saussure, 1959). Focus groups (five, averaging 90 minutes) consisted, where possible, of a lecturer from each subject group and ones we had interviewed. All focus groups had a minimum five participants (cf. Barbour, 2007). In the focus groups we first presented our interview stage findings related to how we saw three different existential levels graphically as an iceberg (see below and Figure 1). All data were anonymised, their collection approved by ethics committees (Christians, 2011), and their transcription done by the authors using a predetermined (cf. Poland, 2001) verbatim approach. Analysis used a constructivist grounded theory analysis (Charmaz, 2011) and continual diffractive (Mazzei, 2014) reading and re-reading of the data.

Through the continual diffractive (Mazzei, 2014) reading of the interview transcripts we realised that beyond, or below the initial ‘surface’ language that could be seen in all subjects, and further beyond the secondary or meso, ‘under the surface language’ that could be seen in a text or a corpus, there lay a hidden paradigmatic heart defined by the world-setting of the particular subject. We believe that the interview dialogue (cf. Bakhtin, 1981) we had with the lecturers (*human beings*) about the specific ‘English’ (*language*) needed within the subject context (*world-setting*) gave us data from which we were able to identify the paradigmatic hearts of the subjects. The purely exploratory approach of the interviews continually focused on the exact nature of the English students required and helped explain the role of English to the subject in line with its paradigmatic heart. Such paradigmatic hearts underpinned the language used by the human beings in their particular world setting to the extent that the language flowed through the heart. We represented this visually at the start of each focus group through the use of an iceberg (see Figure 1).



 Figure 1: Iceberg visualization of ‘English’ in subjects

The iceberg consisted of an above the surface ‘tip’ with the ‘English’ we believed everyone can see, then two further levels underneath. The first (meso) level underneath consisted of subject lexis and discourse, and underneath this was a deeper (existential) level consisting of elements we felt showed the paradigmatic hearts of subjects. As Vygotsky noted, “the meaning of a word represents such a close amalgam of thought and language that it is hard to tell whether it is a phenomenon of speech or a phenomenon of thought” (Vygotsky, 1962, p.120). Analogously, in psychoanalysis, there are “large aspects of our psychological functioning which, though having a profound determining effect upon us, are largely hidden, that is, they are unconscious” (Institute of Psychoanalysis, 2015, n.p.). The paradigmatic hearts of the umbrella subjects we looked at we argue to be as follows. For ‘Design’ it is ‘visual’, ‘philosophical’ and ‘persuasive’; for ‘Nursing’ it is ‘emotional’ and ‘empathetic’, yet also ‘technical’; for ‘Business’ it is ‘income-generating’, ‘numerical’ and ‘persuasive’; and for ‘Computing’ it is ‘visual’, ‘numerical’ or ‘code-based’.

In the focus groups, after presenting the iceberg, we then asked lecturers to look at aspects of these paradigmatic hearts on a hand-out and provide us with words and phrases that illustrated them (e.g. ‘emotional’ aspects for Nursing). The word count of our transcribed focus groups was 79, 375 words. In total, lecturers only managed to give us four words: ‘TQM’ ‘blue ocean’ ‘KPIs’, and ‘rainmake’. Despite us continuing to seek words and phrases in each focus group, lecturers were unable to generate them in the decontextualised focus group context. By implication, the ‘English’ of the subject did not live or function when its paradigmatic heart was not beating. Instead, lecturers made comments such as *“I’m not quite 100% sure I understand the task”* (Nursing) or *“I’m finding it a bit hard myself”* (Business). Further, lecturers suggested why they could not provide words and phrases, saying for example that *“it is a thing around empathy… around understanding the context, potentially a cultural thing in there… so I wouldn’t have words for that”* (Nursing) or that, *“you are almost in the role of the existential idea of language which means something to somebody but not to somebody else”* (Business). We stress: lecturers could not produce words and phrases outside the paradigmatic hearts of their subjects (cf. Bakhtin, 1981, Fecho, 2011, Voloshinov, 1973).

**Results and Analysis**

We now present illustrations of these paradigmatic hearts under the headings of Reading, Writing, Listening and Speaking. We use these categories as ones we were traditionally familiar with from pre-sessional and in-sessional course structures, and also because we had used them in our interviews. Following these illustrations we discuss their significance.

**Reading**

In Nursing, if students needed to look up words when they were reading, standard (neutralised (Bakhtin, 1981)) dictionary definitions were felt to need empathic contextualisation within the subject, for example with the term ‘vulnerability’, students *“may have had an understanding of what the term means but not necessarily the concept of the theory within the profession… there’s a clearly defined definition around child development… we would say to them well actually there’s difficulties with the dictionary definition.”* Another Nursing lecturer highlighted the technical basis of Latin or Greek: *“a lot of that has roots in Greek and Latin… for instance… hydro-cephalous.”* Nursing students had to be empathically and emotionally aware of the power of ‘English’. In a mental health context: *“a lot of our programme is about bringing the stuff to students’ awareness to be really aware of… the importance of … language you know.”* Lecturers often used British tabloid press articles, as *“some of the stuff they write about people with mental illnesses are shocking you know ‘The raving lunatic’ ‘the schizoid’… pretty nasty stuff”*. Definitions and understandings of words were often clearly embedded within the paradigmatic heart of the subject. For example, in a focus group, one Nursing lecturer said of the term ‘empathy’ that *“I think within Nursing we would see ‘empathy’ as a professional quality and a skill… something that could be learnt… that you have to employ that as part of your work and is very core and maybe again that’s very different in other disciplines”*.

In contrast, in Design, ‘empathy’ differed in meaning: *“‘empathy’ within Design is usually… with the idea of having some sort of resolution at the end of it… and yet, there may be no resolution in especially Nursing… it might be more to do with merely being willing to understand and listen.”* In Design, reading encompassed a range of visual or philosophical materials. The importance of ‘the visual’ was underlined, *“because we are teaching a visual subject, referencing lots of visual language… you are referencing great cinema or literature…”* Regarding the ‘philosophical’, one lecturer compared students from Scotland, Eastern Europe and France: *“with the Eastern European students and students from France… they understand aesthetics much more than our students here in Scotland.”*

With Business the importance of reading a range of numerical and persuasive focused materials was stressed: *“there may well be many numerical examples… and that tends to aid the understanding perhaps because it gives them something to hang the words on.”* Further, income generating concepts (e.g MacDonaldization and customization) were grouped with numerical concepts (such as calculability and standardisation), all of which were considered complex: “*it’s quite complex language sometimes… we look at MacDonaldization … words there like calculability… rationality… standardisation… customization.”* The range of paradigmatic hearts was also shown within the different sub-disciplines in a faculty, one Business lecturer noting that *“we don’t even speak the same language, you know I’m in a department where people don’t even have the same understanding of the same terms.”*

Within Computing, however, reading was barely commented on, one lecturer in the Computing sub-discipline of Interactive Media Design simply said *“to be honest I’m not bothered if you don’t read the journals, if you understand the concepts and can practically apply them, great that’s what matters*.”

The importance of the subject to its ‘English’ was summarised succinctly by one Design lecturer in a focus group when talking about reading: “*It’s all within the framework of, what the person’s studying, so actually I think all the way through I’m going ‘yeh there’s some of that in what I do’, ‘there’s some of that’ and it’s, that’s where English is horrendous because a student will get hold of what they think the meaning of something is and then the moment you take that word and put it into a different context completely blows them out of the water”*. Nobody disagreed.

**Writing**

For writing in Nursing, one lecturer noted students needed a “*kind of Nursing shorthand… they do struggle with that.”* Many lecturers stressed the importance of critique, and that ‘critique’ in Nursing required an emotional, empathic understanding. For mental health: *“we’re very aware of the language students use inside in their written work… so…if somebody said… ‘the schizophrenic in ward 2… took their discharge this morning’ we would jump on that straight away we’ll say you will not call the person a schizophrenic you will say the person Joe who happens to have schizophrenia… right so we would try to get away from this labelling business.”*

For Design, writing was ‘visual’ or ‘philosophical’. For the ‘philosophical’, one lecturer noted only the indirect importance of ‘English’ in Critical Contextual Studies students needed to demonstrate: *“‘sophisticated argument’”* and that this could not be separated from *‘English.’* Another lecturer said of very good students that they *“do tend to be critical and philosophical, very good with conceptual ideas and discussions around those things.”* However, for representing the ‘visual’ (and also ‘persuasive’) in Design, writing could be full of ‘mistakes’: *“the students can prepare boards with their Design work which may be fantastic… full of spelling mistakes… grammar mistakes… doesn’t make sense at all you know… but designers are not terribly concerned with that.”* Another lecturer stressed that the best ‘writers’ might not be the best designers: *“a lot of students who… come onto an arts course might be dyslexic... the most academic student… might not make the best designer…usually some of my best students are actually the worst, but brilliant designers.”*

In Business, one accounting lecturer commented that most writing tended to be international, and also that the words would be tied in to the numbers, illustrating how the ‘English’ flowed through the paradigmatic heart of numeracy: *“obviously the numbers can help the students… they can actually… then sort of tie their words into it.”* Regarding being persuasive, one lecturer highlighted the need to write and explain a concept: *“they need to be able to, have a sufficient level of English to know what they don't know, know what is a concept and what is the explanation of a concept.”*

In Computing, similarly to the visual in Design, ‘written output’ often did not require ‘writing’ *per se*, but more visual semiotic elements. For example, one Computing lecturer said that in “*Interactive Media Design… we do dip into Design quite a lot and we talk about that end of Computing so that’s why semiotics is so important to us… how do you just communicate an idea and quite often it won’t be in a written way, quite often it will be make a video or make a poster, describe it in a visual way, there’s no point in having language for it.*” Indeed, for this lecturer, ‘writing’ was often only a means to the end ‘output’, and it was irrelevant what ‘Language’ this writing was in: *“you know… we let them submit in Mandarin because… we don’t care what the actual* [verbal or written lexical] *language of what you’re doing is, we want to know the visual communication.”* In another branch of Computing, Software Engineering, actual ‘writing’ was also irrelevant for the ‘output’, but the ability to program was: *“there is this hard-core of programming and other aspects within Computing here.”* Despite this, some branches of Computing, notably that of Information Systems, did require written output: *“the subject area that I teach in is very much more dependent on an ability…to understand the advanced concepts but to express them in English*.”

More generally, the importance and difficulty of highlighting the paradigmatic hearts of subjects was noted by one business lecturer when talking about writing: *“I think you are almost at the level of cultural norms within that particular subject area and some of these things would be intuitive to us… I think what you’re doing is great and it’s quite hard because of that that real level of saying what are these norms within each particular discipline that the student should be aware of.”*

**Listening**

Nursing lecturers underlined the fundamental importance that nurses be able to listen emotionally and empathically. Listening had to be ‘active’: *“for nurses, active listening… is very, very important* [so] *your patients and your relatives know that you are actually listening to them and not preoccupied.”* This lecturer spoke of the intrinsic link between the ‘active’ and the empathetic, of listening emotionally, listening physically, and listening psychologically: *“it’s not just being able to be knowledgeable and… to communicate, it’s about… being confidential, being empathetic… being non-judgmental… and I think communicating as well with a broad age spectrum…. to be able to know whether a baby is hungry or has a pain or a dirty nappy…. or just wants attention.”* A learning disability (LD) lecturer also spoke of ‘active’, ‘empathetic’ listening, of nursing being *“about active listening… about the whole… body language and attending to people… to… interpret what the person’s saying… LD nurses… communication is 90% of our job… a lot of our guys[[1]](#footnote-1) have communication problems… we have to listen but we also have to observe… and the facial stuff and proximity and what have you so again… it’s integrated… in a kind of total communication… listening’s crucial.”* In mental health, the importance of the emotional was clearly underlined by the need to ‘listen’ to how people are ‘feeling’, and of the close connection of this with therapy: *“to listen to how the person is feeling… so it’s kind of… counselling and therapy really… skilled listening is a real art… it’s trying to get them* [students] *to… do that really and to listen not just to the words but to the feelings that are being communicated.”* This lecturer spoke of the term ‘presencing’, or of just being next to someone physically: *“there was a term, used for a while and I think it’s still used in fact, called presencing so the role of silence [if]… somebody was very distressed… inaccessible in some way or couldn’t verbalise how they were feeling so just being present was enough.”* The role of silence was closely linked to empathy, as one lecturer noted: *“I’m just looking especially at the first two ‘the role of silence’ ‘know when to hold your tongue’ those are probably non-verbal... it is a thing around empathy it’s a thing around understanding the context potentially a cultural thing in there as well so I wouldn’t have words for that I don’t think.”*

In Design, Business, and Computing, listening was not commented on much. When it was mentioned in Design, it was linked to speaking. One lecturer said: “*we talk about listening skills and the importance of actively listening, we talk about networking being very important as well.”*  Where it was mentioned in Business, it was linked to persuasion and income generation. One Marketing lecturer commented that *“one of the topics I’m teaching about, is about the self at the moment… so looking at… your actual open self… your hidden self, your ideal self, your subconscious self… and how that translates into how you buy into a branded entity to reflect yourself, so that’s quite a difficult concept for someone who doesn't speak English in the first place.”* Another lecturer spoke of trying to explain to students about change and of *“how the terms have developed over time and explain to them, well, very often these terms have been developed for kind of, for marketing purposes as much as anything else to actually sell concepts.”* In Computing, lecturers also said very little about listening. One lecturer simply said: *“the students are expected to be able to turn the slides, plus listening to me, into their own notes.*”

**Speaking**

In Nursing, speaking needed to be ‘empathetic’ and ‘emotional’, and, as with the listening for Nursing, the *non*-verbal often played a greater role than the verbal. Regarding the verbal, students must *“be able to… speak… professional language coherently and clearly…. some of them particularly around medical terms that are used within the profession struggle with, they can see it written down but they struggle with how to say it.”* In mental health, the ‘English’ was expressive, abstract, emotional, and self-reflective: *“mental health is abstract a lot of the time even with the very real human experience…. it’s not an easy thing to find words to… describe human emotion… so language that’s got to do with reflection… self-awareness.”* It was also fundamentally important to avoid using the *wrong* English: *“you also need to be avoiding ostracizing people…* [there’s a] *huge lexicon of words really when it comes, when it comes to describing mental illness.”* In Nursing more generally, emotion and empathy were key, and it was essential to have *“the ability to be able to go into words how you feel… emotional intelligence is really important.”* Emotion and empathy were also needed by nurses to communicate with a huge range of people, as nurses *“communicate… with patients, with colleagues in the team environment* [and this]… *is something that they’re very much assessed on.”* This could mean speaking to different ages, and social classes, as one nurse spoke of their practice that *“I had a variety of schools… to visit… it was just having to change the way of communication to fit in with the school that you are at and the children and the parent’s needs. When I was at the* [upper middle class[[2]](#footnote-2)] *school I would use my* [upper middle class] *accent and I was very professional but when I was working in more deprived areas I had to be accessible to them, I didn’t want to intimidate them, so I was more relating to them and their situation.”*

Meeting such roles required the ability to adjust vocabulary depending on the person the nurse was speaking to, for example as an LD nurse *“if you’re speaking to a speech and language therapist you know you’ll be using Nursing terminology… when you’re speaking to the parent you might be describing the same condition but in a very different way, it’s not Hydro-cephalis it’s ‘there’s some fluid on the brain’.. and then to the person with the learning disability it’ll be ‘you got a sore head’… it’s the tone of voice…but… also, with our guys, the people we care for, we have to give as many clues as possible as to our meaning so it’s not just the speech, it’s the face, it’s the proximity, it’s the gestures you know… it’s total communication and speech is really only one part of it.”* Thus, a key aspect of the emotional side of ‘output’, similarly as was the case with listening, was *non-*verbal awareness and aptitude. Regarding how such communication is taught to students and what media are used for communication, this lecturer again underlined the power of the non-verbal: *“Sign language, using pictures, technology as well we use an awful lot of stuff on iPads and so on. All of these things can help aid communication… for some of our people… even the English itself probably isn’t that important. The tone and the empathy and the warmth you could probably almost speak gobbledygook and it wouldn’t matter as long as a tone is engaging you are still communicating something.*” Also key was having the emotional aptitude to know when *not* to say anything: *“in Nursing there are lots of instances when… you should know when to hold your tongue. When working with sick kids for example you have got children coming in with non-accidental injuries, the parents are coming in, you suspect the parents have done it, everybody suspects the parents… but it’s not up to us to be judgemental… and it is very difficult to show in your face that you are not disgusted by it or, you know, upset by it. You have just got to act as if everything is normal and that is quite difficult.”*

In Design, speaking flowed through the paradigmatic heart of the subject in both vocabulary use and the networking and multiple roles designers were expected to play. One lecturer noted that *“strangely enough,* [the] *person that commented most on that this year has been a Masters student who did engineering here. Our use of language and art design has been completely different to the experience they have in engineering... sometimes words change, not completely changed meaning, but change as a result of the perspective of their learning, they start to understand what we mean by that.”* Regarding roles and networking (persuasion), one lecturer noted speaking was key as, *“what they are doing is to wear many hats in design industry. You can be a salesman, you have got to talk creatively and passionately, you’ve got to put on your business head, marketing head, technical head and you are always pitching… also, this is a big thing… you also have to be like a clown you’ve got to ask the silly questions over and over again.”*

In Business, speaking reflected the paradigmatic heart of persuasion from two angles: understanding who to target to persuade, and then persuading and selling ideas so they would be income-generating. The first required familiarity with complex terms, for example, *“the words are difficult though… social psychology you’ll be talking about normative beliefs and… all sorts of classic conditionings and… heuristics*.” In a professional environment, the academic complemented the social: *“when they went into placements… students who were strong academically… were doing well at placement…* [they]*… have… the motivation… the better level English skills, and this is the missing one, they have the social skills… they need to be able to interact with people, that’s the key thing.”*

In Computing, spoken language was also often embedded within the programming and coding heart: *“we teach a course for a Japanese company every summer, their English is very poor but… start showing code and they understand and they’re more confident talking about it.”* Similarly to designers, in the branch of Interactive Media Design, professionally, students were required to be persuasive salespeople: *“throughout my career I have had to stand up and talk my ideas… you have to find ways to convince them and also make them think it was their idea. This is a real skill. I can do this and I do work on it in class.”*

**Discussion**

The above results illustrate that, although the ‘English’ appears to be ‘similar’ when looked at in a corpus or in a text, and although ‘subject specific’ vocabulary can be isolated from specific subjects through text analysis and corpus linguistics, when this *language* is used by *human beings* in its specific *world setting* (cf. Finch, 1995), it runs through a particular paradigmatic heart. In ‘Design’ the paradigmatic heart is ‘visual’, ‘philosophical’ and ‘persuasive’; for ‘Nursing’ it is ‘emotional’ and ‘empathetic’, yet also ‘technical’; for ‘Business’ subjects it is ‘income generating’, ‘numerical’ and ‘persuasive’; and for ‘Computing’ it may be ‘visual’, ‘numerical’ or ‘code-based’. Even if words had the same spelling, or ‘linguistic sign’ (e.g. ‘empathy’ or ‘vulnerability’), we found that the meaning would be underpinned by the individual subject’s paradigmatic heart. Only through gathering data about the nature of ‘English’ required by students to succeed through exploratory interview dialogue (cf. Bakhtin, 1981) and then analysing the transcripts of these interviews refractively (Mazzei, 2014) were such hearts revealed and later confirmed in follow up focus groups. Significantly, even though lecturers were asked to provide examples of words and text in the ‘world-setting’ and context of the research focus groups, they were almost totally unable to do this, and the discussion focused elsewhere. Thus, when removed from its own world-setting (cf. Finch, 1995) and context (cf. Bakhtin, 1981), the paradigmatic heart did not beat, and the ‘English’ did not flow.

We argue these results have two implications. Firstly, in order for the ‘English’ that is truly representative of its world-setting to be allowed to flow, it has to be delivered through its subject specific world-setting. Secondly, if the ‘English’ is delivered in a world setting that is different from that of its subject, it changes the nature of that ‘English’. Not only do the meanings underpinning much of the vocabulary differ, but the way in which the vocabulary and the ‘English’ both operates with the paradigmatic heart through non-verbal elements (e.g. visual, emotional, numerical) is also fundamentally important to its usage within the subject. Dictionary definitions are overly neutral (Bakhtin, 1986) and do not convey precisely how the language is used; only when taught using the specific subject content will the paradigmatic heart beat and the ‘English’ flow through it. Crucially, in support and preparation classes for students either on their subject degrees or on pre-sessional courses, if the ‘English’ is removed from its paradigmatic heart and not taught in its specific world-setting by tutors familiar with the subject, it will differ from that required by students on their degree courses. Further, as the use of ‘English’ differs with these four subjects, we suggest that for Mathematics, Music, Philosophy, and so on, it would also differ in its paradigmatic heart.

In terms of how institutions approach pre-sessional and in-sessional courses, we argue this has major implications. Unless students are prepared in ‘English’ in the actual subject they are studying or going on to study, the ‘English’ will be different, and unless students are prepared and given work in the ‘English’ in its actual subject world-setting they will not be learning the ‘English’ they need. Thus, not only does preparation and support need to be undertaken in the subject itself, but if it is not done so then the ‘English’ taught will differ from the ‘English’ used in the subject in meaning and usage. We argue that teachers on such courses will benefit greatly in being able to help their students if they are given the freedom to engage more with the subjects the students are doing. If they are free to work more as language experts informed by the paradigmatic hearts we detail here, we argue their understanding of how the English operates, and precisely what English students need, will be greatly enhanced. This is not an exhortation for such teachers to become ‘jacks of all trades’ and ‘masters of none’. Instead, it is to encourage teachers to be more aware of how the ‘English’ used operates underpinned by these paradigmatic hearts rather than through neutralised meanings. For example, to be aware that when a nursing student requires help with an essay involving critique, that underpinning such critique will be an emotional paradigmatic heart, and to frame their advice accordingly. This in turn would be very different to the advice teachers would give to business students regarding their approach to critique, which may be more income generating focused. Thus, teachers should be free to use their expert knowledge of language informed by an awareness of how the ‘English’ is used in the subject.

**Conclusion**

Much research has been done into the use of corpora and discourse to give ‘English’ support to students before and during their degree courses, much of which champions subject specificity (e.g. Hyland, 2002). Drawing on interview and focus group data with subject lecturers, we extend this work by showing that when this ‘English’ is used by *human beings* (lecturers) in its specific *world setting* (cf. Finch, 1995), i.e. subject; it runs through what we term a particular paradigmatic heart. By ‘paradigmatic heart’ we mean the set of values, beliefs, and perceptions that represent a subject’s central or innermost engine; crucially, through which its ‘English’ flows. We illustrated both how the ‘English’ used in the subject areas of ‘Design’, ‘Nursing’, ‘Business’ and ‘Computing’ subjects flows through these ‘paradigmatic hearts’; and, critically, how it flows differently if outside this heart. For the four subjects considered here the paradigmatic heart of ‘Design’ is ‘visual’, ‘philosophical’ and ‘persuasive’; in ‘Nursing’ it is ‘emotional’ and ‘empathetic’, yet also ‘technical’; in ‘Business’ subjects it is ‘income generating’, ‘numerical’ and ‘persuasive’; and in ‘Computing’ it may be ‘visual’, ‘numerical’ or ‘code-based’. Although we have only considered four subjects, we suggest that other subjects would also have their own paradigmatic heart, and would envision this as an avenue for future research. We conclude that if students are not prepared and given work in the ‘English’ in the actual world-setting of their future or current subjects, they will be learning a different ‘English’ from the one they need. We also conclude that if this ‘English’ is removed from its subject world-setting it cannot be intertwined with the underlying non-verbal (e.g. numerical, visual, emotional) aspects specific to each paradigmatic heart. However, if teachers are free to work more as language experts informed by the paradigmatic hearts we detail here, we argue their understanding of how the English operates, and precisely what English students need, will be greatly enhanced. Thus, preparation and support needs to be undertaken in the subject itself.

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1. In LD nursing, ‘guys’ is the term used to represent those being cared for [↑](#footnote-ref-1)
2. For reasons of maintaining anonymity, ‘upper middle class area’ inserted to replace of the name of the area [↑](#footnote-ref-2)