

**HOW DEFINITE ARE WE ABOUT THE ENGLISH ARTICLE SYSTEM? CHINESE
LEARNERS, L1 INTERFERENCE AND THE TEACHING OF ARTICLES IN
ENGLISH FOR ACADEMIC PURPOSES PROGRAMMES.**

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ABSTRACT

Omission and overspecification of *the/a/an/Ø* are among the most frequently occurring grammatical errors made in English academic writing by Chinese first language (L1) university students (Chuang & Nesi, 2006; Lee & Chen, 2009). However, in the context of competing demands in the English for academic purposes (EAP) syllabus and conflicting evidence about the effectiveness of error correction, EAP tutors are often unsure about whether article use should or could be a focus and whether such errors should be corrected or ignored. With the aim of informing pedagogy, this study investigates: whether explicit teaching or correction improves accuracy; which article uses present the most challenges for Chinese students; the causes of error and whether a focus on article form can be integrated within a modern genre based/student centred approach in EAP. First, a questionnaire survey investigates how EAP teachers in higher education explicitly teach or correct English article use. Second, the effect of explicit teaching and correction on English article accuracy is investigated in a longitudinal experiment with a control group. Analysis of this study's post-study measures raise questions about the sustained benefits of written correction or decontextualised rule-based approaches. Third, findings are presented from a corpus-based study which includes an inductive and deductive analysis of the errors made by Chinese students. Finally, in a fourth study hypotheses are tested using a multiple-choice test (n=455) and the main findings are presented: 1) that general referential article accuracy is significantly affected by proficiency level, genre and students' familiarity with the topic; 2) Chinese students are most challenged by generic and non-referential contexts of use which may be partly attributable to the lack of positive L1 transfer effects; 3) overspecification of definite articles is a frequent problem that sometimes gives Chinese B2 level students' writing an 'informal tone'; and 4) higher nominal density of pre-qualified noun phrases in academic writing is significantly associated with higher error rates. Several practical recommendations are presented which integrate an occasional focus on article form with whole text teaching, autonomous proofreading skills, register awareness, and genre-based approaches to EAP pedagogy.

DEDICATION

This thesis is dedicated:

To my loving family, past and present.

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Abbreviations

In this thesis, the following abbreviations are used:

BALEAP	British Association of Lecturers of English for Academic Purposes
BIA	Birmingham International Academy
CEFR	Common European Framework of Reference for Languages
DELTA	Diploma in Teaching English to Speakers of Other Languages
EAP	English for Academic Purposes
EFL	English as a Foreign Language
EGAP	English for General Academic Purposes
EISU	English for International Students Unit (Former name of BIA)
ELAL	Department of English Language and Applied Linguistics
ESOL	English for Speakers of Other Languages
ESP	English for Specific Purposes
IELTS	International English Language Testing System
L1	First Language (once called ‘native language’)
L2	Second Language
OED	Oxford English Dictionary
SELT	Secure English Language Test
UKVI	UK Visas and Immigration

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1 INTRODUCTION

1.1 Brief overview

This PhD research stems from an interest in one of the most confusing and frequent grammatical choices that learners of English must make: whether to use *the*, *a/an*, or no article (\emptyset) in written production. *The* is by far the most commonly occurring word in the English language (Sinclair, 1991) and, since the most frequent choice is not to use any determiner, the \emptyset article has been argued to be the most frequently occurring free morpheme (Master, 1997). On the assumption that accuracy is considered important, a focus on these small words in English for Academic Purpose (EAP) classes appears necessary, as it has long been pointed out that *the/a/an* together account for more than one in every ten words in academic writing (Berry, 1991).

While the complexities of the English article system are likely to challenge all international students whose first language is not English, the literature suggests that students from a first language (L1) background that does not grammaticalise definiteness/specificity may face particular challenges in applying certain aspects of the English article system (Master, 1997; Lu, 2001; Ekiert, 2004; Díez-Bedmar & Papp, 2008; Snape, Mayo & Gürel, 2013; Crosthwaite, 2012, 2016a). The extent to which Chinese Mandarin grammaticalises these notions will be discussed in Chapter 2, but some researchers have claimed that Chinese learners' first language affects their use of *the/a/an/∅* in academic writing at university at Upper-Intermediate levels of English proficiency (Milton, 2001; Chuang & Nesi, 2006; Díez-Bedmar & Papp, 2008; Lee & Chen 2009). Indeed, it has been suggested that article errors (omission and overspecification of the definite article) are the most commonly occurring grammatical errors made in English academic writing by Chinese L1 undergraduate university students (Chuang & Nesi, 2006). The increase in the numbers of Chinese L1 students in UK Higher Education over the past 15

years (see Section 1.3.1) has further heightened the need to understand these students' challenges with English articles in academic writing.

Having briefly outlined the topic, this chapter now has four aims: to explain my personal and professional interest in this research, to justify this interest in academic terms, to highlight why further research is necessary and to outline the structure of this thesis.

1.2 Personal interest

My curiosity regarding EAP students' article usage can first be explained anecdotally. In my observations of over 30 EAP teachers in my role coordinating an English for Academic Purposes Preessional at a UK university (some of whom were new entrants to EAP from the fields of English as a Foreign Language and English as a Second Language), it has been my personal experience that the English article system can be taught effectively by EAP tutors. As will be illustrated in Chapter 4, which presents a survey of English for Academic Purposes (EAP) tutors' beliefs and practices regarding the teaching of English articles, many tutors manage to focus students on accurate article use in authentic academic texts in ways which motivate students and promote learner autonomy. However, my experience over 14 years of teaching EAP suggests that some tutors are unsure about whether they can and how they should improve students' accuracy in English articles. *Can and should they teach article use? If so, which aspects of the article system challenge Chinese L1 learners most? Should they correct article errors in academic writing feedback and does this help learners or simply discourage them?*

Unfortunately, some EAP tutors have not stopped to even ask the questions above. In a depressingly similar fashion to my own experiences as a learner of second languages, I have also sometimes noticed students being overcorrected and discouraged, taught rules they already

learned in middle school, made to complete decontextualised grammar gap-fill exercises that may have little effect on written production, told oversimplified rules and even provided with incorrect advice and feedback.

On the opposite end of the spectrum, some tutors totally avoid focussing on the English article system in EAP. As discussed in Chapter 4, possible causes can include a tutor's lack of confidence of their own understanding of the article system, some tutors' belief that students can naturally improve article accuracy without intervention, a principled objection to focussing on form within EAP, or a perception that article errors are trivial surface errors. Irrespective of the tutors' beliefs, many also perceive that they have insufficient time to devote to this minor error in the typical EAP curriculum in which the need for accuracy of articles has to compete with many more important priorities. Moreover, given that genre analysis, register awareness, and many competing lexico-grammatical areas are simpler to teach and have proven efficacy, many tutors need convincing that a focus on article accuracy could and should merit occasional attention in the EAP classroom.

Although the personal anecdotal evidence presented above is not proposed to support the claims made in this thesis, these experiences underpin my personal and professional motivation for addressing the topic. The following section will present the more academic background to this issue before summarising the aims of this thesis: to give EAP tutors greater clarity on whether they can and how they can facilitate improved English article accuracy among Chinese learners.

1.3 Background and justification for the research

1.3.1 Justification for the focus on Chinese L1 Postgraduate level students

The focus on the English article use of Chinese L1 international students at postgraduate level is justified due to the massive expansion of Chinese L1 students studying in many UK HE institutions over the last 15 years (Universities UK, 2019). According to this source, 19.6% of the total UK student population in 2017/18 were international students making a net worth contribution to the UK of £20.3bn. Of these 458,490 international students, 106,530 came from China and this figure has been rising steadily since 2013. Over 70% of students in the summer Pre-sessional English for Academic Purposes Programme at the author's own institution are Chinese L1 students who progress onto postgraduate programmes in which they often outnumber home students, notably in the university's Business and Engineering Schools. This reflects broader national trends, for which current data indicate that the majority of postgraduate Chinese speaking students enrol onto Business studies, Economics, Accounting and Finance, and Engineering programmes at UK universities (The Higher Education Statistics Agency, 2019). It thus seemed appropriate to focus on Chinese L1 Business School students in the studies presented in Chapter 5 and 6. These official UK statistics may already be out of date according to a recent *Guardian Newspaper* report (Weale, 2019) which suggests that applications for study in the UK 2019/20 have increased by 30% due to China-US tensions. It is therefore more relevant than ever to understand any L1 effects upon language inaccuracy. The question of whether Chinese students could be assisted to improve their English article accuracy is also related to the instruction provided within the university setting and the following section therefore provides the definition and background of English for Academic Purposes (EAP).

1.3.2 English for Academic Purposes (EAP)

Rather than being defined simply as English lessons in a university setting, English for Academic Purposes (EAP) is generally argued to be a separate paradigm of instruction (Swales, 1990; Flowerdew & Peacock, 2001; Hyland & Hamp-Lyons, 2002; Alexander, Argent & Spencer, 2008). Linked to the greater use of English across the world by non-native speakers of English (Flowerdew & Peacock, 2001), the proliferation and expansion of EAP courses in the UK is also related to the internationalisation strategies of many UK universities. In the UK context, the term EAP covers a broad range of activities including highly specific courses embedded within disciplines; preessional courses designed for students who have not reached the English proficiency entry requirements and need to show some progress before starting their intended academic programme; insessional classes covering a ‘core skills’ approach offered to all students during their programme, and new forms of integrated academic English skills and content instruction such as Foundation programmes. The core defining feature of any EAP course is that the objectives are needs-focussed with the aim to help international students achieve success in their intended academic community (Hyland & Hamp-Lyons, 2002).

Any discussion about whether English article accuracy can be a focus in the EAP curriculum needs to recognise the competing demands for any EAP tutor’s time in the classroom. As will be developed in Chapter 2, a focus on language forms such as *the/a/an/Ø* needs to be integrated within a curriculum which has an arguably greater priority of preparing students for the functions and processes of academic writing. While most EAP Preessional courses offer a mixture of general and academic English, EAP is often defined by its more dominant focus on the socialisation of students within their discourse communities which involves special attention to the genres of writing that students will be producing in these communities (Swales,

1990; Swales, 2004; Swales & Feak, 2004) and the many variances in genre across disciplines (Hyland, 2002a, 2007b; Nesi & Gardner, 2012). In contrast to the general English syllabus which prepares students for English language demands in their entirety (an integrated syllabus which tends to recycle grammatical accuracy issues over shorter texts of various topics), the ‘EAP paradigm’ involves more time restricted programmes on academic English more focussed on writing and reading (Alexander, Argent, & Spencer, 2008). This generally entails deeper exploitation of a smaller number of denser academic texts (ibid.). With regards to grammatical features such as English articles, an ‘EAP paradigm’ could thus be expected to include such a focus more incidentally than general English, as and when needed, if at all (reference will be made to the researcher’s programme in Chapter 5).

While acknowledging that some researchers continue to see accuracy in articles as acquired naturalistically without instruction (Alexander, Argent, & Spencer, 2008), this thesis makes the assumption that a focus on form in language generally accelerates accuracy. In EAP’s related sister field of Second Language Acquisition (SLA) the consensus view for the past 35 years has rejected theories of naturalistic L2 language learning of the written form of L2 (Long, 1983, 1990; Norris & Ortega, 2000; Ellis, 2006). The generally accepted view in SLA research is that students need both content-driven ‘comprehensible input’ (Dulay, Burt & Krashen, 1982; Nunan, 1991) in addition to a focus on form that helps learners notice patterns more consciously (Norris and Ortega, 2000; Ellis, 2006). However, the assumption that a focus on form has theoretical benefits should not be confused with a traditional decontextualised approach to grammar teaching. This thesis in no way seeks to argue for a return to the behaviourist and prescriptively ill-informed approaches of writing composition classes in the 1960s and 1970s (Paltridge, 2001). More realistically, the investigations into the effects of different methods of teaching articles were carried out on the theoretical assumption that form-

focussed instruction can sometimes contribute to students' noticing of written accuracy. This assumption would appear solidly grounded on theory since the total rejection of any focus on grammar is less common today in the EAP field and many EAP researchers conclude that an incidental focus on form integrated within an EAP genre-based approach can be beneficial (Hyland & Milton, 1997; Hinkel, 2003; Fang, Schleppegrell & Cox, 2006; Hyland, 2008).

One unresolved polemic within the EAP literature, more directly affecting the topic of this research, relates to written error correction. The review of the literature in Chapter 2 will more critically juxtapose the research that supports focussed written corrective feedback (Ellis, 1994; Polio, Fleck & Leder, 1998; Ferris, 1999; Chandler, 2003; Bitchener, Young & Cameron, 2005; Dale, Anisimoff & Narroway, 2012; Ferris & Kurzer, 2019) with research that questions the value of the labour-intensive process of written corrective feedback (Truscott, 1996, 2004; Crosthwaite, 2016b). Within EAP, Alexander, Argent, & Spencer (2008: 210) certainly discourage the correcting of 'every misuse of articles'. Thus, the practices I have anecdotally witnessed during summer preessionals over 11 years of teaching and coordinating EAP courses does not always appear to sit so harmoniously within the recommended practice of EAP. It was therefore of interest to know why EAP teachers were so frequently seen to be correcting article use and whether such correction served a purpose.

The justification of this thesis thus follows the practical objectives of past error analyses (Corder, 1967; Master, 2002; Chuang & Nesi, 2006): to improve pedagogical approaches through understanding. Through knowing the extent to which different contexts of article use cause challenges for Chinese L1 learners and the reasons for which mastering some contexts may prove more difficult, EAP pedagogy and materials development could be refined to better suit these learners who are so highly represented in student numbers. However, as shall be reviewed in the next section and the Literature Review, there are gaps in knowledge and

disagreement about the extent to which different article use contexts cause challenges for Chinese L1 learners and even whether they continue to make frequent errors at Upper-Intermediate levels of English proficiency.

1.4 Previous Research into Chinese L1 learners' English article accuracy

The question of whether Chinese L1 university students make the most errors through definite article omission (Chuang & Nesi, 2006; Díez-Bedmar & Papp, 2008) or through omission of \emptyset /oversuppliance of the definite article (Lee & Chen, 2009) will be discussed further in the next chapter and then investigated using both corpus methods and a testing approach. As the Literature Review will show, previous studies have arrived at very different conclusions regarding this question. While some researchers (e.g. Crosthwaite 2016a) have found that most article contexts pose few challenges for Chinese students by the time they have reached Upper-Intermediate levels, other researchers (e.g. Lee & Chen 2009) report frequent and meaningful effects of article inaccuracy among Chinese majors in English and Applied Linguistics with high levels of English.

As shall be presented in the next chapter, this thesis adopts a weak form of the Contrastive Analysis Hypothesis. The assumption is made that learners with an L1 containing an article system [+Article] could have a different 'natural order of article acquisition' to learners whose language has no article system, but that this effect should not be oversimplified (as many other factors affect acquisition and written accuracy). Master (1997: 216) found high levels of inaccuracy among higher levels of article-less L1 background EAP students including Chinese L1 learners and concluded that transfer effects were a large contributor. However, many EAP tutors are likely to hold an overly simplified working hypothesis about the effect of L1 on their Chinese students' accuracy in academic English based on less evidence-based research. Over many years, one hugely influential book has been Smith and Swan's (2001) *Learner English:*

A teacher's guide to interference and other problems, within which Chang's (2001: 318) chapter creates a somewhat negative impression of Chinese L1 writing with a strong assumption of ubiquitous error through L1 transfer effects in L2 English:

There are no articles in Chinese. Students find it hard to use them consistently correctly. They may omit necessary articles: *Let's make fire *I can play piano. Or insert unnecessary ones: *He finished the school last year. *He was in a pain. Or confuse the use of definite or indefinite articles: *Xiao Ying is a tallest girl in the class. *He smashed the vase in the rage.

However, Chang provides little evidence to support such claims. In fact, as shall be discussed in Chapter 2, more empirical recent research suggests that the L1 of Chinese students has a far more complex and nuanced effect on their accuracy in different contexts of article use (Díez-Bedmar & Papp, 2008; Crosthwaite, 2016a). These latter empirical findings are extremely useful, particularly in the context of the competing demands for attention in the EAP syllabus and the obvious benefit of focussing learners on specific article uses effectively, rather than on the article system in its entirety. After reviewing this empirical research in Chapter 2, this study will further investigate these nuanced effects and thereby contribute to the insights such evidence can give to materials and syllabus designers in EAP.

The issue of whether article errors are minor surface errors that cause only annoyance or can cause meaningful problems in communication is fundamental to the question of whether tutors should attempt to teach accurate use of *the/a/an/Ø* articles in EAP. The issue of *error gravity* (Corder, 1967) will thus need to be addressed in several chapters in this thesis. In addition to discussing the effects of Chinese learners' article morpheme errors in terms of sentence-level accuracy, this research will also seek to explore the effect of article inaccuracy on the overall register of students' writing. Indeed, in recent years, some interest has been shown in the writing errors that Chinese learners make (including articles, pronouns and adverbs) and the effects these errors have on the reader's perceived academic register of writing. A number of

studies have noted informal characteristics in the English academic writing of Chinese L1 university students (Mayor, 2006; Gilquin & Paquot, 2007; Lee & Chen, 2009; Chen, 2014). Such claims are often refuted (see Leedham, 2015), but there is a possibility that this impression is related to the observation made in the research that [-Article] L1 background students go through a ‘flooding’ stage of definite article overuse in their acquisition process (Huebner, 1983; Master, 1997; Thomas, 1989; Zdorenko & Paradis, 2008), which has also been claimed to be seen in Chinese L1 university students’ writing (Lu, 2001; Lee & Chen, 2009). It is certainly possible that such effects are often overestimated in a similar way to how many EAP tutors assume all article errors are due to L1 transfer effects, but this interference is an interesting focus for research.

1.5 Summary of research aims

The intention is to further the EAP field’s understanding of the types of article use that cause Chinese learners the most frequent challenges, in order to inform the development of more targeted pedagogical resources relevant for Chinese learners in EAP. To develop this pedagogy, a greater understanding is required not only of the errors that Chinese learners make, but the causes of such errors (including L1 effects) and EAP tutors’ current approaches to teaching article use. Another aim is therefore to understand the current attitudes and practices of EAP tutors with regard to teaching and correcting article use. The findings of this research could then help tutors to decide which article uses to teach or ignore and whether or not they should correct errors in student writing. With a greater understanding of these article errors, after briefly focusing learners on article forms, tutors could potentially focus students upon self-correction and peer-marking which are more consistent with current student-centred approaches that encourage learner autonomy. By investigating students’ accuracy and teachers’ attitudes, the thesis inevitably touches on some of the ongoing debates in EAP.

Although not the main objective of this research, this thesis will contribute to the discussion about whether an occasional focus on accuracy (morpheme choice) is fully compatible with current approaches to teaching EAP recommended in the literature.

1.6 Thesis overview

Chapter 2

After reviewing the English article system and the effect of article errors in writing, a contrastive analysis of Chinese Mandarin will be presented. The review of the research literature will suggest some limited support for the L1 effect hypothesis, but also show a highly complex range of factors affecting development and accuracy with English articles. Having identified several gaps in the literature, the chapter summarises four Research Questions.

Chapter 3

While the procedural methodologies of the individual studies are presented in their individual sections (Chapters 4 – 7), a methodological overview is presented in Chapter 3 of some of the key issues that impact upon the methodological choices made in the course of the research. The chapter also describes the ethical and methodological challenges that were identified by a pilot study, and how these issues were resolved.

Chapter 4

Chapter 4 presents a small survey that was conducted to contextualise the research by investigating the extent to which EAP teachers in Higher Education programmes in the UK explicitly teach/correct English article use.

Chapter 5

The first main corpus-based study presented is a longitudinal study of the effect of explicit teaching on 25 (L1 Mandarin Chinese) English learners during a 15-week Preessional programme. The relative effects of correcting English article errors, teaching the article system or not making any mention of articles will be compared and contrasted.

Chapter 6

Combining the data collected for the preceding study with some essays from lower proficiency learners and case study responses, a corpus of 50,319 words was analysed for comparison with a smaller corpus of L1 essays on the same topic. A comparison is then made between the essays and a mini-corpus of case-studies in order to investigate genre effects on accuracy. In addition to deductive analysis using the analytical framework developed by Bickerton (1981), some qualitative methods and a freer/simpler corpus-driven inductive analysis of the same data are conducted to investigate further the possible causes of errors.

Chapter 7

The final study uses a grammatical judgement multiple-choice methodology (455 participants) to investigate several hypotheses formed as to why Chinese students oversupply or omit articles and this chapter further investigates the link between the students' general proficiency development and their typical article use errors.

Chapter 8 (Conclusion)

After summarising and critically evaluating some of the findings in the four studies presented, the final chapter provides some practical suggestions for EAP teachers wishing to focus on this area of language. In addition to many concrete recommendations, it is hoped that several of

the main findings can help inform teachers' 'working hypotheses' as to why students make errors in article use and how students can be helped to improve their article accuracy.

2 LITERATURE REVIEW

The many variables which can affect Chinese L1 learners' accuracy in any grammatical choice are as wide ranging and complex as the English article system itself. The first section of this chapter shows how the grammaticalisation of definiteness in the English language has led to an extremely complex system that does not have a simple one-to-one mapping of form and meaning. A contrastive analysis of Chinese is then presented in order to build hypotheses about the predicted errors in later chapters. In addition to a greater understanding of the many variables affecting article accuracy, the review of the literature presented here highlights many areas of uncertainty that will be addressed in the Research Questions summarised in the final section. More generally, the last part of this chapter aims to evaluate the arguments introduced as to whether accuracy of English articles in academic writing should and could be an appropriate focus of attention in the teaching of English for Academic Purposes.

2.1 Key term definitions

Ø article

Throughout this thesis, reference will be made to *the*, *a/an*, and Ø (zero) articles. In the terminology employed in some of the published literature (Langendoen, 1970; Chesterman, 1991), the 'null' article (sometimes termed Ø2) refers to the zero article found with singular nouns/proper nouns) as opposed to Ø used for plural/common nouns. However, to avoid confusion, this thesis will define all contexts in which a noun phrase can be used alone (bare) without an article or other determiner as a Ø article context. For the sake of simplicity the thesis therefore does not distinguish between Ø article usage with proper nouns, singular, plural or mass nouns.

Omission/overspecification

Based on Dulay, Burt & Krashen's surface taxonomy (1982), most studies use the term 'omission' to denote a missing article in an obligatory context (Chuang & Nesi, 2006; Díez-Bedmar & Papp, 2008; Lee & Chen 2009; Crosthwaite, 2016a, 2017). However the terms 'overinclusion' (Chuang & Nesi, 2006), 'redundancy' of article use (ibid.), 'overspecification' (Lee & Chen, 2009), 'oversuppliance' (ibid.) and 'oversupply' (Crosthwaite, 2016a) are among the many different terms used in the literature to describe article use when such use is ungrammatical/inappropriate. This study will use the nouns 'overspecification' and 'oversuppliance' and the verb forms 'overspecify' and 'oversupply' to denote inappropriate use (when considered an error). When use of article is unnecessary but does not affect grammatical accuracy or appropriacy, the word 'redundancy' is used to denote a more broad connotation of marked use. To illustrate, the definite article in the following example taken from a conclusion in the corpus of essays analysed in Chapter 6 shows a noun phrase (*the managers*) which was agreed as correct, if marked, by three L1 English tutors. The three tutors agreed that \emptyset was more likely, but that *the* was permissible in context of the parallel structure:

Motivation is not the only way to incentivise people in practice, since the managers just search for the best ways in every situation [M_09552-4-Wk1]

Underuse/overuse

In contrast with omission (and its connotation of grammatical accuracy), 'underuse' is used in this thesis to denote a lower than expected frequency used when compared to L1 discourse on the same prompt or genre. Overuse is the parallel term used for quantitatively more frequent use in a text as a whole, whether or not such use is grammatically correct.

2.2 The English article system

Although many Indo-European languages have some form of article system, their ancestors (such as classical Latin and Sanskrit) did not. Today, many other world languages (Japanese, Hindi, Chinese) do not have an article system, even if they have other markers of definiteness. It is generally accepted that while all languages can refer to the specificity, definiteness and number of a noun referent in some fashion, some languages have articles [+Article] while others are article less [-Article]. The Oxford English Dictionary (OED Online, 2010), in its 23 main entries for the use of the definite article, reported that *the* in its current form was first seen in the East Midlands dialect in c 1150, firmly establishing itself in English by the time of Chaucer. Since then it can be seen from the OED that the use of the definite article has been in a constant state of flux. In the 17th century all dates were preceded by *the* (e.g. *the* 1685) and languages were always prefixed by *the* (i.e. *the* Latin), indeed the OED cites Webster in 1934 stating that '*The modern descendants of the Latin are called the Romance languages*'. According to most sources (Bybee, Perkins & Pagliuca, 1998) it is agreed that the definite article originated from the Old English demonstrative *that* (Old English did not have an article system) while the indefinite *article a/an* came from the numeral *one*.

2.2.1 Bickerton's four 'Types' of article use

Whether or not the English article system is today used uniformly by its different users, any framework that explains its functions and forms needs to incorporate both its pragmatic and grammatical functions. Grammatically, the form of article will in some cases depend on the noun's countability and number. Pragmatically, in its referential uses, articles reflect both the context (whether the reader can infer its definiteness or indefiniteness) and the construal of context (whether the reader can be expected to know about the referent and whether it is to be construed in a specific or general way). Bickerton's Framework, as shown in Table 1 below,

acknowledges that article choice is determined by the discourse features of the referents, namely whether construed by the user as a specific referent [\pm SR] and whether known [\pm HK] to the hearer. This framework provides four ‘Types’ of English article use and has the advantage of explaining both definite, indefinite and generic uses of articles (but not idiomatic or proper noun uses). The next section outlines each of these in turn.

Table 1: Bickerton’s (1981) semantic and pragmatic Framework

Type	Features	Context	Form of Article	Examples ¹
1	[-SR, +HK]	Generic: The reader knows of its existence, but not a specific reference.	<i>a/an</i> \emptyset <i>The</i>	An elephant never forgets. Elephants never forget. The elephant never forgets.
2	[+SR, +HK]	Writer and reader both know of the specific referent.	<i>The</i>	Remember to feed the elephant! That’s the biggest elephant I’ve ever seen.
3	[+SR, -HK]	The writer knows of a specific referent the reader does not know.	<i>a/an</i> \emptyset	The local zoo has an elephant. The local zoo has elephants.
4	[-SR, -HK]	Neither writer nor reader believe the noun refers to a specific thing	<i>a/an</i> \emptyset	The zoo does not have an elephant. The zoo does not have elephants.

¹ Examples taken from Langendoen (1970), Cziko (1986), Heubner (1983), and Butler (2002).

Type 1 [-SR, +HK] Generic

The Type 1 (Generic) function of the English article system is used to indicate the more general nature of the noun as a class. This generic function is often equally served by plurals, *a/an* or *the*, as an example from Langendoen (1970) illustrates:

- i. An elephant never forgets
- ii. The elephant never forgets
- iii. Elephants never forget

Although generic article use is one of the rarer forms of article use generally, it is far more common in written academic English than other forms of discourse due to its use in defining terms and topics. Indeed, Master posited some evidence (1987: 184) that generic *the* is most common in essay paragraph topic statements, supporting the assumption that paragraphs normally start with a core generalisation since, ‘topic sentences are by definition more generalised than other sentences in the paragraph’. After analysing a corpus of articles from the journal *Scientific American*, Master (1987) reported that the \emptyset article was the most frequent generic article form (54%) of all generic uses, followed by generic *the* (38%) and finally the generic *a/an* article (8%).

The importance of generic reference in academic writing is thus clear. However, an added complication in generic noun phrases for L2 learners of English is that, as shown in Krifka and Gerstner’s (1987) examples in Figure 1 below, generic contexts can allow various morphemes (including \emptyset). That is to say that most generic phrases can be formulated in a variety of ways with an article or \emptyset with plural count nouns (sentences 1, 2, 3 and 5), often with a choice of bare plural or singular definite with little or no change in meaning.

1. The lion is a ferocious beast. (singular definite generic NP)
2. A lion is a ferocious beast. (singular indefinite generic NP)
3. Lions are ferocious beasts. (generic bare plurals)
4. Gold is a precious metal. (generic bare singular)
5. One cat, namely the lion, is a ferocious beast. Some cats, namely the lion and the tiger, are ferocious beasts. (taxonomic NPs)
6. Rice was introduced in East Africa some centuries ago. (generic bare mass noun)

Figure 1: Examples of generic NPs in all forms (Krifka & Gerstner, 1987)

Mass nouns generally only allow the limited \emptyset article choice (sentence 6) but, apart from this simple observation, the bewildering choice and the complicated rules of whether bare plurals (Lions are dangerous), definite singulars (The lion is dangerous), or indefinite singulars (A lion is dangerous) are preferred or restricted are highly complex issues (Langendoen, 1970; Huebner, 1983; Cziko, 1986; Butler, 2002; Yang & Ionin, 2008; Ionin *et al.*, 2011). To some extent this complexity will clearly prove a challenge to all L2 learners of English, but section 2.3.1 will discuss claims that Chinese L1 learners may have particular issues with this type of use.

Type 2 [+SR, +HK] Definite Articles

The definite article is the one type of article that can (and must) take only one morpheme as its article: *the*. To be definite the referent must not only be specific, but must be construed as ‘known’ to the hearer. Being ‘known’ means it could be previously known or implied in an inference to be made known through an utterance, or as Verspoor (2008) explains, ‘those entities that are not necessarily identifiable to both the speaker and hearer, but the hearer can infer that the speaker refers to a unique one in his mind as in “Be aware of the dog”, “I went

to the park”, or “I took the bus””. As Berry points out (1991: 254), in such cases the definite article ‘notifies the reader of the future significance of the referent’.

The definite article is also important in academic English because, although much of academic writing at university relates to general ideas (and generic noun phrases), many of these ideas will be supported by reference to specific examples. Moreover, the language of an academic paper will be quasi-specific due to intra and inter-textual references; anaphoric (second mention) reference; reference to the literature in the field; and cataphoric reference among other functions. Quirk & Crystal (1985) identify eight functions of the definite article in writing: as a marker of specific reference: the immediate situation (the roses are beautiful); unique reference (the sun/the moon); anaphoric reference (second mention); cataphoric reference (post-modified noun phrases and ‘of’ phrases); sporadic reference (my sister goes to the theatre every month); logical use with adjectives (the same, the only, superlatives) and reference to body parts (the mind). Six of these functions of the definite article, setting sporadic reference and body parts aside, seem most important for academic writing. Of these six written functions, evidence suggests moreover that it is cataphoric reference which learners will most need in academic English since, according to Biber et al. (1999), 40% of definite articles used in academic writing have this function.

Type 3 [+SR, -HK] Indefinite articles

Where the reader cannot be assumed to have knowledge of the reference (for instance first mention), a specific referent will be determined by *a/an* if a singular count noun, or \emptyset if referring to a mass noun or plural count noun. Again, their use in academic English will be related to specific examples used to support the more general claims in academic writing.

Type 4 [-SR, -HK] Non-referential noun phrases

When neither writer nor reader believe the noun refers to a specific thing, there is again the same choice of morpheme: *a/an* for singular count nouns and \emptyset for non-count or plural. Further examples from Ekiert (2004) are listed in Figure 2 overleaf. Such non-referential noun phrases are likely to dominate much of academic writing, particularly when the genre requires general claims, an evaluation of different (unreal) scenarios, conditional clauses and possible unproved hypotheses.

Alice is *an* accountant.

I guess I should buy *a* new car.

\emptyset Foreigners would come up with a better solution.

Figure 2: Further examples of non-referential noun phrases from Ekiert (2004)

2.2.2 The conventional use of articles

Following Liu & Gleason (2002) and Ekiert (2004), this thesis will classify all uses of articles that fall outside the Bickerton Framework, as ‘conventional use’, in that they are not a matter of choice and do not follow immediately evident contextual considerations. This includes idiomatic uses and proper nouns that are often taught to students as ‘things you just need to learn’. This is not to say that such uses were not historically motivated. In fact, many uses of proper nouns can be seen as logical (the definite article is normally only used when the proper noun combines with a common noun). However, many uses would be difficult to explain without in-depth research of the historical roots of the linguistic motivation.

Many discourse markers in academic English (e.g. the first point, on the other hand) could be argued to fit into what Quirk & Crystal (1985) term ‘logical uses’ of definite article. However, it might be more difficult to explain the majority of discourse idioms (e.g. on the whole, on the

rise, in the main). Even greater confusion is moreover caused by proper nouns, which normally take \emptyset article (e.g. France, Mont Blanc, Peugeot, Tower Bridge) but sometimes take a definite article (e.g. the UK, the Alps, the Seine, the Tower of London). This confusion may affect [+Article] students as well as [-Article] learners because these conventions are so different (for example the French would say '*la France*' in addition to '*le Royaume Uni*', adding a definite article regardless of whether a country is singular, plural, a group of islands or a kingdom).

In summary, the grammaticalisation of the article system in English has led to an extremely complex range of choices for the English L2 learner that may impact upon their writing style and quality in academic English. Regardless of L1 background, the main problem facing all learners is first and foremost that the article forms do not have simple form to function patterns of use (Butler, 2002) and various forms of article have duplicated uses in different functions. Furthermore, the learner needs to know the characteristics of the head noun before making their choice. For Type 1 and Type 3 contexts, the choice of article often requires a knowledge of the head noun's singular/plural and count/mass-noun characteristics. Type 1 (generic) contexts sometimes allow a choice of article (\emptyset with a plural or mass noun or a/the with a singular) but in other cases require more restricted use. Finally, there are conventional uses that require a knowledge of the original motivation for using the article (which may be obscured in the present form). In sum, unlike many aspects of grammar that have a clear form/function relationship, L2 English learners are facing a range of choices that have lesser or greater restrictions in different contexts.

2.2.3 Evaluation of the effect of article errors

Article errors are often invisible and may be often considered less relevant in spoken English. However, there seems a convincing argument that learners who wish to write academically or professionally require more accurate use of articles (Master, 1987). There are two main

problems often caused for students who make many article errors. Firstly, the reading audience may negatively perceive their message, equating their grammatical accuracy with their subject knowledge (Master, 1995). Secondly, although the majority of errors are superficial – causing only annoyance rather than confusion – some article errors can cause a barrier to effective communication. The following example is taken from a student’s assignment in which she first used (1) but later saw that she was meant to use (2) after teacher feedback.

The WTO has developed a high level of influence and consequently has had a large impact on

(1) ...the number of trade-related issues ...

(2) ...a number of trade-related issues

(unpublished – author’s student)

In another published example Berry (1991) illustrates how article choices can have an effect on the readers’ understanding:

(3) I want to know the English.

(4) I want to know English.

A further example from Berry shows how the article error can have a more nuanced but nonetheless important effect on the readers’ construal of the message:

(5) Police investigating the crime have discovered a gun.

(6) Police investigating the crime have discovered the gun. (i.e. the one used in the crime)

It could be counter-argued that the vast majority of article errors have a negligible effect on communication, being only superficial or what are sometimes called ‘local errors’ (Burt & Kiparsky, 1974) which seldom lead to miscomprehension. There are certainly academic English competencies that should take a higher priority in the EAP teaching curriculum at all

learning levels and a high emphasis on all elements of the rule based article system in the most intense courses or lower level classes will not be recommended at any point in this thesis. On the other hand, when time permits incidental attention to this area, the neglect of the most frequently occurring word in the English language seems less reasonable. This attention seems particularly important in the context of international students paying high fees in university Preessional EAP courses to learn how to avoid any misunderstandings of any sort in their writing. Regardless of world English arguments, with their eyes set on the submission of academic assessments, most international students expect EAP tutors at university to provide scaffolded support towards accurate and genre appropriate writing skills.

Clearly, given that students frequently set themselves unrealistic and unnecessary goals such as ‘native-like accuracy’, part of an effective EAP tutor’s role is to make students understand that the occasional slip or marked overuse of articles will not prevent them achieving their goals. The frequent overcorrection of article use that shall be demonstrated in this thesis is likely to represent a recognition of such demands without adjustment of expectations, however unhelpful such practices are shown to be. Equally, however, given the financial/time investment these students have made in a preessional programme, it would seem disingenuous to pretend that excessively inaccurate use of determiners in a piece of academic writing will not have any effect at all on the reader. At some point in the learners’ proficiency, the neglect of the article system in the syllabus becomes more difficult to defend. It may be more related to the complexity of the grammar itself, teachers’ concerns about discouraging learner motivation or a gap in available resources for the effective teaching of this language area.

On the one hand, difficulties with articles may be experienced by all learners of English, regardless of L1 background. On the other hand, it has often been assumed that differences in the way L1 languages express definiteness may have crosslinguistic interference on their

learning of the article system in English. The background to this assumption is explored in the next section.

2.3 Contrastive Analysis

The claim has historically been made, both strongly (Lado, 1957) and in more nuanced forms (Gilquin, 2008), that L1 background contributes to language inaccuracy in some way (the Contrastive Analysis Hypothesis). A hypothesis has thus been made (Díez-Bedmar & Papp, 2008) that students will be more challenged by article use if their first language does not 1) grammaticalise the article system at all or 2) grammaticalises the system in a different way. This thesis will investigate a weak form of the Contrastive Analysis Hypothesis, but it will not make the simplistic uncritical assumptions of linguists from the Contrastive Analysis era (e.g. Lado, 1957) in which L1 negative transfer effect was thought to be the dominant if not singular determiner of error. On the other hand, it will not take the equally extreme assumption of the dominant SLA theories of the 1970s-1980s which perhaps underestimated crosslinguistic L1 interference.

Indeed, in the 1970s the widespread rejection of all forms of the CA hypothesis in both the SLA and teacher training fields would have made this thesis impossible to write. Fortunately, this thesis is written in an era of less doctrine and greater plurality of linguistic assumptions. Cognitive linguistics in particular has been responsible for ‘reopening’ the issue of crosslinguistic interference (Langacker, 1986). Figuratively speaking, applied linguists today are more unshackled in their assumptions and can investigate all the possible determiners of L2 development. This has given opportunities for a diversity of new approaches including learner corpus-based integrated contrastive analysis approaches (Granger, 1996). Meanwhile, the affordances of modern technology, combined with an acceptance of a range of factors affecting L2 development have allowed the empirical examination of learner data (Ellis &

Larsen-Freeman, 2009) with a renewed focus on L1 transfer effects in general (Gilquin, 2008) and an interest in crosslinguistic interference in article acquisition (Master, 1997; Lu, 2001; Ekiert, 2004; Díez-Bedmar & Papp, 2008; Snape, Mayo & Gürel, 2013; Crosthwaite, 2012, 2016a).

2.3.1 Referential and non-referential noun phrases in Chinese

The high frequency of citations (Robertson, 2000; Díez-Bedmar & Papp, 2008; Crosthwaite, 2016a) to Li & Thompson's (1981) 'Chinese grammar reference' show that it is widely respected and useful for researchers investigating Chinese systems for showing definiteness and indefiniteness. All examples in this section are also taken from Li & Thompson (ibid.) unless otherwise stated.

As a [-Art] language, Chinese does not grammaticalise definiteness formally like a [+Art] language such as English. However, writers can mark definiteness optionally if they wish through word order, since definiteness 'is partially signalled by preverbal position for topics, subjects and objects.' (p.20). The following examples (p.21) juxtapose how 'book' used before the verb suggests definiteness, but after the verb commonly implies a notion of indefiniteness.

我在买书了

Wǒ zài mǎi shū le

I DUR buy book CRS

I am buying a book

我书买了

Wǒ shū mǎi le

I book buy PFV/CRS

I bought the book

According to Li & Thompson, like English, nominal groups in Chinese have a head noun which is always final, whether or not modified by other words in the noun phrase. As explained by Li & Thompson, referential noun phrases in Chinese thus provide the writer with a degree of choice. The writer can provide readers with a classifier, numeral or demonstrative for added emphasis. Very often, alternatively, no such emphasis is added and readers are asked to infer the definiteness or indefiniteness of an entity from context (ibid.). However, a key difference in Chinese (that will be highlighted in Chapter 6) is that non-referential noun phrases, in contrast, ‘never take classifier phrases’ (p.130). In the Type 4 indefinite sentence below (p.127), ‘gōngchéngshī’ is non-referential in that it expressed a quality rather than a person.

Xìnměi 是工程师
Xìnměi shì gōngchéngshī
Xìnměi be engineer
Xinmei is an engineer

Similarly, Li & Thompson (ibid.) demonstrate that generic noun phrases in topic position also have no classifiers or demonstratives that could act to determine the noun in Chinese:

猫喜欢喝牛奶
Māo xǐhuān hē niú - nǎi
 Cat like drink cow - milk
Cats like to drink milk

The challenge of understanding the grammatical constraints that determine how meaning is mapped is also argued to be the main cause of error rather than the conceptual system itself (Master, 1997; Robertson, 2000; Milton, 2001; Chuang & Nesi, 2006), but these challenges are

also influenced by L1 differences. More basically, plurality in Chinese is mapped by numerals, classifiers and suffixes rather than final -s and there is no orthographic indication to differentiate proper and common nouns in Chinese (Shi, 2016). Thus, the English article system involves choices that Chinese learners must make without the contextual clues they gain in their L1. As a consequence, Chuang & Nesi (2006: 266) attribute many article errors they recorded to L1 transfer effects:

The Chinese language does not distinguish between count and noncount nouns, and does not have a rigid, formal distinction between singular and plural (plural markers are not required); this makes the concept of countability problematic for Chinese learners.

Faced with article choices, L1 English writers draw on their knowledge almost unconsciously of how choices are constrained by the count/non-count/plural/mass noun distinctions of the head noun (in each context). Thus [-Art] L1 learners face not only a new system of denoting definiteness, but also need to understand how new lexis constrains their choice.

Based on the marked differences of English and Chinese in noun phrase determination Díez-Bedmar & Papp (2008: 154) make a very generalised hypothesis of L1 transfer effects:

On the basis of the description of the lack of an article system in Chinese, we hypothesise that Chinese speakers will underuse the definite and indefinite articles in English, overuse the zero article, and even misuse them until they manage to learn to restrict the use of them to the specific semantic contexts and pragmatic functions in which they are employed in English.

However, some commentators (Robertson, 2000; Xu, Shi & Snape, 2016; Crosthwaite, 2016a) argue that Chinese is a system more ‘article-like’ (Crosthwaite, 2016a: 94) than article-less, and the above hypothesis requires more nuance. In fact, definiteness can also be denoted by demonstratives (e.g. zhèi ‘this’ and nèi ‘that’) while yi- ‘one’ is can also be optionally used with referential nouns to signify indefiniteness. As explained by Li & Thompson (1981: 131-

132), Chinese learners of English will already be somewhat familiar with grammaticising definiteness:

Finally, we should point out that Mandarin does not have words that correspond to the English words *the* and *a*. The demonstrative *nèi* ‘that’, however, is beginning to function as ‘the’ if it is not stressed and the numeral *Yī* ‘one’, if it is not stressed, is beginning to function as ‘a’.

This is logical because this is how languages such as English developed the definite article (Bybee, Perkins & Pagliuca, 1998). The use of demonstratives leads Crosthwaite (2012, 2016a) to argue that Chinese Mandarin students have an advantage (a positive transfer effect) over Koreans and Japanese (other languages with grammaticised articles) when learning English.

Moreover, given that non-referential noun phrases can never be modified with classifiers, Robertson (2000: 143) makes the point that Chinese learners are familiar with understanding a referent as indefinite when used with a numeral but not a classifier while known to the writer and specific (definite) through the use of such a classifier:

In Mandarin there is an interaction between referentiality and the use of nominal classifiers. Li and Thompson (1981: 130) point out that nonreferential NPs never take classifier phrases. It follows that a noun phrase with a classifier phrase must be referential. Furthermore, if the classifier phrase includes a demonstrative (i.e. *zhèi* ‘this’ or *nèi-* ‘that’), then the NP must be definite.

However, the extent to which Chinese can be depicted as ‘article-like’ is controversial. The view that there are equivalents of some articles (mixtures of ‘one’ + classifier words) in referential noun phrases in Chinese is shared by Chen (2004) only to the extent of indefinite articles. While agreeing that demonstrative *zhe* and *na* are occasionally used in Chinese in similar ways to definite articles, Chen is not convinced that occasional uses are evidence of the grammaticalization of definiteness in Chinese. In fact, while not all uses are purely pure deictic

(referring to physical or linguistic co-presence), Chen (2004: 1156) highlights that their use to demonstrate anaphoric or shared knowledge is rare in writing compared to speaking:

In sum, while demonstratives in Chinese have developed some functions which are typically served by definite articles in languages like English, they are, generally speaking, still much closer to demonstratives than definite articles on the path of grammaticalization.

It should also be finally noted that demonstratives in Chinese may have a slightly nuanced notion of definiteness, which could also explain some L1 transfer effects. Xu, Shi & Snape, (2016) claim that Chinese learners sometimes confuse specificity with definiteness and may overuse *the* in *a/an* contexts as a result. Moreover, researchers such as Ionin (Ionin, Ko & Wexler, 2004; Yang & Ionin, 2008; Ionin et al., 2011) have argued that article-less L1 learners of English L2 often make this interlanguage ‘fluctuation hypothesis’ error of misusing articles during their gradual L2 development, confusing [+/- definiteness] with [+/- specificity].

In sum, the contrastive analysis of Chinese and English shows that there are both similarities and differences in the methods of expressing notions of indefiniteness and definiteness in the two written languages. These differences appear most marked in the way the two languages treat non-referential noun phrases since English displays greater choice (*a/an*, \emptyset) than the Chinese bare nominal form (without a classifier) in Type 4 contexts and even greater choice (*a/an*, \emptyset , *the*) in the way generic Type 1 noun phrases are determined. Beyond this consensus, however, this literature review has shown some divergent views about the extent to which the pseudo grammaticalisation (use of demonstratives and classifiers) in Chinese will create opportunities for positive transfer effects. Various hypotheses are developed in Chapters 6 and 7 which address a central Research Question in this thesis:

To what extent does the Chinese students’ L1 background affect (1) Target-like use and (2) their types of article error?
--

2.4 Empirical research into Chinese L1 learners' written L2 English errors

2.4.1 Studies of [-Art] L1 background students' use of articles

Much research has focussed on whether [-Article] L1 students have greater problems mastering accurate use of articles than [+Article] L1 students in English. A number of earlier studies certainly claimed that such 'article-less' background students show less accuracy with indefinite and definite articles (Yamada & Matsuura, 1982; Master, 1995; Master, 1997; Odlin, 1989; Jarvis, 2002). Investigating the universal language acquisition hypothesis, much effort in SLA studies was also focussed on the effect this '[+/- article] parameter' had on English L2 learners' order of acquisition. According to some (Huebner, 1983; Master, 1997; Thomas, 1989) article-less L1 learners were observed to go through stages of 'flooding' language with definite articles at beginner-intermediate stages of development.

Other studies by Liu & Gleason (2002) and Young (1996) however conclude the opposite: early and accurate control of the indefinite article is observed before definite article accuracy. In addition, in their study of the 'natural order' of article acquisition (excluding generic uses), Liu & Gleason (2002) found that learners had the greatest problems inserting the obligatory use of *the* in texts where the definite article had been omitted in contexts of conventional, or what they termed 'cultural' use of the definite article. As Figure 3 shows below (comparing average errors made on the vertical axis with levels and types of article error), this not only seemed to be the most marked problem for learners but also the most persistent, less affected by level of proficiency.

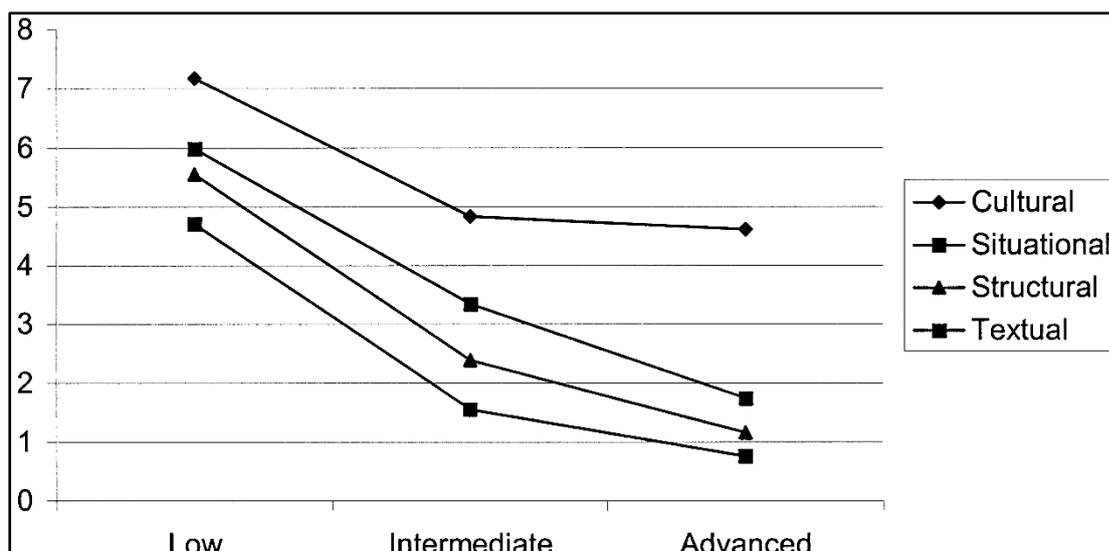


Figure 3: Comparison of means of missed *the* by category (Liu and Gleason, 2002: 13)

For Liu & Gleason this is less surprising given what learners perceive as arbitrary uses of articles (2002: 7):

...such use of *the* is often not framed by situation but is determined, to a large extent, by conventional practice. For example, we use *the* with some but not all disease names. Similarly, we place *the* before some geographical names (such as rivers) but not others (such as most lakes). We also use *the* with the musical instruments we play but not with the sports we play, for we can say play the piano but not play the basketball.

One clear limitation of all the studies above was their approach of grouping Chinese students with Japanese/Korean/Russian students to form ‘article-less’ background L1 groups. Moreover, few earlier studies properly accounted for level and most have little relevancy for the study of university student writing. Certainly, the findings of any studies that conflated the analysis of Chinese learners’ article use with other L1 background students or observed just one student such as Heubner (1983) need to be treated with a great deal of caution. In fact, there are few valid justifications for studying the errors of such groups of students mixed together since, as shown in the contrastive analysis in Section 2.3, some claim that Chinese to some extent grammaticalises definiteness relative to other article-less languages (Robertson,

2000; Xu, Shi & Snape, 2016; Crosthwaite, 2016a). This chapter now turns its attention to more robust recent studies that used corpus-based approaches and differentiated Chinese L1 groups from others to make more convincing claims about Chinese university students' English L2 article use.

2.4.2 Corpus based evidence from university EAP contexts

Using a corpus-based approach, Milton (2001) found that Chinese L1 students at a Hong Kong university made frequent article errors and argued that these often resulted from their problems distinguishing between countable and uncountable nouns. Making the point that article errors were difficult to differentiate from final -s noun errors, Milton chose not to differentiate between errors in singular/plural distinctions and article error.

In Chuang & Nesi's (2006) study of undergraduate level Chinese students academic writing, grammatical errors (85.9%) were far more common than lexico-grammatical (5%) or lexical errors (9.1%). Of these, article errors (27.6%) were by far the most frequent category of grammatical errors identified. This large corpus study was one of the first to present meaningful findings based on authentic student work (50 pieces of authentic academic writing of 1,500-2,000 words by Foundation level students at a B1/B2 level). Chuang & Nesi's (2006) finding that omission of definite articles is the most frequent error, closely followed by overspecification of definite articles is therefore of significance to this research into Preessional students' article use (though Chuang and Nesi's students were slightly younger). According to Chuang and Nesi, the omission of *a/an* was the third most frequent error and misselection or '*a for the*' and vice versa was a rare error.

Another important corpus-based study is Lee & Chen's (2009) keyword analysis of undergraduate Chinese L1 English major students' dissertations and some shorter texts from the BAWE corpus. This study reported that the definite article was 'overused' compared to the

authors' corpus of L1 academic writing. Indeed, Lee & Chen suggest that it is closed class/function words and common words that students overuse rather than the academic words typically focussed upon in EAP classes. Their finding that Chinese students oversupply the definite article appears to support the claim that Chinese learners go through a 'flooding' stage of definite article use in their acquisition process (Heubner, 1983; Thomas, 1989; Master, 1997; Lu, 2001), even at university level.

Lee and Chen (2009) illustrate the frequent overspecification of definite article use with the example from a Chinese L1 English major's undergraduate dissertation submission, shown in Figure 4. This demonstrates what they claim is 'a tendency to use *the* even when talking about general rather than definite subjects' (ibid, 2009: 287).

Students must be allowed to make choices[...] to truly develop their own value[...] . This helps **the students** to increase their self-esteem and **the confidence**. As for fostering **the language ability**, **the students** can learn **the vocabulary and grammar knowledge** from other students' answers. Due to the individuality of the answers, **the students** will be more engaged in **the questions** which are quite different from **the text-based questions**... (CAWE LAL003)

Figure 4: Example of definite article 'overuse' from Lee & Chen (2009: 287)

The example above serves to illustrate what some researchers have identified and claimed to be a rather 'spoken like' characteristic in Chinese university students' academic writing (Cobb, 2003; Hinkel, 2003; Granger, 2004; Mayor, 2006; Gilquin & Paquot, 2007). While out of context it is not easy to decide if all the alleged overspecifications are errors, the uses of definite article in 'the confidence', 'the language ability' and 'the text-based questions' do show (in the researcher's opinion) an excessively conversational tone for the genre in question (an Applied Linguistics dissertation), particularly as the student was seeking to make a generalised claim about a topic (as evidenced from their use of \emptyset + *students* in the topic sentence). If Lee and Chen's example is representative of the overall dissertation style, there seems to be a plausible

argument that such overspecification would create at best an informal tone and at worst a misunderstanding in meaning. In turn, this again shows that article errors can sometimes go beyond mere surface level error and can affect the perceived register (and appropriacy within a genre).

One frequent criticism of such generalisations (i.e. that Chinese students write too informally when producing academic texts) is that the data analysed often comes from semi-formal IELTS type prompts and Leedham (2015) makes a convincing case that many of the cited studies alleging a conversational tone failed to sample the students' true abilities in academic writing because they examine short IELTS type essays which themselves promote an informal tone. Lee & Chen's use of authentic (assessed) 5,000 word dissertations, however, makes their claim of a register effect of article oversupply in academic writing more convincing.

Another critique of such broad generalisations of 'oral tone' or 'informal language' is the huge variability across disciplines and even university departments about what constitutes acceptable academic style (Hyland & Milton, 1997; Hyland, 2004; Swales, 2004). Admittedly, EAP tutors and even researchers can struggle to make judgements about register appropriacy for different genres and, as Gardner & Holmes (2009) point out, most come from a humanities background which has conventions that differ from those of than the students they are teaching which can somewhat invalidate such judgements. It is indeed essential that any researcher makes judgements specific to a given genre and discipline. As will be highlighted in Chapter 6, a redundant definite article might be marked but acceptable in one genre (a case study) but wholly inappropriate in a journal article introduction or conclusion (when the writer is creating a frame of reference to the general rather than the specific actors in the discourse community).

On proviso that judgements are kept discipline specific and focussed on a specific genre that the researcher understands, this thesis makes the assumption that nuanced judgements of article use and misuse can be made and, moreover, that such a research focus is essential in the EAP community if it is to help novice academic writers develop register awareness in an L2. The role of EAP tutors in helping students conceptualise their audience (Ede & Lunsford, 1984) is long acknowledged and more effective EAP tutors are often argued to be those who teach through genre (Flowerdew & Peacock, 2001; Hyland, 2007b). The ideal EAP programme would therefore appear to be one that trains students so that they leave their course ready to investigate the genre requirements in their own disciplines for themselves (Paltridge, 2001).

Focussing on small words such as articles can occasionally be essential to teach genre and register awareness to students. In contrast, to focus only on stance and purpose and ignore how small morphemes in language frame the writer/reader relationship arguably defeats the central purpose of EAP in training students in the interplay between language, register and genre variation. By showing students that different genres within their discipline may prefer or discourage the informal tone created by definite article use (as opposed to a bare \emptyset plural), students can be shown what Leedham calls ‘the preferred ways of making meaning’ (2015: 7) in the genre. The issue of how students conceptualise their reader is clearly the underlying variable (Ede & Lunsford, 1984) but students might usefully be focussed upon how article use invokes their audience distance in writing composition. In short, Lee & Chen’s (2009) argument that EAP needs to be ‘making a bigger deal of the smaller words’ (their paper title) appears persuasive.

One more justifiable criticism of the approach of the three corpus studies discussed above could be of their ‘deficit approach’ (Leedham, 2015) in problematising Chinese students’ errors. It is difficult to argue against this accusation, and it must be acknowledged that all such error

studies make the assumption that L1 norms are a valid target. In fact, by focussing on article error frequency, such studies risk ignoring the accurate use of articles. However, two corpus studies summarised in the following section (Díez-Bedmar & Papp, 2008; Crosthwaite, 2016a) have overcome this emphasis by using ratio measures that allow a more holistic picture of students' accurate use in addition to their errors.

Using Granger's (1996) Integrated Contrastive model and the Bickerton Framework (see Section 2.2.1), Díez-Bedmar & Papp (2008) compared the errors made by Chinese L1 international students at Portsmouth University with the writing of L1 English writers and Spanish L1 students of L2 English. Their use of the framework in addition to Pica's (1983) Target-Like Use (TLU) ratio has been replicated by other studies including those of Chapter 5 and 6 in this thesis. Using Pica's index (which measures correct use as a ratio of incorrect use), Díez-Bedmar & Papp found that their Chinese L1 students used \emptyset article most correctly (75.9%), followed by *a/an* (73.2%) and lastly the definite article which was used least correctly (67.4%). This low Chinese learner accuracy contrasted with the Spanish learners who were least accurate with zero articles and more accurate with *a/an* articles than *the* articles. Chinese learners were also reported as having particular problems with generic articles and Type 3 (see Section 2.2.1) context articles.

It is very difficult to compare the findings reported in raw frequency terms (Chuang & Nesi, 2006; Lee & Chen, 2009) with those that use ratios such as 'Target-Like Use' (Díez-Bedmar & Papp, 2008; Crosthwaite, 2016a) because the former analyses are reporting the under/over specification of articles in terms of frequency (the most frequent errors), while the latter are taking the accuracy rate in terms of how often the student made the right choice in obligatory contexts. In other words, the former is answering the question 'what are the most frequent article errors made in writing?' while the latter is asking 'given an equal number of obligatory

contexts, which article's use would challenge the learner most?'. As \emptyset is the most frequent free morpheme in written academic English with many more obligatory uses in most genres than *a/an*, Díez-Bedmar & Papp's (2008) conclusion that Chinese students' 'Target-Like Use' of *a/an* is lower than that of \emptyset cannot be interpreted as showing \emptyset to be less of 'a problem' in frequency of error terms, but does helpfully acknowledge the high accuracy of Chinese students' use of \emptyset when its frequency of use is factored into the discussion.

Crosthwaite (2016a) investigated differences between the accuracy in article use of different article-less L1 background students (Chinese, Korean and Thai) and the divergences of accuracy order among four different language competency levels (beginner/low-intermediate/intermediate/upper-intermediate). Compared to Díez-Bedmar & Papp's 2008 study, Crosthwaite's findings suggest a higher accuracy Target-Like Use among Chinese learners. Indeed, at Upper-Intermediate levels equivalent to a Preessional EAP programme's entry levels, he reports that such levels of learner do not struggle significantly with any of the articles (*the, a/an, \emptyset*), apart from occasional challenges with generic use contexts. In fact, in the two short essay prompts set in the ICNALE corpus that Crosthwaite used, students at Upper-Intermediate level showed almost perfect Target-Like Use (TLU) ratios (statistically) in most article contexts and a fairly equal order of accuracy in all articles apart from generic contexts.

However, at intermediate levels (slightly below Preessional entry levels), Crosthwaite (2016a) does report that the TLU of definite articles was significantly lower than that of indefinite articles. Moreover, he acknowledges that Chinese learners struggle with generic contexts, oversupplying definite and indefinite articles when they do attempt to use them (but the median measures he uses removes such outliers from his headline results). In another study of the errors made longitudinally over three data-points in essays and reports by Chinese L1 university

students (while students received error correction) Crosthwaite (2016b) found that the most frequent article error in both essay genres and reports was definite article omission. In addition, but to a lesser extent, students oversupplied definite articles in generic and non-referential contexts. As a ratio of response length, Crosthwaite also reports that article accuracy was higher in the reports than the essays.

2.4.3 The contrasting hierarchy of difficulty reported in the research

To summarise, in the four most important corpus-based studies summarised in this chapter, as shown in Table 2, there are divergences in the reported findings pertaining to the order of difficulty. Discussing this order in terms of the contexts that students find most difficult to master, it can be seen that the two studies showing definite article omission to be the most serious error for Chinese learners (Chuang & Nesi, 2006; Díez-Bedmar & Papp, 2008) conflict with the other two studies. This area of disagreement motivates the next Research Question developed at the end of this chapter:

What are the linguistic contexts of obligatory article use in which international students are most likely to make errors?
--

Table 2: A comparison of important corpus findings

Study	Student level	Discipline	Hierarchy of difficulty (lower accuracy first)
(Chuang & Nesi, 2006)	Foundation B1-B2 level	Business studies Foundation students	<i>The > Ø > >a/an</i>
(Lee & Chen, 2009)	Undergraduate Unspecified English level	Linguistics/Applied linguistics	<i>Ø > the (no mention of a/an)</i>
(Díez-Bedmar & Papp, 2008)	University students in 2 nd year or later UG/PG level, IELTS 4.5 – 7.0	Various	<i>The >a/an> Ø</i>
(Crosthwaite, 2016a)	4 levels: (A2-B2/C1)	Various	<i>The =a/an= Ø at Upper- Intermediate levels.</i>

2.5 Other factors influencing English Accuracy

To make conclusions about how article accuracy could be promoted by EAP pedagogy and to differentiate L1 transfer effects, it is clearly necessary to consider a number of various developmental factors. L1 transfer effects are just one of many possible factors affecting learners' academic writing accuracy. Firstly, there is general consensus in the EAP community (Master, 2002; Hinkel, 2003; Alexander, Argent & Spencer, 2008) and SLA field (Larsen-Freeman and Long, 1991) that L2 learners of English make errors as novice academic writers

as a process in their natural acquisition and that, regardless of L1 background or instruction, students' surface writing accuracy improves with sufficient comprehensible input in the discipline discourse of their new academic community. Empirical studies into Chinese learners' article accuracy all therefore acknowledge general proficiency as a factor that must be controlled in any measure of L1 transfer effects (Lu, 2001; Díez-Bedmar & Papp, 2008; Díez-Bedmar, 2015; Crosthwaite, 2016a) or teaching/error-correction (Master, 1995, 1997; Crosthwaite, 2016b). There is more generally a natural order of acquisition of L2 grammar forms (Larsen-Freeman and Long, 1991; Ellis & Larsen-Freeman, 2009). Research into L2 acquisition of English articles by different L1 groups has shown that this order of acquisition of English articles is slightly divergent across different L1 backgrounds of English L2 learners (Luk & Shirai, 2009; Murakami & Alexopoulou, 2016), but these studies have shown that article accuracy improves at higher proficiency levels. Moreover, it has been shown that not all contexts and forms of article use are affected by proficiency equally and the effect of proficiency level on different contexts of article has been the focus of some studies (Liu and Gleason, 2002; Crosthwaite, 2016a).

Different parts of the EAP community agree and disagree about the extent to which academic writing accuracy in general is affected by instruction. The section below discusses how article use accuracy may or may not be accelerated by: 1) Reading into writing methodologies, 2) a focus on lexis and phraseology, 3) error correction and/or explicit teaching of the article system, and 4) current approaches to teaching EAP.

2.5.1 The 'reading into writing' paradigm

A strong argument can be made that students increase their accuracy of article use in their own discipline's genres by reading extensively in their field. In broader linguistic terms, the main evidence for this consensus view come from SLA studies (Dulay, Burt & Krashen, 1982;

Richards & Rodgers, 1986; Nunan, 1991; Savignon, 1991; Larsen-Freeman & Long, 1991) which showed that acquisition is most closely accelerated or hindered by the requisite student access to comprehensible input. EAP theorists meanwhile argue that academic texts (through a genre approach) give students models for academic writing (Hyland, 2007a; Hirvela, 2016). From passive input it is argued that students learn about genre interplay with language to frame their own output (Carrell & Carson, 1997; Hirvela, 2016). Therefore, by passively seeing how new terms colligate with articles in their discipline's lexis, students could be expected to gain confidence in accurately determining these concepts in noun phrases within their writing.

While the focus in EAP is normally upon meaning from input to output (Nation, 2007), students in parallel also acquire patterns of how new vocabulary is paired together with other lexical words (collocations) and frequently partnered with grammatical words (colligations). Through reading, students therefore acquire many idiomatic uses of articles in fixed colligations within phrases (lexical bundles). Although the acquisition of many article uses within lexical bundles can to some extent be framed as vocabulary development, research has shown that knowledge of vocabulary and appropriate control of fixed terms within formulaic phraseology are accelerated through reading rather than list learning (Li & Schmitt, 2009; Hyland, 2008). By reading discipline specific texts students see the vocabulary in their field and the pragmatic ways of appropriately referring to concepts in different genres. Returning to Lee & Chen's (2009) example of student writing in Figure 4, this student might read further Applied Linguistics texts that show how key concepts and actors (*students, vocabulary* etc.,) have divergent references in specific and generalised examples. Extensive reading might illustrate to students how articles are used or not used in the generic references of the key concepts in their discipline. This key importance of new vocabulary further demonstrates Nation's (2007: 5) argument that 'Knowing a word involves many different aspects of knowledge'.

2.5.2 Knowledge of lexis and phraseology

The different aspects of knowledge of a word to which Nation alludes include its singular/plural/mass noun characteristics and its colligations and collocations. As accurate article use requires such knowledge, the students' knowledge of vocabulary is inextricably linked to their accuracy of articles in a given topic. In recalling Sinclair's (1991) finding that lexical choices are sometimes 'closed' as well as 'open', EAP tutors also have a role in focussing students on the use of articles in fixed phraseology. A review of 35 most frequently used 'lexical bundles' (e.g. 'on the basis of'; 'at the time of') across academic disciplines reported by Byrd & Coxhead (2010) shows that only 8 phrases do not contain an article. Byrd & Coxhead (2010) argue for the importance of drawing learners' attention to such 'prefabricated and often repeated language' (p.50). Li & Schmitt (2009) examined one EAP student's acquisition of phraseology over 12 months and found that after first contact with new terms the learner went through stages of using the new vocabulary inappropriately before mastery. In light of this aspect of the EAP approach, the main input to such acquisition of articles is therefore reading, but instruction may also play a part in correcting inappropriate use.

2.5.3 Error correction

Aside from form-focussed corrections, there is some support for feedback and corrections in the genre approach to EAP when focussed on content or the way lexico-grammatical features affect genre. In fact, within a genre approach, some argue it is an essential tool for correcting inappropriacy and scaffolding learning:

In genre classrooms feedback is a key element of the scaffolding provided by the teacher to build learner confidence and the literacy resources to participate in target communities.

(Hyland & Hyland, 2006; 83)

As outlined in the introduction, error correction of all surface errors in students' writing without focussed purpose is generally argued to conflict with the 'EAP paradigm' (Alexander, Argent, & Spencer, 2008). Yet, what teachers have read or learned in their training does not always determine their classroom practices. In fact, research by Etherington & Burgess (2002) into the practices of 48 UK based EAP tutors in centres affiliated with the British Association of Lecturers of English for Academic Purposes (BALEAP) showed that over half the EAP tutors regularly corrected grammar errors even when they did not affect meaning. Moreover, over half the teachers believed grammatical accuracy in writing was improved by form-focussed corrections.

Empirical studies often claim to show significant effects on writing accuracy in general from error correction (Polio, Fleck & Leder, 1998; Chandler, 2003; Ferris & Kurzer, 2019). There is a broad consensus that correction has risks and can often be ineffective (see Truscott, 2004 for example), but some voices in the literature claim that such risks can be overcome under the right conditions with sufficient teacher training (Ellis, 1994; Ferris, 1999; Bitchener, Young & Cameron, 2005; Russell, 2009; Gass & Selinker, 2010; Rahimpour, Salimi & Farrokhi, 2012). Even more consistently, studies show students value corrective feedback (Lee, 2005; Ferris, 2006; Hyland & Hyland, 2006) and prefer a teacher's error focussed corrections to peer corrections (Zhang, 1995). As a rule-based area of language accuracy, it has been argued that article use is more amenable to error correction than other surface errors (Ferris, 2006; Dale, Anisimoff & Narroway, 2012). However, the empirical claim that error correction improves writing accuracy over the long term continues to be disputed in general (Truscott, 1996, 2004) and in the more particular case of article use accuracy (Crosthwaite, 2016b). An evaluation of this evidence in particular reference to article use will be presented in Section 2.7.

2.5.4 Explicit teaching of the article system

Although there has long been a broad consensus that EAP teaching should be content-driven (using authentic texts wherever possible to provide the comprehensible input for acquisition), there is less agreement about the extent to which language instruction about grammar should be overt and form-focussed (Brinton & Holten, 2001). On the one hand, tutors report they do not believe decontextualised grammar teaching is appropriate in EAP when surveyed (Etherington & Burgess, 2002). On the other hand, as Chapter 4 shall highlight, what teachers say they do and what they actually do in the classroom has been shown to be divergent (Phipps and Borg, 2009). In addition, when they are asked students appear to want more grammar teaching than their tutors feel it is necessary to provide (Schultz, 2001; Ferris, 2006). This may be in part due to the background of Chinese students and the way they have been continually tested in decontextualised grammar terms in the Chinese education system (Leedham, 2015). Ironically, Lu (2001: 43) points out that Chinese students spend a lot of time doing tests and grammar exercises at lower levels, when they have little possible hope of applying the rules, but less time on such errors when they are more ready to acquire them.

2.5.5 How articles can be taught in EAP

Based on the assumption that a focus on form in terms of selective text based noticing or consciousness-raising activities can be appropriate as long as any focus on form is not decontextualised from the text and overall discourse (Hyland & Milton, 1997; Hinkel, 2003; Hyland & Hyland, 2006; Alexander, Argent & Spencer, 2008; Hyland, 2008), this section develops the thesis that a focus on articles can be integrated within the pedagogical methods often recommended in EAP literature such data-driven learning and a genre-based approach.

Peter Master (1990; 1995; 1997; 2002) has long been the fiercest advocate of focussing students on the effects of articles in texts and his later approach calls for a combined focus on

juxtaposed uses of articles with error correction (student self-correction and teacher corrections). Another advocate was Johns (1991), who argued that such complex issues of grammar could be covered within ‘data-driven learning’ in which the teacher tells the students “*I’m not sure: let’s find out together*” (p.2) in contrast to the ‘spoonfed’ approach of grammar books the data-driven approach involves asking students to deduce colligation and collocation patterns by themselves through concordance lines (i.e. examples searched from a corpus of academic texts). For Johns (ibid.) framing students as researchers rather than learners makes the approach particularly suitable in the university context. Furthermore, for Johns: (ibid.; 3) only data-driven approaches allow teachers to address the most complex grammatical problems in student work:

There are large areas of English syntax which have traditionally been neglected in the standard descriptive and pedagogic grammars not because they are unimportant but because they are too difficult (e.g. Article Usage) or because they have simply been overlooked (e.g. Transitivity).

Hinkel (2013:7) argues that higher level learners need tutors to focus on ‘effects of grammatical features on context, discourse and text’. There are certainly many calls for more form focussed instruction with regards to nominalisation in EAP (Halliday & Martin, 1993; Fang, Schleppegrell & Cox, 2006; Biber & Gray, 2010; Bennett, 2011; Parkinson & Musgrave, 2014) and this is inextricably linked to article use. Helping students to ‘pack meaning into the noun phrase, and to make their text nominally rather than clausally complex’ (Parkinson & Musgrave, 2014; 48) also requires a parallel focus on article use (or non-use).

In Chapters 6 and 7 this thesis advances the claim that the ‘compressed’ nature of academic noun phrases in academic writing obscure the grammatical characteristics (-/+ number, -/+ countability) of the nominal group, just as they have been argued to obscure complex implicit meaning relations (Halliday & Martin, 1993; Biber & Gray, 2010) in academic writing. The

hypothesis will be examined that any challenges that article-less L1 background international students face in learning the grammatical properties of new lexis are heightened when they are asked to use them in noun groups with pre-modifiers that increase the cognitive load of applying new grammatical mappings onto language. Thus, among the many causes for the omission of articles in Chinese students' writing, one factor that may amplify their potential for error is this compression of the linguistic context of article use.

Indeed, according to Biber et al (1999), 60% of nouns in academic writing are pre-modified compared to only 15% in conversational English. Biber & Gray (2010: 19) note that compressed noun phrases help experts write and read academic discourse, but challenge students new to the genre:

In contrast to the academic professional, the compact, inexplicit discourse styles of research articles are difficult for novice students. This is because students lack the specialist knowledge that would allow them to readily infer the expected meaning of compact, inexplicit constructions.

Lamenting that learning materials typically ignore the issue of nominalisation, Biber & Gray (2010: 19) also criticise materials and pedagogical grammar books for presenting over complicated elaborations less relevant to EAP in their place:

Traditional grammar practice for advanced academic purposes tends to focus on elaborated structures, often dependent clauses like relative clauses, adverbial clauses, and complement clauses. Phrasal modification especially noun phrase structures with multiple levels of phrasal embedding is usually given much less attention.

Unfortunately, when they do pay attention to noun phrases, teaching materials and grammar reference materials tend to present articles in prototypical sanitised contexts, not in the messy academic contexts in which head nouns are obscured by pre-modification. For example, it has been observed that grammar textbooks pay particular attention to simplified anaphoric forms

of indefinite and definite article and little attention to \emptyset or the generic definite article (Yoo, 2009). Rather than the simpler aspects of the article system ‘rule’ there is arguably a greater need for the teaching of the article system in relation to such dense academic nominalisation.

The corpus-based analyses of the spoken and written grammar of academic English conducted first by Quirk & Crystal (1985) and in the 1990s by Biber and colleagues (Biber, et al, 1999; Biber, Leech, & Conrad, 2002) are frequently used to juxtapose students’ L2 English use with the norms of use these frequency counts can be claimed to represent. Comparing the writing of expert academic writers and students in ‘Freshman writing composition classes’ in the UK, Bennett (2011) highlights the greater frequency of pre-modified noun phrases in academic writing which novice writers need help in noticing and developing within their own writing. It has also been shown that L2 English EAP students, challenged by compressing nominal groups in the first instance, go through a stage of pre-modifying noun phrases with attributive adjectives rather than classifying nouns (Parkinson & Musgrave, 2014). In later stages of development, the students must learn to use other noun classifiers, participle phrases, possessive nouns and appositive noun phrases to qualify the head noun (ibid). The relevance for EAP tutors, for Parkinson & Musgrave, is that this feature of academic writing needs more focus on EAP courses and they propose ‘a focus on nouns as premodifiers and prepositional phrases as postmodifiers’ (p.49).

2.6 English articles within the current EAP pedagogical paradigms

As discussed in the introduction to this thesis, the extent to which a focus on form is compatible with EAP has often been challenged with simplistic rejections of decontextualised grammar teaching and assumptions of a ‘core knowledge’ of grammar or lexis that is useful across disciplines. In fact, new teacher entrants to EAP might be forgiven for thinking that a focus on grammatical accuracy had been consigned to history by more recent approaches to pedagogy.

However, this thesis argues that current pedagogies allow for a more meaningful focus on language forms such as article use. A focus on how the writer uses articles to move the readers' focus from specific examples to general statements or when and how knowledge is assumed would seem have obvious synergies with the genre approach to EAP in which emphasis is put on contrasting different writing purposes and appropriate writing styles (Swales, 1990; Hyland, 2002a; Swales, 2004; Swales & Feak, 2004; Hyland, 2007b).

The genre approach focusses students on different text types (essays, research reports, case studies, lab reports ect.,) that they may meet in their academic community (Paltridge, 2001). Hyland (2007b) argues that the genre approach allows students to see models of how language choices are made in authentic text types. It would seem logical to argue that the way in which article use varies across genres and how usage itself shapes the register and framing of the audience-writer relationship build a strong case for a focus on articles. As shall be shown in Chapter 6, uses of articles may be different from one genre (a case study report) to the next (an essay) as the conventions of providing evidence and the purpose and assumed audience of the writing changes. Rich language content in such authentic texts provides many opportunities for a focus on grammar and form (Master, 1997; Brinton & Holten, 2001), as students can be focussed on article use within texts and between genres.

As exemplified by the example of definite article overuse by a student in Chen & Lee (2009), article use can affect the academic style of writing. The same authors argue for the importance of focussing students on lexico-grammatical features and their effects upon register. However, such 'register' awareness sessions can have little meaning out of context since the appropriacy of a determiner will be greatly affected by framing of the reader-writer relationship and the degree to which specific examples are being referenced in the genre. In fact EAP learners need to be encouraged to start writing compositions by considering their audience (Flowerdew,

1993; Dudley-Evans & St John, 1998; Swales, 2004; Swales & Feak, 2004) and EAP tutors also have a role in developing students' consciousness of how they invoke the audience (Ede & Lunsford, 1984). Teaching students about articles within a genre approach is naturally somewhat contingent on how specific the focus of the EAP instruction is, and this review of the literature would be incomplete without discussing the issue of whether students are in specific disciplines or more general academic English courses.

The controversy in EAP that has occasional bearing on the issue of teaching article use in EAP is the issue of whether students are taught in English for Specific Purpose (ESP) groups by discipline or can learn the academic English they require effectively in more general mixed disciplinary English for General Academic English Purposes (EGAP) classes. Some argue very strongly for the former (Dudley-Evans & St John, 1998; Hyland, 2002b, 2012) while others argue that EGAP can be effective (e.g. Hutchinson and Waters 1987; Spack 1988; Alexander, Argent & Spencer, 2008). Those arguing for discipline based teaching often claim that the writing requirements are extremely divergent across different disciplines (Swales, 1990; Hyland, 2002b, 2012) and only through grouping students by discipline can a proper focus be given to the lexis and genre of each student's specific field (Dudley-Evans & St John, 1998). Those supporting EGAP argue that there is a core body of academic English vocabulary, skills and grammar needed by all students and that practical impediments make such ESP classes unrealistic in real world contexts.

While attention to article use in EGAP contexts is possible, it is likely to be especially effective in ESP contexts due to the importance of lexis and colligational knowledge for article accuracy. The assumption made by EGAP advocates that students acquire specialised vocabulary fairly quickly in their later studies is sound, but each discipline has not only a specialised lexis but its own preferred ways of making generic references in writing, by using definite generic,

plural count nouns or mass noun references (Master, 1990). Drawing attention to such differences can arguably help students understand the genres in their fields. Thus, when the opportunities for learning lexical bundles that colligate with articles are also considered, discipline specificity is indeed helpful for a focus on English article use. While English for General Academic Purposes can focus on the colligations with the Academic Wordlist, there are clearly more opportunities in ESP and in the words of Coxhead (2016: 186):

When it comes to specialisation through academic studies, it is important to find out at what point it is better for learners with special purposes to start focussing on learning the specialised vocabulary of their chosen field.

On the other hand, most summer preessional programmes in the UK are built around EGAP principles. A focus on article use and its effect on genre is not impossible within a ‘core skills’ approach in which an EAP tutor is addressing a mixed discipline class of English for general purposes. While less than ideal, tutors teaching on EGAP preessional programmes can nevertheless give students the autonomous learning skills to consider genre and its effect on article choice. EAP tutors can thus be thought of as facilitators who train students to find about the genre requirements in their own disciplines for themselves (Flowerdew & Peacock, 2001; Paltridge, 2001).

2.7 Empirical research into the effect of teaching and correcting articles

Having further developed the thesis that a focus on English article accuracy is compatible in principle with modern approaches to EAP pedagogy, this section will further evaluate some of the empirical claims in specific reference to 1) article teaching and 2) correction in pedagogical practice.

2.7.1 The distinction between teaching and error correction

In this thesis, error correction denotes the term which the SLA field describes as ‘negative feedback’, the fourth option within VanPatten’s (1993) focus-on-form model of 1) *structured input*; 2) *explicit instruction*; 3) *production practice* and 4) *negative feedback* stages. It has been pointed out (Ellis, 1998) that teacher practitioners sometimes conflate all these stages as ‘teaching’, for example corrective practices with explicit instruction, while researchers attempt to separate processes into analysable components. In fact, it must be conceded that some error correction is often combined when tutors check concepts and interact with students spontaneously. However, this thesis generally distinguishes *teaching* (structured input and explicit instruction stages) from the written *error correction* provided after students have produced and submitted written work.

2.7.2 Empirical research into explicit instruction

Peter Master reported that the teaching of articles produced significant improvements in students’ article accuracy (1986, 1990). For Master, the key was simplifying the many complex usages and rules of articles into a simpler ‘binary system’ in which students were asked to construe noun phrases as either classifying or identifying a referent. However, Master’s research methods lacked control groups or post-study measures and many of his manuscripts making the strongest claims were not peer reviewed.

2.7.3 Empirical research into error correction

Far more research has been published into the efficacy of error correction than explicit teaching. A number of studies have claimed a significant effect upon article accuracy from instructing ‘article-less’ students about article use through ‘consciousness raising activities’ involving error correction (Master, 1995; Master, 1997). However, notwithstanding the mixture of Chinese L1 with other groups, these studies all failed to use control groups or

properly account for other variables that contribute to accuracy/error. A lack of control groups in much of the literature is in fact a critique made by the main proponents of error corrections (Ferris, 2006; Ferris & Kurzer, 2019). Nevertheless, a number of studies evaluating error correction with control groups have shown significant improvements in article use (Chandler, 2003; Bitchener & Knoch, 2008). The latter two researchers found significant improvement in the progress of lower level learners' use of the definite article for anaphoric reference with highly focussed oral and written corrective feedback on this error.

A major criticism of grammatical error correction research is that the extremely focussed and considered correction of errors in the research environment has little relation to the real world process of error corrections (Truscott, 2004). Truscott (1996) has long argued that grammar error correction is ineffective, incongruent with theories of L2 learning, overly time-consuming and even 'has significant harmful effects' (Truscott, 1996: 328). Truscott (2004) indeed continues to critique other flaws in the methodology of Chandler's (2003) and Ferris' (2006) studies, most notably the difficulty in attributing causality to observed decreases in errors. It is indeed extremely difficult to show clear evidence of causality, as highlighted in a study by Crosthwaite (2016b) who found a significant improvement in the accuracy of articles among students doing an EAP course, yet concluded that task prompt effects, which may have affected accuracy rates, made the results inconclusive.

Given the evidence that feedback on grammatical form errors can be discouraging (Truscott, 1996; Polio, Fleck & Leder, 1998), in addition to the inconclusive evidence regarding the effectiveness of correction (Krashen, 1992, Truscott, 2004), there is a compelling argument that indiscriminate article error correction may be a less deserving of tutor and students valuable time. There are clearly circumstances in which a tutor is obliged to correct occasional errors as part of the teaching process (Hyland & Hyland, 2006). However, while there is a case

for focussed article correction and there will be contexts in which a tutor is compelled to correct articles errors, such as in preparation for high stakes assignments or paper submissions in which error correction is justifiably ‘product focussed’, this thesis makes the assumption that overcorrection of article errors is ineffective. Thus, when dealing with more regular writing tasks in EAP there is insufficient evidence to support the hypothesis that mass article error correction improves accuracy, so teachers may wish to spend their limited time and resources on more proven areas of pedagogy (Truscott, 1996, 2004; Crosthwaite, 2016b; Crosthwaite 2017). On the other hand, there is a clear need for more highly focussed and effective conscious raising of English article functions (which may include error correction as a modelling for peer and self-correction), particularly if it such focus can be integrated within a contemporary text-based/data-driven student centred approach.

2.8 Research Questions

This chapter’s review of the literature has highlighted the imperative of addressing four important Research Questions, as now summarised.

2.8.1 Research Question 1

To what extent do EAP teachers in Higher Education programmes in the UK explicitly teach or correct English article use?

While a strong case has been made for incidental focus on article use through the ‘EAP paradigm’ and against indiscriminate mass article error correction, there are clear indicators that much pedagogy related to article accuracy falls within more traditional approaches to grammar teaching. The review of the literature showed some controversy about the teaching/correction of grammatical errors. Based on this this literature review and anecdotal reference, it has been suggested that there may be a tension between EAP theory and the actual

practice of teachers. Anecdotally, the researcher has witnessed the wide-spread error correction of article errors at a UK university, but only one UK based survey was found to have investigated EAP tutors' methods or attitudes to grammar teaching and this study is now 16 years old, and thus pre-dates the huge influx of Chinese students into UK higher education. Whether and how EAP teachers teach the article system is therefore the first Research Question addressed in the survey presented in Chapter 4.

2.8.2 Research Question 2

What are the linguistic contexts of obligatory article use in which Chinese L1 students at Upper-Intermediate levels of English L2 are most likely to make errors?

Given the conflicting research findings presented in this chapter, the extent to which Chinese L1 university students at B2 level (the minimum level for university entrance in the UK) continue to make article errors will be investigated. Crosthwaite's finding (2016a) that Chinese L1 learners displayed fairly accurate use from intermediate levels was contrasted with some studies showing less accurate use even at high levels. It is critical that material designers/syllabus designers have a better picture of the accuracy rates of university students in various contexts. In addition to simple frequency, the second Research Question also requires an examination of the relative accuracy with which the three article choices (*a/the/∅*) are made. More specifically, beyond the issue of a morpheme hierarchy of accuracy, the thesis will investigate the extent to which Chinese students arriving for a Preessional EAP programme (with Upper-Intermediate L2 English level) display 'Target-Like Use' in various contexts of obligatory article use as presented by the Bickerton Framework. In addition, following Sinclair's recommendation (1991) to use more corpus-driven inductive research without framework assumptions, Chapter 6 will also investigate the simple linguistic context

in which the article is found less accurately produced by Chinese L1 students at clause level, with a particular focus on the pre-modification of nominal groups showed to be characteristic of academic writing.

2.8.3 Research Question 3

To what extent does the Chinese students' L1 background affect (1) Target-like Use and (2) their types of article error?

As discussed in this chapter, accuracy of article use may be linked not only to developmental proficiency, instruction and phraseology, but also to L1 interference. While the research evidence for an effect of L1 interference is often presented as overwhelming in studies that compare accuracy among [+Article] and [-Article] L1 background students, the literature review has shown a more complex number of hypotheses for L1 effects. As shall be presented in later chapters, hypotheses centred on the largest differences between Chinese and English shown by contrastive analysis, i.e. the absence of any classifiers, demonstratives or quantifiers in Chinese non-referential contexts (including generic) contrasted with the many different article forms used in English in such contexts.

2.8.4 Research Question 4

Does the explicit teaching or correcting of English article usage lead to more target-like use of articles by Chinese L1 university students whose L2 English displays inaccuracy?

While it has been shown that students value and expect grammatical corrections, the evidence regarding whether long-term effects are achieved through this lengthy and time-consuming process is mixed. Research Question 4 is an empirical question (requiring an experiment). Building on the findings in Chapter 4 (showing the extent to which EAP tutors teach/correct article use), it needs to be asked whether such teaching or correction serve any purpose in EAP.

2.8.5 Conclusion

This literature review has revealed areas of both agreement and disagreement in the literature regarding the place for a focus on English articles in EAP. The argument has been developed that a focus on article forms could be fully compatible with an integrated genre approach to EAP if teachers had a better understanding of the challenges faced by different learners and familiarity with methods that were more effective. Answers to these research questions could afford understanding of this type with regards to Chinese learners, the overwhelmingly largest single L1 group at most UK universities. If it can be shown that the article system can be taught/learned, pedagogy and materials development could then focus selectively where most needed/helpful for such L1 groups most represented in university preessional EAP courses.

3 METHODOLOGY

The aim of this chapter is to introduce the background to the methods of the studies referred to in this research with particular attention to the methodological considerations of error analysis using a learner corpus. A detailed presentation of research methods is provided for each individual study in Chapters 4, 5, 6 and 7. However, methodological issues are more critically developed in this chapter in reference to Corder's (1967) five steps of error analysis. As shall be shown, decisions about whether to include dispreferred forms such as marked overspecification of definite articles were particularly important due to the 'covert' nature of many article uses and genre effects in all judgements (Ellis & Barkhuizen, 2005). Through the presentation of a preliminary study at the end of this chapter, it will be demonstrated how the methodology evolved. More reliable and valid methods of error identification, annotation and reliability checking were facilitated by the trialling of alternative solutions with a small group of students before using the methods presented in later chapters. While the steps taken to ensure methods were ethical are presented in each individual study, this chapter also discussed the critical issues needing consideration. Most fundamentally, one issue faced was achieving informed consent with fee paying students who were sometimes taught by the researcher. As discussed at the end of this chapter, the University of Birmingham Ethics Board helped find resolutions to these issues. The guiding principles of giving students enough time to refuse consent and not disadvantaging students by non-participation informed the design of all methods presented in this thesis.

3.1 Critical methodological issues in Error Analysis

Error analysis is affected by decisions of data collection, error detection, error classification, error explanation, and a consideration of error gravity (Corder, 1967). Thewissen (2015) provides a critical summary of the many methodological errors that can invalidate research by

reference to Corder’s (1967) five steps in error analysis and inferences from Thewissen’s survey of issues that can invalidate error analysis are presented below in Table 3 before being further evaluated in Sections 3.1 to 3.4.

Table 3: Error Analysis Steps/common methodological issues

Error Analysis Step (Corder, 1967)	Key methodological issues identified by Thewissen (2015)
1. Data collection	<ul style="list-style-type: none"> • Under specification can invalidate research: importance of reliably reporting genre, task-type, text numbers, text lengths, corpora size). • Research sometimes does not transparently and reliably report the proficiency level.
2. Error Detection	<ul style="list-style-type: none"> • Does not account for complexity of error concept – a relative concept with blurred border between actual errors and dispreferred norms, mistakes/errors or does not convincingly show how covert errors are dealt with.
3. Error Classification	<ul style="list-style-type: none"> • Is a descriptive (taxonomies or surface structures) or explanatory error classification system appropriate? • How errors are quantified (e.g. obligatory occasion analysis, T-unit analysis, proportion of part-of-speech)?
4. Error Explanation	<ul style="list-style-type: none"> • Not accounting for Errors of performance (knowing whether the ‘errors’ are simple mistakes or genuine competence error). • Lack of control of other factors causing error (proficiency).
5. Error Gravity	<ul style="list-style-type: none"> • Are errors important? • Do errors affect comprehensibility? How is non-acceptability distinguished from minor irritation?

3.1.1 Data collection

Traditional error analysis methods relied upon judgement tests of grammatical acceptability using invented prototypical examples, whereas computer-aided error analysis (CEA) can use

more authentic corpora of learner data (Granger,1996). The main criticism of the former traditional methods is that they only allow the researcher to find predicted answers to questions defined by assumptions of the researcher which in linguistic contexts may be less representative of authentic academic language. Acceptability judgement tasks are therefore generally less valid than corpus-based approaches. Nevertheless, the testing approach does have a number of strengths, as outlined below, which is why the method was used to complement corpus-based approaches in the latter stages of the research.

One major strength of the acceptability judgement task approach is the ability to focus on defined areas of L2 language exposure in addition to the possibility of controlling factors such as proficiency level (Ionin, 2012). Granger (2011) argues that large learner corpora can overcome problems of variable control and allow for the study of rare forms of language use, but this assumes corpora are over 1 million words in size which was only true of all the subsets of the International Corpus of Learner English (ICLE) corpora combined together. Moreover, comparing and aggregating findings from different corpus studies can be problematic since as yet very few learner-corpus based studies transparently report variable specifications (Granger, 2003; Díez-Bedmar, 2015; Thewissen, 2015; Crosthwaite, 2016a). Without precisely controlling and reporting genre, task-type, text numbers, text lengths, and corpora size the ability of other researchers to replicate or compare studies is limited. In particular, Thewissen (2015) stresses the need to accurately define and measure proficiency levels and notes that some stated proficiency levels (such as those in ICLE) have been shown to be unreliable. This caveat is shared by Díez-Bedmar (2015) who points out that many error studies are limited by using only institutional membership as a proxy measure of L2 proficiency. Unfortunately, these issues of participants' actual proficiency can also affect the

validity of results, since later explanations of error differences between groups are less meaningful. As Thomas (1994 as cited in Thewissen, 2015: 32) highlights:

It is vital to control for levels of proficiency in studies of the acquisition of a given L2 by different groups of learners [...] If the two groups do not start out with comparable skills in L2, the research may spuriously attribute differences in knowledge or performance between the two groups to their differences in L1.

The next variables to consider in choosing the data (the ‘corpus’) in which to investigate errors are genre, task-type, text numbers, text lengths, and conditions in which texts are written. To compare one study with another or generalise from a small study across the wider population requires consideration of these variables as well as careful design and clear reporting. For example, many lexical-grammatical features found in error-analysis may be subject/topic specific. For this reason ICLE (Granger, 2003) standardised the tasks across studies meaning that each new researcher could replicate these variables when applied to other L1 language background students. Yet this approach can sometimes be criticised for the lack of authenticity given to the texts investigated in learner corpora (Leedham, 2015). Considering task type also encompasses the question of whether students planned their work to the same extent, faced similar writing conditions (e.g. reference materials or help were controlled), and had similar access to technological aids. Thus the extent to which a researcher can generalise any findings from a corpus study to the wider community depends on controlling a number of variables (which has resource and time implications) while a tension arises between ‘control’ and ‘authenticity’.

3.2 Error detection

The first major challenge related to any analysis of article errors is that an error can sometimes not only be attributed to an ‘error’ of omitting the article but also the alternative possibility of being a simple ‘slip’ (careless mistake). This issue is heightened in the analysis of English

article errors because an incorrect use can occur from using a singular rather than plural noun. For example, students may have missed a final –s on a noun.

Assuming that language is used by a learner consciously, the identification of errors is also affected by the way the researcher defines an ‘error’. Corder’s (1967) notion of ‘grammaticality’ suggests that researchers focus on language that would be impossible for a native speaker to accept. The first controversial issue is therefore which L1 speaker is chosen in light of the polemic debate about the linguistic imperialism against emerging forms of English. However, rightly or wrongly, all published studies seem to return to the notion of ‘native’ speakers’ correct use as the measure of accuracy and this thesis makes this same assumption in full acknowledgement of the debate as to what actually constitutes ‘native’ status (Davies, 2003, Brown, 2014). Combining both ‘grammaticality’ and ‘acceptability’, Lennon (as cited in Ellis & Barkhuizen, 2005: 56) offers the following definition of error:

A linguistic form or combination of forms which, the same context and under similar conditions of production, would, in all likelihood, not be produced by the speakers’ native speaker counterparts.

3.2.1 Dispreferred forms

The notion of ‘dispreferred’ judgement (Thewissen, 2015) relates to whether an error is marked but possible, or categorically impossible and inaccurate. This is a challenging issue because of its subjectivity at more advanced levels of English. Moreover, in terms of the issue of ‘academic style’ (when students use overly informal English), this is greatly affected by the given genre. That is to say, it is agreed in the EAP field today that there are huge variations of genre that may be broadly referred to as ‘academic writing’, indeed differences in register and conventions often occur within report/assessment genres of the same university department

(Hyland, 2012; Nesi & Gardner, 2012). To agree on the identification of error, annotators will therefore need not only a similar view of grammaticality but a similar appreciation of the genre.

3.2.2 Competence and performance errors

Error analysis should ideally be focussed on true systematic errors that are being made because of insufficient knowledge (competence errors) of the L2 rather than slips on the keyboard. To some extent, this relates to the control of variables such as motivation or time allowed on a task, but a thorough methodology may also involve checking with students about whether they only made a careless ‘slip’. All L1 language users make ‘mistakes’; any meaningful error analysis must therefore be focussed on true systematic errors that are being made because of insufficient knowledge of the L2 rather than slips of the pen/tongue (Corder, 1967). Some authors define error as only one that learners simply cannot comprehend. Sowton (2012), for example, distinguishes between ‘slips’, mistakes and errors, relegating inaccuracies that the learner can understand with teacher prompt as a ‘mistake’.

Three possible solutions to this challenge (of confusing mistakes with errors) would appear possible. The first would be to give the study participants the opportunity to check their errors/mistakes and self-correct (assuming that mistakes would by definition be corrected on review). Another would be to use large quantities of data in the hope that the ‘mistake’ effect on results will be insignificant. Student could finally be made to write texts in highly controlled conditions. Admittedly, this last solution is likely to become more necessary in today’s world of online grammar checkers and improved word-processor functionality. However, in the early years of the data collection for this research project these online tools were less sophisticated (2010 – 2014). In fact, no solution to this challenge is perfect, since controlled conditions without grammar tools and dictionaries are less representative of the modern realities of academic writing. Checking of errors (for example by interview) is time consuming and is also

problematic as errors might often be changed simply by the attention being focussed upon them. The frequency solution is also imperfect as it ignores the fact that some mistakes may be systematic and frequent especially when using a keyboard to type written language. Some efforts are made in Chapter 6 to tentatively examine this issue through a limited number of interviews, but the main solution adopted in this research is the first (allowing students time to review their work). The basic assumption made in this thesis is that students proofread their work and used word-processing tools to the extent that most errors are genuine.

3.2.3 Overt versus Covert errors

One issue in checking the reliability of the first researcher's identification of error, as shall be highlighted in Section 3.7.4, is that annotators cannot make judgements in decontextualised sentences. The whole text may need to be studied to look at possible implicit first referents or implied meanings, especially in the case of anaphoric reference in articles. Thus, Ellis & Barkhuizen (2005: 56) point out that the annotator is not looking only at overt errors, but covert errors

An error is said to be overt if it can be detected by inspecting the sentence/utterance in which it occurs. An error is covert if it only becomes apparent when a larger stretch of the discourse is considered.

3.3 Error classification

The researcher is faced with two choices when analysing data, either choosing to apply a pre-determined classification/explanatory system, i.e. *a deductive research approach*, or adopting a more open-minded *inductive research* approach, i.e. simply looking for patterns of error without any prior assumptions. Sinclair (1991) argued that corpus-driven *inductive approaches* allow for analysis of patterns that were not predicted in a previously delineated framework. As shall be presented in Chapter 6, the use of computer programmes such as the freeware

AntConc toolkit for concordancing and text analysis allows for the analysis of the key word in context (KWIC) view and the application of simple left and right searches around the keywords (or error tags) to look for common error patterns. As Groom and Littlemore (2012: 164) point out:

The appeal of the concordancer is that it allows you to sort data alphabetically to the right or the left. This in turn allows you to analyse your data more efficiently and to see otherwise hidden patterns.

Another advantage of inductive approaches over the application of a previously published framework is that it is simpler. Classifying semantic environments of noun phrases inevitably involves an element of subjective judgement. In Butler's (2002: 455) words, the application of a deductive method, for example using the Bickerton Framework to authentic student work, is not without challenges:

Although some contexts may be quite straightforward to classify, others are not. Quite often researchers have to make assumptions or guesses about semantic contexts and then try to judge whether or not the articles were used correctly based on these assumptions.

Nevertheless, as will later be discussed in the preliminary study, this research showed that the Bickerton Framework could be reliably used with sufficient annotator training.

3.4 Error explanation

In terms of explanation of errors, as discussed in the preceding chapter, the earliest traditional error analyses in the era of Contrastive Analysis (during which time behavioural linguistic assumptions informed all explanations) simply assumed that all errors were caused by language transfer effects. Yet by the 1970s most linguists agreed that many errors made by L2 language learners were developmental (intralingual), whether or not the order of acquisition of L1 and L2 learners of a language was identical. The modern approach taken by this thesis is to make

more cautious/tentative speculations about L1 interference within the greater interplay of proficiency level, genre, task, instruction and other such variables affecting accuracy.

3.5 Evaluation of recent methods in English article studies

Before evaluating the various choices of method, it is worth quickly reviewing the methodological choices made by other researchers. Table 4 overleaf shows some of the methods in recent influential article error studies, which include ethnographic study, testing through prompts, testing through grammaticality judgement tasks, contrastive interlanguage analysis with learner corpora, and experimental/control studies (to test the effect of teaching). The evaluation which follows focusses on the risks and limitations of each study in the context of English article acquisition research.

3.5.1 Ethnographic study methodology

In the context of English article acquisition research, this qualitative method is the most effective way of explaining learner errors and the stages of their development. The insights can be extremely rich as shown by Huebner's (1983) hypothesis of a 'flooding' stage in the English article acquisition of [-Article] L1 background students. However, this method is extremely time-consuming, and the conclusions can seldom be generalizable without further investigations. Another difficulty is understanding student utterances and the laborious process of transcribing data into a manner that can be interpreted.

3.5.2 Testing through prompts

Employed by the 1970s child acquisition studies, these methods focus on what the learners are confident to use at the current stage of development (recording, transcribing and then analysing naturalistic conversation arising from the prompts). Results can be reliably

Table 4: Review of influential article acquisition/corpus-based studies

Researchers	Learners	Level	Method
(Yamada and Matsuura, 1982)	Japanese	Upper – Intermediate level	Cloze tests in which participants asked to identify the missing articles in obligatory contexts
(Huebner, 1983)	Hmong	Complete beginner	Study of the natural acquisition of English by one Hmong speaker (Ethnographic)
(Thomas, 1989)	Various	Various levels	30 learners given oral elicitation interviews with picture prompts
(Master, 1995)	Chinese and Japanese	Advanced	Measured effect over 3-4 weeks of consciousness-raising techniques (interviews, written corrections and students asked to keep journal of errors)
(Butler, 2002)	Japanese	Various levels	Investigated accuracy with gap fill test & learners' metalinguistic knowledge through interviews
(Ekiert, 2004)	Polish	Various levels	Compared learner corpus compiled from ESL and EFL settings
(Bitchener, Young and Cameron, 2005)	East Asian	Various levels	Treatment and control groups used to compare students' progress when given various forms of corrective feedback
(Díez-Bedmar and Papp, 2008)	Chinese and Spanish	Upper-Intermediate	Learner corpora compiled from university students' essays
(Crosthwaite, 2012)	Madarin Korean	Various levels	Analysed referring expressions used in L2 narrative discourse in Written Learner corpora
(Crosthwaite, 2016a)	Chinese Korean Thai	Various levels	Written corpora

generalizable, but an extremely expensive and time-consuming method if strict controlled conditions are to be effectively applied. On the one hand, understanding and transcribing participants' responses is very time consuming. On the other hand, as Brown reflects (1973: 28), the difficulty of keeping up with answers can be mitigated by recording the students, and such analysis has an important role:

It turned out, however, that a great deal could be learned from meticulous records of spontaneous speech in combination with answers to simple questions.

3.5.3 Interviews

The interview method involves choices of whether interviews are structured, semi-structured or unstructured and whether the data is analysed using an emic perspective analytical framework developed before the interview process or an etic perspective analysis that evolves from the interaction itself (Groom & Littlemore, 2012). As shall be further discussed in Chapter 6, the limited number of interviews conducted for this research lent itself to more student-led interviews that could not be minutely structured. The approach was therefore taken to record discussions about errors that students found most confusing, transcribe them and search for patterns that could be analysed and quantified.

3.5.4 Testing through grammaticality judgement tasks

Judgement tasks that ask participants to rate the acceptability of grammatical forms have the advantage that the researcher has control over variables and can provide measured semantic/genre/linguistic contexts to participants. Thus, the test designer can focus on the aspect of the English article system that they wish to investigate and control other factors. Such control also means that the learner cannot use avoidance strategies and rarer grammatical patterns can be investigated while such features may not naturally occur frequently enough for study in corpus-based approaches. On the other hand, such tasks are less authentic than learner

corpora approaches which allow for analysis of the actual writing contexts that students face in real life. For this reason, a mixed corpus-based and testing approach was used in this research. Corpus methods are the only way of validly achieving a full picture of students' control of English articles, but it became clear that several hypotheses required investigation through a tighter control of the linguistic context of article use. This advantage of the testing paradigm was particularly useful in the investigation of article overspecification and the effect of pre-modification of noun phrases (as will be presented in Chapter 7).

As Chapter 7 will show, the testing approach can complement corpus-based research by addressing issues such as dispreferred forms (i.e. overspecification of articles). Many redundant uses of definite article found in natural student writing cause disagreement among researchers/tutors. As shown by the example of a student's 'overuse' (see Literature Review Figure 4) of definite articles, subjective judgement means that it is difficult for researchers to agree on which errors are completely inappropriate and which are simply marked. The testing approach can present errors that are unanimously considered as errors and also avoid challenges of ambiguous error (caused by ungrammatical language) that can also be found in the authentic writing of many students.

3.5.5 Corpus linguistic approaches

Sinclair (1991) defined any corpus as '[a] collection of naturally occurring language text, chosen to characterize a state or variety of a language.' Through studying authentic learner data electronically (a *learner corpus*) corpus-based research is often argued help EAP materials writers develop better EAP pedagogy/resources (Johns, 1991; Sinclair, 1991). Indeed, Chuang & Nesi (2006: 251) conducted their analysis of Chinese undergraduate writing '... with a view to creating remedial grammar materials for Chinese students studying in the medium of English.'

In the Sinclair tradition, an inductive corpus-driven approach analyses data with fewer *a priori* assumptions. Other more deductive approaches can involve the use of a previously established framework or hypotheses. Whether deductive or inductive in approach, corpus-based research clearly offers the most valid insights into student writing when using authentic student data. The advantage of using truly authentic data (Chuang & Nesi, 2006; Lee & Chen, 2009) is that genre effects on error rates can be analysed. Particularly for post-graduate level students, the longer word length of the dissertations in data collected for these studies is more representative of the academic writing such students must submit in their academic programmes.

3.5.6 Contrastive Interlanguage Analysis

Granger's Integrated Contrastive Model (ICM) (1996) methodology is a corpus-based approach that involves the analysis of authentic data through computerised corpora. In short, this more deductive method involves the study of the L1 and building of hypotheses before the analysis of learner data. To go beyond the identification of errors, Granger argues that the explanation of errors can be achieved by a combined contrastive analysis (CA) and corpus-based approach (the study of L1, L2 and even L3 comparative use). Without interlanguage analysis through corpus-based studies, CA analyses are simply predictions with no evidence. However, vice-versa, little interpretation of interlanguage studies can be made without some form of CA (ibid). Borrowing from Jarvis's hypothesis of transfer effects (2000), Gilquin (2008) presents a Detection-Explanation-Evaluation (DEE) transfer model which requires stages of L1/L2 Contrastive Analysis, stages of interlanguage analysis, and stages of analysing other language uses of the L2 in order to quantify and explain the crosslinguistic interference process.

Whether or not the approach preferred is deductive or inductive, comparisons of any corpus-based research requires a critical understanding of the data collection and error identification

methods used. For example, a review of five recent corpus-based studies (see Table 5) shows some marked differences in the authenticity, genres, text length, corpora size and backgrounds of students. The advantage of the use of short essay prompts (Diez Bedmar & Papp, 2008;

Table 5: Five learner corpus studies compared

Study	Data	Word length	Corpus size	Student level & Discipline	Error Classification system
Chuang & Nesi (2006)	Authentic EAP Writing (essays)	1500-2,000 words	50 essays (75,000 – 100,000 words)	Foundation B1-B2 level Business studies Foundation students	Own error categorisation system: (omission overinclusion misselection)
Lee & Chen (2009)	Authentic EAP writing: dissertations	5,000 words	78 dissertations (390000 words)	Undergraduate Unspecified English level Linguistics/Applied linguistics	Keyword analysis of overuse and underuse)
Díez-Bedmar & Papp (2008)	ICLE argumentative essay prompts	Mean average 540 words	74 Essays (39, 663 words)	University students in 2 nd year or later UG/PG level, IELTS 4.5 – 7.0 Various	Bickerton Framework
Crosthwaite, (2016a)	Two argumentative short essay prompts from ICNALE corpus.	Mean word length 217 – 250 words	575 essays (125, 588 words)	4 levels: (A2-B2/C1) Various	Bickerton Framework
Crosthwaite, (2017)	Essays or reports (assessed EAP compositions). 800 – 1500 words	794 words mean length	257 essays and reports (205,683 words)	1 st year undergraduates Various	Annotation of multiple language errors. System adapted from Dahlmeier et al. (2013, as cited in Crosthwaite, 2017)

Crosthwaite, 2016a; Crosthwaite, 2017) is that more reliable comparisons can be made across proficiency levels by students who have answered the same prompt. There is also variation in the measures of proficiency and Crosthwaite's (2016a) study can be seen to be the only study that reports accurate proficiency rates across four levels (the ICNALE corpus required all students to do an Oxford Quick Placement test).

3.5.7 Experimental/control studies

The empirical question of whether explicit teaching or correction of articles helps learners to improve (Research Question 4) can only be investigated by experimental methods, as shall be detailed in Chapter 5. As shall be discussed, studies that use an experimental paradigm must control all variables apart from the 'treatment' and then seek to show the effect was the result of the 'treatment' through the use of control groups. Ionin (2012: 31) stresses the importance of controlling variables in order to investigate learning over time:

By keeping constant such factors as native language, proficiency level, type of L2 exposure, and age of acquisition, among others, an experimental SLA study can reduce variability among learners, and determine how learning proceeds within a given population.

3.5.8 Critical evaluation

The main advantage of corpus-based contrastive interlanguage approaches is that correct use can be measured (and annotated) in addition to incorrect use. When combined with coefficient measures such as Pica's TLU (Pica, 1983), which factors both omission and overuse in addition to correct use, quantitative measures can become more meaningful and comparable (Díez-Bedmar, 2015). Moreover, by using full texts written by the participant on topics relating to their academic subjects and in authentic genres found in academic writing, error analysis can have greater validity. In contrast, grammaticality testing techniques typically use contrived language that may neglect the language and choices that learners actually make in academic writing.

The main advantage of simple cloze or multiple-choice testing approaches is that they circumvent many of the methodological problems of ambiguous error, mistakes/error issues and ungrammaticality of responses. Since the test takers are typically focussed on accuracy, this avoids some of the issues of competence/performance errors. Moreover, the researcher can give choices that he/she knows are categorically correct, avoiding some of the issues of error identification that can arise, especially when analysing lower proficiency learner data (which may be too ambiguous/ungrammatical to categorise). The greatest advantage, however, of a simple testing approach is that the researcher can investigate large groups of learners with lower resource implications.

When comparing the validity of corpus-based and testing methods, however, it is clear that testing methods tend to exaggerate the inaccuracy rates found, since the test designers will focus on error types that they know are challenging, while many uses of articles that the learners find straightforward will not be reflected in the 'rate of accuracy'. On the one hand, Butler concludes (2002: 455) that testing allows for research into areas of grammar that students avoid in their own writing. However, Granger (1996, 2011) makes a convincing argument that the study of learner corpora provides greater validity as it allows the analyst to study natural authentic language that students actually use at university. Although a testing approach allows large-scale studies that can produce significant results, cloze or multiple-choice questions use contrived language that may neglect the language and choices that learners actually make in authentic academic writing. In fact test questions represent the 'tricky' words and findings from a testing approach may be dramatically affected by the researchers' choice of question in a parallel way to the effect of corpus-studies from choice of prompts.

Given the issues regarding both methods discussed above, this research used a mixed Corpus-based and testing methods approach. A Corpus-based methodology that used both deductive

and inductive approaches was first employed to answer the question ‘what errors do Chinese L1 students make?’. A testing approach was then employed to further investigate effects of linguistic context and proficiency. While a full explanation of errors was outside the time constraints of this research, student interviews were also planned to give qualitative insights into the data.

3.6 The need for a preliminary study

In the light of the critical importance of the control of variables, the decisions to make in error identification, and the ethical review of all procedures it was necessary to conduct a preliminary study to ensure compliance and reliability. Methods in the research of a learner corpus can be seen as an evolving process (Chuang & Nesi, 2006) as shown in Figure 5 as preliminary studies

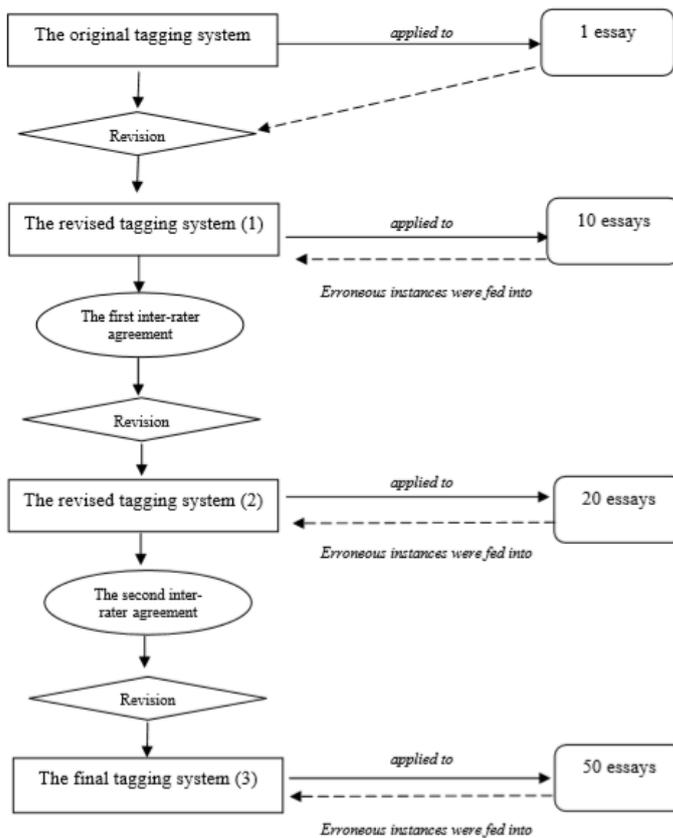


Figure 5: Reproduced from Chuang and Nesi (2006: 257): 3 stages of developing a tagging system

can investigate and evaluate various methods in the error identification process through trialling alternative approaches with a small amount of data from a small number of students.

3.7 Preliminary study

Participants in the trial study were drawn from three classes in a 42-week Preessional course at the University of Birmingham. A small number of students (mostly Arabic L1 and only one Chinese student) participated in five extra ‘article use’ lunchtime lessons and extra online quizzes in the first year of the project to trial several approaches to error identification and other methodological procedures. The effect these workshops had on the students’ accuracy of article use was measured by the analysis of their essays over the course of the term. Although this data was collected and analysed, the findings of this preliminary study are not presented in this thesis (which focusses on Chinese students). However, the way in which the methodological approaches to error identification, classification, reliability checking procedures and ethical recruitment evolved as a result of this first trial (with impact on later studies) is outlined below.

3.7.1 Evolution of ethical safeguards

The main ethical concern in all studies in this thesis centred on the use of students as participants. Serious consideration was given to the risks of demotivating the students; impacting the students educationally from the point of view of participation or non-participation; and students’ rights to confidentiality, integrity, respect and privacy (Phakiti, 2014). Any study recruiting study participants from among the researcher’s own teaching cohort adds risks and limits the degree to which participation can be voluntary if 1) the research takes place during normal scheduled teaching hours (at which times the student is expected to attend) or 2) the students find it difficult to refuse their teacher’s request.

After gaining permission from the Director of the English for International Students Unit (EISU), the next step in the preliminary study was to apply for ethical review. All research involving human participants must go through the three stages of the University of Birmingham's Ethical Review procedure (University of Birmingham, 2016): 1) online initial assessment stage; 2) application for Ethical review 3) responses and adaptation of methods to gain approval from the Ethical Review panel. In fact, the first original contact with the review board was the start of many negotiations as the methods in the research project evolved and amended applications were submitted for later studies (ERN_10-0375/amended 14-0375, ERN_14-1455, ERN_16-1493 & ERN_17-1549) and this evolution will be discussed in greater detail in the next section.

3.7.2 Ethical review of Corpus/experimental studies

Recruitment

The main ethical concern in this study centred on the use of students as participants. In light of the risks of demotivating the students, the educational impact of participation and fairness, the ethics board asked that all research activities took place outside the teaching timetable (normally on Friday and Wednesday afternoons or at lunchtime). A small number of students were 17 years old and it was not clear if they would legally be allowed to give informed consent without the involvement of their parent(s)/guardians. The decision was therefore taken to only seek participation from students who were over 18.

Consent

In order to ensure that consent was 'informed', students had to be given full information about the study, its objectives and their right to non-participation. To achieve informed consent, the decision was made to 1) tell students about the research projects in person and distribute an information sheet, 2) give the students 24 hours, and 3) ask students to sign consent forms only

after they had fully understood the research project and their right to non-participation/withdrawal. Based on requests from the ethics board, the students' right to not participate was made more prominent (see consent forms in Appendix 4). Participants were free to withdraw from the project at any time before or during the study. Participants were also given the freedom to withdraw their results within a year after the experiment was conducted.

Information given to participants

Students were not deceived in any way. They were told the focus of the research, how they would be asked to help in the research and about their rights to withdraw/refuse consent at all times. The university Ethical Board took a special interest in the feedback measures. Highlighting the risk that students could be negatively disadvantaged by not participating in the project, the board asked for an additional session to be made available to all students regardless of participation at which the main points and preliminary research findings were shared. Therefore, all students on the course (regardless of participation) were invited to end of study briefings and sent reports of preliminary findings.

Storage of data

Recognising the student's rights to privacy (and the researcher's responsibilities under data protection law), all data was stored electronically on an encrypted network drive backed up on an encrypted flash disk held in a secure filing cabinet on university premises.

3.7.3 Ethical review of online testing with cloze/multiple choice tests

A number of quizzes were presented to the students on the same online learning environment (Canvas) used for their main assessments throughout this research. Thus, there was a risk that students would either not see participation in research as voluntary or do the online quizzes accidentally. The Ethics Board's main concerns were 1) that no confusion occurred between

what students were mandatorily required to do as part of their programme and the research project and 2) that they could do the online quizzes and receive feedback regardless of their participation. A suggestion to put the consent box at the start of the quiz was rejected because students might have felt they could not do the quiz and benefit from its feedback. The solution found to these concerns in the preliminary study and all future ethics applications (ERN_16-1493: ERN_17-1549) was to make it clear to students that quizzes were non-mandatory and request consent to use their data some days after completion (giving the students informed consent without implying their non-participation would stop them seeing valuable quiz feedback).

3.7.4 Evolution of error identification, classification and reliability checking procedures

The presentation of the procedures for reliability checking is postponed until Chapter 5, in which Section 5.6 provides details for how three colleagues checked a 10% sample of errors identified. However, the preliminary studies contributed to the development of both the reliable methods of error classification and this reliability checking system.

At the early stages of the research, an overly complex classification procedure involved the annotation of article use according to both the Bickerton Framework and Quirk & Crystal's (1985) descriptions of cataphoric reference and post-modification, logical use with adjectives, unique reference, anaphoric reference and immediate situational reference. However, when the first researcher's classifications were compared with three other researchers, disappointing levels of inter-rater agreement were found. This highlights the problems in applying a complex explanatory system to language (Taylor, 1989). Given that the application of the Bickerton Framework was challenging in of itself, the main studies eventually focussed only on this one Framework (without further categorisation of 2DA definite articles).

The preliminary studies discussed here also led to the evolution of more robust inter-rater checking procedures. Preliminary efforts with the Bickerton Framework alone failed to produce sufficiently high Fleiss Kappa coefficients of inter-rater reliability. However, these poor initial results were shown to be the result of the tagging review interface. For the first attempt, an online interface had been built on a Virtual Learning Environment in order to organise the training and annotation checking. This online interface presented the sampled noun phrases (from the preliminary corpus dataset) in a standardised form to the three annotation checkers. These colleagues were asked to apply the Bickerton Framework/judge correctness using the online interface without sight of the researcher's judgements. However, this online system resulted in low Kappa coefficients of inter-rater agreement. On closer analysis, it was discovered that the checkers 1) lacked sufficient training and 2) were finding it hard to make judgements without the full context of the student response. In fact, checkers did have the opportunity to review the whole essay/response with a click of a button in the first online interface, but they found this procedure time-consuming and cumbersome. In later studies, a simpler paper-based approach achieved more reliable results. Checkers were given more training and the whole texts in printed form with highlighters to show their coding decisions. The inter-rater agreement went up substantially (see 5.6), which shows that decisions about semantic/pragmatic meaning are best made holistically without the decontextualization that had mistakenly been applied in the first approach.

3.7.5 Challenges identified for the experimental study

The first methodological challenge highlighted by the preliminary study was the control of variables such as class teacher pedagogy and error-correction. Participants in the preliminary study were drawn from three classes which gave students 9 hours of academic English and 12 hours of general English each week, delivered by between two and four teachers for each class.

As the students were using General English textbooks which covered article use, it is likely that some of the students were receiving instruction from their normal classes in article use. Thus, participants' article accuracy rates were being measured while taking part in five extra lunchtime workshops, but it was impossible to attribute their progress to this extra treatment in the preliminary study as the corrections and teaching in the students' classes had not been controlled. For this reason, the main studies presented in Chapters 5 and 6 made calls for volunteers from the 15-week and 10-week Preessional courses which had only one class teacher, far more structured syllabi more focussed on EAP and not general English. This enabled the researcher to quantify and establish the effect of the normal teaching that the participants received.

Another key challenge experienced at the pre-study stage was the issue of how English proficiency level of students could be measured. With the participants' permission (from the consent form), students' results in recent secure English tests could be accessed, which normally related to Cambridge International English Language Testing System (IELTS).

Table 6 below (overleaf) presents descriptors and rough equivalents to the Common European Framework for Reference to Languages (CEFR) from the British Council's *IELTS Guide for Teachers* (British Council, 2012). Most students entering university programmes at the University of Birmingham are required to hold at least a B2 CEFR level of English proficiency, equating to a recent IELTS score of 6 - 6.5 (Competent user) or IELTS 7 grade (depending on programme). At Preessional level, students normally therefore enrol at the B1/B2 threshold with IELTS 5 or 6 band scores and the preessional programmes aim to accelerate students' progress to reach the equivalent IELTS level. While IELTS was a robust test taken under controlled conditions, the fact that so many students on the 42-week Preessional were grouped along a very narrow range of bands (generally 5.5 and 6) made it difficult to estimate the effect

Table 6: IELTS score descriptions (from IELTS, 2012)

Band score	CEFR	Description
9 Expert user	C2	Has fully operational command of the language: appropriate, accurate and fluent with complete understanding.
8 Very good user	C1	Has fully operational command of the language with only occasional unsystematic inaccuracies and inappropriate words. Misunderstandings may occur in unfamiliar situations. Handles complex detailed argumentation well.
7 Good user	C1	Has operational command of the language, though with occasional inaccuracies, inappropriate words and misunderstandings in some situations. Generally handles complex language well and understands detailed reasoning.
6 Competent user	B2	Has generally effective command of the language despite some inaccuracies, inappropriate words and misunderstandings. Can use and understand fairly complex language particularly in familiar situations.
5 Modest user	B1	Has partial command of the language, coping with overall meaning in most situations, though is likely to make many mistakes. Should be able to handle basic communication in own field.
4 Limited user	B1	Basic competence is limited to familiar situations. Has frequent problems in understanding and expression. Is not able to use complex language.
3 Extremely limited user	n/a	Conveys and understands only general meaning in very familiar situations. Frequent breakdowns in communication occur..
2 Intermittent user	n/a	No real communication is possible except for the most basic information using isolated words or short formulae in familiar situations and to meet immediate needs. Has great difficulty understanding spoken and written English.
1 Non-user	n/a	Essentially has no ability to use the language beyond possibly a few isolated words.
0 Did not attempt the test	n/a	The test taker did not answer the questions.

of proficiency on small sample sizes, as statistical measures could only show significant results with an adequate number of students across different bands.

3.7.6 Preliminary study conclusions

The students in the preliminary study (including one Chinese L1 learners) made fewer errors when given extra sessions on English article use. However, the aforementioned issues in controlling all variables made it difficult to attribute causality to these extra sessions. Moreover, it was not known whether students were making fewer article mistakes due simply to their increased focus on ‘monitoring’ their language. The ambiguous nature of the grammatical errors that students made in their writing occasionally made classification of errors more challenging, but most nouns could be reliably annotated for error. One concern had been that the involvement of B1 or borderline B1/B2 students would involve language so ungrammatical as to make the intended meaning (including definiteness/ specificity) too ambiguous to categorically state as correct or incorrect. However, the trial showed that such occurrences (just eight noun phrases in this study) would not be a major problem with the higher level proficiency of students who were to be invited to the subsequent main study. Nevertheless, there were some particularly difficult decisions to make when the overspecification of the definite article had created an issue of ‘register’ (academic style), rather than grammatical accuracy. This indicated that a greater formalised training would have to be given to annotation checkers to show how error had been defined. After replacing the overly complex explanatory framework with a simplified Bickerton Framework, giving annotator checkers more training and allowing them to make judgements of the whole texts, the trial showed that researchers could agree a concept of ‘accuracy’ in grammatical terms and apply it fairly consistently.

In addition to highlighting many challenges to be overcome, the preliminary study showed that authentic student data from real students could inform the analysis of article errors made by Preessional students. Reliable and ethical ways of collecting data and identifying errors in were developed on the basis of this pre-study trial.

3.8 Summary of methodological approaches in main studies

Research Questions 2 and 3 were investigated with two main methods: a learner-corpus approach and a grammatical judgement testing approach. As shown in Figure 6 below, after identifying errors in the student writing (step 2), the annotated errors would need to be checked for reliability (step 3). Step 4 then involved both a deductive corpus analysis (testing of the hypotheses) and an inductive analysis (using a concordance). Step 5 involved a multiple-choice test of a larger population to mitigate some of the constraints in the corpus-based approach and further investigate some insights from the inductive approach that refined the hypotheses. The aforementioned advantages of the testing approach (increased sample size, control of variables and less ambiguous errors) allowed the last stages of the research to investigate some complex questions less amenable to study in small corpus-based studies. For example, the effect of proficiency could be investigated (the small corpus-sizes made statistical measures less significant). However, given the limitations of any testing approach, this last stage in the methods should not be seen as a test of the corpus findings themselves. Only the use of

authentic student data can give a picture of students' accuracy in academic writing with any validity as these tests would be affected by the limitations discussed in Section 3.5.4.

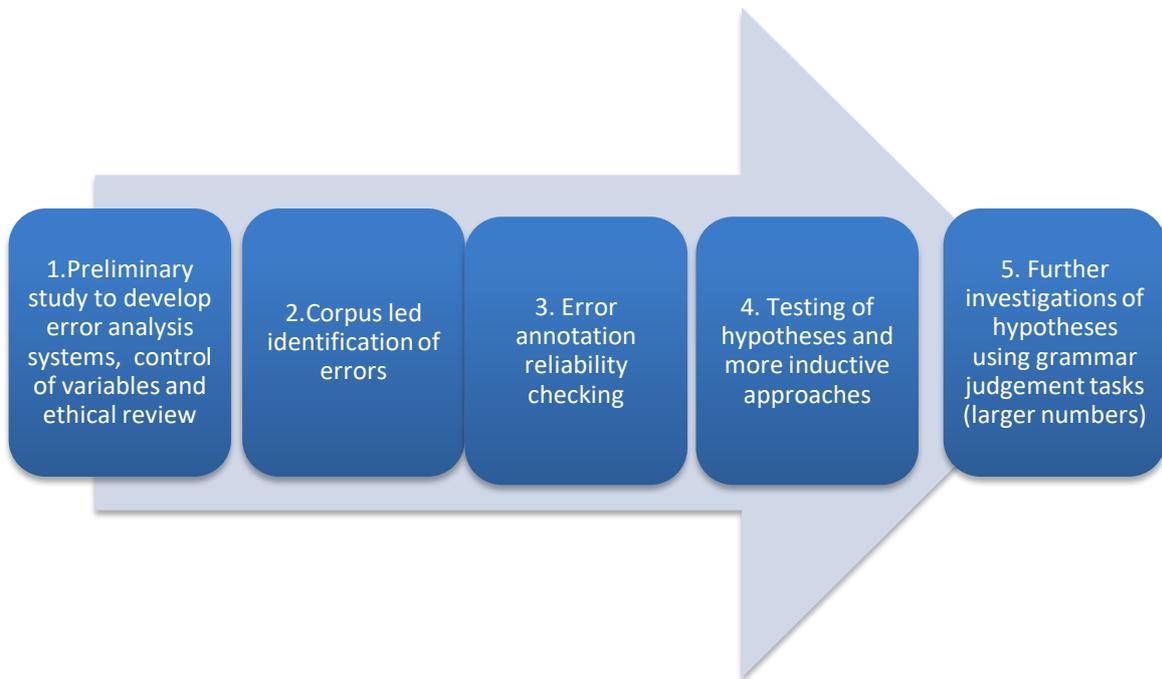


Figure 6: Summary of mixed method approach to Error Analysis

3.9 Conclusion

This chapter has critically evaluated some of some key methodological issues experienced in the research project's main corpus and testing approach studies. The main methodological concerns relating to error identification (ambiguity/ ungrammatical language, dispreferred forms) and annotation checking appeared to be resolvable. By applying for Ethical Review and amending procedures to satisfy the university's Ethics Board, it was possible for informed consent to be gained ethically and several principles for safeguarding students' rights were established for the main studies (for which ethical approval was also obtained). The methodological procedures of each study are further developed in each of the next chapters.

Before investigating student error, however, the next chapter moves attention to the issue of EAP tutors' attitudes and practices with regard to English article use in academic writing.

4 SURVEY OF TEACHER ATTITUDES AND PRACTICES

This chapter presents a survey undertaken to investigate the extent to which EAP teachers in the UK Higher Education system teach the English article system. Before applying the corpus-based and testing approach outlined in the previous chapter, the unknown context of whether and how tutors teach the article system in EAP required investigation. As was highlighted in Chapter 2, there could be a theoretical tension between the ‘EAP paradigm’ of teaching and teaching/correction of English articles, especially when examples given are prototypical and decontextualised from academic writing. The ‘EAP paradigm’, as outlined in the BALEAP competency framework (Alexander et al., 2008), promotes at all costs the use of authentic texts and a focus on the function of language rather than its form. There would therefore assumedly be little support in this paradigm for isolated decontextualised exemplars from invented language to show prototypical uses of English articles. With regard to written feedback, Chapter 2 also showed how divisive the issue of written error correction is among the teaching community. Certainly, mass indiscriminate English article correction is argued against by many leading contemporary EAP researchers (Truscott, 1996, 2004; Ferris, 2006; Hyland & Hyland, 2006; Alexander et al., 2008; Crosthwaite, 2016b). In order to investigate whether and how tutors correct and teach article use, a survey and some qualitative interviews were conducted within the EAP community.

Before presenting the survey itself the first part of this chapter briefly goes over some definitions and highlights evidence that there may be a gap between the theoretical aspects of the contemporary recommended practices in the EAP literature and what is actually happening in many classrooms.

4.1 Background and recap of Research Question 1

Evidence was provided in Chapter 2 that the ‘EAP paradigm’ may not support either the decontextualised teaching of articles or regular corrections of written article errors. However, if EAP teachers are grouped together with other language teachers, the literature shows that their practice is influenced by many factors beyond pedagogic theory and published best practice. From a meta-analysis of 22 studies which investigated second language teachers’ beliefs and practices regarding grammar teaching, Borg (2003: 91) found that ‘language teachers’ are shaped by a wide range of interacting and often conflicting factors’. In the EFL field, in which many EAP tutors are trained before moving into EAP, Phipps and Borg (2009) cite an example of a teacher using a highly decontextualised grammar ‘choice of article’ exercise using overly simplified examples even though the teacher himself believed a context-based approach was more valid and appropriate. Several teachers cited in Phipps and Borg’s study stated that they often used oversimplified controlled approaches such as gap-fill exercises in grammar teaching in conflict with their own beliefs because the approaches were expected by students. Furthermore, some tutors in Phipps and Borg’s study reported that their students seemed to be more motivated when grammar was presented in such a way or even that they used grammar to calm students down after discussions.

It is important to avoid assumptions about how EAP tutors teach article use in the classroom. The fact that many experts of EAP teaching discourage excessive correction of surface errors in student writing and insist that all teaching of grammar is incidental and based around text meaning does not necessarily mean that such recommendations are followed. Investigating this difference between stated beliefs and practice more specifically in EAP grammar teaching, Etherington & Burgess (2002) conducted a survey of 48 UK based EAP tutors in centres affiliated to BALEAP about the tutors’ attitudes to a grammar teaching in EAP. Most teachers

in interviews expressed a theoretical preference for more discourse orientated approaches to integrated grammar teaching (i.e. a focus on form when needed within a meaningful context), rather than a decontextualised approach. However, these authors report that grammatical error correction in writing was shown to be widespread even when it did not affect meaning. The majority of tutors in Etherington and Burgess' study believed that error correction and formal instruction helped students to improve their written accuracy, irrespective of their reported belief in more content-based teaching approaches. Repeating the same questions in New Zealand, Barnard and Scampton (2008) surveyed 32 EAP tutors and reported that four out of five teachers believed that 'form-focused correction helps students to improve their grammatical performance' (ibid: 59). Together with other answers that showed traits of highly traditional approaches to writing composition instruction, the authors (2008: 59) concluded that EAP teachers in New Zealand showed 'a preference for more extensive treatment of grammatical issues than is usually suggested by proponents of a strictly incidental Focus on Form approach'.

On the one hand, teachers' continued correction of errors may potentially have resulted in a perceived improvement in the process and methodologies of giving feedback since error correction is another example of changing practices in EAP. In addition to moving from a 'product' orientated summative approach of the past to a 'process orientated' formative focus (Ferris, 2006; Ferris & Kurzer, 2019) which is currently favoured, many new approaches such as peer assisted marking, guided self-correction, changes in EAP writing pedagogy and computer assisted feedback have transformed the way in which formative writing feedback can be given (Hyland & Hyland, 2006). On the other hand, if new technologies and approaches have facilitated mass correction that is demotivating for students, overcorrection again requires research attention.

The present study followed Etherington & Burgess' (2002) investigation into the actual grammar teaching practices in EAP classrooms with a focus on the teaching/correction of English articles. Anecdotal evidence in the researcher's own institution suggested that English article error correction was frequent and widespread, while articles were taught more often in 'hygienic' prototypical examples somewhat divorced from the reality of academic writing. Such observations suggested the need for more rigorous empirical research in order to investigate Research Question 1:

To what extent do EAP teachers in Higher Education programmes in the UK explicitly teach or correct English article use?

4.1.1 Definitions of the notion of grammar teaching

Grammar teaching today refers to the broad range of ways that teachers focus on grammatical form, which means not only the traditional focus upon decontextualised isolated grammatical examples of one structure with a presentation/practice paradigm, but any activity that focusses students on a discrete part of a language's grammar. In the modern sense, grammar teaching includes; asking students to notice patterns; asking students to self-correct or peer correct each other's work for grammatical accuracy, and studying concordance lines from an academic corpus and identifying grammatical patterns. While the issue of corrective feedback is in itself an area of academic and pedagogical interest, written/oral/direct/indirect corrective feedback is a necessary feature of teaching. Thus, grammar teaching involves any focussing of learners upon 'correct' grammatical form, or as Ellis explains (2006: 84):

Grammar teaching involves any instructional technique that draws learners' attention to some specific grammatical form in such a way that it helps them either to understand it metalinguistically and/or process it in comprehension and/or production so that they can internalize it.

Since this is a very broad definition it will also be useful to distinguish between explicit or implicit grammar teaching. Implicit knowledge can only be held or expressed unconsciously and is acquired for communicative purposes by interactions with the environment. As Ellis (ibid) notes, explicit grammar teaching does not necessarily imply that metalinguistic reference is made to the language element being focused upon and it should also not be confused with inductive or deductive teaching styles which are both types of explicit grammar teaching. Thus, for example, asking students to reflect on why/how the definite article is used as a cohesive device in a text (or looking for other patterns of use) would still be ‘explicit’ grammar teaching, even if the teacher had not prefaced the activity with a focus on forms, the objectives of the exercise or specialised metalinguistic terms such as ‘cataphoric or anaphoric reference’. The distinction in explicit grammar teaching is that the teacher moves the students’ whole focus to form and its related meaning or function, rather than the text’s meaning alone. Therefore, the notion of grammar teaching in this thesis will include any explicitly conscious raising activity aiming to increase language accuracy.

4.2 Methodology

A survey questionnaire (followed up by interview) was distributed to a small number of teaching staff in the university’s English for International Students Unit (EISU), at that time responsible for Preessional and Insessional EAP programmes at the university. The same survey was then distributed (as detailed in 4.2.4) among two larger populations of English teachers recruited via a first email distribution lists of BALEAP teachers and a second email distribution list of teachers involved in an MA TEFL Distance Learning Programme. This sampling approach allowed an investigation of EAP tutors’ beliefs and practices at both the local and national level.

4.2.1 Survey design criteria

In designing the survey, the aim was to create an instrument with a mixture of closed and open questions. With a view to extending the survey to further populations of teachers, a second design criterion was to include as few questions as possible in order to maximise participation and reduce drop-out rates. No biographical information was collected in order to fully anonymise the survey and ensure that responses would be as honest as possible.

4.2.2 Questionnaire instrument

As can be seen in the Questionnaire shown in Appendix 1, the first 3 questions were closed response multiple-choice questions. Question 1 (see Figure 7) prompted respondents with various article errors and asked tutors whether the examples were used accurately, were errors or somewhere between (correct even if unnatural). Question 2 aimed to investigate how often participants taught article use with options ranging from 'never' to 'most weeks'. Question 3 returned to the errors introduced in the first prompt and asked participants about the likelihood with which they would provide written corrective feedback in different scenarios. Finally question 4 allowed open responses to a question asking tutors to reflect on how learners could be made to improve English article accuracy.

The four questions were first piloted with colleagues. As a result of their ideas, the definitions of 'sometimes' and 'occasionally' in question two were expanded to illustrate and define the terms which initial respondents found confusing. The examples given in prompt 1 shown below in Figure 7 were provided following feedback that questions about errors needed contextualising with some actual examples of student article errors. These examples were authentic errors from a previous student's particularly error filled essay (consent given for use when anonymised) were added as a prompt, as shown in Figure 7:

Imagine you have a student (in a lower level Foundation, Pre-sessional or In-sessional class) who regularly submits pieces of writing such as this (see below). Firstly, how would you describe it?

In UK, all companies want to promote the consumer loyalty, but many people change the company and do not care about brand.

Figure 7: Survey Question 1

4.2.3 Interview structure

In addition to the online surveys, six EAP colleagues at the University of Birmingham volunteered to participate in semi-structured interviews to allow for some more qualitative insights into their survey responses. At interview, a paper copy of the survey questionnaire was shown to participants. In order to avoid overly leading questions, all tutors were asked the same two identically worded questions at the start of the interviews:

1. *Question 2 asked about how often you teach the article system to your students. Can you talk a little more about when you teach them and how you teach them? When are you most likely to teach article use?*
2. *Question 3 asked about how likely you'd be to highlight the errors/give feedback in the example. In general, do you give corrective feedback? How often and when do you give corrective feedback? How do you do it?*

All the teachers were asked to bring to interview some recent examples of written work they had corrected. All tutors agreed to be recorded (the recordings are transcribed in Appendix 3).

4.2.4 Participant information

English for International Students Unit (EISU)

EISU has since been merged with the university's Foundation programme and rebranded the Birmingham International Academy. At the time, EISU mainly delivered a range of

Preessional and Insessional programmes. As a centre accredited by the British Council (BC), teachers are required to hold TEFL Q (Masters level of education and/or a recognised English teaching qualification) level qualifications. At peak summer periods the unit employs over 100 EAP tutors to teach the large summer Preessional cohorts. However, at the time of this initial survey (in the Autumn term) there were 20 full-time EAP tutors employed at the unit (both open-ended and fixed-term contract staff). All staff were teaching on one (or two) of the main programmes in addition to seeing international students who request further support with their academic English in one-to-one tutorials.

The British Association of Lecturers of English for Academic Purposes

BALEAP has 120 institutional members (from over 73 British Universities) and 130 individual members. The association has an active JISCMail forum discussion list on which members discuss issues in EAP, upcoming conferences/meetings/groups/ training events, and various other topics. This email distribution list was used to invited participants to respond the four-question online survey.

The ELAMA Mail Discussion List for Distance MA students

The University of Birmingham's Department of English Language and Applied Linguistics (ELAL) runs two distance course for teachers/applied linguists working abroad /off campus wishing to follow a UK Masters programme: MA Teaching English to Speakers of Other Languages (TESOL) and MA Applied Linguistics. The programmes attract a diverse range of students, most of whom are practising English teachers. Each year there are between 200 and 300 students enrolled on the programme (and enlisted on the mail discussion list). Most are L1 English, but some are L2 English speakers. Their experiences range from being initial entrant teachers (in language school, college or university settings) to teachers/institution

managers and directors with many years of experience. Most are in broad TEFL contexts (even if working at university level). The programme’s students are all automatically registered onto the ELAMA mail Discussion forum which is used to discuss a range of course and TESOL related topics. In addition to the 200-300 current (and active) students, there were reported to be approximately 400 further past students, course lecturers and staff enrolled on the list at the time of the survey.

4.2.5 Recruitment/Response rates

As shown in Table 7, the first small survey was a convenience sample of the English for International Students’ Unit, the researcher’s own institution. 13 online responses were

Table 7: Response rates

Population	Responses	Response Rate
English for International Students Unit (n=20)	13	65%
BALEAP JISCMAIL (n =250)	129	52%
University of Birmingham Distance MA ELAMA List (n=600)	54	9%

completed (65% response rate). In the email sent to colleagues with the link to the anonymous online survey, teachers were asked to respond by email if they would be happy to participate further by following up the 5 minute questionnaire with a ten minute one-to-one recorded interview at which they were also asked to bring recent written corrective feedback (marking) of student work they were currently doing or had recently done (with the incentive of being

entered into a small prize draw). Six of these colleagues further agreed to an interview/audit of their teaching materials/corrective feedback.

Survey of the wider EAP field

The online survey was copied and redistributed to the BALEAP JISCMail Discussion List (129 responses) and the University of Birmingham Distance MA ELAMA List (54 responses) to achieve a more representative sample of the field. There are no known response biases that explain the higher BALEAP mailing list response rate (52%) response rate to the ELAMA Distance MA List response rate (9%). However, it is known that the high number of calls for participation in the ELAMA list is responsible for 'response fatigue' among tutors.

4.3 Results and Discussion

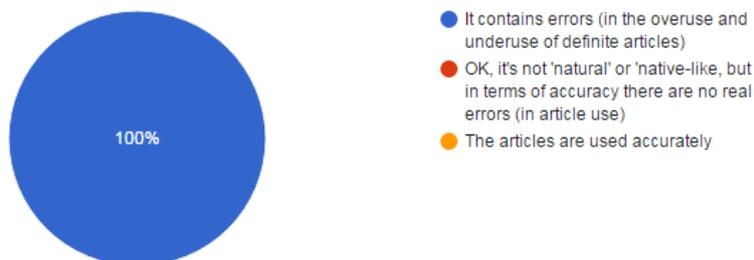
The quantitative results of the survey responses are now analysed (Sections 4.3.1 - 4.3.3) before the qualitative results are discussed in Sections 4.3.4 - 4.3.11.

4.3.1 Question 1

As can be seen in Figures 8 – 10 below, there was general agreement in Question 1 (multiple-choice response), from 91 percent to 100 percent, that the student examples provided in the question prompts could be classified as errors. All EISU tutors in the survey identified the exemplar as containing errors in overspecification and omission of definite article. Only a small number of teachers disagreed with the categorical classification as 'errors' in the BALEAP (Figure 9) and ELAL samples (Figure 10). The 'middle' choice allowed the respondent express their view that the student's use was 'correct', even if not 'natural or native-like' (6.3 percent in BALEAP list, 5.7 percent in MA List and 0 in EISU). From reviewing the BALEAP open

Imagine you have a student (in a lower level Foundation, Preessional or Insessional class) who regularly submits pieces of writing such as this (see below). Firstly, how would you describe it?

(12 responses)



In UK, all companies want to promote the consumer loyalty, but many people change the company and do not care about brand.

Figure 8: EISU EAP Tutor Responses to Question 1 (n=12)

choice questions (Question 4), it can be seen that two teachers believed the sentences might be acceptable in another World English (with which they did not want to interfere).

(127 responses)

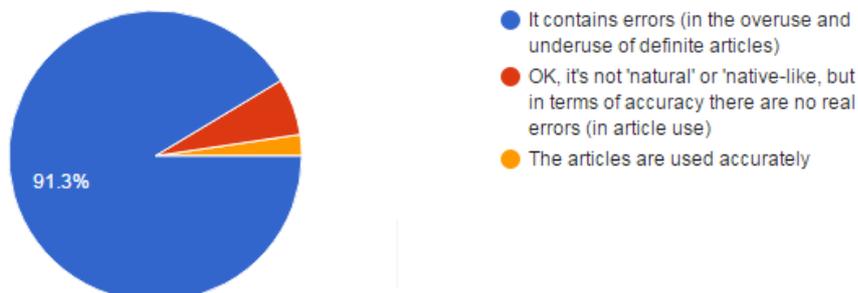


Figure 9: BALEAP mailing list responses to Question 1 (n=127)

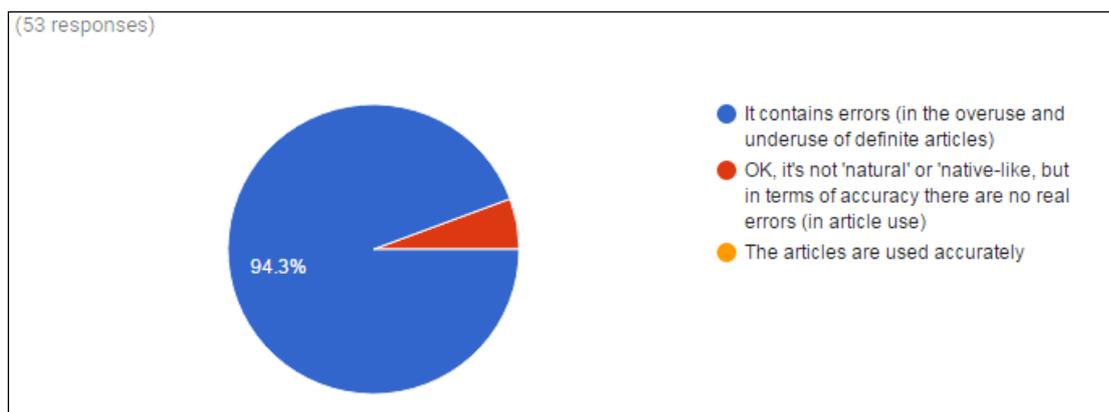


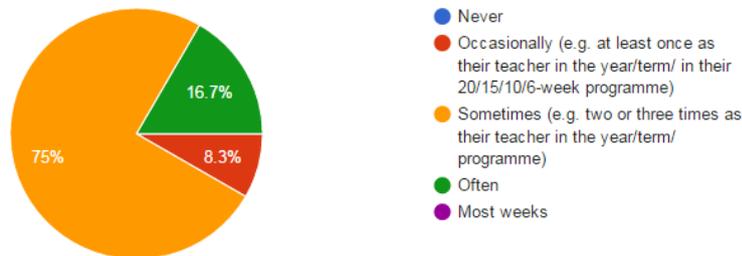
Figure 10: ELAL MA Distance programme responses to Question 1 (n=53)

4.3.2 Question 2

Figures 11 - 13 show the responses to Question 2 which enquired about the frequency with which they taught articles in the classroom (with a list of possible examples to stress that this was not limited to traditional methods of teaching). The frequency descriptors were designed to help teachers to reflect on their practices with a given class. For an EAP Preessional tutor this class contact is typically a fairly intensive period of 6, 10 or 15 weeks, but in some instances lasts for two or more terms. For example, at the time of writing, most of the EISU Preessional tutors had just finished teaching EAP for ten weeks (18 hours with a full timetable). However, the other survey responses reflect a broader diversity of other course periods and timetables. The most striking point observed in the data collected is the surprisingly low number of teachers who reported never teaching article use. An assumption had been made that many teachers, especially from the BALEAP list, might be teaching highly advanced academic skills classes that do not focus on grammar. Yet no EISU teachers (and only 5.5 percent in the BALEAP list and 9.4 percent in the MA list) chose 'never'. The small difference between the BALEAP and MA list tentatively suggests the possibility that EAP teachers are more (not less)

I'd like to know how often you ever 'teach' students about article use [a/an, Ø, the] in the classroom. For example, going over rules, looking at correct use/errors on the board, or helping students deduce such rules for themselves (any lessons in which you explicitly focus students on article accuracy). How often do you 'teach' this?

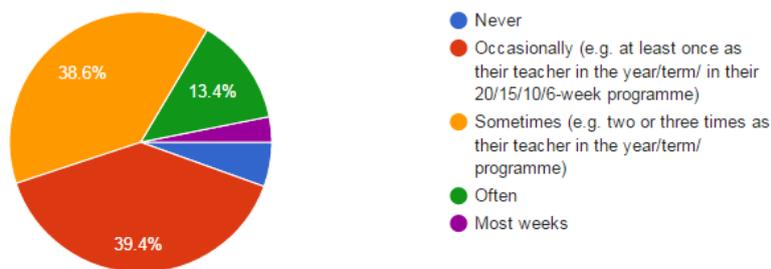
(12 responses)



Never	0	0%
Occasionally (e.g. at least once as their teacher in the year/term/ in their 20/15/10/6-week programme)	1	8.3%
Sometimes (e.g. two or three times as their teacher in the year/term/ programme)	9	75%
Often	2	16.7%
Most weeks	0	0%

Figure 11: EISU EAP Tutors' responses to Question 2 (n=12)

(127 responses)



Never	7	5.5%
Occasionally (e.g. at least once as their teacher in the year/term/ in their 20/15/10/6-week programme)	50	39.4%
Sometimes (e.g. two or three times as their teacher in the year/term/ programme)	49	38.6%
Often	17	13.4%
Most weeks	4	3.1%

Figure 12: BALEAP list EAP Tutors' responses to Question 2 (n=127)

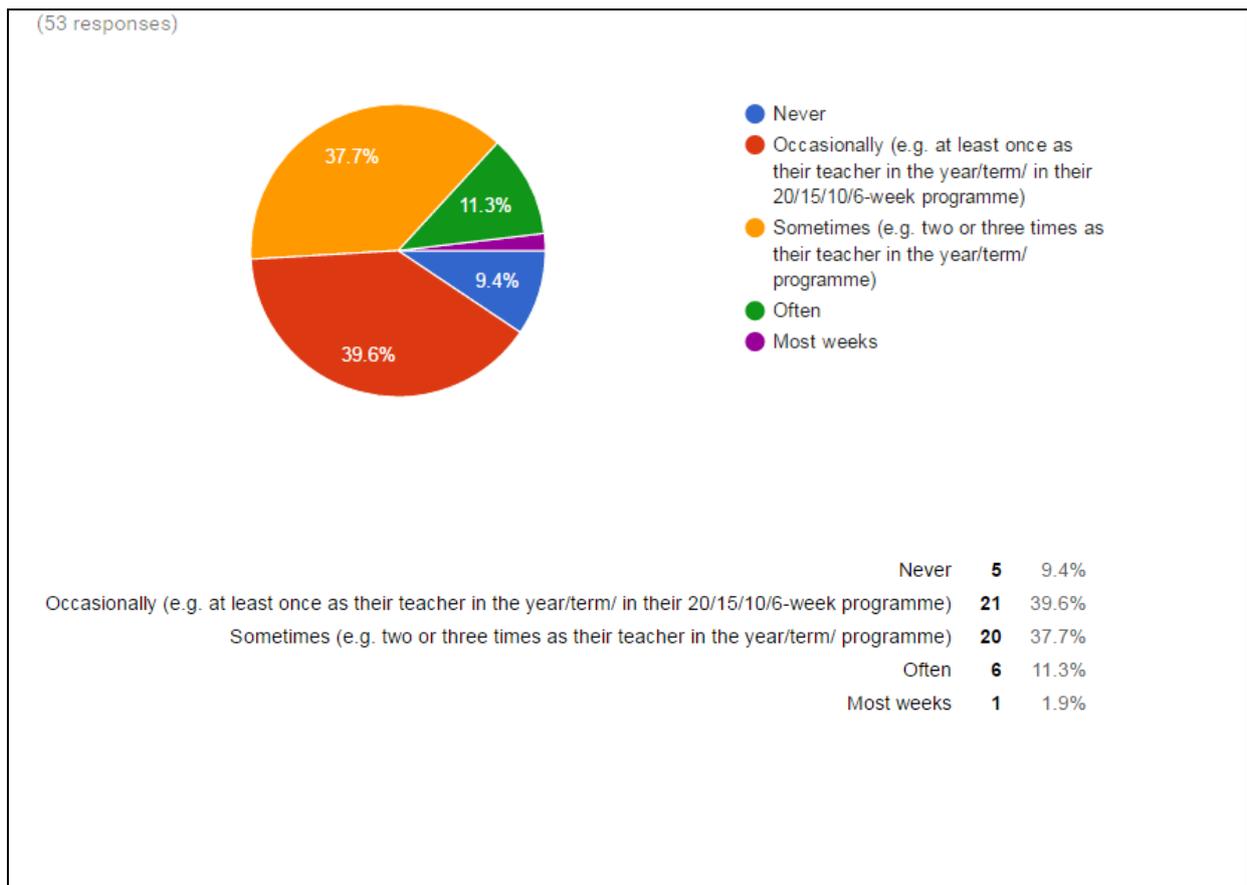


Figure 13: ELAL MA Distance programme responses to Question 2 (n=53)

likely to teach articles than TEFL orientated teachers (the MA list had more TEFL teachers subscribed than the other two groups). On the other hand, while the majority of tutors are teaching English articles one, two or three times a year/term/programme, very few tutors were teaching the article system more than three times.

4.3.3 Question 3

Question 3 (Figure 14 below) aimed to assess how likely the teachers were to provide corrective feedback to the errors presented in the first prompt. It had been expected that most teachers would follow the general recommendations across the EAP literature and not correct all such errors in certain contexts (such as classwork or in homework tasks). However, reflecting the anecdotal experience that some tutors rightly or wrongly see themselves as proofreaders for

students' higher stake assignments, it had been predicted that tutors would be more likely to correct such errors in certain contexts.

Going back to this piece of writing (see below) how likely would you be to highlight any written errors you saw in your feedback to students (written or verbal)? This could mean annotating/marking errors, underlining errors or simply pointing them out to students in a tutorial. Please consider the situations below:

In UK, all companies want to promote the consumer loyalty, but many people change the company and do not care about brand.

Figure 14: Question 3 prompt

Indeed, as had been predicted, the vast majority of teachers in all groups would correct such errors in a 'first draft' or 'conference paper'. However, it was surprising to see not only that a large majority of teachers in all groups would correct the errors in written homework, but also that over half of teachers in all groups were likely or very likely to correct the errors in a quickly written piece of work in class time (58.3 percent of EISU tutors, 60.7 percent of BALEAP tutors and 51.9 percent of the ELAL MA list).

Figures 15-17 illustrate the responses to the question of whether tutors would correct article errors in writing produced quickly in class.

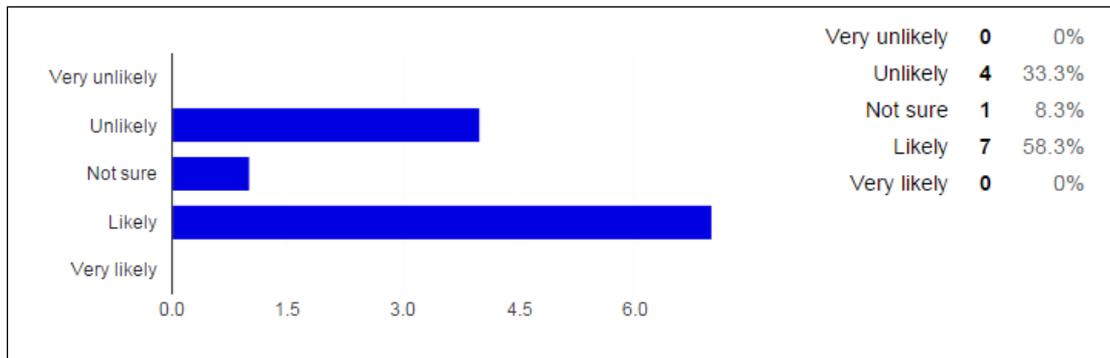


Figure 15: EISU EAP Tutors Question 3 (in class) n=12

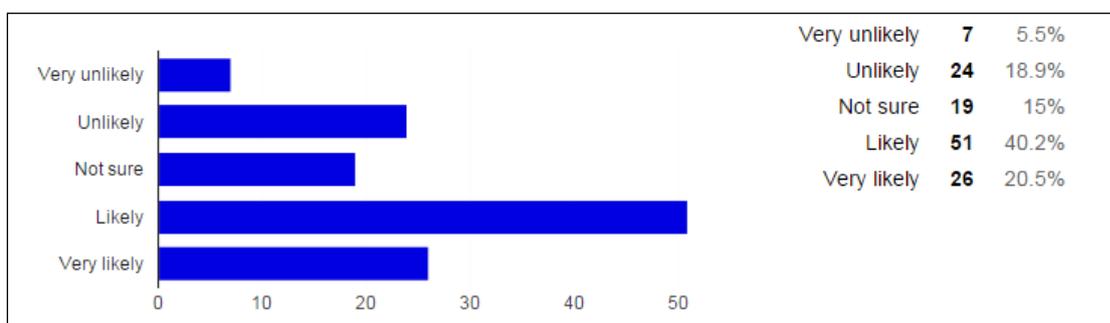


Figure 16: BALEAP EAP Tutors Question 3 (in class) n=120

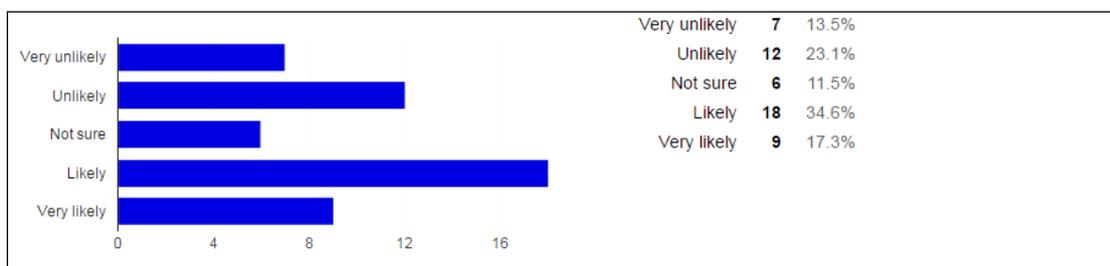


Figure 17: ELAL MA Distance programme Question 3 (in class correction) n=52

Figures 18-20 below illustrate the teachers' responses as to whether they would correct the article errors in a writing task set for homework. Again, for weekly homework it had been expected that many tutors would not be likely to correct article use or would be unsure without further knowledge of the students' general writing ability. However, across all groups most tutors were 'likely' or 'very likely' to correct such errors. The group with the smallest number

of teachers answering ‘likely’ or ‘very likely’ was the MA list (79.3 percent), with 87.1 percent and 91.3 percent for BALEAP and EISU teacher groups respectively.

If this was in a weekly writing homework Going back to this piece of writing (see below) how likely would you be to highlight any written errors you saw in your feedback to students (written or verbal)? This could mean annotating/marking errors, underlining errors or simply pointing them out to students in a tutorial.

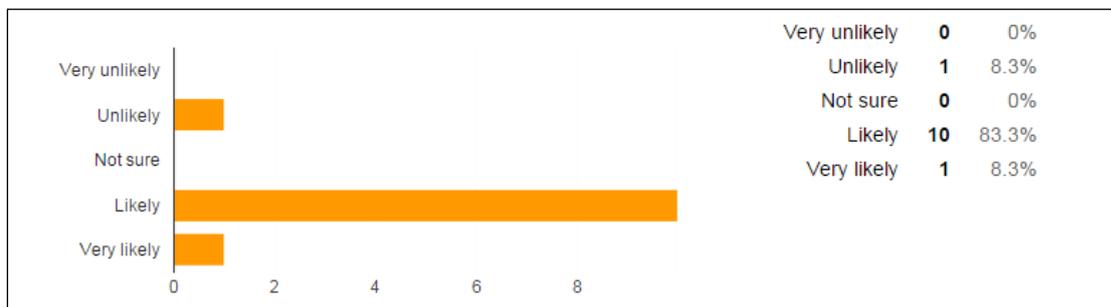


Figure 18: EISU Tutors Question 4 (weekly homework) n=12

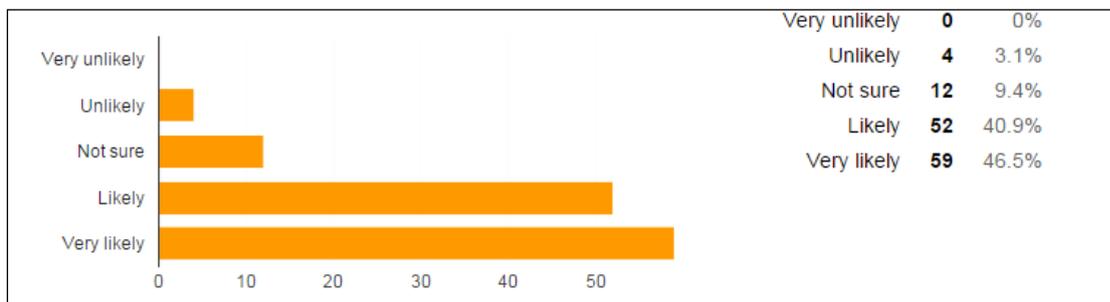


Figure 19: BALEAP EAP Tutors Question 3 (weekly homework) n=127

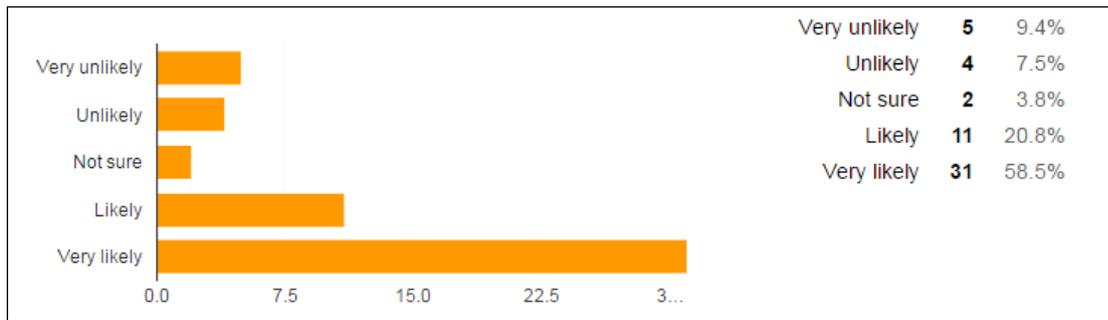


Figure 20: ELAL MA Distance Programme Tutors Q.3 (weekly homework) n=53

There was less surprise about the first draft of an assessed piece of work (as illustrated in Figures 21-23 below) since at EISU for example, the teachers were actually expected to mark the first page of the process writing extended writing assignment. Finally, as shown in Figures 24-26, it can be seen that most teachers were ‘likely’ or ‘very likely’ to correct such errors in when they were co-authoring a conference paper with the student.

Going back to this piece of writing (see below) how likely would you be to highlight any written errors you saw in your feedback to students (written or verbal) in the first draft in process writing? This could mean annotating/marking errors, underlining errors or simply pointing them out to students in a tutorial.

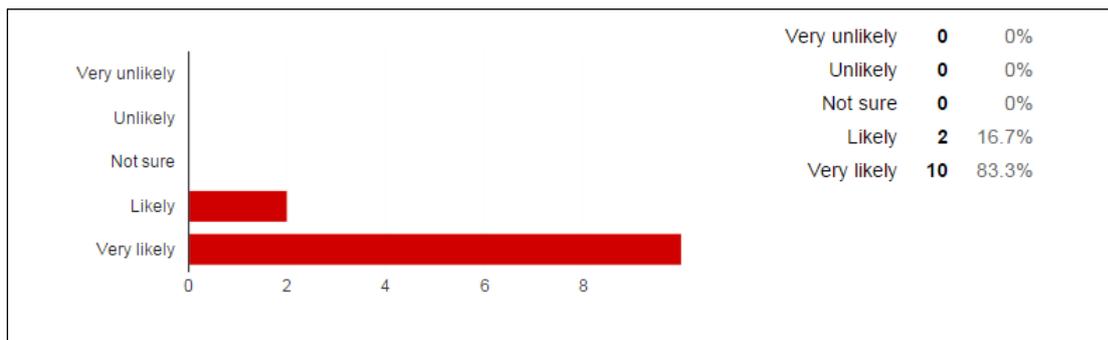


Figure 21: EISU Tutors Question 3 (in first draft) n=12

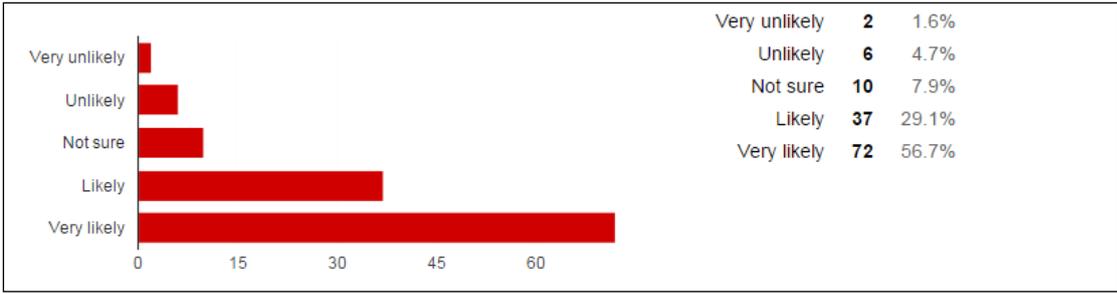


Figure 22: BALEAP EAP Tutors Question 3 (in first draft) n=127

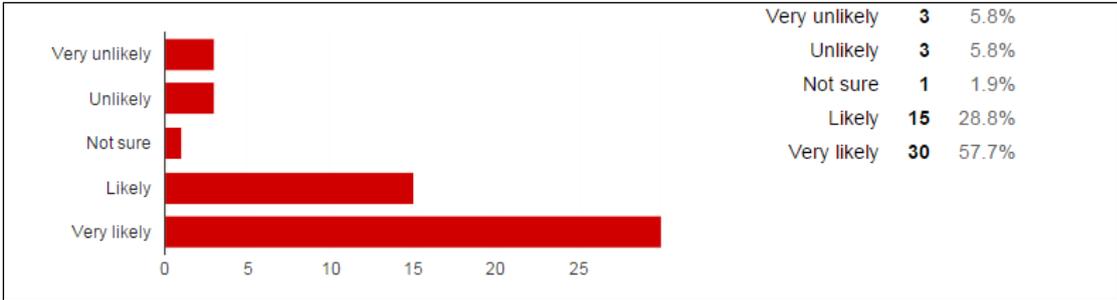


Figure 23: MA list tutors Question 3 (in first draft) n=52

In a conference paper you plan to submit (and co-present) with the student. Going back to this piece of writing (see below) how likely would you be to highlight any written errors you saw in your feedback to students (written or verbal)? This could mean annotating/marketing errors, underlining errors or simply pointing them out to students in a tutorial.

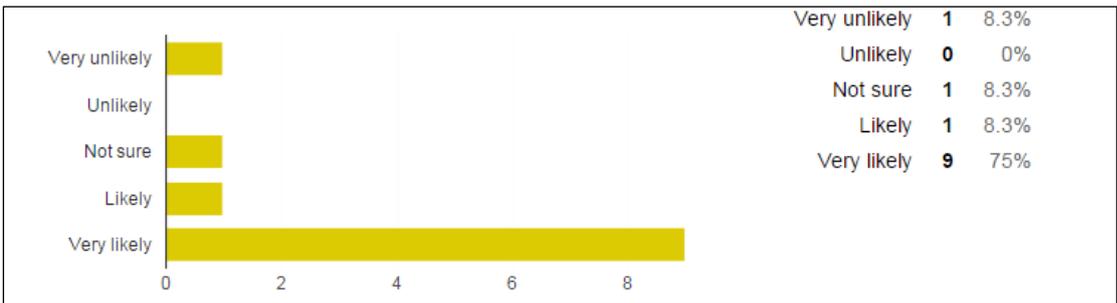


Figure 24: BIA EAP Tutors Question 3 (conference paper) n=12

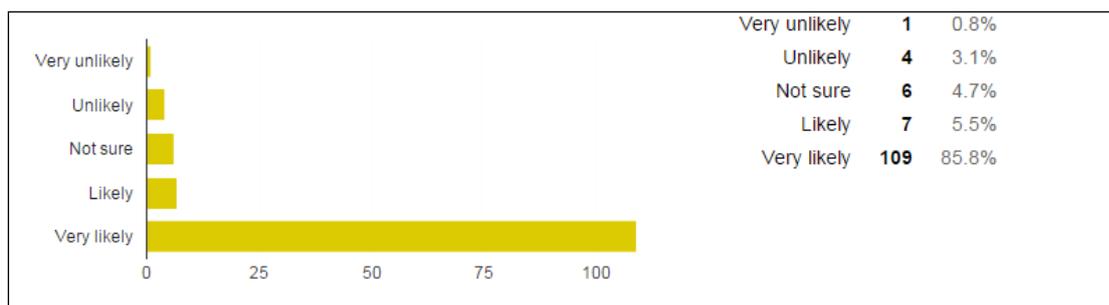


Figure 25: BALEAP EAP Tutors Question 3 (conference paper) n=127

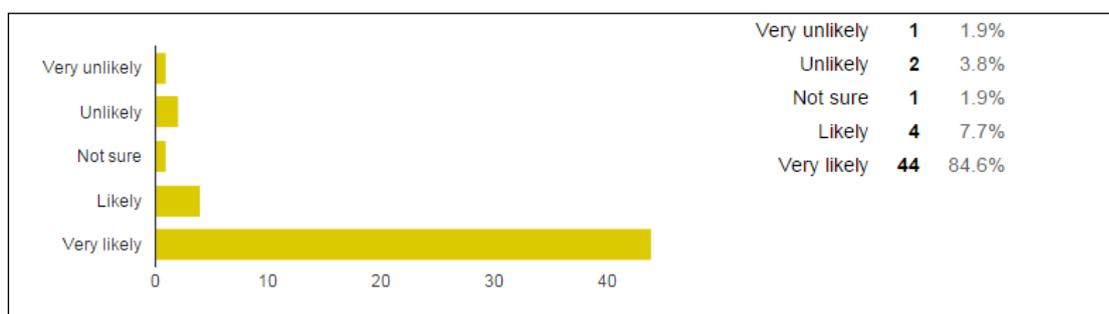


Figure 26: MA List Tutors Question 3 (conference paper) n=52

4.3.4 Qualitative findings

This section now presents the qualitative insights gained in this study which includes the respondents' answers to the survey open question (Question 4) and the interviews with six EAP tutors. The full answers from the tutors who responded to the open response question are shown in Appendix 2 (n=101). The analysis below starts instead with the insights gained from the answers given in six tutor interviews carried out following the survey. In the interviews the teachers were asked to give more information about their answers. Their full answers were transcribed and are presented in Appendix 3. By analysing their answers and comparing them to the wider survey responses to the open question (Question 4) asking tutors to reflect on how learners could be made to improve English article accuracy, this analysis provides a deeper indication of when, how and why tutors correct or teach article use.

Interviews/audit of feedback.

On request, all teachers brought a class set of marked papers (or gave access to a class set the week after the interview) with the aim of establishing whether the tutors regularly corrected errors and contextualising the interviews with specific examples. A review of these papers showed that only two teachers had not made annotations of article errors in their marking. One teacher of the four who corrected articles had made only two article corrections, but all the others had corrected at least one example of what was perceived as an article error in each essay. In brief, the picture was again one of correction of articles for four out of the six teachers even when the task was not assessed.

Sections 4.3.5 to 4.3.10 below summarise and interpret the answers of the six interviewed teachers in turn (their full responses are presented in Appendix 3).

4.3.5 Tutor #1

Tutor #1 was an English L1 tutor with three years' experience of Preessional teaching. Analysing her answers at interview, it can be seen that this tutor saw her role as correcting article misuse rather than teaching correct use in the classroom. Her initial responses suggested that she did not see the teaching of articles to be consistent with EAP best practices or possible in the time constraints of the Preessional. However, arguably in conflict with this asserted rejection, it was clear from the examples she brought to interview that she was regularly micro-marking article use. From her answers (see transcribed extract in shown in Figure 27 below), it is also clear that she believed such article corrections helped learners improve their accuracy:

Question 2 asked about how often you teach the article system to your students. Can you talk a little more about when you teach them and how you teach them? When are you most likely to teach article use?

Teaching the article system? To be frank, I don't have enough time to teach it in the classroom in one session of its own. With the time pressure and everything we cover, I don't have time to dedicate time to this. [...] It might come up in cohesion and I might send them to a grammar reference for homework. But I don't formally teach it in EAP. I think it's quite a trivial surface error. But each time when I correct writing...when I check students' writing, I will check and point out any errors in articles most of the time.

Question 3 asked about how likely you'd be to highlight the errors/give feedback in the example. In general, do you give corrective feedback? How often and when do you give corrective feedback? How do you do it?

I would like to say I do peer correction and things like that...but I just don't have time. Each time... I correct the errors – I often use codes for all grammar errors. Students will get articles marked two or three times...sometimes more if there's a high stakes assignment. Maybe that's not ideal, but we are so short of time. So, each time if I spot any error I will just mark it. And then in the tutorial time I will talk through it. And...if...actually if there are more than one students making similar mistakes...in sort...maybe in of in similar usages, I will collect examples and talk through very briefly in the classroom as a group.

How often do you correct their errors?

Most weeks I'll micro-mark a few paragraphs of their writing. For the important assessed work I'll probably mark two pages of the first draft of the assignment.

Does that help?

Definitely. Without correction they wouldn't normally realise that they've used the article in the wrong way and after I've picked it up they normally ask questions and try to reason...find the correct way and they ask questions. OK, no I wouldn't be able to evaluate how effective this practice this. But I think in my opinion they do get better over time.

Figure 27: Transcribed extract Tutor #1

While the view that absolutely all article errors should be indiscriminately proofed and corrected is likely to be a minority view across EAP teaching community, this tutor's

assumption that correction led to improved accuracy was representative of a small number of responses in survey Question 4 (open response), four of which are shown below for illustration:

- *Correcting surface errors like articles are part of our role as EAP tutors. I feel this is best done using error codes and the student's own work rather than abstract sentence level grammar exercises.*
- *Firstly, students need to be aware that they have a problem with their own use of articles...*
- *...constantly flagging it up in corrective feedback may help over time.*
- *Yes, we can. Written and oral feedback on written work.*

Such tutors show an underlying belief that accuracy improved over time through regular correction. It appears that such tutors see themselves as 'proofreaders' for their students. While most teachers will perceive a need to micro-mark parts of the early drafts of high stakes assignments in a justifiable 'product-oriented' approach, some teachers appear to believe they should correct all article errors in all written assignments. However, their underlying assumption that teacher led indiscriminate error correction of written work automatically leads to learning was not fully supported by the literature reviewed in Section 2.5.3.

4.3.6 Tutor #2

Tutor #2 was an English L1 tutor with an EFL background, very new to EAP teaching (interviewed after her first year of Preessional teaching experience). Her answers are representative of a type of teacher who regularly focusses students on the grammar of articles, both within and outside of recommended practices in the EAP literature. In fact, (as shown in Figure 28) she reported teaching the article system 5-6 times during a 15-week preessional. This started with one very specific 45 minute article focussed session followed by more impromptu 5 minute incidental sessions and whole class reviews of common errors made in articles (in feedback on writing). On the one hand, many of this tutor's approaches (focussing

on articles in presentation skills classes, peer corrections and a focus on proofreading skills) were well within the frequently recommended pedagogy in the EAP literature. She also clearly thought article errors represented a lexical issue in addition to a conceptual ‘rules’ problem for students. However, it was clear from her answers that she would have spent longer on the rules of article use with greater time and she was still adopting somewhat of an EFL paradigm in her view that teachers should return to grammar points like articles in a ‘cyclical way’.

Question 2 asked about how often you teach the article system to your students. Can you talk a little more about when you teach them and how you teach them? When are you most likely to teach article use?

[...] So, thinking about what I normally do....In the 15-week Preessional I did this - I had one session which was...like a 45 minute session where we look specifically at articles and then there were two or three times when it came up and we had 5-ten minutes each time. And then there's the ARP feedback, so maybe I help them with articles 5 or 6 times on a longer preessional. But I didn't do this so much with the 10-week students.

[...]OK, last question. In question 4 you were asked for recommendations/suggestions about helping students improve their accuracy of English Articles in writing....(do you have any further comments?). Do you have any more tips? Can we help students improve their English article accuracy and if so, how?

OK, so from what I have...from what I've understood. OK look I've got my Diploma but I've not done ...I'm not someone who's done a lot of reading on this. But from what I've understood, articles are late acquired. So, to a certain extent, it's one of those things that is cyclical. It comes up at various points in what you're teaching. It's just a complicated thing. So, what I've done in the past with ...because I have taught Russians and East Europeans...so for speaking, making it part of the rhythm. I teach it more in the speaking skills. You can make them understand that there's a space for the article, even by clapping it out. For example 'as a result'...you clap on the syllable....include them in a group. The focus shouldn't be on 'why', it's just look it's there in that chunk of language. As with everything, for some students it really helps them, for some students it's like water off a duck's back.

Figure 28: Transcribed extract Tutor #2

Reviewing survey Question 4 open responses (n=101), it appears that a number of EAP teachers assume that continued references to rules or a novel method of helping students

understand the general purpose of articles is the key to improving accuracy. The following responses typify what could be characterised as an ‘optimistic rule giver’ type of tutor:

- *I try to teach them some basic 'rules'. 'The' is used for something specific, one of a kind, unique. 'A, an' are used for one of many.*
- *Simplify article use by showing that the definite article is an audience oriented particle which signals to the reader - you know what I'm talking about.*
- *Some basic rules e.g. with plural country names (the UK, USA etc.) are helpful. Ideas which are harder to grasp quickly, e.g. talking about generic versus specific items, can be illustrated through reading and recognising article use.*
- *There's no magic wand - they just have to learn the rules and develop an ear for how articles are used.*
- *Learn about articles ourselves.*

Having established that many tutors continue to believe in rules-based grammar teaching, as also suggested by the quantitative findings, it was important to examine whether such pedagogy was effective in improving accuracy (as discussed in the next chapter).

4.3.7 Tutor #3

Tutor #3 (English L1) had eight years of ESOL experience and five years of EAP Preessional experience. Of the six interviewed teachers, this tutor’s reported beliefs and classroom practices (see Figure 29 overleaf) appeared most aligned to the pedagogy most usually advocated in the EAP literature. He had not marked article errors in the student feedback examples he brought to interview. However, he did focus students’ attention on article use. Rather than decontextualised prototypes, this teacher used a modified authentic academic text to highlight how article was used in definitions and later how articles helped the writer change the focus from general to specific references. The teacher used a springboard session to focus students on correct use within an academic article, but then stopped teaching and emphasised the use of peer-marking and self-correction to promote learner autonomy. When asked about

error-correction, the only articles that this teacher reported correcting were those in high-stakes assignments. As shown in the transcribed extract below, this tutor did not correct articles in most homework submissions as he saw this as ‘spoon-feeding’. This teacher again seems to be practising contemporary EAP best practices advocated in most literature.

Question 2 asked about how often you teach the article system to your students. Can you talk a little more about when you teach them and how you teach them? When are you most likely to teach article use?

Yes, I do introduce it more formally at the start. I often look at correct use first, maybe at how it works with definitions of generalisations in the introduction, which is normally a plural form without article. This is important because I can't assume they've been taught it [the article system] in the way I want them to understand it. It fitted in quite nicely in the 10-week course this year at the beginning – I brought forward the stuff about proofreading. But rather than focus on errors, I first looked at how correct use worked. Then I put a Powerpoint slide up with a research article I'd chosen but simplified a bit. I got them to focus on how articles determine specific examples at some points and generalisations in others – I think I got this idea from Swales. Then I gave them some proofreading exercises with correct and incorrect article use. Then I got them to start peer marking their own work. I actually do that with every written task – they peer mark it every time.... before it comes to me. And that first time it was with articles.

Question 3 asked about how likely you'd be to highlight the errors/give feedback in the example. In general, do you give corrective feedback? How often and when do you give corrective feedback? How do you do it?

[...] I think there's a lot of teachers overmarking articles. The problem is, the student is just going to depend on your spoon-feeding. And do they actually learn? You're not going to be there in their main programme – they have to learn to do this themselves. And we have these really amazing motivated students in EAP which is so great – I come from an ESOL background where I spent so long trying to get students to take responsibility, but our Preessional students get this more quickly.

Figure 29: Transcribed extract Tutor #3

While the majority of respondents in the survey appeared to error-correct students work more indiscriminately, many answers to survey Question 4 (open response) appeared to follow these more data-driven approaches to teaching article use:

- *I haven't found generic exercises such as 'correct the errors' in random sentences help really. However, I have found that activities which help students notice their own specific errors in their own writing does seem to make some difference.*
- *I think it is important to sensitise students to the issue of article use and encourage them to self-correct in revision drafts.*
- *I generally ask students to proofread and peer check. I think that students can generally avoid article errors when they concentrate on articles specifically. However, when grammar is not the focus I think there is a tendency to translate from the student's L1 which means they make errors with articles.*
- *At lower levels, raising students' awareness of their use of articles can make a difference, with peer correction being useful in this regard.*
- *My response to this is to get students to closely analyse reading texts which have either been introduced as part of the syllabus or which they independently chosen and to look for specific language use issues - in this case the use of the article (pre-teaching article use if appropriate) and to compare in pairs*
- *Awareness-raising will be useful for some students, allowing them to improve their understanding/use over time. Short focused activities (e.g. correction exercises, use of corpora lines to note patterns) may also help (some) students appreciate when/where/why the use/omission of an article may to blur meaning.*

Stressing the importance of autonomous study skills (self-correction, peer marking) and focussing students on article use through data-driven learning approaches the tutors above appear to be following the best practices of the recommendations found in the EAP literature. These best practices show that focussing students on article accuracy certainly does not need to be decontextualised or teacher centred. For the sake of simplicity, within this fivefold typology, such teachers are thus labelled 'EAP paradigm tutors'.

4.3.8 Tutor #4

Tutor #4 was an (L1 English) EAP teacher with over 15 years' of experience. At interview she stated an assumption of a strong L1 transfer effect on Chinese students' presumed inaccuracy with articles. While mentioning several practices (see Figure 30) that could fit within the

pedagogy and learner autonomy most advocated in the EAP literature (the ‘EAP paradigm’), she also showed a strong belief in error-correction and rules from grammar reference guides. More similar to tutors #1 or #2 than #3, this tutor might therefore best be characterised as a combined ‘proofreader’ and ‘optimistic rule giver’.

Question 2 asked about how often you teach the article system to your students. Can you talk a little more about when you teach them and how you teach them? When are you most likely to teach article use?

Yes, we need to teach articles in EAP if the students are IELTS 6.5 or below. For higher level students, I think they’re sorting themselves out alone, but most Preessional students from China need help. The Chinese students really struggle with articles because their first language doesn’t have them. There isn’t much time, but I’ll try at least twice to pull some of the students’ errors that I’ve noticed and put them on the screen. They need to see how important articles can be especially in definitions or about how generic articles work in an engineering topic and the difference between when they generalise about a term in one paragraph but may need to refer to specific and known things in another paragraph. And apart from that I send them to grammar reference books. I tell them they should all have Hewing’s grammar book so if they get a correction they don’t understand they need to look it up and learn the usage. I correct their errors too so they can see what they need to learn.

Figure 30: Transcribed extract Tutor #4

Tutor #4’s confidence in the effect of grammar rules and mass error-correction was not widely shared among the surveyed responses. However, a small number of the open responses given to survey Question 4 (open response) were equally confident in such practices:

- *Chinese speakers will need to be continually supported with frequent exercises and focused correction of their writing.*
- *[Recommendation of book]. This book outlines 125 rules for articles.*
- *Yes, teach, practice with paragraphs of error-filled text, etc.*
- *Access to a grammar reference source such as McCarthy and Carter's Cambridge Grammar.*
- *Yes, but it's very difficult. Awareness raising, examination of rules, practice exercises.*

The responses above suggest that some EAP tutors wish to keep away from the issue of article use in whole class teaching, but see some responsibility for making sure students are noticing their errors through correction and then assuming the students' independent use of grammar references materials can help them improve their accuracy levels.

4.3.9 Tutor #5

Tutor #5 (L1 English) had an ESOL background and 3 years of EAP Preessional teaching experience. This teacher showed a strong commitment to data-driven learning, learner autonomy and peer/self-correction, but framed this focus through a rule-deduction approach. He had only marked two article errors in all of the feedback he brought to the interview. As shown in Figure 31 below, like Tutor #3 many best practices were reported that seemed harmonious with EAP literature recommended practices (the 'EAP paradigm').

1. Question 2 asked about how often you teach the article system to your students. Can you talk a little more about when you teach them and how you teach them? When are you most likely to teach article use?

From the get go I would try to introduce them to the idea of proofreading and learner autonomy. So in the first week I'd expose them to the idea of how to correct some of these problems. I created proofreading prompts... (checking countability, plurality). For articles I get them to deduce three basic rules and that single countable noun phrases needs a determiner. I take them through these intensely in this one session with this proofing prompt (he demonstrated). So I'd expose the issues to them like this and make them aware of it, but I wouldn't keep pressing it. I wouldn't keep micro-marking it. If they wanted to, in tutorials I'd direct them to further resources, but it's something they have to do autonomously. OK, if it was the ARP (extended writing assignment) I feel there's too much at stake so normally I micro-mark the third page, or I would micro-mark a page or two, but they'd have to go over the rest of it.

Figure 31: Transcribed extract Tutor #5

On the issue of error-correction, this tutor argued the case for occasional highlighting of article

errors, but without telling students the correction itself:

Question 3 asked about how likely you'd be to highlight the errors/give feedback in the example. In general, do you give corrective feedback? How often and when do you give corrective feedback? How do you do it?

I didn't correct much on the 6-week course this year. But on the 10-week course last year, I marked them ...I would just put 'G' for grammar and I would leave it up for the student to work out what the mistake is. I would leave it up to them to come to me if they didn't understand what this issue was. I really want to reinforce learner autonomy. So, another thing I do is peer marking. I think er...I've especially learned this with learner autonomy, it's more about promoting their confidence. So with peer marking, it doesn't matter if they're not 100%. It's ok, but they will learn from their mistakes from making mistakes. And obviously I will do some quality control.

Figure 32: Tutor #5 continued

In many ways, Tutor # 5 appeared to best characterise the attitudes, beliefs and practices most frequently mentioned in the BALEAP survey responses. These teachers teach the form of language, but always usually with an authentic text driven approach with emphasis on students' own noticing of patterns. Figure 33 below presents an analysis of the BALEAP answers (n=101) clustered into group types. As can be seen, by far the most frequently recommended teaching strategy was the general notion of asking students to 'notice' article use (32 mentions). These 32 mentions did not explicitly make reference to the third most popular recommendation of asking students to deduce the function-form meanings (18 recommendations) from studying texts/examples, but it can probably be assumed that many of the 32 respondents recommending 'noticing' strategies' implicitly suggested some sort of data-driven learning approach. As can be seen below, the more frequent approaches (apart from correction of errors) are not incompatible with the frequently recommended pedagogy in the EAP literature.

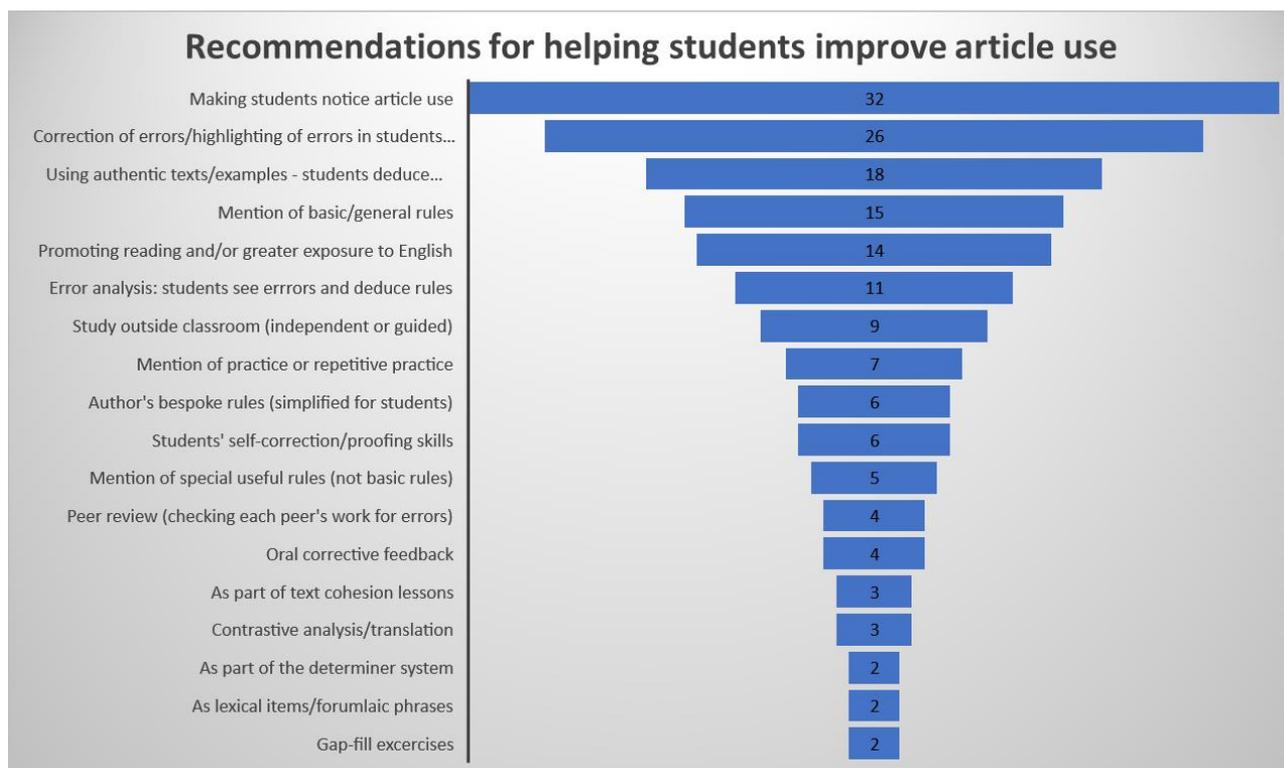


Figure 33: BALEAP list pedagogical recommendations (number of mentions, n=101)

4.3.10 Tutor #6

Tutor #6 was an L2 English speaker of (L1 Chinese) at the end of her first year of teaching EAP in the UK, following five years of teaching college English in China. Tutor #6 had corrected two article errors in the high-stakes assignment (first draft), but no article errors in the other homework examples that she brought to interview. As can be seen in her full interview transcript (see Appendix 3), this tutor reported that she rarely corrected English articles in regular homework feedback because 1) she preferred to focus on ‘the way they structure their ideas’ and 2) she did not ‘feel confident correcting them’. She therefore rather reluctantly corrected article usage only in the most important high stakes assignments, mostly because she felt it was what the students wanted rather than seeing any acquisitional benefit from doing so. As a teacher with experience of teaching academic English in China, this tutor explained (see Figure 34) that Chinese students often wanted more grammar in lessons because of the way

English is taught in the compulsory ‘college English’ courses in China. She further speculates that Chinese students can feel frustration at their lower accuracy in real production compared with their better performance in multiple choice tests:

Could you think of any cultural reasons for misunderstanding article use? As you’re Chinese, perhaps you can help me understand whether it’s the students’ background or their misunderstanding of academic genres that is the problem.

I was teaching English actually at university in China for five years. You know in China it’s compulsory for the students to study English for the first two years. We call it ‘College English’ and we have a dedicated coursebook that they will study no matter what their subjects are. On reflecting on these practices, we did actually do a lot of grammar practice. In fact, more often or not we’re using multiple choice questions with texts, so you only need to pick out the correct answer. So you’re not really producing your own writing. It’s very different...picking out the correct one...to writing your own one. This college English is more about grammar. A major part of it is to consolidate grammar points and a major part of it is to show them exam papers and 60-70% of the exam is multiple choice. I don’t know why students make more errors in their writing than they do in the tests, but I think it’s like...like being on a simulator to learn to drive a car. However long you go on a simulator, it cannot prepare you for driving your own car on the road. And English for Chinese students is like this. I actually use this analogy when I teach essay writing. Knowing the rules is quite different to using the rules accurately. Chinese students spend so much time on those multiple-choice questions, but their knowledge is not useful in real language situations. I notice some students overuse definite articles. It is sometimes that Chinese students want to reinforce something. But it is really confusing.

Do you think it can have any negative effects when we correct students? Are there any dangers of overcorrecting students? I worry what would happen if I tried to learn Chinese writing and had lots of corrections on parallel forms like measure words or something.

I wouldn’t have thought so, to be honest. They are all very keen. They can see that attending this course can help them to improve. Actually, one of the feedback I had from students at the end of the 6-week Preessional was ‘why don’t you teach more grammar’ and ‘why don’t you teach pronunciation’. I think they would like more grammar.

Figure 34: Transcribed extract Tutor #6

Tutor #6's attitude resonates with two other responses in the survey. In response to Question 4 (the question which allowed tutors an open response), two respondents commented that they found the rules too challenging to explain:

- *I find it difficult to explain and believe that extensive reading on part of the student is the best solution*
- *I'm a second lang [sic] learner myself at PhD level and make mistakes with articles and prepositions. I'd teach the rules which are sort of vague anyway but in general I'd let it go.*

While two BALEAP tutors indicated a reluctance to teach or correct articles due to their own lack of confidence in understanding or explaining article use, 99 other respondents made no reference their own lack of abilities or understanding. This result was surprising as the English article system is extremely complex to fully comprehend. It is possible that some tutors felt embarrassed to discuss their own abilities even in an anonymous survey so, like any self-reporting survey, this result must be treated with some degree of caution. For whatever reasons they would prefer to avoid correcting article use, this typology characterises these tutors as 'reluctant error correctors'.

4.3.11 Principled ignorers of English articles

None of the interviewed EISU teachers showed a principled outright objection to focussing on article form (either through noticing techniques or correction). However, 5.5 percent (n= 127) of the BALEAP questionnaire respondents reported that they never taught English articles and 39.4 percent only taught them once or so during the programme. As shown below in their answers to the survey open question, there is therefore evidence that a small minority of teachers have principled objections to focussing on articles in any way. These teachers can be characterised as 'principled ignorers' who may see the EAP best practices as incompatible with

the focus on minor surface forms. Five example answers to survey Question 4 (open response) are shown below:

- *I'm unconvinced that beyond pre-academic study it's really worth explicitly teaching this point at all, for the little return which may come from doing so, not least in terms of its impact on meaning. By the time students reach undergraduate or postgraduate level, I doubt if it's more than a minor irritation to their subject lecturers (with perhaps a few exceptions in language-related subjects). With more and more English-medium research published (and edited) by non-native speakers of English, occurrences of article 'errors' may well become increasingly frequent.*
- *We used to talk about 'error gravity' a long time ago, and I believe that inaccuracy in this particular area is seen as 'error lite'.*
- *For a more confident tutor, it's much less important. In a less parochial sense, English is becoming much more global (cf *English Next et al*), with washback into "Centre" countries from other users.] Is it practical?*
- *I would say that I am less likely to address it explicitly as an EAP teacher because it is less important than other features of EAP.*
- *Not sure. I think articles are one of 'final errors', if you like, NNS that have been in an English country for many years can still make errors with articles. It may be improved with greater exposure to language and language environment than direct teaching in class.*

Further analysis of these 101 BALEAP teachers' responses (specifically the principled ignorers) involved grouping their responses into 7 categories, as shown below in Figure 35. These categories paraphrase the gist of the respondents, rather than show verbatim responses. As can be seen, eight of the 101 BALEAP respondents made reference to the fact that articles could be left to acquisition processes with enough naturalistic contact with academic English. Other reasons for not teaching the article system included; the ineffectiveness of teaching the system; the low return for the effort; the higher perceived level in EAP, and World English arguments. Nevertheless, these views were rare among the surveyed respondents.

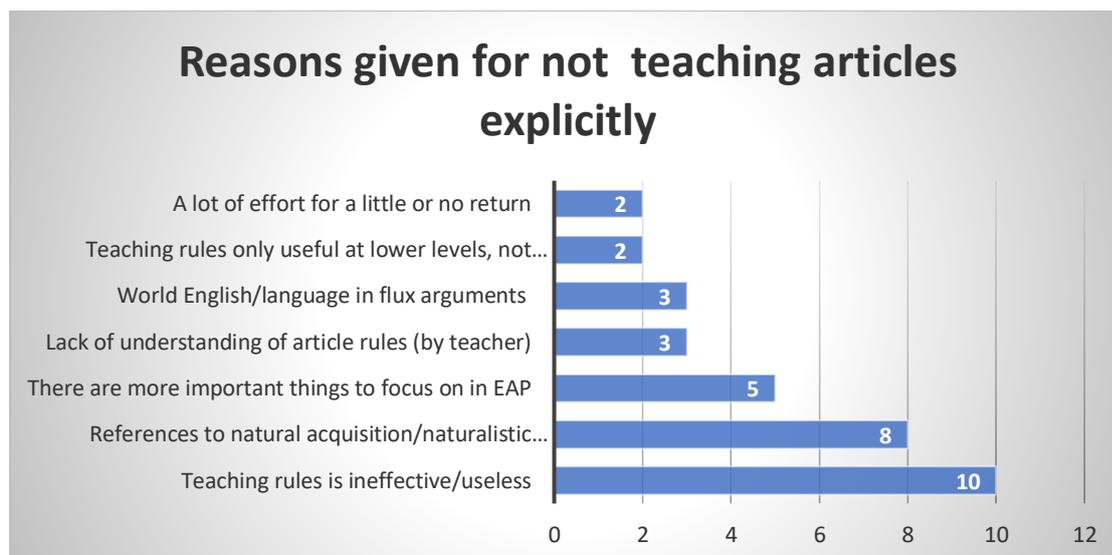


Figure 35: Reasons given for not teaching articles explicitly (n=101)

4.3.12 Fivefold typology of EAP tutor approaches to English articles

The analysis above has shown five ‘types’ of EAP tutor: 1) tutors who teach English articles within the data-driven learning and student-centred recommendations found in the EAP literature (the ‘EAP paradigm’), 2) optimistic rule givers, 3) proofreaders, 4) reluctant error correctors and 5) principled ignorers. The tutors using the ‘EAP paradigm’ made mention of noticing techniques, text-based pattern focus, guided proofreading, self-correction and peer correction. Some EAP tutors see themselves as proofreaders whose main role is to correct every error they see on the assumption that students learn from frequent correction. The ‘optimistic rule givers’ appear to see the problem as conceptual, the assumption being made that students have previously misunderstood article use and some sort of clearer or more accessible explanation can help the students’ understanding. A small number of tutors are ‘reluctant correctors’, overcoming their low confidence or principled objection to focussing on articles because of perceived student demands. Finally, a small group (principled ignorers) see any focus at all on article accuracy as contrary to best practices in EAP, irrelevant or unnecessary or simply too trivial to merit attention.

4.4 Conclusion

The anecdotal observation that many preessional teachers at the researcher's institution teach article use was confirmed. Survey and interview data showed that all respondents at EISU had somehow focussed their students on article use at least once in the preceding term. Moreover, across the wider sector, the survey of BALEAP tutors suggests that the overwhelming majority of EAP tutors 'sometimes' or 'occasionally' focus on article use in their classroom. One unexpected finding was that EAP tutors appeared to be marginally more likely to focus on English article use than EFL tutors (as represented by the ELAL MA list). A small minority of 'principled ignorers' see any attention to articles as inconsistent with contemporary EAP approaches, but the overwhelming majority appear to be teaching article use within text based, data-driven and student-centred approaches consistent within the 'EAP paradigm' outlined in Chapter 2. A smaller number of EAP tutors across the UK appear to also be optimistically looking for a simpler/clear rule to teach article use with decontextualised examples, which is slightly inconsistent with the 'EAP paradigm'.

However, while most teachers mentioned focussing and teaching approaches that contribute to learner autonomy, many appear to be overcorrecting article errors in a more teacher-centred manner more divergent from the recommendations found in the EAP literature. When asked if they would have corrected the article errors in regular low stakes homework tasks, the overwhelming majority of EAP teachers surveyed responded positively. This confirmed the researcher's earlier anecdotal observations and appears to confirm previous research that has shown a marked difference between EAP tutors' stated beliefs and their actual practices (Etherington & Burgess, 2002; Barnard & Scampton, 2008). Based on the responses at interview it is likely that many teachers (termed 'proofreaders' in this study) continue to believe that correcting all students' article errors will lead to improved accuracy over time. It is also

likely that many are ‘reluctant correctors’, basing their behaviour more on what students appear to want or peer behaviour than their own beliefs about the efficacy of such methods. These findings confirm Borg’s (2003) proposal that a broad range of factors beyond the published best practices affect teacher pedagogy.

Regarding error correction, the practices described by two teachers at interview (modelling proofreading skills and training students to self-correct and peer correct) would appear more in tune with the commonly recommended pedagogy in the EAP literature. Judging from the BALEAP survey responses, many EAP tutors across the UK know about these methods and see their worth. Such practices certainly appear to pose less dangers of confusing or demotivating learners and allow students to leave the EAP preessional ready to monitor their own writing without the teacher’s help. It could be argued, figuratively speaking, that most EAP teachers embrace these principles and ‘talk the talk’ but are not ‘walking the walk’ since they correct their students’ article errors more indiscriminately than most experts would recommend.

Due to the fact that ELAL MA participants are less likely to work in English for specific purpose contexts, as many Masters students work in EFL contexts as well as English for General Academic Purpose contexts, they had been assumed to be likely to hold a more communicative teacher outlook than the BALEAP list. Although some of these tutors are delivering academic writing lessons, it had been generally expected that they would show markedly different attitudes either because of the widespread use of an integrated lexical and grammar based curriculum in EFL (a reason article teaching might be more frequent) or because of their greater focus on oral skills and reduced need to focus on long academic writing texts (a reason for less teaching). It seems possible these two dynamics cancelled themselves out. For whatever reason, the MA list teachers overall appeared slightly less likely to explicitly

teach or correct article errors. Moreover, there are a high number of these teachers working in [-Article] L1 countries (the biggest two markets are Japan and Korea), but the impact of this work setting was not possible to ascertain without further interviews.

There are remarkable similarities across the three groups of teachers surveyed, particularly so given the diversity of teaching contexts from which the teachers came. However, some limitations must be acknowledged in this study relating to this variance. The wide range of backgrounds and failure to control variables such as level, programme type and the failure to collect biographical information about the teachers, could be argued to be invalidating features of this study. They certainly require a degree of caution to be exercised in the interpretation of these findings. A second limitation of any survey-based piece of research is the tendency of teachers to report their opinions and practice selectively. Moreover, examples of errors were given to the survey respondents to help them frame their answers meaningfully, but it is conceded that these errors had more gravity than the errors teachers typically face in EAP (thus different examples may have gained slightly different results).

A third limitation is the simplistic framing of the topic of correction in questions without nuancing how students are trained to use feedback or reference to new forms of electronic feedback (Hyland & Hyland, 2006). This study has not researched how tutors might direct students to use their feedback, for example using data-driven approaches (Crosthwaite, 2017). Future studies would benefit greatly from investigating new forms of feedback regarding article use, particularly since it may be this technology that is encouraging tutors to correct errors so frequently. Finally, in retrospect it is acknowledged that the study could have gone deeper into the question of why tutors appear to go against their own stated beliefs and occasionally teach and correct articles inappropriately. Judging from the Chinese L1 tutor's explanation of

Chinese students' experience in China, this is likely to be linked to the teachers' perceptions of their learners' expectations and this would be an interesting area of future research.

Notwithstanding the limitations, this survey of teachers' attitudes and practices has suggested some conclusions that provide a foundation for the future studies presented in this thesis. Most EAP teachers clearly believe that article use can and should be focussed upon at some point in an EAP programme. These teachers would benefit from a greater understanding of the challenges faced by Chinese learners and how different contexts could be taught within the pedagogic approaches most advocated in the EAP literature. If EAP teachers can be persuaded to stop excessively marking article inaccuracies, it would be helpful to provide more evidence to counter their assumptions and, moreover, to recommend an alternative range of peer-marking / self-correction type activities that can satisfy their students' demands for help in this area.

5 LONGITUDINAL STUDY OF THE EFFECT OF TEACHING/ CORRECTION ON 24 (L1 MANDARIN) LEARNERS OF ENGLISH ON A 15-WEEK PRESESSIONAL ENGLISH COURSE

The research reported in this chapter proceeded to investigate the effect of explicit teaching and correction on English article accuracy in a longitudinal experiment in which control groups and post-teaching measures were used to overcome the methodological challenges discussed in Chapter 3. The previous chapter examined the extent to which tutors focus on English article accuracy in EAP and, having established that many EAP teachers are teaching/correcting article use, the question now turns to the effectiveness of any such approaches. As highlighted in the preliminary study presented in Chapter 3, investigating the efficacy of pedagogy poses many challenges. In the first preliminary study, students made fewer errors when given extra sessions on English article use, but may have made fewer article mistakes due to their increased focus on ‘monitoring’ their language. This necessitated the analysis of any effects after the teaching/error correction had stopped. The preliminary study highlighted the difficulty of investigating causal relationships between the teaching/correction of the article system and improved accuracy. This study therefore sought to control variables with 1) an experimental group which was given extra teaching and article corrections; 2) an ‘error-corrected’ group who would have extra corrections of their article errors (but no extra teaching) and 3) a third control group (with no extra attention focussed on articles through either error correction or teaching).

It should be noted that this chapter focusses on the effect of teaching and error correction. After reviewing the research question and the methodology, the discussion of the results is limited to describing and statistically analysing the effects of the experiment. Thus, references to the

literature and the issues determining why Chinese students made the reported errors are discussed in the deeper analysis of the different article types presented in Chapter 6.

5.1 Study overview

5.1.1 Recap of Research Question and hypotheses

This study focuses on Research Question 4:

Does the explicit teaching or correcting of English article usage lead to more target-like use of articles by Chinese L1 university students whose L2 English displays inaccuracy?

When designing this study it was predicted that teaching, through ‘consciousness’ raising and encouraging ‘noticing’ of article forms, would improve students’ accuracy (Master, 1990, 1995, 1997; Bitchener & Knoch, 2008). Similarly, after being focussed on the single grammatical issue of article use, it was hypothesised that the error corrected group would also make significant improvements in their article accuracy (Bitchener, Young & Cameron, 2005; Ferris and Kurzer, 2019). There nevertheless remained questions about whether such conscious raising leads to sustained improvements or more temporary accuracy gains (Master, 1997), so a post-study analysis over a month after cessation of extra treatment was required to examine whether any improved accuracy rates would be maintained.

5.1.2 Chapter Overview

Section 5.2 outlines the methods used to source and compile a longitudinal corpus of student essays and how the different groups were taught during the a Preessional. Section 5.3 presents the application of the ethical considerations negotiated with the Ethics Board. The final evolution of the data analysis approach, as discussed in the preliminary study, is presented in Sections 5.4- 5.5 and the steps taken to check the reliability of the annotation system are

discussed in Section 5.6. After reporting and analysing the results in Section 5.7, the conclusions are drawn in Section 5.8.

5.2 Methodology

5.2.1 Experimental design

As presented in Figure 36 below, three groups of students received differing pedagogical treatment. In addition to an experimental group (given extra instruction and corrections in article use), responses to the same essays were taken from a group given extra error-corrections and a control group that had no extra attention focused on English article use. The first data collection was in week 1 of the Preessional (before teaching/correction began), the second essay was submitted at the end of the extra attention focussed on articles in two groups (week 8) and finally six weeks after extra teaching/corrections ceased (week 14).

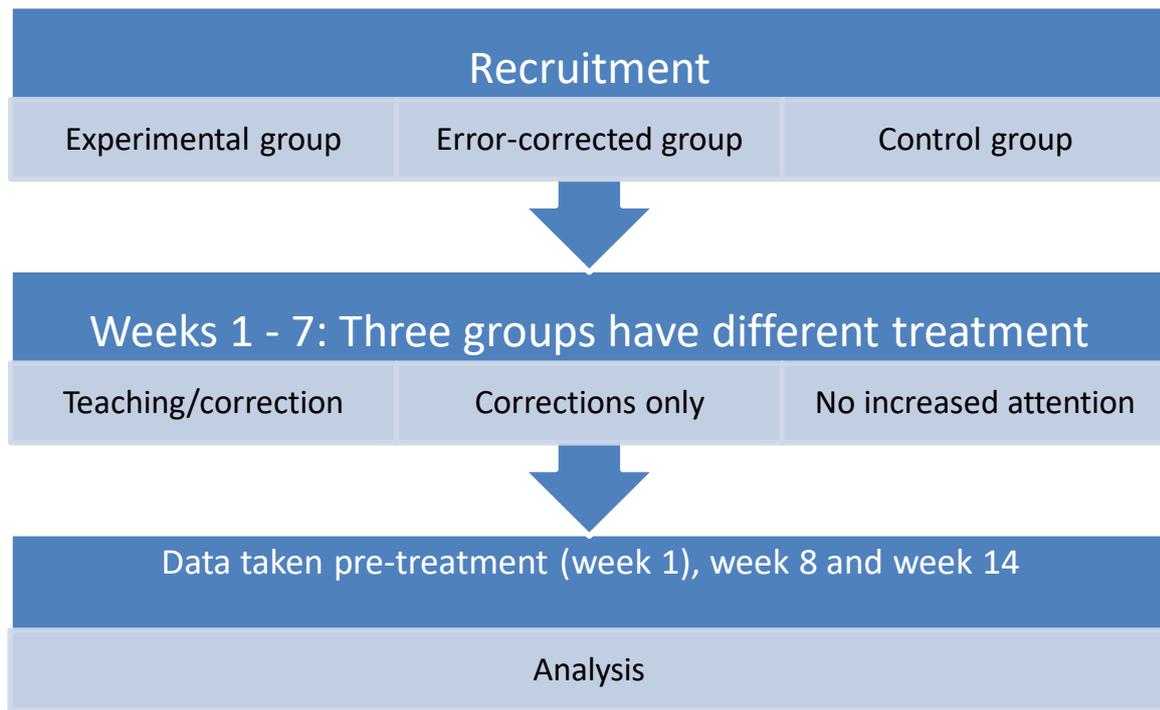


Figure 36: Three group experimental design

5.2.2 Data

As discussed in Section 1.2.2, in the UK a great deal of EAP teaching activity takes place each summer on ‘preessional’ programmes which allow students who have not reached English proficiency entry requirements to enter their university, without retaking an English language test course, upon satisfactory completion of the programme. The next section will provide details about this programme to contextualise the experimental study.

The Business Management English Preessional Programme

The intensive summer preessional programmes at the University of Birmingham are divided into four strands: foundation, undergraduate, the Business Management English (BME) programme and a more general postgraduate EAP programme (for all other disciplines in which students are not streamed into more specific discipline-related classes until the 10-week stage). Students can select from a range of preessional course durations, depending on their English proficiency and their programme entry requirements: 42-week, 31-week, 20-week, 15-week, 10-week or 6-week courses. The data in this study is taken from preessional students on the 15-week BME programme, a large English for Academic Purposes Preessional programme for future Business School postgraduate students that runs each summer at the University of Birmingham. At the time of this study, the BME 15-week Preessional ran six classes with between 11 and 12 students in each class and the researcher was teaching one class.

The BME was chosen for three reasons as follows: 1) convenience of sampling (the researcher taught regularly on the BME programme); 2) Business subjects are the most popular subject among Chinese students studying in the UK (The Higher Education Statistics Agency, 2019); and 3) the BME allowed for the tightest control of variables.

BME students in 2010 were predominantly from China (and Taiwan), in addition to a much smaller number of other nationalities (Thai and Arabic L1 backgrounds). The students in this study were all preparing to study on one of four main Business School postgraduate programmes: MSc Marketing, MSc Business and Management, MSc Accounting and Finance or MSc Marketing communication.

The officially published range of levels of students admitted to the programme ranged from low B2 to middle B2 level English proficiency on the CEFR framework. However, some students were accepted with 4.5 IELTS writing level (B1 writing level) on the basis of their overall IELTS 5.0 band in all four IELTS tests, which means students who presented as high B1/low B2 borderline were also accepted on the preessional (but excluded from this study). The entrance requirements and eventual pass mark for students on the BME reflected the three levels of entry to the university's Business school (ranging from an overall IELTS score of 6.0 to a requirement of 7.0). Most Business programmes at the time of the study required an IELTS entrance level of 6.5 overall, so the overwhelming majority of the 15-week programme students entered with an IELTS score of either a 5.5 or 6.0. The 15-week programme attracted no students with a 6.5 IELTS score or above because such students were accepted onto the 10-week programme no matter the department.

In addition to IELTS grades, a writing test on entry was used to identify the students who might be in most need of language support as the course progressed. This assessment comprised of a 300-word essay completed in 30 minutes, marked by two programme coordinators using the same BME criteria used for assessing the end of programme exam. The writing criteria were

designed to mirror IELTS criteria because all students were measured against IELTS equivalents by the end of the preessional. Marks were allocated as percentage scores and a mark of 55 was equivalent to IELTS 5.5 and a grade of 60 to IELTS 6.0.

Participants

Given the potential challenges of analysing grammatical errors of students below an IELTS 5.5 level of proficiency data was collected only from students with at least 5.5 IELTS overall scores and no less than IELTS 5.0 in writing. Since the lowest scoring preessional students had all been grouped into three lower level classes, this was achieved by recruiting participants for the study only from the three higher groups. Twenty-four of the twenty-nine Chinese L1 students in these three classes consented to participate in the research.

As shown in Table 8, 15 participants were Chinese and nine were from Taipei/Taiwan, but all declared Mandarin to be their first language. The ages of the students ranged from 22 to 31, with an average English learning history of eight years (in their home countries). No student had been in the UK for more than three months; 22 students had arrived in the UK the day before starting the programme while two students had been studying in the UK for 5-10 weeks on a previous preessional programme before joining the 15-week cohort. No students had lived in the UK or other English-speaking country for extended periods prior to arrival. All of the teaching groups also included other nationalities and several Chinese students who refused to give consent, but these are not referred to further in this study.

Table 8: Participant information

	Control group	Error-corrected group	Experimental taught group	Summary
Age	22-25	23-31	23-26	Median: 23
Male	1	4	3	Male 8
Female	7	4	5	Female 16
Chinese	4	6	5	15 Chinese
Taiwanese	4	2	3	9 Taiwanese
IELTs level 5.5	4	6	6	16 IELTS 5.5
6.0	4	2	2	8 IELTS 6.0
BME entrance writing test score	Range: 56-61 Median: 57 AD= 1	Range: 53 -59 Median: 5.5 AD= 1	Range: 56-61 Median: 57 AD= 2	Mean:56.8 SD 2.158
Length in the UK or English L1 countries at entry	7 students under 1 month. 1 student under 3 months	All students under 1 month	Seven students under 1 month, one student under 2 months	No students over 3 months in the UK

English L2 proficiency level

Another reason for choosing the 15-week BME programme students was their narrow range of proficiency levels, allowing this study to report findings based on a more homogeneous proficiency level, with a smaller range of levels than those seen in studies such as Díez-Bedmar & Papp's (2008) in which participants had proficiency levels reported on a far wider

spectrum (IELTS 4.5 to IELTS 7.00 levels). Sixteen participants in this study had achieved (in the previous two years) a 5.5 band score in IELTS tests while 8 students had achieved an overall IELTS score of 6.0. However, as two students had studied five weeks of English immediately before joining the 15-week preessional, the written placement test was used as the preferred measure of written English proficiency. As mentioned, this test used marking criteria based on IELTS bands and the two examiners of this placement were highly trained (both had been IELTS and Cambridge examiners) and had undergone intense standardization.

The scores in the placement test across the groups ranged from 52 to 61 with a median score of 57, and a variance of 4.3/standard deviation of 2.08 (see Figure 93, p.341 in Appendix 10 for further information). Non-parametric tests were applied to the data given the small sample size and slight skew. At the time of this study on the BME programme, all students scoring 54 or under were offered extra 1:1 language support tutorials and were generally put into separately streamed groups. Although there was some marginal variance in students' writing proficiency within and across groups, with one student scoring an IELTS 5.0 borderline grade of 52, these placement test scores showed there were no significant differences in writing ability by group on entry as shown by an independent samples Kruskal-Wallis Test ($n=24$, $H(2) = 2.143$, $p = .284$) at the .050 level of significance (hence $P \leq 0.05$).

5.2.3 Data sample

As discussed in Chapter 3, choosing a learner corpus data source is always a balance between the competing demands of authenticity and variable control. The main BME 3,000 word project writing assessment was not chosen as a data source because the topic was selected by each student individually. Although this data would have provided rich insights into the authentic contexts causing challenges for article use to Business School students, comparisons between students and groups would have been meaningless. One solution might have been to use the

placement test responses or set another short IELTS type 250-word essay in controlled conditions but, as outlined in Chapter 3, such task prompts are arguably less realistic and limit the inferences that can be made about performance in academic writing. The study therefore needed to collect more valid representations of academic work which required the use and synthesis of sources and more developed academic argument (with examples and citations). On the other hand, the tasks could not overburden the students while they worked on their writing project and other case study assessments, so minimum words counts were kept realistic (although students were allowed to go over the suggested word limit without penalty).

The three essay prompts used are summarised in Table 9 overleaf. In total, 27,940 words were collected for analysis. The prompts followed the weekly topics studied on the BME each week. The topic of week 1 was leadership and motivation, weeks seven and eight reviewed topics of marketing and accountancy and the students had read several case studies about loyalty schemes and brand management in the weeks preceding the final week 14 task. The growing demands of the tasks set reflect the growing skills that could be demanded of novice academic writers. The course introduced referencing and the paraphrase of sources from week 1, but in Task 1 it was decided to require only 350 to 400 words and general reference to the theories they had studied (with or without citations). As can be seen from Table 8, this prompt gave the students a somewhat familiar argumentative question type which they would have presumably have faced in IELTS exams. Later in the course (for Tasks 2 and 3), however, students were asked to write more critically and provide greater references to the literature.

Table 9: Essay prompts

	Rubric	Texts	Total number of words	Minimum and Maximum lengths and Median word length
Task 1 (week 1)	<i>Does fear motivate employees to work harder? Illustrate your ideas with reference to theories of motivation studied on the course. (350 - 400 words)</i>	24	9030	Minimum: 302 Maximum: 440 Mean: 376.3 words
Task 2 (week 8)	<i>An effective marketing strategy is crucial to the success of a business. Critically assess the value of segmenting, targeting and positioning as a marketing tool. Illustrate your answer with suitable examples. (400-600 words)</i> <i>*option for the three accountancy students: Summarise the responsibilities of accountants and discuss how they can contribute to efficient information flow both within and outside business organizations.</i>	24	11383	Minimum: 474 Maximum: 605 Median: 474.3 words
Task 3 (week 14)	<i>Retailers compete for customer loyalty and retention in many ways.</i> <i>Examine the issues, illustrate with examples and suggest ways in which retailers can promote loyalty and retention. (400-600 words)</i>	16	7527	Minimum: 403 Maximum: 667 Mean: 470.4 words

In each of the groups there was a student progressing to an accounting and finance course.

Therefore, these three students were allowed to do an alternative essay title relating to

accounting in week 8. Since the aim of the research was to measure the comparative progress of the groups and since there was one accountancy student in each group, this did not dramatically affect the homogeneity of task type. A further complication was that one student was automatically referred to a language support tutor because of his low score in the writing test, and another student was referred to a tutor due to her lack of confidence in speaking. To avoid external influences on English article accuracy in the study, the two language support tutors agreed not to pay any particular attention to the subject of English articles in any of their 1:1 sessions.

Despite these efforts to control the teaching input around article use, it could be argued that the homework nature of the tasks make the essay responses less reliable than studies which went to greater lengths to control the environment, i.e. the opportunity for external help and time spent on tasks (Bitchener & Knoch, 2009). However, as concluded in Chapter 3, such controlled conditions do not accurately reflect the process of academic writing in the real world: students make many careless mistakes under time pressure and the planning/drafting/proofing stages allowed in this study are more characteristic of academic writing. In short, lack of control is acknowledged as a limitation, but the greater validity is considered to have outbalanced this risk. Moreover, while all essays were written for homework with full access to spell check/word-processing tools (and no control to stop third party help), it should be stressed that these tasks were not 'high stakes'. Students therefore had little reason to use essay mill services or proof-readers. Furthermore, while the students theoretically had access to electronic tools at home, the use of electronic technology to aid writing accuracy was less advanced when this data was collected in 2010.

In fact, at the time of this data collection (2010), most students were using very basic word-processing software. The University of Birmingham did not make a licensed version of Word

for windows available to students until 2012 and even the most up-to-date word-processor packages with fully updated English language settings (which few students had at this time) rarely corrected article errors. In addition, while today's standard of technological tools are clearly influencing the language accuracy of student work, it should be noted that in 2010 the students did not have modern translation software of today's standard or grammatical proof-reading tools such as Grammarly.

5.2.4 The BME course content

The students on the Business Management English programme were chosen because they had the most tightly prescribed teaching scheme of work (i.e. teachers had very little choice about each day's lesson materials). While this course cannot be defined as an 'English for Special Purposes' course because of the broad range of disciplines studied at the Business School, it is far more specialised than many other UK programmes which focus on more generic EAP topics. With regards to this study the specialised nature of the BME meant that the student data provides rich insights into the writing errors made by novice academic writers with Chinese L1 backgrounds writing in English on business related topics and genres for the first time. It secondly allowed most variables, such as how articles were taught, to be controlled.

The three teachers (the researcher and two further tutors) were experienced teachers with DELTA/TEFL Q level qualifications. All had over 5 years of EAP teaching experience and previous BME teaching experience. The main text input on the BME course is a weekly Business case study and the teaching timetable was in 2010 divided into six main skill areas: academic writing, working with Business case studies, presentation skills, Business feasibility study research skills, listening skills, and seminar skills. To an even greater extent than other preessional programmes, there was little time in this highly intensive programme for reviewing basic language concepts. Indeed, as shown in an audit of the programme's main

materials presented in Table 10 below, there was little specific attention to article use in the scheme of work beyond proofreading exercises. It was clear that teachers might make reference to articles in nominalisation activities, but this was a teacher choice (and could be influenced in this study).

Table 10: BME Teaching materials

Programme Materials	Coverage of English Articles
Working with Case Studies Materials	No mention
Academic Writing Materials	Only mention of article use in Proofreading exercise (see Appendix 7: 323). The use of articles was not explicitly mentioned in the sections on nominalisations or noun phrase density.
Academic Reading Guide	No mention
Feasibility Study (extended writing) Materials	No mention
Presentation and Seminar Skills Guide	One mention of definite article stress in a speaking pronunciation exercise

The only marginal attention to articles demanded by the programme curriculum was therefore in the proofreading activities which were normally covered towards the end of the course. Admittedly, all the teachers in 2010 reported that they corrected article use in their student's writing on a regular basis. Moreover, there was nothing to stop teachers using their own supplementary materials or discussing their use in *ad hoc* mini-teaching situations in response to student queries. Such possibilities presented variables that needed to be addressed in the context of this study and the following section explains how these variables were tightly controlled.

5.2.5 Study procedures

The two teachers who participated in this study (in addition to the writer) agreed to limit how they taught articles and to allow the recruitment of participants. Homework tasks were normally at the discretion of each individual teacher, but these colleagues also agreed to make a shared essay title mandatory for three weekly homework tasks.

Experimental taught group

The experimental group consisted of eight Mandarin L1 speakers. This class was the researcher's own class, already part of the course. Five supplementary thirty-minute English article sessions were delivered in five extra sessions (given in hours outside their normal teaching contact time) in weeks 2 -7, as shown in Table 11 overleaf. As can be seen, students received both teaching and extra article corrections in their homework feedback. All teaching and extra correction of articles ceased from week 7 in order to measure (in week 14) whether improvements could be sustained when students' consciousness about article errors was no longer being raised (by Task three there had been no mention of articles in class for four weeks).

The decision to revise the students' article use using the Bickerton Framework was made because the students in the preliminary study had a) seemed familiar with the [+/-SR] concept and b) had given good feedback about the whole system when presented.

Table 11: Five extra English article sessions

<p>1. Session 1 (week 2)</p>	<p>Introduction and review of process of proofing for article errors and typical errors to check. Brief introduction to the Bickerton Framework. Students were also asked to read reference materials for homework.</p>
<p>2. Session 2 (week 3)</p>	<p>Students asked to analyse definite article uses in a text already analysed in class for meaning (uses underlined). Students then presented with the concepts of [+HK] [+SR] from Bickerton Framework. Students were asked to proof their week 1 essays and discuss errors found in week 4.</p>
<p>3. Session 3 (week 4)</p>	<p>Review of homework, leading to analysis of each other's errors (teacher cut strips of paper with examples from week 2 homework). Further analysis of text from course materials – further uses underlined and then matched with concepts of [+HK] [+SR] and [-HK] [+SR].</p>
<p>4. Session 4 (week 6)</p>	<p>Special attention to generic contexts [+HK] [-SR] through the Bickerton Framework. First through prototypical examples and then through looking at list of errors made in the class. Further reading and grammar exercises set for homework (Swales and Feak, 2004, p. 395-402, Tasks 2 & 3).</p>
<p>5. Session 5 (week 7)</p>	<p>Review of homework. Review of article errors related to proper nouns and idioms.</p>
<p>6. Participants invited to voluntarily take part in six follow-up post-study one-to-one sessions.</p>	<p>In the term following the preessional, three volunteers for the post-study sessions had various article uses underlined. They were then asked if they were correct/an error or a mistake. The teacher and participant then discussed the reasons for errors.</p>

5.2.6 Written article correction group

The article-corrected group consisted of eight Mandarin L1 students. This group received no formal teaching of article use but did have all their article errors corrected. Students in this group attended an extra session with the researcher in week 3 where the importance of correcting work for article errors was stressed and useful proofing strategies were revised. In addition, by prior agreement with the teacher of this group, extra emphasis was placed on the written correction of article errors (i.e. written article errors were simply underlined without explanation at least once a week between week 4 and week 8). Corrections were paper based (not electronic versions). The students did not have to re-write the sentences. No article grammar instruction was given except a very brief recap of the article system in week 1. Error correction stopped in week 8.

The teacher of this group had over seven years' experience teaching EAP and three years' experience teaching the Business Management English course. She reported that her normal approach to correcting article errors was contingent on the length of EAP course, the number of article errors (and students' other grammatical errors), gravity of error and the purpose of the writing task. However, for the duration of this study she agreed to provide written error corrections for all article errors in her students' writing for four weeks. The teacher described her normal approach to teaching articles, if she had not taken part in this study, as 'ad hoc'. She did not normally devote a formal teaching session to their use because of the time pressures of the course. However, in normal teaching conditions she reported that she would revise article use if opportunities presented themselves more spontaneously in the classroom. She reported that she most frequently reviewed them in previous years in tutorials if students had questions (if they wanted to discuss their feedback). However, for the purposes for this study she agreed

to avoid teaching articles in the classroom and tutorials beyond the clarification ‘you have made an error with the article’ if students wanted to discuss their homework feedback in tutorials.

5.2.7 Control group (1)

Control group 1 consisted of eight Mandarin L1 speakers. Overall, this group’s IELTS grades were marginally higher than the other two groups at the start of the course, but this was mostly due to the students’ speaking scores. More students in the control group (4) had higher IELTS 6.0 writing scores than in other groups (2), but their BME writing entry test scores were almost identical to the other group ranges. No extra article teaching or written corrective feedback for articles was given to this control group over and above the first page of the draft of one high stakes assignment in week 9 (as per the teacher’s normal practice).

This teacher of this group reported that, apart from occasional *ad-hoc* clarifications, she would normally refer to article use only in week 12 of the course (when she completed the end of course proofreading activities). With regards to corrections, this teacher reported that when she started her career in teaching, she had ‘overcorrected’ all errors, but now seldom corrected article errors in homework feedback. She also gave students a lot of proofreading help at the end of course when students submitted their extended writing projects and essays. However, this was not a problem for the purposes of this study and she readily agreed to not correct or teach article use in the time periods agreed.

5.3 Ethical issues

As discussed in Chapter 3 (Section 3.7), the Ethics Board had stressed the importance of not disadvantaging students from not participating in the study, allowing for informed consent and reporting back any beneficial findings to students in their responses to initial ethical review

applications (ERN_10-0375 amended 14-0375). This section will examine how the agreed ethical safeguards were enacted in the main study.

Consent

Students were given an information sheet on the 2nd day of induction and at least 24 hours to read some information about the study (see Appendix 4). The researcher then visited classrooms to orally present the study's objectives. It was explained that students could receive the same extra resources at the end of the study even if they did not choose to participate. Students were then given a further 24 hours to reflect and were asked to bring their forms in for their class teacher (signed or unsigned) the next day.

Information given to participants

Students were given full information about the research, but only informed of their group after agreeing to take part in the study. They were reminded at this point that they could still withdraw their consent.

Sharing of results with participants

The Ethics Board insisted on a workshop in week 14 at which point some of the researcher's preliminary findings (common errors identified) were presented to anyone on the BME who wished to attend regardless of whether they had taken part in the study. At this lunchtime session a worksheet about article use (see Appendix 5) was also shared with attendees. Participants were sent a conference paper published on the university website that summarised the study findings six months after the study.

Participant feedback

To check students had benefitted from participating in the study, all students were asked to complete an end-of-study feedback form in week 14 (see Appendix 6).

5.4 Constraints of the study

As planned, at the end of the ‘intervention’ in week 8, in which one group was explicitly taught article use rules and a further ‘correction’ group had all their article errors underlined, all experimental pedagogical treatments ceased (students were not taught the article system and no extra emphasis was placed on the correction of errors). After a six week period in which students could ‘forget’ the study, a third essay was then set in week 14 in order to investigate whether any learning was sustained. Unfortunately, due to a misunderstanding (the teacher set a different essay for homework), it was not possible to collect a third third essays from one of the control groups (the impact of this issue is discussed in Section 5.7.6).

5.5 Data analysis

For consistency in the distinction between head nouns and any nouns used as modifiers, head noun phrases were extracted from the corpora automatically using a Java programme developed by Oliver Mason at the University of Birmingham. Errors were then identified manually by the researcher and tagged using macros in word (before conversion to text format). In this study, every single head noun phrase was tagged for whether the it had a correct article, an incorrect article or an alternative determiner.

5.5.1 Tagging system

The word macros were developed following the tagging system (see Table 12 and Table 13) presented by Díez-Bedmar & Papp (2008) and many replicated studies (Díez-Bedmar, 2015; Crosthwaite, 2016a) based on the Bickerton Framework as outlined in 2.2.1.

Following Ekiert (2004), who argued that articles for idiomatic and other conventional uses are very different to other referential and generic uses, all fixed academic expressions and articles used with proper nouns were denoted as a ‘Type 5’ error. Type 6 contexts (other

determiners used) will also be examined in the next chapter, when the underuse or overuse of articles is discussed as compared to L1 use.

Table 12: Tagging system for correct uses (Díez-Bedmar & Papp, 2008) ²

	Determiner used by the learner					
	Generic	Referential Definite	Referential Indefinite	Non- referential	Idiomatic use or proper noun	Other determiner
Definite article	1DA	2DA			5DA	6
Indefinite article	IIA		3IA	4IA	5IA	6
∅ articles	1ZA		3ZA	4ZA	5ZA	6

Table 13: Tagging system for incorrect uses (Díez-Bedmar & Papp, 2008) ²

	Determiner used by the learner					
	Generic	Referential Definite	Referential Indefinite	Non- referential	Idiomatic use or proper noun	Other determiner
Definite article	1GADA	2GADA			5GADA	6
Indefinite article	IGAIA		3GAIA	4GAIA	5GAIA	6
∅ articles	1GAZA		3GAZA	4GAZA	5GAZA	6

² Based on Bickerton (1981) and adapted by Thomas (1989) and then Díez-Bedmar & Papp (2008)

In addition to the tagging of the extracted noun phrases, the student data was also tagged with ‘^’ omission error and ‘\$’ oversuppliance annotations. Misuse article errors (*a/an* errors, *the* for *a/an*, *a/an* for *the*) were also annotated with a ‘\$^’ code. 5383 noun phrases were inputted onto a spreadsheet as the researcher annotated each text. In order to check for data entry error, the data was later checked by running frequency counts on each text using a concordancer to check the entries, and spreadsheet tallies were recorded.

5.5.2 Pica’s Target-Like Use

Following other researchers (Pica, 1983; Lu, 2001; Díez-Bedmar & Papp, 2008; Díez-Bedmar, 2015; Crosthwaite, 2016a) the study used a ratio measure that allowed for comparison of accuracy across different text lengths and comparisons with other studies. Across the literature, this equation is called either Pica’s (1983) coefficient of ‘Target-Like Use’ or ‘Target Language Use’ (TLU):

$$TLU = \frac{n. \text{ correct suppliance in obligatory contexts}}{(n. \text{ obligatory context}) + (n. \text{ supplied in non - obligatory contexts})}$$

5.5.3 Chosen notions of grammaticality and acceptability

As highlighted in the preliminary study, it was important to establish a clear policy regarding ambiguous grammar and the line between acceptable informal tone and inappropriate register. The researcher was interested in overspecification, but the preliminary study had shown the issue often caused disagreement among researchers (i.e. about whether a redundant definite article was simply ‘marked’ or completely inappropriate). As the reliability checkers (see 5.6) would need to know these policies, many examples were given in training and standardisation. Figure 37 shows an extract from the training material that helped standardise this approach.

Instructions for annotators

Please mark noun phrases as incorrect <GA> only if they were impossible to accept as grammatical or completely inappropriate in the academic style of the assignment task.

You are asked to ignore cases where the ambiguous meaning makes a judgement about article choice impossible.

Omission errors

If a bare noun phrase could have been corrected by either plural form or an article with the singular form, mark as incorrect (add “^” before noun and <GA> to tag).

Overspecification errors

There will be occasions when the appropriacy of the definite article will create an effect on register and a judgement will be required about whether the effect is marked but appropriate for the assignment task set or completely inappropriate (and therefore incorrect). If in any doubt, please ignore only slightly ‘marked’ uses. For instance, in example 1 below the use of *the* is used when many native speakers would have discussed a general statement with a bare noun in plural form without article. However, as this student has referred to a ‘target market’, this article could arguably be used as an inexplicit referential to this market and its consumers.

However, please mark as incorrect any overspecification of definite article when no inexplicit reference can be reasonably inferred or when such reference creates a tone that would be completely inappropriate for a Business Studies journal article (see example 2). Many examples will be shown during training to standardise our approach.

(1): In a target market, brand image is very important for the consumers. (acceptable)

(2): For example, the young generation likes to follow \$the new trendy stuff. (unacceptable)

Figure 37: Policy of tagging for correctness

5.5.4 The issue of competence and performance errors

As explained in Section 5.2.3, the methods used ensured that most errors can be assumed to be valid competence errors. Students were trained in how to proof their work and use Microsoft Word for Windows to spell-check and grammar-check their work. The use of homework assignments in a relatively ‘high stakes’ preessional course (the students could not enter their Masters degree programme without success on the course) to some extent assured a level of student motivation in the tasks.

5.5.5 The issue of final -s errors

The examples below show how singular count nouns (market, strategy, card) could have been rendered correct either by adding a determiner before the noun or a plural final –s at the end of the noun to make the count noun plural. In some cases it was completely unclear which error was more likely.

- [1] *Segmentation includes diverse points, mainly can separate into three aspects which are ^ consumer market, business market and segmenting international marketing.
- [2] * It refers to the process of dividing ^ whole market into smaller segments, targeting one or certain segments to enter, and establishing a superior position in customers’ mind.
- [3] *Organisations should select their professional field and facility compare with competitors in a particular market, and select ^ concentration strategy or multisegment strategy.
- [4] *...^ Loyalty card is a common method to attract customers to go to the shops

Figure 38: Example 1: Identification of error problems

It could be argued that the parallel structures in [1] and [3] and the conjugation of the verb in [4] display a motivation of the student to use a count noun in singular form (and therefore not a mistake in omitting the –s). Moreover, most noun phrases seemed to give such ‘clues’ as to the students’ intention. However, given that the homework tasks were word-processed, all annotators were instructed to treat all such cases as errors (assuming that students had proofed the work carefully using their word processors). With this training, all raters annotated the above examples above as ‘incorrect use of English article or determiner’ with complete agreement.

5.5.6 Straightforward cases

In fact, the majority of noun phrases appeared relatively straightforward to annotate as ‘correct’ or ‘incorrect’, particularly with regards to the omission of definite articles as shown below. Errors [1] to [3] in Figure 39 below show examples of overt errors. These three noun phrases, judged to be incorrect by the main researcher, were later verified during inter-rater reliability tests when three further human raters independently annotated them as incorrect on two separate sessions.

[1]* In ^ short time, it could increase customer turnover, but it is useless to attract high-income customers.

[2]* Indeed, ^ business environment is complex.

[3] * Therefore, it would be hard-pressed to imagine that how these employees could work effectively in ^ a long term.

Figure 39: Example 2: Overt errors

5.6 Tagging reliability checks and inter-rater reliability checks

Reliability of the tagging was checked by the researcher and then by two L1 English EAP teachers (DELTA Level qualified, with Masters in TESOL/Applied Linguistics). Three Task 1 responses, three Task 2 responses and two Task 3 responses were randomly selected and checked by the two teachers. As discussed in the preliminary study, the approach taken to annotation checking was text-based with annotators asked to check the whole text, since earlier attempts to check the tagging at the sentence level had produced unsatisfactory results (with teachers unable to understand the context of the sentences).

Before checking the text annotations, the teachers were given thorough training (prior reading and a one-hour training workshop). As highlighted in the preliminary study, it was anticipated that the parts of the framework most difficult to apply consistently to Academic English would be 1) Generic use (and its distinction from non-referential uses) and 2) the difference between Type 3 (indefinite) and Type 4 (non-referential uses). A further extract from the training materials in Figure 40 shows how annotators were trained to use context and apply the framework consistently. After going through some examples in the workshops, the annotators standardised further by annotating one example text and comparing decisions.

Annotators were given the texts printed on paper in their entirety so that they could check the context of each noun phrase context. The eight randomly selected texts gave a total number of 745 noun phrases which accounts for over 10% of the total dataset. Analysed with the Fleiss Kappa inter-rater correlation formula (Fleiss, 1981), in order to account for chance agreement, the pairwise agreement of 90.25% gave a coefficient of 0.87, showing strong reliability. This shows that the text-based checking, training and standardization combined to give confidence to the initial rater's judgements.

Policy for difficult cases in the Bickerton Framework

On occasion, as shown in the example below, you may find it hard to make judgements between a generic Type 1 context and a non-referential Type 4 context. For example:

A loyalty system helps keep loyal customers.

In this study please tag the above example as generic only if it occurred in the introduction of an essay, particularly if the writer was defining their terms. If the example appeared in the later body of the essay and was clearly not a known referent (but rather an unreal prototypical example), as shown in the example below, please tag as a type 4 context. For example:

*Many companies have not considered the best method of maintaining brand fidelity.
<4IA> **A loyalty system** could help keep loyal customers.*

Decisions about whether a context is indefinite (Type 3) or non-referential (Type 4) also require careful examination of context. The following examples suggest an approach to this sort of decision:

Example out of context:

Marketing strategies are vital to companies which want to find a successful way to increase their market share.

In this case, the distinction must be made by reviewing the position in the text and carefully interpreting the context. If the context of this example was within a paragraph which had mentioned specific referents, this example would be interpreted as an indefinite Type 3 context, as shown in example below.

*<3ZA> Cosmetics companies in Europe such as Unilever are spending increasing sums on marketing consultants. <3ZA> **Marketing strategies** are vital to companies which want to find <3IA> **a successful way** to increase their market share.*

However, many examples you will find in academic essays relate to hypothetical non-specific referents, as shown in the example below, in which it clear from the wider paragraph context that the student is theorising about an imaginary company. In cases of ambiguity, you are asked to select the same context type as the surrounding paragraph context.

*If a company does **not** have <4IA> **a clear marketing strategy**, its managers will make inconsistent decisions about pricing and promotion. <4ZA>**Marketing strategies** are vital to companies which want to find <4IA> **a successful way** to increase their market share.*

Figure 40: Example 2 from annotator instruction materials

5.6.1 Dealing with disagreements in the sample checked

While there was general agreement about most annotation decisions, the three raters met to discuss the tagging which was disagreed. Any tags that could not be quickly agreed unanimously were then discarded from the dataset.

On decisions of accuracy (about which there were very few disagreements), the disputes mainly arose in questions of overspecification and were most difficult to resolve when there was ambiguity about the meaning due to ungrammaticality of the sentence. Errors [1] and [2] in Figure 41 below show the challenge annotators faced in these situations (both annotations were removed from the data).

<p>[1] People prefer works in <\$ overspecification?> <u>the happiness environment.</u></p> <p>[2] * After <\$ overspecification?> <u>the spending</u> in the education of customers, if they could not be maintain, that is a waste of money .</p>

Figure 41: Oversuppliance issue disagreements

Disagreements about whether overspecification of definite articles caused inappropriate informality for the genre were not as frequent as had been expected. Figure 42 shows two cases of where raters could not agree about the ‘conversational tone’ created by definite articles.

<p>[1] *Trust is an important driver while considering how to retain \$the existing customers.</p> <p>[2] *To sum up, under \$the pressure from big supermarkets, it is necessary for retailers to seek for a reasonable way to attract more loyal consumers .</p>
--

Figure 42: Appropriacy for genre disagreements

In terms of the tagging system itself, the main cause of annotators' disagreement was in issues of uses of *a/an* and whether to tag them as Type 3 indefinites or Type 4 non-referentials. Figure 43 gives two examples of such issues.

[1] * In order to create <3IA or 4IA?> a close relationship with customers, many companies differentiate their products from other competitors .

[2] *Every company has different kinds of organization structure, but the accounting department is <3IA or 4IA?> an essential part of <3IA or 4IA?> a company.

Figure 43: Disagreements about whether Type 3 or Type 4

5.7 Results and discussion

After annotating the noun phrases with the 22 framework tags the TLU for each student's response in each essay Task was calculated. Following Crosthwaite (2016a), the median value and median absolute deviations of these TLU values are reported in this thesis, rather than mean and standard deviations. As can be seen, Figure 44 below summarises the median TLU

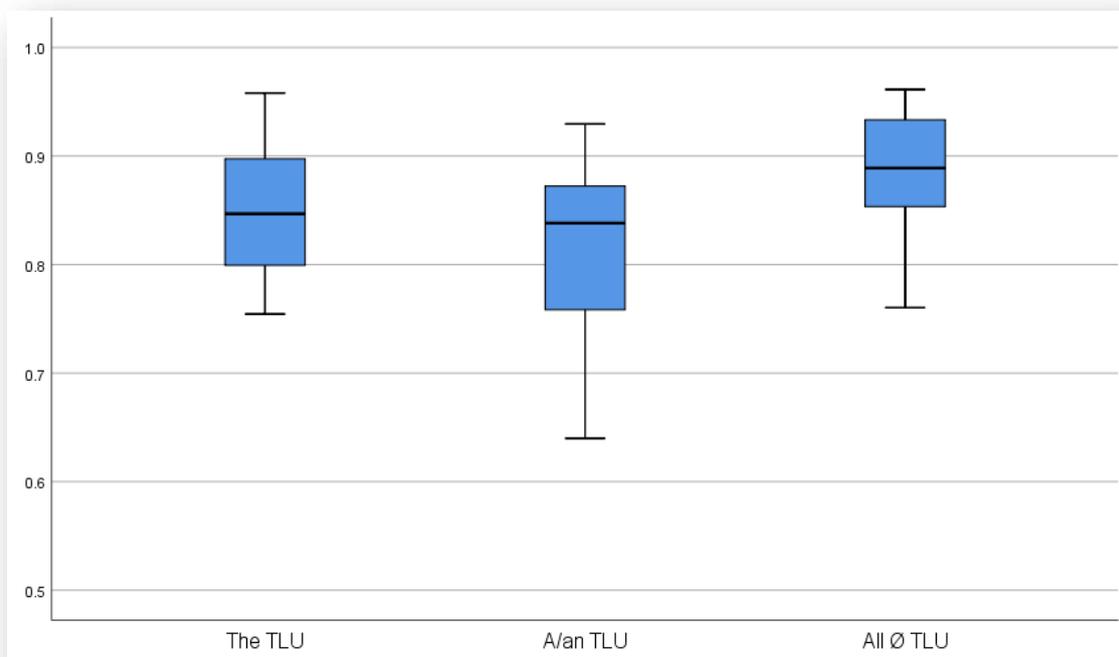


Figure 44: Box plot showing distributions of median TLU scores (n=24)

values of the three article types across all three Tasks. The distribution of *a/an* TLU values was less normally distributed than *the* and \emptyset TLU values. Given the small sample sizes and the slight skew of the distributions, the data was statistically analysed with non-parametric tests.

Table 14 and Table 15 summarise the median values and median absolute deviations (MAD) for each article context in each Task across all groups. One issue confronted during the data analysis was the treatment of zero counts. For example, 11 of the 24 participants made no use of Type 1 generic *a/an* (1IA), so the TLU is shown as 0.00. The use of the median value of the 24 participants may therefore underrepresent the accuracy of those that used this article.

Table 14: TLU ratings for all groups summarised (n=24) with no adjustment

Task 1		IDA	1IA	1ZA	2DA	3IA	3ZA	4IA	4ZA	5DA	5IA	5ZA
	Median	0.25	0.00	0.75	0.85	0.75	0.50	0.83	0.92	0.80	0.00	1.00
	MAD	0.25	0.00	0.25	0.10	0.25	0.50	0.17	0.05	0.20	0.00	0.00
Task 2	Median	0.73	0.71	0.87	0.88	0.89	0.80	0.88	0.96	0.84	0.00	0.97
	MAD	0.27	0.29	0.13	0.05	0.11	0.09	0.13	0.04	0.16	0.00	0.03
Task 3	Median	0.75	1.00	0.86	0.83	0.94	0.85	0.71	0.94	0.78	0.25	1.00
	MAD	0.25	0.00	0.13	0.09	0.06	0.15	0.21	0.04	0.22	0.25	0.00

On the one hand, the Target-Like Use measure is a robust equation and the literature shows other researchers leaving these zero counts in the data. In fact, this may show avoidance of an

article (an issue that will be examined in the next chapter) and therefore a justifiable and representative value. Moreover, this issue only affected the rarest article types (generic articles and 5IA type contexts). On the other hand, with such small data sets and with rarer article uses, a case could be made for the removal of these zero counts. The effect of this adjustment can be quite dramatic, as can be seen in Table 15. This shows that removing all instances of zero use from median calculations, the TLU for 1IA rises from 0.00 to 0.50. Even more dramatically with the rarest form or article, the TLU for 5IA contexts (use of *a/an* with proper nouns and fixed expressions) goes from 0.00 to 1.0.

Table 15: TLU ratings all groups (n=24) with adjustments* for zero counts

		IDA	1IA	1ZA	2DA	3IA	3ZA	4IA	4ZA	5DA	5IA	5ZA
Task 1	Median	*0.50	0.50	*0.86	0.85	0.75	0.50	0.83	0.92	*0.83	*1.00	1.00
	MAD	*0.50	*0.50	*0.14	0.10	0.25	0.50	0.17	0.05	*0.17	0.00	0.00
Task 2	Median	*0.86	*0.88	*0.89	0.88	0.89	0.80	0.88	0.96	0.84	*1.00	0.97
	MAD	*0.14	*0.13	*0.14	0.05	0.11	0.09	0.13	0.04	0.16	0.00	0.03
Task 3	Median	0.75	1.00	0.86	0.83	0.94	0.85	0.71	0.94	0.78	*1.00	1.00
	MAD	0.25	0.00	0.13	0.09	0.06	0.15	0.21	0.04	0.22	*0.00	0.00

Nevertheless, this mostly affects only these two rarer contexts (1IA and 5IA). Thus, in order to enable comparisons with other studies, the remainder of this thesis makes no adjustment for these zero counts. Using the unadjusted values shown in Table 14, the remainder of this chapter

examines the quantitative effect of the teaching/error correction of articles. Comparisons with L1 writers and comparison of TLU scores in other studies will be examined later in Chapter 6.

5.7.1 Improvements in accuracy of article use (pre-treatment to post-treatment)

Examining the summary data visually in Figure 45, Figure 46 and Figure 47 (before statistical tests are presented in the next section), improvements can be seen in the TLU of all articles (overall, all types) in the taught group and the error corrected group. Meanwhile, the control group's TLU figures started from a higher relative position but then fell for unknown reasons.

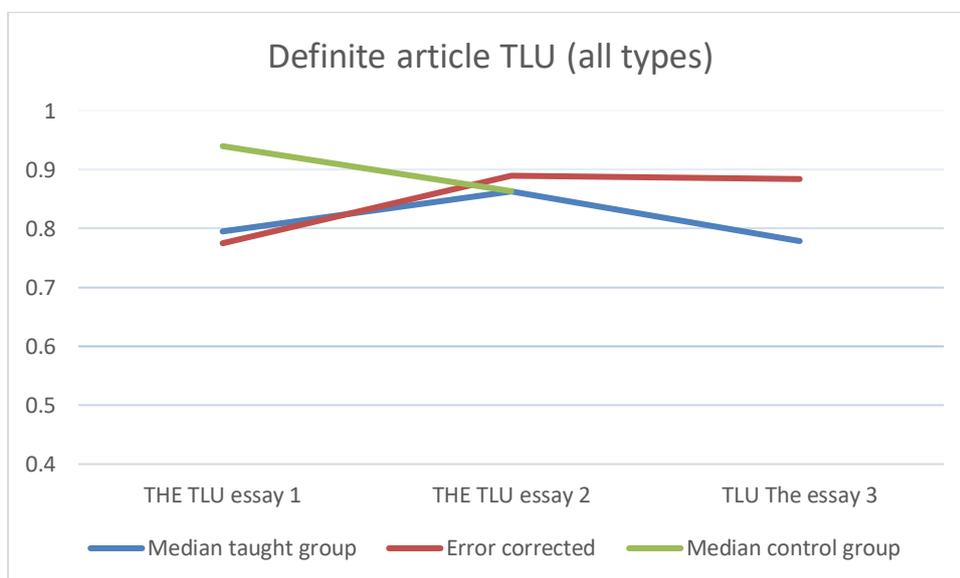


Figure 45: Target-Like Use of definite article (Type 1, 2 and 5 combined)

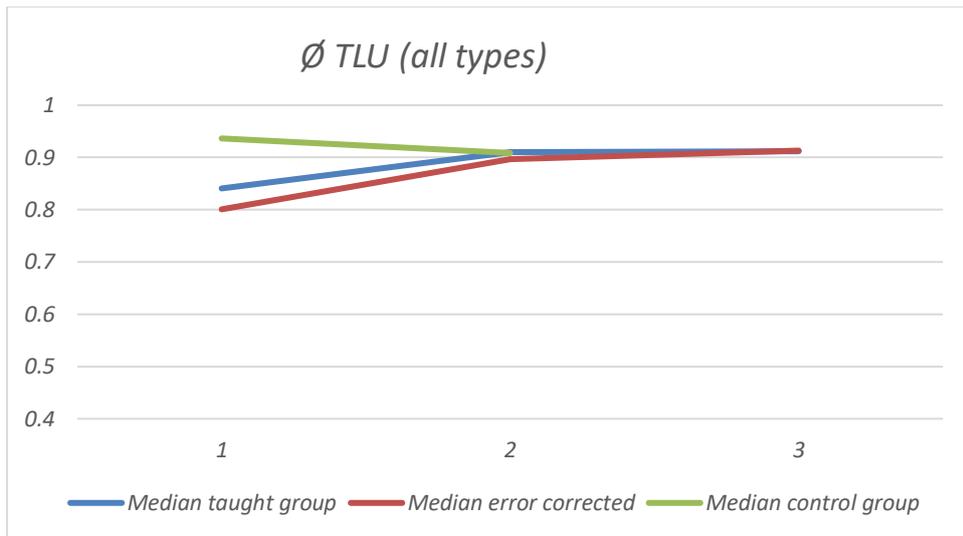


Figure 46: Target-Like Use of Ø (Types 1, 3, 4 and 5 combined)

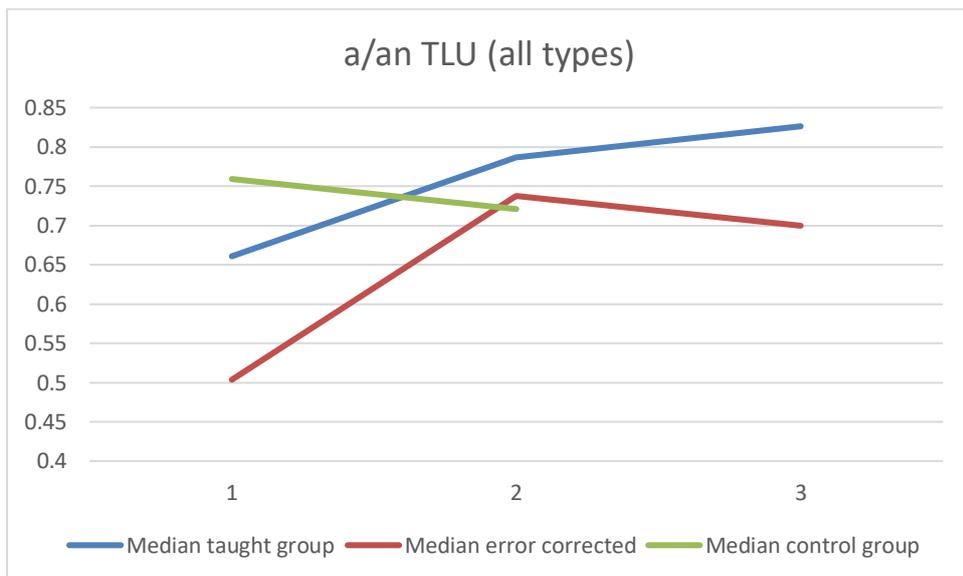


Figure 47: Target-Like Use of a/an (Types 1, 3 and 5 combined)

The TLU in 2DA definite article contexts went up markedly between pre-treatment (Task 1) and post-treatment (Task 2) in the taught and error-corrected groups, as shown in Figure 48 below.

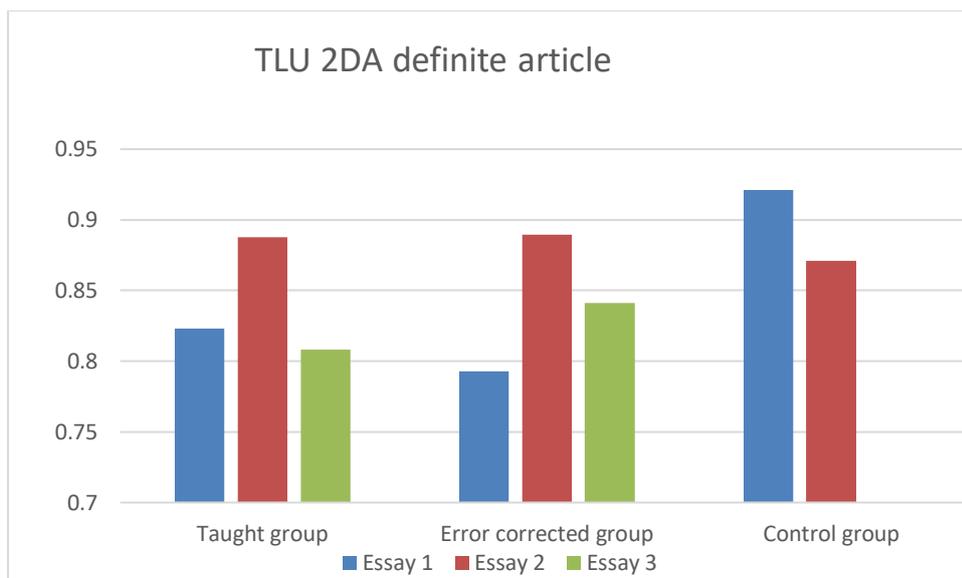


Figure 48: TLU of 2DA definite article (n=24, all participants by group)

5.7.2 Statistical tests: Progress in accuracy made by the taught group in Task 2

The 8 students in the experimental group demonstrated significantly greater accuracy in their use of definite articles in Task 2 (following extra teaching and correction) than they showed in Task 1. A Wilcoxon Signed Ranks Test indicated that the median post-treatment TLU (Task 2) of all definite articles combined (see Figure 48) in the experimental group, Mdn=0.86, was statistically significantly ($P \leq 0.05$) higher than the pre-treatment TLU of all uses of definite article (in Task 1), Mdn=0.79, ($Z=33$, $p=.036$). The improvement in accuracy of all \emptyset articles, from Mdn TLU 0.84 to 0.91 was also statistically significant ($P \leq 0.05$) according to a Wilcoxon Signed Rank Test ($Z=36$, $p=.012$). The same test also found significant improvements in the 8 students' article accuracy in 1IA contexts (Mdn TLU rising from 0 to 0.94, $Z=27$, $p=.028$), in 1ZA contexts (Mdn TLU rising from 0 to 0.92 ($Z=28$, $p=.018$), and 3ZA contexts (Mdn TLU rising from 0.63 to 0.8, $Z=26$, $p=.043$).

Table 16: on the next page presents all p values (asterisks* shows significant values).

Table 16 Wilcoxon Signed Rank Test *=statistically significant at 0.05

Framework	Taught group		Error corrected group	
	Essay 1 v Essay 2	Essay 1 v Essay 3	Essay 1 v Essay 2	Essay 1 v Essay 3
1DA	0.779	0.746	0.233	0.750
1IA	0.028*	0.281	0.610	0.890
1ZA	0.018*	0.058	0.237	0.484
2DA	0.012*	0.161	0.028*	0.779
3IA	0.779	0.500	0.078	0.225
3ZA	0.043*	1.000	0.025*	0.093
4IA	0.161	0.575	0.310	0.499
4ZA	0.2068	0.401	0.161	0.575
5DA	0.933	0.090	0.778	1.000
5IA	1.000	1.000	0.591	0.552
5ZA	0.176	0.345	0.345	0.684
All <i>the</i>	0.036*	0.889	0.050*	0.779
All <i>a/an</i>	0.262	0.263	0.069	0.025*
All \emptyset	0.012*	0.161	0.012*	0.401

Looking in detail at the Bickerton contexts of use (see Table 16 on preceding page), many article contexts showed no significant improvements between Task 1 and Task 2 in the experimental group. Taking a statistically *rationalist* position that Type 2 errors can occur through Bonferroni adjustments (Feise, 2002), no statistical controls for Type 1 errors were applied. Given that multiple testing occurred, the P values in Table 15, particularly those at ≤ 0.05 levels of significance, must therefore be treated with a degree of caution. On the one hand, the improvement in 2DA context accuracy in the experimental group are significant with or without correction at the ≤ 0.01 level, rising from Mdn TLU (n=8) 0.82 to 0.89 (Z=36, p=.012). On the other hand, even at the ≤ 0.05 level of significance no improvement was found in 1DA or 5DA, 3IA, 4IA, 5IA, or 5ZA contexts.

Progress in accuracy made by the error corrected group

The 8 students in the error-corrected group also displayed significantly higher accuracy in their use of definite articles in Task 2 (having received extra correction) than in Task 1. A Wilcoxon Signed Ranks Test indicated that the Task 2 post correction TLU (Mdn=0.89) of all definite articles combined (see Figure 48), were statistically significantly ($P \leq 0.05$) higher than the pre-corrections TLU (Mdn=0.78) in Task 1 (Z=32, p=.050). Again, statistically significant improvements were also suggested by the same test of the TLU of all \emptyset articles, from Mdn TLU 0.80 to 0.90 (Z=36, p=.012) The same test ($P \leq 0.05$) showed statistically significant improvements in Type 2DA definite articles (Mdn TLU rising from 0.76 to 0.89 (Z=27, p=.028), and 3ZA (Mdn TLU increasing from 0.25 to 0.84, Z=34, p=.025).

The effect of group on progress

Without a control group, the case could be made that all progress of two experimental groups was due to the task effect. Indeed, Crosthwaite (2017: 22) found even greater significant

improvements in error-corrected student writing, but concluded that the improvements were as likely to be caused by choice of prompt topic and the use of word processors than by the pedagogy:

Despite the overall finding that the number of errors dropped overall between data point 1 and data point 3, closer inspection reveals that any significant drop is likely to be related to either the topic or conditions under which the writing was produced, rather than any impact of the online materials taken, or the corrective feedback given to students at DP1 or DP2

However, the use of a control group in this study for Task 1 and 2 (with the same topic) suggests that topic was not the main effect of article accuracy between these two Tasks. The control group completed the same two Task. On the one hand, this group admittedly started from a higher accuracy level. On the other hand, their decline in the TLU of all definite articles was found (from Mdn TLU 0.93 to 0.86) contrasts to the relative Mdn TLU rise in the experimental group (from 0.79 to 0.86). The control group's decline was mainly accounted for by a decline in 2DA definite article TLU accuracy (from .92 to .82). Analysing the progress made by the experimental and control groups, an independent Mann-Whitney U Test showed that the difference in progress in TLU between the two groups of all definite articles ($U=52$, $p=.005$), 2DA ($U=54$, $p=.021$), and all Zero articles combined ($Z=57.000$, $p=.007$) was significant ($P \leq 0.05$).

Comparing the progress of the error-corrected group and the control group, again several improvements in TLU were shown to be significant ($P \leq 0.05$). The Mann-Whitney U Test demonstrated that the Mdn 0.11 improvement in TLU of all definite articles combined, observed in the error-corrected group, was significant ($U=53$, $p=.038$) when compared to the lack of relative progress in the control group. Compared to the control group's decline in progress, the same test also found significant ($P \leq 0.05$) progress ($U=55$, $p=.015$) in the error

corrected group's progress in 2DA articles (rising by Mdn 0.06 TLU) and the Mdn 0.08 TLU improvement in all Ø articles ($U=60$, $p=.002$).

As visualised in Figure 49 overleaf, if it is assumed that the variable of topic was having a downward effect on accuracy and that no other variable affected performance, this finding of improvement between 1st and 2nd Task would suggest that the two interventions (teaching and error correction) impacted upon the observed increase in accuracy in some article contexts. The progress made by all individuals in all three groups between Task 1 and Task 2 was statistically analyzed by group and a Kruskal-Wallis Test showed highly significant ($p \leq 0.01$) differences in progress in Target-Like-Use of all Ø articles combined across all three groups ($H(2) = 11.195$, $p = .004$). Significant differences ($p \leq 0.05$) in the progress made in definite article 2DA contexts across groups were also suggested by the Kruskal-Wallis Test ($H(2) = 7.595$, $p = .022$). However, the differences between groups in overall definite article TLU were not significant ($H(2) = 5.808$, $p = .055$) at $p \leq 0.05$. Moreover, the control group's higher initial accuracy is acknowledged as a limitation. In fact, the control group's TLU remained only marginally below those of other groups in Task 2. Caution must therefore be shown in overinterpreting the progress made by the taught and corrected group.

Furthermore, it is also conceded that the impact of other variables, on the results reported here, must be considered. The motivation with which students approached the tasks; the extent to which they proofread their homework; the distractions of external factors; or even simple tiredness could all have affected improvement (and lower accuracy in the control group). Across the programme, perhaps the most likely extra unintended help students received before Task 2 was the student exposure to a case study which had some examples of marketing (the topic students addressed in the second prompt). On the one hand, the observed increases in

TLU scores in Task 2 could therefore have results from the fact that students were primed to better understand the colligations and grammatical features of topic lexis. On the one hand, the

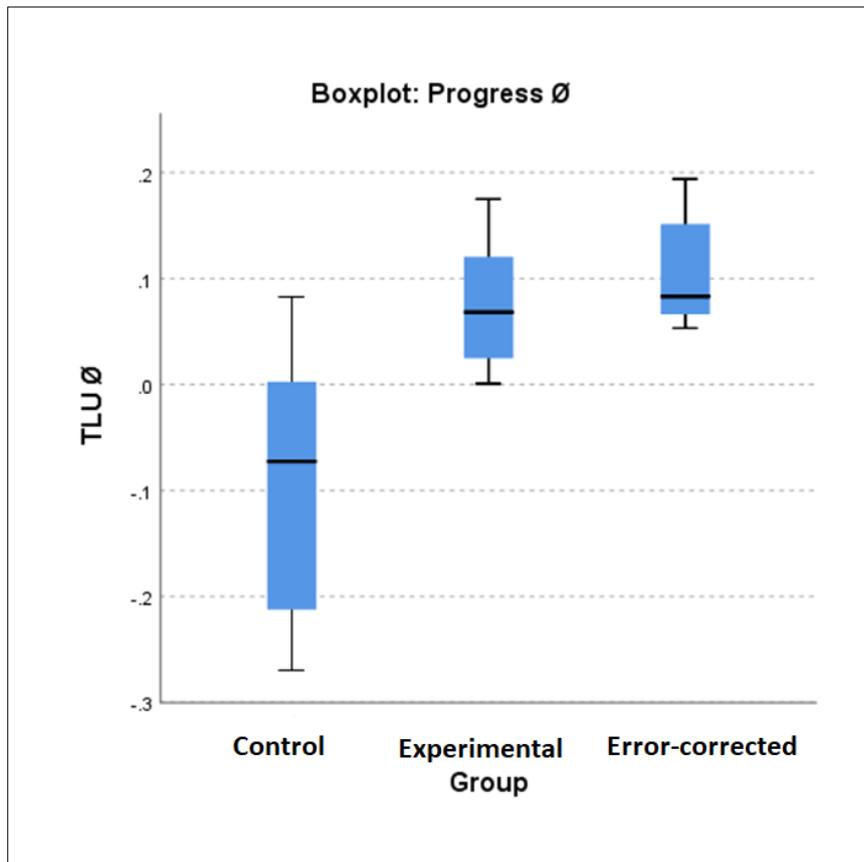


Figure 49: Progress by three groups (Mdn TLU of Ø) n=24

control group also studied this case study, yet did not demonstrate increased TLU scores. The extent to which the control group teacher exploited this case study (as the researcher with the taught class did) is not known. The likely combined effect of these multiple factors will be further discussed in Chapter 6.

5.7.3 Analysis of differences between taught group and experimental group

While there were significant improvements in definite article TLU and Ø article TLU, no significant differences were found between these improvements in the taught and error corrected groups between Task 1 and Task 2 ($P \leq 0.05$). A Mann-Whitney U Test demonstrated that the Mdn 0.11 improvement in TLU of all definite articles combined,

observed in the error-corrected group, was not statistically significantly different to the Mdn 0.06 improvement in the taught group ($U=36$, $p=.721$). Equally, the 0.08 increase in target like use of TLU of \emptyset in the control group between Task 1 and Task 2 was not significantly different to the 0.07 increase observed in the taught group's TLU ($U= 42$, $p= .328$).

5.7.4 Further analysis of definite article use

Further analysis shows that improvements in the TLU of Type 2 definite articles and all zero articles could be accounted for by the lower counts of overspecification of definite articles in Task 2. Table 17 compares the issue of omission and overspecification of the definite article (Types 1, 2 and 5 combined) by presenting the median values of each group in all three tasks.

Table 17: Omission and Oversuppliance of definite articles (all types, Mdn coefficients*)

	Task 1		Task 2		Task 3	
	Omission	Overspecification	Omission	Overspecification	Omission	Overspecification
Experimental taught group	0.114	0.111	0.091	0.036	0.087	0.105
Error correction group	0.073	0.143	0.069	0.000	0.045	0.092
Control group	0.045	0.049	0.099	0.081		

*To adjust for response length and obligatory uses, the figures are provided by the following coefficients:

Omission of THE coefficient = Omission in all contexts/accurate use in all contexts

Overspecification THE coefficient = oversupply in all contexts/accurate use + oversupply all contexts

The information from Table 17 is further visualised in Figure 50 and Figure 51. It can be clearly seen from these bar charts that omissions of definite article persist in Task 2, but the taught group (as a ratio of obligatory contexts) is oversupplying the definite article to a much lesser extent in Task 2, while the median overspecification value of the error-corrected group was 0.

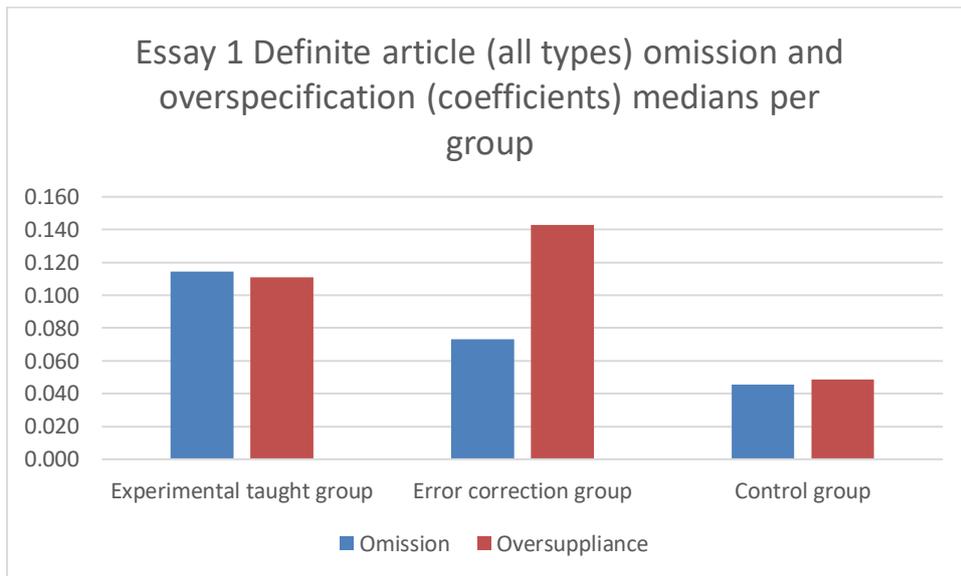


Figure 50: Bar chart – omission and oversuppliance of definite articles in Task 1

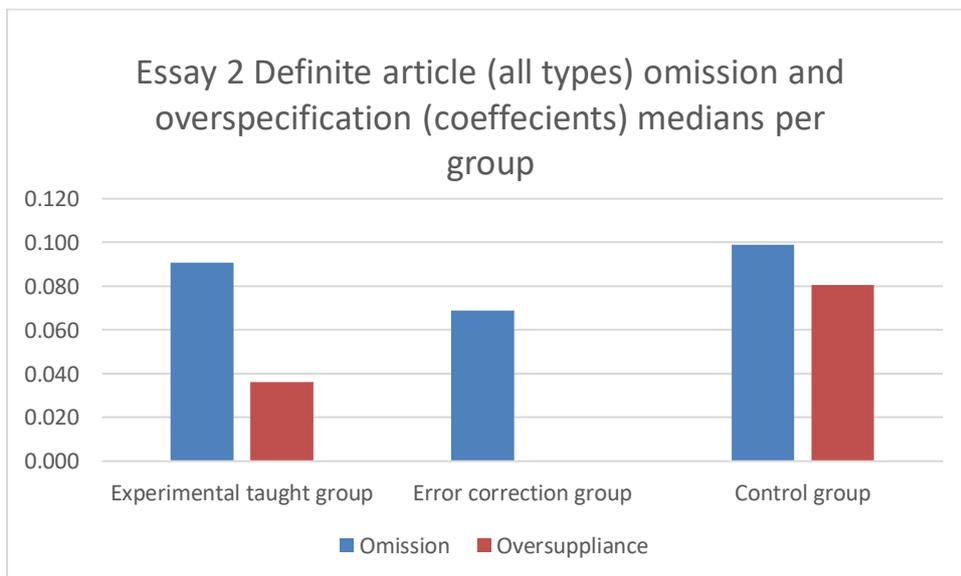


Figure 51: Bar chart – omission and oversuppliance of definite articles in Task 2

5.7.5 Article misuse errors

There were only 14 article misuse errors (*a* for *an*, *a/an* for *the*, *the* for *a/an*) in total in the whole corpus. Indeed there was only one ‘*a for an*’ error. This result is in contrast with Díez-Bedmar & Papp’s (2008) findings but confirms Master’s (1995) report that Chinese students at this level make errors of omission (of any article) or overspecification of definite article, as opposed to confusing the article (i.e. correctly judging nouns to need an ‘*a/an/the*’ specification but choosing the wrong specifying article). This very small number of misuse errors is shown in Table 18, but is ignored in the remaining discussion.

Table 18: Misuse of article errors

	<i>a/an</i> confusion	<i>a/an</i> for <i>the</i>	<i>the</i> for <i>a/an</i>
Task 1	1	0	3
Task 2	0	1	2
Task 3	0	0	7

5.7.6 Accuracy at the 14-week stage

Unfortunately, in the taught group most of the improvements observed between Task 1 and Task 2 were not sustained at the last data collection point. For example, with regard to Type 2 definite article use at the 14-week stage, six weeks after extra lessons on article use and article error correction had ceased, the taught group’s TLU was in fact marginally lower (Mdn 0.81) than it had been in Task 1 (Mdn 0.82) as illustrated in Figure 48 (p.173). Moreover, although the error-corrected group’s Mdn TLU in Type 2 definite articles remained higher than it had in Task 2, a Wilcoxon ranked test no longer showed a significant improvement ($Z=19$, $p=.889$).

TLUs of overall \emptyset articles maintained a fairly similar level, but a Wilcoxon Signed Rank test suggested the improvement was no longer statistically significant ($Z=28$, $p=.161$). Even though the TLU of *a/an* overall remained higher at the 14 week stage (Mdn 0.82) than when students had began in week 1 (Mdn 0.66), this improvement was no longer significant ($Z=26$, $p=.263$).

In the error-corrected group, one article category (*a/an* articles overall) showed a significantly improved Mdn TLU (0.70) in week 14 to its equivalent pre-treatment TLU (Mdn=0.50) in week 1 ($Z=34$, $p=.025$). However, this was the only article showing significant improvement. As was presented in Table 15 (p.160), no individual Bickerton article context showed significant Target-like accuracy improvement in week 14. For example, the Mdn TLU in definite articles (0.88) in week 14 was not shown by the Wilcoxon Signed Rank test to be significantly higher than it had been in week 1 (Mdn= 0.76) TLU ($Z=20$, $p=.779$). Equally, this inferential test suggested that TLU of overall \emptyset articles in week 14 (Mdn=0.91) was not significantly different from pre-correction levels (Mdn=80) ($Z=24$, $p=.401$). The absence of control group data for Task 3 unfortunately makes it impossible to evaluate the effect of the task prompt on this disappointing drop in performance.

5.7.7 End-of-study anonymous survey

Twenty-three of the Twenty-four students in this study completed the online end-of-study anonymous survey in week 15. This section reports on the most salient student responses. Full responses to all questions can be found in Appendix 6.

With a view to gauging students' reaction to written error correction, Question 3 asked participant respondents:

Your teacher marks your writing homework and points out an error in an article, e.g. (Art. – you forgot the definite article).

How do you feel? (which one emotion below best described your reaction?)

As visualised in Figure 52, the majority of the respondents (20 out of 23) reported a positive or very positive response to receiving error corrections. Two of the respondents expressed negative feelings and one was not sure.

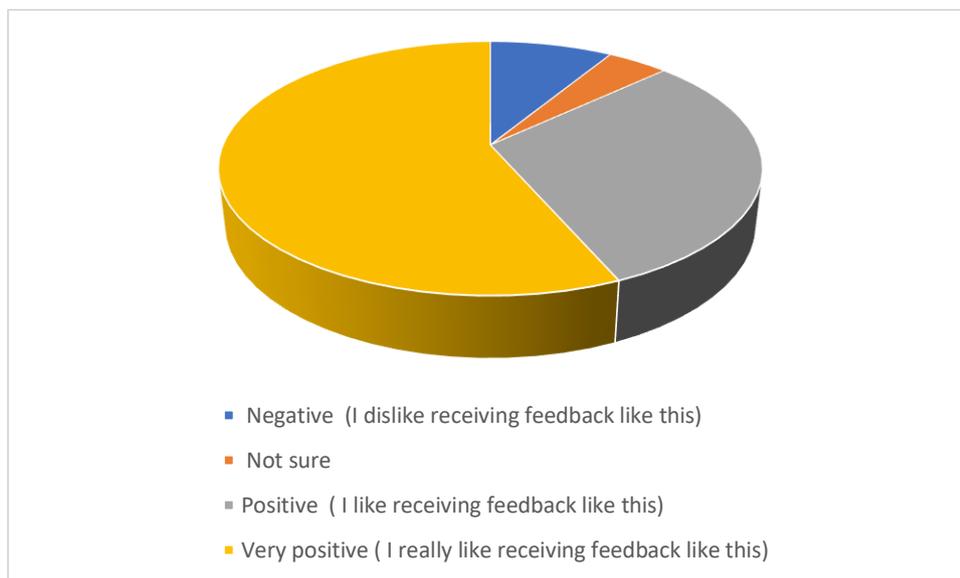


Figure 52: Participant responses to Survey Question 3 (n=23)

In order to investigate students' affective reaction to being corrected orally in class time, Question 4 asked:

In an academic writing class a teacher notices an error that you make with your article (*a/an/the*) and tells you. While other students are reading/writing he quietly explains a rule to you (about article use).

How do you feel? (which one emotion below best described your reaction?)

As shown in Figure 53, while 18 of the 23 participant respondents felt positive or very positive about such correction, three reported they were ‘not sure’ and two disliked receiving such oral feedback in class.

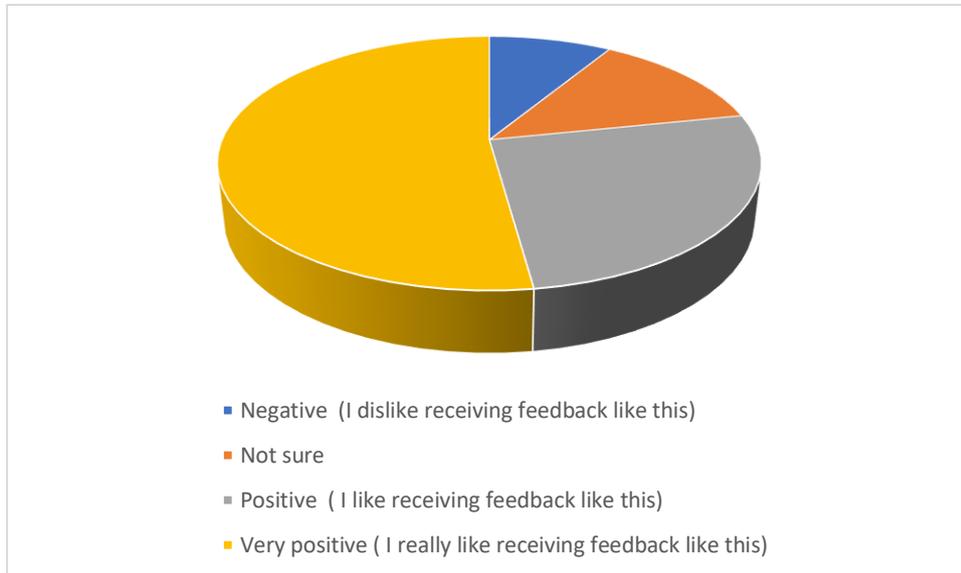


Figure 53: Participant responses to Survey Question 4 (n=23)

Although the negative affective responses to error correction (written or verbal) were low, there is a possibility that students are under reporting their dislike of error correction or a focus on the form of article. It is important (Wang, 2001; Shi, 2006; Leedham, 2015) to avoid the cultural stereotypes that other authors have made in reference to Chinese students’ respect for the teacher (Cotazzi & Jin, 1996; Wu, 2009). However, international students (regardless of nationality) can feel uncomfortable criticising a researcher’s methods when that person is a senior teacher on their programme, so the less positive reaction of five students could represent a slightly larger opposition. Two responses in the open question at the end of the survey give some insight into the students’ frustration with the topic (all five responses are reported in Appendix 6).

Anonymous student 1 (open question response):

I have learned about the article use since I was in a primary school. I can remember some general rules for using article. It is helpful but not as much as I expect. I still want to study more about this topic because it is very important for learning English.

Anonymous student 2 (open question response):

I like the correction from teacher, however, when I make some stupid error, I feel a little bit embarrassed and lesser confidence in English.

5.7.8 Comparison with the literature and critical evaluation of results

In sum, this study showed that the taught group made significant improvements in their accuracy of use of Type 1 generic *a/an* and \emptyset articles, Type 2 definite articles, and Type 3 \emptyset articles in the period in which they received extra teaching/article correction. The use of the error-corrected and control group enabled the study to show that students facing the same prompt without any such extra consciousness raising activities (in the control group) made significantly more errors in many article contexts. This evidence supports the hypothesis that teaching can make a difference in students' accuracy (Master, 1990; Master, 1995; Master, 1997; Bitchener & Knoch, 2008), at least in the short term. However, the finding that this progress was not sustained significantly (in all but *a/an* articles in the error-corrected group) six weeks after the extra teaching had ceased confirms Master's (1997) conclusion that students' improvement at this level was mostly sustained only as long as their attention was focussed explicitly on article use. Their improvement could thus be interpreted as a result of the students' extra attention to proofing their work for article errors that they were more conscious of due to the teaching they had received.

Similarly, in the error corrected group, the finding that error correction (by simply underlining the error) may have a significant impact in the short term supports the arguments, to some extent, made by Ferris (1999) and Chandler (2003) about its role in writing classes and that it is most effective when focussed on single language areas (Bitchener, Young & Cameron, 2005; Ferris & Kurzer, 2019). However, most significant improvements were lost six weeks after the corrections were focussed so intensely on article accuracy, so it is not argued here that the error-correction helped students across all article contexts in a sustained way. Moreover, given lack of long-term impact, the negative affective impact on several students and the significant time spent on such error correction, a clear argument can be made against such ‘scatter gun’ policies of correction.

5.8 Conclusion

The error-tagging methodology (using the adaptation of the Bickerton Framework for article use) led to reliable results, as shown by the refined inter-rating reliability tagging. In contrast to the initial issues encountered in the preliminary study, when the noun phrases were presented to the annotation checkers in decontextualised forms, this text-based method showed that properly trained researchers could apply the framework with greater reliability. To achieve this consistency, an extremely thorough standardisation was required (particularly in judgements about definite article redundancy/oversuppliance). Some borderline cases in which some raters disagreed were presented, but these differences in opinion were not as frequent as those in the preliminary study. While intensive training and the standardization process achieved satisfactory reliability in this study, there could be difficulty in comparing studies that examine the complex issues of register appropriacy with relation to article use if the same policies and standardization was not repeated.

Several limitations to this study, not least the small sample sizes, mean that caution must be shown in interpreting these findings. Furthermore, participation was limited to IELTS 5.5 and 6.0 level, slightly below the average 6.0 – 6.5 level of most students across the UK sector. While efforts were made to control the teaching input of all three classes, outside laboratory conditions it is acknowledged that certain variables cannot be scientifically controlled. Indeed, in the following chapter some insights from student interviews will show the near impossibility of designing three prompts on topics with equally familiar topic vocabulary for all students (and this knowledge of the lexis will affect knowledge of countability and thus article accuracy). Since these data were collected, several studies have emphasised the importance of task prompt and the effect of topic and task and this may have been underestimated during the design of this study and this variable has a huge effect on the conclusions that can be drawn (Díez-Bedmar, 2015; Crosthwaite, 2017). Future studies need to find a way of presenting the same topic to the students, perhaps requiring different sections of an extended piece of work to be submitted. A further limitation is that there appears to have been a larger discrepancy between the proficiency levels in the control group and other groups than had been initially estimated, as shown in the initial control group's higher TLU scores in Task 1. Comparisons between the progress of the three groups must therefore be treated with a degree of caution. Another limitation is the missed opportunity to reflect new modes of error correction and feedback (Hyland & Hyland, 2006), since the experimental and control groups received traditional paper-based correction methods rather than the latest innovative contemporary feedback processes afforded by technology.

Notwithstanding the limitations, the use of a control group for Task 1 nevertheless suggests that the improvement in accuracy shown by both the taught group and the error corrected group may not have been due to this change of topic alone. At least in the time the students'

consciousness of article use was raised and in this limited proficiency range, both groups showed statistically significant progress, particularly in Type 2 definite articles while a control group studying the same topic and writing the same essay made more errors (relative to their own Task 1 results) without these interventions. Future studies with larger sample sizes and control group responses for both tasks are now required to make firm conclusions about the effect of teaching/error correction, but this study offers some tentative evidence for the argument that either of these interventions may help students improve their accuracy in the short term.

Perhaps the most important finding in this study was that both teaching of article use and error corrections had more effect on reducing overspecification than article omission. As redundant definite articles have been shown to contribute to an inappropriate conversational tone and since register awareness is a key objective of EAP courses, this insight requires further investigation and future research is needed to more qualitatively investigate this effect. The next chapter presents evidence from several student interviews, but a larger scale study is needed to look into one possible explanation that students are simply careless with many article redundancies while their omissions in article use may be the type of errors they make in true misunderstanding of the noun's countability or use in its lexical context.

The findings of this study have several implications for EAP teachers if the findings of such a small scale study involving IELTS 5.5/6.0 levels were representative of the wider UK population of Chinese L1 lower English L2 learners. The more practical recommendations for the teaching of article use in EAP will be presented in the Chapter 8 conclusion in light of the findings that will be reported in Chapter 6 and 7, but it can be immediately seen that the 'one off' teaching session recapping the grammar of article rules may not necessarily have a sustained effect on Chinese students' written accuracy of articles. Equally, the occasional mass

correction of all of a students' article errors can improve students' consciousness and have a short-term effect, but this extra attention to article accuracy may only last as long as students have such regular corrections. Meanwhile, it should be remembered that a small number of students expressed negative views towards such correction.

This study does not support the pessimistic assumption that teaching or error correction will have no impact as, notwithstanding the fact that the improved accuracy only lasts as long as the teaching/corrections, the study did observe significant improvement in accurate use in certain contexts. Students generally embark upon preessional programmes knowing the general rules of article use, so this was most likely a result of the students' added consciousness of articles during their essay proofing rather than learning anything new about articles during teaching. On the other hand, as any consciousness raising activities are likely to have an effect on short-term accuracy (which Chapter 4 showed as an end in itself for some teachers as they prepare students for extended written assessments), this study has shown that a teaching approach could be valid, however limited. As to which method of focussing attention is preferable, there is a clear case for teaching and against overcorrection of articles because, even if both are equally effective in the short term, teaching is less likely to cause a negative reaction among learners.

As shall be developed in the conclusion, given the possible impact that article use is suggested here to have had on the register (with many redundant errors argued to cause an informal tone in the writing) this effect of inaccuracy may merit attention in EAP programmes. In parallel with the positive effect that teaching/correction had on overspecification, a strong case shall be made in the thesis recommendations for focussing in particular on definite articles and their appropriacy for cohesive purposes but inappropriate effect when making generalisations or

discussing hypothetical or idealised situations in Type 4 contexts in their essays (when bare noun plurals are usually preferred).

Before any conclusions or recommendations are made, there was a need to conduct research with a larger population with a wider range of levels (as will be presented in Chapter Seven), particularly since this chapter has only focussed on IELTS level 5.5 and 6.0 students. Before extending the focus, however, the following chapter analyses these Chinese learners' article errors more deeply and compares the same learners' use of articles in essays to their accuracy in an alternative genre of academic writing. In addition, a comparison with responses from L1 tutors provides insights to underuse and overuse issues.

6 CONTRASTIVE ANALYSIS OF CORPORA

This chapter presents the further analysis of the data collected for Chapter 5 (which focussed on the dynamic effects of article consciousness raising) together with further L1 data, data from lower proficiency Chinese students, and data from a different genre of writing that some of the students submitted (a case study) in order to gain a deeper understanding of the contexts in which Chinese learners make article errors. In addition, through further qualitative and corpus-based (deductive and inductive) methodologies, the thesis turns its attention to the possible causes of errors made by Chinese L1 students in particular.

6.1 Study overview

Two of the four research questions as originally stated in the Literature Review are addressed in this study:

Research Question 2: What are the linguistic contexts of obligatory article use in which Chinese L1 students at Upper-Intermediate levels of English L2 are most likely to make errors?

Research Question 3: To what extent does the Chinese students' L1 background affect (1) TLU and (2) their types of article error?

Research Question 2 refers to 'contexts' firstly in terms of the Bickerton article use Types as presented in Section 2.2.1. By replicating the data analysis approach of recent studies (Díez-Bedmar & Papp, 2008; Crosthwaite, 2016a) into Chinese students' article errors, comparisons of 'Target-Like Use' (TLU) can be made. This analysis will thus examine whether the University of Birmingham's Chinese L1 15-week B2 level students continue to demonstrate the many 'non-native features' reported by Díez-Bedmar & Papp (2008) or whether, as found

by Crosthwaite (2016a: 94), they are generally ‘not struggling with article use in the majority of article contexts’.

After analysing ‘context’ in terms of the Bickerton Framework, replicating the two investigations mentioned above (Díez-Bedmar & Papp, 2008; Crosthwaite, 2016a), the study then also turns to a more data-driven analysis through concordance tools. As discussed in Chapter 2, academic writing presents a steep learning curve for L2 novice academic writers not least due to the very frequent use of densely packed nominalisations in this register (Halliday & Martin, 1993, Biber & Gray, 2010; Bennett, 2011). On the basis that novice academic readers/writers have been shown to struggle with such compression of the noun phrase (Fang, Schleppegrell & Cox, 2006) the effect of pre-modification of the head noun on accuracy of article use is also examined.

The likely effect of L1 transfer (Research Question 3) will be addressed through a comparison of the findings with secondary research findings. By comparing the findings with those of Díez-Bedmar & Papp (2008) and Crosthwaite (2016a), their hypothesis that Chinese learners omit articles due to L1 transfer can be tested. As reviewed in Chapter 2, Díez-Bedmar & Papp (2008) hypothesised a greater omission of articles among article-less L1 students whose L1 language does not grammaticalise definiteness and specificity in the same way. They also found Chinese learners oversupply articles due to a deficit in pragmatic awareness. Crosthwaite’s (2016a) more nuanced hypothesis is that Chinese L1 learners show a lack of positive transfer effect in their inaccuracy with generic article uses, particularly in indefinite generic contexts as Chinese has no equivalent grammaticalization. Thus, evidence that Chinese learners had higher accuracy in Type 2 and 3 contexts would support his hypothesis that Chinese learners do show positive transfer effects, since unlike other article-less languages,

Chinese has the potential to show definiteness and indefiniteness with classifiers and demonstratives.

Following the study presented in Chapter 5, it was also hypothesised that the Chinese students' tendency to 'oversupply' definite articles may create an effect on the perceived register (Lee & Chen, 2009). This effect could contribute to explaining claims in the literature that novice L1 Chinese students' L2 academic English writers can be perceived to be using an overly informal or even conversational tone in their academic writing (Gilquin & Paquot, 2007; Mayor, 2006; Lee & Chen 2009; Chen, 2014).

6.2 Methodology

L2 data

Four corpora will be used in this chapter: 1) a B2 level student corpus (n=24), 2) a B1/B2 level corpus (n=30), 3) a micro case study corpus (n=16) and 4) a micro L1 corpus (n=5). As this research project mainly pertains to B2 level learners most findings in this chapter relate to Corpus 1 (three essay tasks written by 24 B2 learners) with the other corpora used for comparative purposes.

Corpus 1: B2 level corpus.

This corpus contains data recycled from Chapter 5's longitudinal study (35,716 words). As suggested in the previous chapter, this data may have been affected by efforts to raise students' consciousness about article accuracy. On the one hand, given that some of these essays (see Table 19, p.199) were written while students were asked to pay extra attention to English articles, it could therefore be unrepresentative of Chinese students' grammatical accuracy or at least only representative of Chinese students more consciously trying to proofread their work

for article mistakes. On the other hand, as the research is interested in investigating the average Chinese international student in the middle of the process of writing their first academic texts (with time to proofread their own work), the errors that such students continue to make – despite these efforts – are argued here to represent a rich and valid source of data in their own right.

Corpus 2: B1/B2 level corpus

In order to enable an analysis of the effect of proficiency presented in Section 6.4.5, 18 essays (Tasks 1, 2 and 3) from lower level B1 students from one of the BME classes were added to the corpus. The class teacher of these students had volunteered to ask students to take part in the earlier study, but the lower level of the students and the added tuition given to the students from several language support tutors during the programme (and the consequent difficulty in controlling the pedagogic input) led to their disqualification from the investigation of Chapter 5. However, with lower scores in the BME writing placement test (which streamed these students into a class that was provided with additional language support) their essays from each of the three writing prompts were used to examine the effect of general writing proficiency on article accuracy.

As can be seen from Table 19, the six lower level students had all achieved a maximum score of IELTS 5.0 (overall) in the last two years. All had been studying on the university's longer preessional course prior to the time of the study (four students for five weeks and two for three months). Their results on entry writing test (ranging from 48-51) showed that these six lower level students continued to write at a borderline B1/B2 level. In sum Corpus 2 participants, in addition to these six students at B1 level, included 14 students at the IELTS 5.5 low/middle

end of the upper=intermediate level and 10 students with stronger Upper-Intermediate IELTS 6.0 scores.

Table 19: Participant information (including borderline B1/B2 students).

	IELTS 5.00 (n=6)	IELTS 5.5 (n=14)	IELTS 6 (n=10)	Total/Summary
Age	21-23	23-26	22-24	Median: 23
Male	2	7	2	Male 10
Female	4	7	8	Female 20
Chinese	6	9	6	21 Chinese
Taiwan	0	5	4	9 Taiwan
Entrance writing test score	Range: 48-51 Median: 50 Median AD= 1	Range: 53 -59 Median: 5.5 Median AD= 1	Range: 56-61 Median: 57 Median AD= 2	Mean: 56.04 SD: 4.26
Length in the UK or English L1 countries at entry	Four students under two months, two students under five months	One student under three months, one student under two months, 12 students under one month.	All students under one month	No students over five months in the UK

Corpus 3: Micro case-study corpus

In order to investigate the effect of genre, a micro-corpus of case studies produced by 13 of the students from Chapter 5 was also compiled (14,603 words). Details about the case study prompt can be seen in Table 20 (p.183) where the case study is labelled ‘Task 4’ to avoid confusion with previous labels (although this case study was actually submitted in week 7,

before Tasks 2 and 3). This case study submission was the first draft of an assessed piece of work (students turned in a final submission after feedback in week 12).

While the essays reflected the Preessional's approach to building the academic writing skills that students would need for the literature reviews of their Masters' level dissertations, the case study assessment on the Preessional more authentically reflected the assignment tasks that students would face in the Business School (i.e. report structured assignments based on a case study text). Unlike the essay prompt tasks, students were given a background case study text and asked to use examples and make references mainly to this text in their response (only synthesising theories from the literature where necessary). The main difference in this case study prompt, however, was the instruction to provide recommendations. According to multidimensional genre analysis (Conrad & Biber, 2002; Gardner, 2008) case studies can be differentiated from essays due to their purpose of recommending a course of action. In terms of Gardner's (2008) cline of persuasion, the case study represent a register in dimension 4 quite distinct from more argumentative forms of academic writing.

Summary of Prompts for all corpora

For ease of reference, the four prompts are presented in Table 20 overleaf.

6.2.1 Corpus 4: L1 data for contrastive analysis

To facilitate a contrastive analysis (and identification of 'overuse' or 'underuse' of articles), five L1 English speaking tutors agreed to write responses for Tasks 1 and 3. All five 'expert writers' held Masters/DELTA teaching level qualifications and had taught on the BME for at

Table 20: Four Task prompts

	Rubric	Texts	Words total	Minimum and Maximum lengths and Median word length
Task 1 Essay (week 1)	<i>Does fear motivate employees to work harder? Illustrate your ideas with reference to theories of motivation studied on the course. (350 - 400 words)</i>	30	11147	Minimum: 302 Maximum:440 Mean: 371.6 words
Task 2 Essay (week 8)	<i>An effective marketing strategy is crucial to the success of a business. Critically assess the value of segmenting, targeting and positioning as a marketing tool. Illustrate your answer with suitable examples. (400-600 words)</i> <i>*option for the three accountancy students: Summarise the responsibilities of accountants and discuss how they can contribute to efficient information flow both within and outside business organizations.</i>	30	14306	Minimum: 443 Maximum:605 Mean: 476.9 words
Task 3 Essay (week 14)	<i>Retailers compete for customer loyalty and retention in many ways.</i> <i>Examine the issues, illustrate with examples and suggest ways in which retailers can promote loyalty and retention. (400-600 words)</i>	22	10263	Minimum:403 Maximum:667 Mean: 466.5 words
Task 4 Case Study (week 7)	<i>Students were given a 'case study' about a Scottish soft fruit grower and instructed to:</i> <i>1) identify the marketing, human resources and financial constraints. 2) With reference to the Product Life Cycle tool, give two alternative methods of extending their products' life cycle and 3) make recommendations about the company's payment strategy. (900 words)</i>	16	14603	Minimum: 853 Maximum 976 Mean: 912.7 words

least one summer previously. Three responses were also gathered for Task 2 and three responses for the case study Task 4, all from tutors with L1 backgrounds and Masters/DELTA English teaching qualifications.

6.2.2 Limited number interview sessions

Three students participated in post programme one-to-one unstructured interviews designed to investigate students understanding of why they made article errors. During interviews, students were presented with a number of correct and incorrect article uses from their Task responses and asked 1) whether they believed them to be correct and 2) if incorrect, why they had made the error in their Task response. One-to-one sessions that enabled such qualitative investigation of error were planned for all participants. However, due to the high pressure/stress students were under in the high stakes assessments at the end of the course, it was not possible to schedule these sessions until six weeks after the Preessional had finished. By this point, participation was lower than expected. Nevertheless, some qualitative findings were gleaned from these interviews and these will be reported in Sections 6.4.7 to 6.4.15.

6.3 Data analysis

For ease of reference, the Framework adapted from Bickerton (1981), as critically evaluated in Chapter 3, is reproduced overleaf in Table 21. Procedures for tagging, training two annotation reviewers, and checking the reliability of annotation were presented in the previous chapter (Section 5.6). As aforementioned, these procedures led to a Fleiss Kappa inter-rater correlation of 0.87, showing strong reliability.

Table 21: Framework adapted from Bickerton's (1981) semantic and pragmatic uses

Type	Features	Context	Tag/Form of Article	Examples ³
1	[-SR, +HK]	Generic: The reader knows of its existence, but not a specific reference.	1IA <i>a/an</i> 1ZA \emptyset 1DA <i>The</i>	<i>An</i> elephant never forgets. Elephants never forget. <i>The</i> elephant never forgets.
2	[+SR, +HK]	Writer and reader both know of the specific referent.	2DA <i>The</i>	Remember to feed <i>the</i> elephant! That's <i>the</i> biggest elephant I've ever seen.
3	[+SR, -HK]	The writer knows of a specific referent the reader does not know.	3IA <i>a/an</i> 3ZA \emptyset	The local zoo has <i>an</i> elephant. The local zoo has elephants.
4	[-SR, -HK]	Neither writer or reader believe the noun refers to a specific thing	4IA <i>a/an</i> 4ZA \emptyset	The zoo does not have <i>an</i> elephant. The zoo does not have elephants.
5	Fixed expression	Conventional use (use in idioms and proper nouns)	5ZA \emptyset 5IA <i>a/an</i> 5DA <i>The</i>	On <i>the one</i> hand, Nelly <i>the</i> elephant enjoyed <i>the</i> 1950s. On <i>the other</i> hand, she was now <i>having a</i> ball.
6	Alternative determiners	Quantifiers or other alternatives to article determination	6	<i>Two</i> elephants. <i>Another</i> elephant

³ Examples 1-4 taken from Langendoen (1970), Cziko (1986), Heubner (1983), and Butler (2002). Examples 5 & 6 author's own examples.

6.4 Results and discussion

Before reviewing ‘Target-like Use’ (TLU) data, this section gives an analysis of percentage of error type findings for the most common type of article error made by the students.

6.4.1 The most frequent errors Chinese students made in short essays (percentages)

Restricting this part of the analysis to the B2 level students (n=24), as this Upper-Intermediate level is the main focus of this research project, 3.2% of all noun phrases were judged to be underspecifying the referent, omitting either an obligatory *the* or *a/an* article (oversuppliance of \emptyset). Overspecification (overuppliance of *a/an* or *the* when \emptyset was judged obligatory) occurred in 2.1% of all noun phrases. Focusing on the definite article alone, omission was a slightly more frequent problem (2.2% of noun phrases) than overspecification (1.7% of noun phrases). In contrast, such oversupply was an extremely rare problem for *a/an* article use (0.3% of noun phrases) compared to omission of *a/an* which occurred in 1.6% of noun phrases. In contrast with some of the claims made in the literature (Master, 1987; Chang, 2001) misuse of *a/an* for *the* (or vice versa) was highly infrequent (0.1% of noun phrases),

This analysis of percentages allows for comparisons with studies that reported raw data alone (without ratio measures) and confirms Chuang & Nesi’s (2006) findings that Chinese B2 level students make both omission and oversuppliance definite article errors, but that omission is a marginally more frequent error. These results also lend support to the hypothesis of Díez-Bedmar & Papp (2008) that L1 Chinese learners omit articles as a result of their article-less L1 background and oversupply articles as a result of their deficit in pragmatic awareness.

Table 22 presents the ranked contexts in which students produced errors as a percentage of all article errors. As can be seen, almost half of all errors in the three essay prompts were judged to be in Type 2 and 4 contexts. As 95.2% of the 4 GAZA type errors were a result of *the*

overspecification, it can be reported that over 47% of the article errors therefore involved either *the* omission or oversupply of definite articles.

Table 22: Proportion of errors by context

Grammatical description	Bickerton Framework Context	% of Head Noun phrases
Referential definite articles	2GADA	24.89
Non-referential \emptyset article	4GAZA	23.23
Non-referential <i>a/an</i> article	4GAIA	12.97
Referential <i>a/an</i> article	3GAIA	10.41
Conventional definite article use	5GADA	6.64
Generic definite article use	1GADA	5.13
Indefinite \emptyset article	3GAZA	4.98
Generic <i>a/an</i> article	1GAIA	4.07
Conventional \emptyset article use	5GAZA	3.92
Generic \emptyset article	1GAZA	3.17
Conventional <i>a/an</i> article use	5GAIA	0.60
		100%

6.4.2 Contrastive analysis of all uses of articles

Returning to the issue of both correct and incorrect uses of articles, the B2 essay corpus of Chinese students (n=24) was next compared to the L1 writer corpus. The number of ‘other determiners’ (6OD annotations) was compared and found to be very similar. L1 writers used a range of pronouns, quantifiers, possessives and alternative determiners for 16.6% of all tagged

noun phrases while the Chinese students chose other such determiners in 15.3% of noun phrases.

As shown in Table 23, the most striking contrast between the L1 tutor essay responses and the Chinese students' responses is in the two groups' use of Type 3 indefinite/Ø articles. Particularly in Task 1, Chinese students used Type 3 articles (6.4% of all articles used) far less frequently than L1 tutors (20.2%). In contrast, Chinese learners more frequently wrote in Type 4 non-referential contexts (54.7% of articles) than the L1 tutors (43.1%). The Chinese learners' use of Type 3 indefinite/ Ø articles more than doubled in the essay 2 and 3 responses, but it remained constantly lower than the L1 tutors' use.

Table 23: L1 writers (n=5) article uses compared to Chinese L1 essays (n=24)

	Essay 1		Essay 2		Essay 3		Case study	
	Chinese L1	English L1						
	n=24	n=5	n=24	n=3	n=24	n=5	n=24	n=3
Type 1	6.2	6.4	11.7	7.4	8.6	5.8	3.8	4.3
Type 2	22.2	20.8	26.7	24.2	21.1	28.6	55.0	51.4
Type 3	6.4	20.2	14.3	22.8	14.3	20.8	12.5	13.2
Type 4	54.7	43.1	35.1	32.1	46.2	36.6	22.8	25.7
Type 5	10.5	9.5	12.2	13.5	9.7	8.3	5.9	5.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Closer inspection of the reasons for the divergence in article use seen between Chinese L1 and English L1 writers showed that the latter were more frequently weaving between generalizations and specific examples in all parts of their essays. L1 writers were likely to use

abstractions and generics in their introductions and conclusions, but far more likely to cite examples in their introductions. By contrast, Chinese students often introduced their essay with reference to generic, prototypical companies, but rarely used specific examples from the real world to develop these ideas. Throughout the body of the essay, L1 writers often used generics or non-referentials in the topic sentences and ends of paragraphs in the more abstract critical evaluation of the topic, but were far more likely to invite the reader to consider concrete real world examples (see Figure 54). In contrast, as shown in Figure 55 below, through their use of conditional sentences, modality and continued discussion of generalised referents of ‘employees’ and ‘managers’, Chinese students often maintained a non-referential unspecified level of abstraction throughout the entire paragraph and some maintained this level of abstraction throughout most of the essay, particularly in Task 1.

[Task 1, Expert writer #1] Indeed, there have been **well publicised high awards** in courtrooms **in recent years** following accusations of worker intimidation.

[Task 1, Expert writer #2] Another issue is that **a fear of failure** has **been shown** to lead to risk averse employees.

Figure 54: Tutor examples

[Task 1, Student #10] On the other hand, motivation by fear may reduce **employees'** performance. If **the employees** are only motivated by fear in a long term, it will be hard to offer them a sense of job satisfaction and security.

[Task 1, Student # 7] Few can deny that one single motivation theory cannot fit all particular situations, by which I mean effective **managers** should focus on various of motivation theories and give more incentives to **employees**.

Figure 55: Student examples

Students' increased use of Type 3 contexts in Tasks 2 and 3, to some extent reflects their development as novice academic writers. Indeed, the principle objective of the academic

writing component on the Preessional programme was to take students from the habits developed for IELTS writing exams (use of learned generic answers and formulaic expressions learned in IELTS preparation courses) to a more academic style and the use of evidence to support all ideas and claims. Another key aspect of academic writing taught in all classes through the academic writing component was the ‘general to specific’ textual pattern of paragraphs and ‘general-specific-general’ shape in most EAP essay structures. Thus, the increased use of the specific referents between Task 1 and later Tasks may reflect the students’ growing understanding of this aspect of academic writing. On the assumption that the L1 tutors were appropriate models of academic writing, the outstanding gap that remained between the two groups shows that the students were still failing to provide examples and specific references for the abstractions in their generalised claims.

In regards to the addition of case study prompts, it is interesting to note the very similar patterns of article type use by L1 tutors and the Chinese students, as was summarised in Table 23 (p.188). Despite being a new genre of academic writing for the students, it appears that the students had little difficulty in applying the same discourse patterns as tutors: i.e. using examples from the given case study text to support their answers. When asked to keep their focus on one specific company, the students had little difficulty in keeping their references to concrete things in the real world. Two factors therefore are likely to explain the students’ greater challenges in other genres of more discursive essays: 1) the habits learned in IELTS preparation courses (which reportedly often encourage formulaic answers) and 2) the need in more academic writing to more dexterously weave between the specific examples and abstract claims to critically argue a position.

6.4.3 Order of accuracy

The medians and their distributions for accuracy of use of each article type are shown in Figure 56. Chinese students showed the highest TLU of \emptyset (0.89), followed by definite article accuracy (0.85) and then *a/an* (0.81). These differences, while marginal, were shown to be significant ($P \leq 0.05$) by a related-sampled Friedman's Two Way Analysis of Variance by Ranks ($X^2(2) = 29.747, p = .000$). Applying the Bonferroni correction for multiple tests, the differences remained significant between *a/an* and *the* TLU ($X^2(2) = 2.598, p = .028$), and between *a/an* and \emptyset TLU ($X^2(2) = 4.980, p = .000$), but not statistically significant between *the* and \emptyset ($X^2(2) = 2.382, p = .052$). These findings agree with Díez-Bedmar & Papp's (2008) finding that Chinese students are most accurate with \emptyset articles, but contrast with their finding that the definite article was the most challenging article for students of this L1.

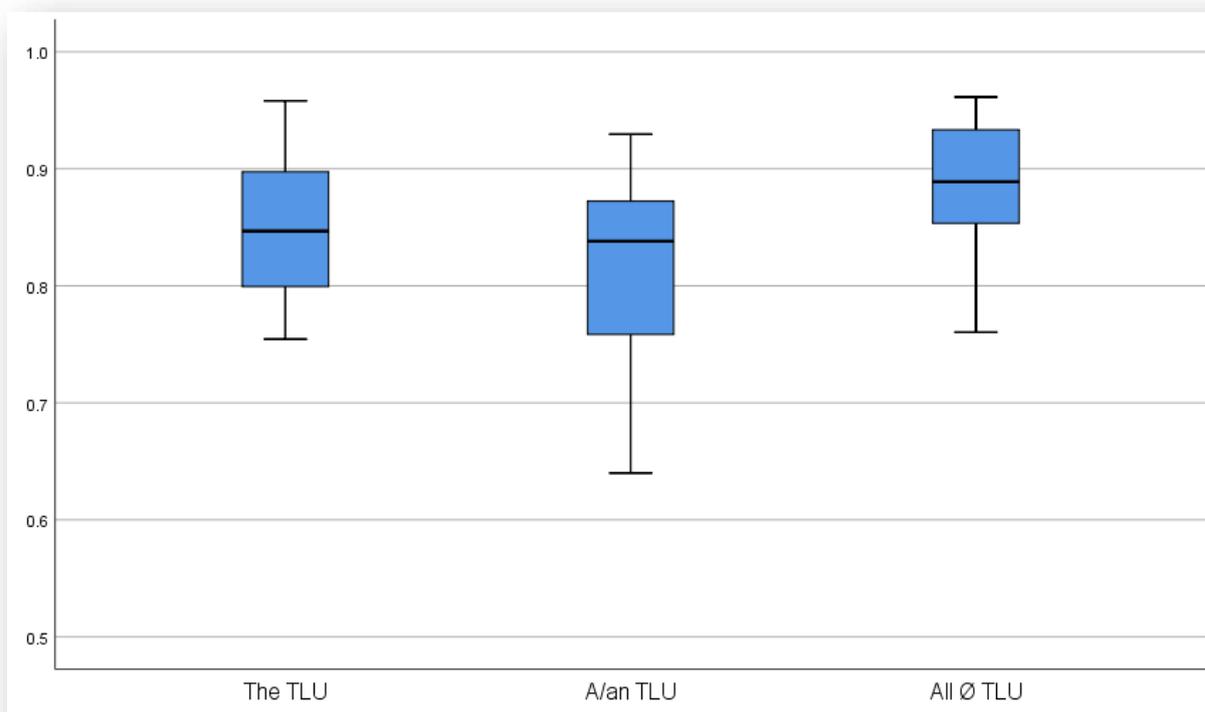


Figure 56: Median TLU scores in the three article types (3 prompts, n =24).

6.4.4 TLU of all types

As shown in Table 24, the data from the three essays shows that the B2 Chinese students showed greatest target-like accuracy in 5ZA, 4ZA, 3IA and 2DA contexts. These four contexts were among the five most frequent contexts for error, but when obligatory use was taken into account (and the higher frequency of such contexts in academic essays), it can be seen that Chinese students are generally more confident with definite articles and Ø than the raw error frequencies suggested. However, the 4IA indefinite article, which was highly frequent in essays, was one of the more inaccurate contexts for the Chinese learners (0.71 TLU). It should be noted that the TLU for 5IA is greatly affected by its rarity and is therefore misleading – if zero counts are removed from the analysis the students showed almost perfect accuracy.

Table 24: Overall TLU (all essays) in all contexts (n=24)

	IDA	1IA	1ZA	2DA	3IA	3ZA	4IA	4ZA	5DA	5IA	5ZA
Median	0.67	0.75	0.86	0.88	0.89	0.80	0.71	0.95	0.80	0.00	0.97
⁴ MAD	0.33	0.29	0.11	0.06	0.12	0.10	0.21	0.05	0.20	0.00	0.03

In sum, the essay data from this study would appear to suggest that B2 Chinese students are most challenged by the following article contexts in order of difficulty: IDA<4IA<1IA<5DA=3ZA<1ZA<2DA<3IA<4ZA<5ZA.

⁴ MAD = Median Absolute Deviation

6.4.5 The effect of proficiency on accuracy

By adding the six B1 students to B2 data to make Corpus 2, the effect of general writing could be investigated with a slightly broader range of English proficiency levels. However, efforts to find significant relationships between general writing proficiency and accuracy of article use in the eleven contexts annotated met with only limited success. Students' (n=30) individual combined TLU coefficient for all three essays (in all eleven contexts) were analysed in relation to their writing proficiency (as measured by the Pre-session entrance writing test). No significant relationship was found between the students' general writing (as measured either by writing test or by their IELTS writing bands) and their combined TLU in the three articles (*the/a/ Ø*). Equally, no correlation was found between general proficiency level (measured by either IELTS test band or writing entrance test score) and the students' omissions/overspecification of either definite or indefinite articles in any of the contexts.

A Spearman's rho test found a significant relationship ($P \leq 0.05$) between all students' (n=30) placement writing score and their Target-Like Use with Type 1 definite articles ($r_s = .282$, $p = .013$). The same test ($P \leq 0.05$) also found a significant relationship between all students' (n=30) placement writing score and their Target-Like Use of Type 3 (3IA) indefinite articles ($r_s = .228$, $p = .046$). However, no significant relationship was found in this data between writing proficiency and accuracy in 1IA, 1ZA, 2DA, 3ZA, 4IA, 5DA, 5IA and 5ZA contexts of article use. This finding of no significant effect from proficiency level on the overall article accuracy is surprising, since Chapter 2 showed a widely reported positive relationship in the literature (Crosthwaite, 2016a; Murakami & Alexopoulou, 2016). Here, the effect is somewhat accounted for by the very small sample of B1 students in the study and the large number of students with an IELTS 5.5 band score.

6.4.6 Comparison of student accuracy in essays and case studies

Underspecification was again a greater problem than overspecification in the case study responses. In terms of 2DA context definite articles, omission was a far more frequent issue (2.6% of all noun phrases) than oversupply (0.7%). Equally, there was only one single oversuppliance of indefinite article, while omission was the only error related to *a/an* articles (1.3% of all noun phrases). This reduction in overspecification of definite articles is partly due to the register differences of the genre. A case study response naturally entails inter-textual cross references to the actors/organisations described in the case study prompt so the uses of specific references to ‘the company’, ‘the workers’, ‘the competition’ was more permissible than an essay in which the focus is upon generalisations rather than specific cases.

This improvement in accuracy was sustained in the figures when ratios were used to factor in the obligatory contexts. In fact, the Target-Like Use (TLU) of articles among these Chinese students using the Bickerton Framework outlined in Section 2.2, as shown in Table 25 was

Table 25: TLU in essay prompts compared to case study prompt

<u>Tasks 1-3 (3 essay prompts, n=24)</u>											
	IDA	11A	1ZA	2DA	3IA	3ZA	4IA	4ZA	5DA	5IA	5ZA
Median	0.67	0.75	0.86	0.88	0.89	0.80	0.71	0.95	0.80	0.00	0.97
AD	0.33	0.29	0.11	0.06	0.12	0.10	0.21	0.05	0.20	0.00	0.03
<u>Task 4 (Case study prompt, n=16)</u>											
	IDA	11A	1ZA	2DA	3IA	3ZA	4IA	4ZA	5DA	5IA	5ZA
Median	0.00	0.00	1.00	0.92	0.91	0.89	0.78	0.95	0.83	1.00	0.86
AD	0.00	0.00	0.00	0.02	0.09	0.89	0.06	0.03	0.17	0.00	0.14

generally higher in the case studies than the essay responses. Ignoring use of generic articles (students very rarely attempted their use in the case studies) the students showed greater accuracy, for example, in Type 2DA (0.92), Type 3IA (0.91) and 4IA (0.89).

It is very likely that both the genre and the prompt Task were responsible for this greater accuracy. In case study Tasks, students were required to only use the one set case study text provided to give examples to support their answers. In effect, students were mostly paraphrasing from a given text and synthesising these examples with their own analysis. In addition to the greater allowance of specific reference, the students could see many examples of the new vocabulary and its colligations with article use throughout the text that they were referring to when writing their answers, so their confidence of article use with the new vocabulary is therefore likely to have been enhanced. Although this makes the comparison with essay tasks potentially problematic, the phrases were not removed from the analysis because this use of case study texts authentically represented Business School assessments. Thus, while this to some extent explains the students' greater accuracy in this task type, it was considered more valid to include the uses of prompt vocabulary ('the company', 'the workers') in the analysis because the summary of such texts (retaining key words) is a normal part of academic writing for business school students.

Given that students would more usually be writing responses to case studies of this kind (with set texts to contextualise the genre and familiarise students with the new topic lexis) once entering the Business School, it is possible that these higher accuracy rates are more reflective of the students' true abilities in the academic writing of their chosen discipline. This

conclusion would seem to support Crosthwaite's (2016a) conclusion that students at B2 level show little inaccuracy in article use outside generic contexts.

The remainder of this chapter now focusses on the individual article use contexts in order of the frequency at which each error was found in Corpus 1. The analysis is confined to essay responses at B2 level for comparative purposes to the studies replicated. In each section, the L1 Chinese students' errors in the three essays (n=24), are put in context of other studies and the qualitative research undertaken in this project based on insights from student interviews. In each of the sections below, a brief summary of the quantitative analysis will be followed by some examples from the students' three essays together with qualitative insights gained from their interviews and the inductive analyses to which the student interviews led. In each of the figures below, correct obligatory use examples are provided in blue text and examples of incorrect use are given in red.

6.4.7 Context 2DA

The most frequent article error was omission on *the* in Type 2 contexts (24.9% of all article errors), replicating the results of previous studies (Chuang & Nesi, 2006; Díez-Bedmar & Papp, 2008). Examples of correct and incorrect use are shown in Figure 57. The high frequency of the error reflects its frequency in academic writing. In fact, among both students and L1 English tutors *the* Type 2DA definite article was the second most frequent article used in essays. As a ratio that takes account of high frequency obligatory use and overspecification, TLU of 2DA definite articles was more 'mid-range' (0.88). This TLU contrasts with the slightly lower accuracy reported by Díez-Bedmar & Papp (2008), but contrasts with Crosthwaite's (2016a) finding that Chinese students had almost mastered 2DA articles by B2 level.

2DA	<p>It is clear from the above analysis that as a market tool, segmenting, targeting and positioning all do not have absolute advantages or absolute disadvantages.</p>
2DA	<p>For instance, the main colours of Sainsbury's stores are orange and red which create the warm and relax atmosphere for customers when they are shopping in the store,</p>
Error example 1	<p>The other one is the build-up method, which only subdivides the market by a single factor, such as gender in</p> <p>^ cosmetics market and age in ^dress market.</p>
Error 2	<p>^Switch ratio was developed by Crouchely. It calculates ^ number of times a customer switches from a retail store to another during a long term (Kirkup, 2002).</p>

Figure 57: 2GADA errors compared to 2DA correct use

At interview, students were presented with a mixture of such correct and incorrect uses (see Figure 57) and asked to reflect on accuracy and then explain errors made. The student who made Error 1 spent over one minute considering the example (with all articles removed) and, as shown in the transcript below, showed great hesitation before finally agreeing the need for a definite article:

Hmmm...can I take my time? This is stressful now, you take me back to my high school... {student reads and rereads sentence for 50 seconds}...I'm not sure but I would prefer to put nothing there. Let me read it again...[10 second pause]... no I'm not sure. [Teacher gives student correction]...but ...oh...there should be *the* here? It's confusing. It confuses me because *cosmetics* is plural...ah ...ok I understand it is singular now.

[Student 1, six weeks after Preessional)

The above example shows the effect a pre-qualifying noun (*cosmetics*) had in obscuring the student's perception of the head noun (*market*) that they should have been determining. Indeed, a recurring feature seemed to be that a pre-modification of any head noun (with adverb, adjective or noun) confused the student's grammatical understanding of the head noun. Thus many omissions, as also shown in the example '*^dress market*' occurred with pre-modified head nouns.

On further investigation if the corpus with the Antconc concordance tool, an analysis of the word 'market' used as head noun (n=83) showed that *the* was omitted in 13 of the contexts in which the word was qualified (e.g. '*^consumer market; ^young child toy market, ^adult market; ^new business market*') representing nearly three fifths of the 22 qualified 'market' noun phrases provided. Meanwhile, used singularly (without pre-modification) the lexis resulted in only 6 omissions (under one tenth of the 61 uses of 'market' without any pre-modification).

Further analysis of all the 2GADA errors in the corpus, as shown in Table 26, showed that the overwhelming majority of definite article omissions in 2DA contexts (69.4%) occurred when the head noun was pre-modified, while only 18.5% of simple nouns were underspecified. The effect of post-modified 'of' noun phrases, in contrast, appeared to have the opposite effect, increasing the accuracy rate. It is possible that the '*...of...*' pattern is a useful cue that students can use to consider the use of definite article (which frequently colligates with '*of*' cataphoric reference).

Table 26: The effect of pre-modification

	2DA (n=1780)	2GADA (n=159)
Head noun with no pre-modification /not in cataphoric 'of' phrase.	37.3%	18.5%
Head noun 'of' phrase (cataphoric reference)	28.4%	12.1%
Head noun of pre-modified noun phrase (qualified by adverbial, adjective or noun classifier)	34.4%	69.4%

6.4.8 Context 4ZA

The second most frequent context for article error (23.2% of all article errors), occurred through the overspecification of articles in Type 4 \emptyset article contexts, as exemplified by Error 3 and Error 4 in Figure 58 below. With full sight of the context of these errors, the researcher and two L1 English checkers agreed that redundant *the* was inappropriate because the writers were judged to be attempting to construe non-specific concepts ('*turnover*' and '*managers*') in a general sense (in the conclusions to their essays). Owing to the fact that \emptyset morpheme is the most frequent choice of article (and given than Type 4 contexts were the most frequent for both students and L1 tutors), \emptyset TLU (0.95) is relatively high, despite these errors. 93% of these 147 errors involved the overspecification of definite article. In terms of frequency, this result suggests that oversupply of definite article is the second most common error among Chinese

4ZA		If \emptyset people are worried about something, they will not give their best.
4ZA		\emptyset Aural cues such as music also could build up an atmosphere which would influence the consuming behaviours of customers.
Error 3	... may mean the sustainable development of the companies is hard to achieve. For example, fear of redundancy may lead to	<i>the</i> high staff turnover, which might destroy the structure of companies' human resources.
Error 4	it works actually. Furthermore, since the economic crisis last year, everyone is afraid of losing their job. So	<i>the</i> managers may consider that high pressure is a helpful way to lead employees to achieve the company's goal .

Figure 58: 4GAZA errors compared to 4ZA correct use

L1 students at B2 level, replicating the conclusions of both Chuang & Nesi (2006) and Lee & Chen (2009).

Interviews with the three students confirmed that overspecification of *the* errors were usually genuine errors, rather than mistakes. Students often reported feeling unsure of whether an article was required but also unsure about why the use of the definite article was problematic. The three interviewed students admitted to sometimes adding definite articles when unsure, almost as if considering the 'odds' in gambling statistics and deciding that adding *the* was always the less risky option.

Asked to review Error 3, the student who made the error did not understand the explanation of redundancy and informal tone created by *the* (given by the researcher) when prompted:

OK I don't know whether we can say *the*, *a* or nothing here with turnover. Is it countable? [researcher explains variation...on prompt explains redundancy of *the* in this context]. It's wrong? [5 second pause]... But even uncountable, I have a choice?... if I put *the* there, I mean certain people. Is it not possible?...[5 second pause]...Actually, I often put *the* there when I'm not sure.

[Student 2, six weeks after Preessional)

There was also evidence of students very logically overgeneralising aspects of English that they had learned. For example, one student (see Error 4) could not see why 'the management' created an informal tone to the writing when they had seen examples of creation of nouns from adjectives (the elderly, the poor, the young) which was not argued to have this effect. Indeed, the researcher could not answer beyond discussing the 'feeling' of an informal tone created by 'the management' that was not created by 'the elderly':

Yes I see now, I feel less comfortable now with 'the' here. I see there is no article here [researcher confirms]. I think I wanted to talk about the managers as a group. You know I hate articles. I can say 'the elderly', 'the poor', 'the rich'. So I think I wanted to specify a group in a similar way. Is that not possible?

[Student 3, six weeks after Preessional)

6.4.9 Context 4IA

Type 4 *a/an* indefinite article was used by students with less accuracy across all three essay Tasks. Examples of correct and incorrect use are shown in Figure 59. With a ratio TLU of 0.71, this was one of the most challenging contexts for students while also being the third most frequently made article error in students' essays (13% of all article errors). In addition, non-referential noun phrases were the most common context of noun phrase use in the essays of both students and L1 English tutors. These accuracy results contrast with previous research

4IA		If a firm does not differentiate, it will be like all the rest and be forced to compete on price.
4IA	In conclusion, retailers should find	a suitable strategy to keep their competitive
Error 5	If a retailer can provide high quality products and service and establish	^ close relationship with its customer, it is highly likely that they will gain competitive advantages.
Error 6		^ hourly rate as a means of achieving high quality output would make the pickers pay more attention to pick the fruits without damaging it.

Figure 59: 4GAIA errors compared to 4IA correct use

which has reported higher accuracy in this context (Bedmar & Papp, 2008; Crosthwaite, 2016a). The finding that Chinese students were less accurate with indefinite articles in non-referential contexts than referential also contrasts with that of Xu, Shi & Snape (2016) who reported the opposite effect, i.e. that non-referential types were more accurately used.

In interviews, Error 5 continued to confuse the student who reported that ‘...close relationship...it sounds pretty good to me’ [Student 1]. Tentative anecdotal evidence was also found that students were most confused when hypothetical recommendations were being discussed in sentences where the head noun was within a densely packed nominal clause acting as subject for a ‘would’ sentence. For example, the student who made Error 6 as the transcript of her interview below shows, took over a minute to correct her error:

[45 second pause while student reads]. How?... I'm struggling...[10 second pause to reread]. OK it is definitely with *the* or *an*. Definitely it needs an article I see. But to be honest I prefer *an*. [Tutor confirms]. Because..yeah...I put nothing here...to be honest it's challenging. I had to read it several times to remember what it's talking about. It's the subject of the 'would'...it is the thing we are talking about. And the ...it's all a long noun. In fact it's kind of complicated...I find it hard when it's so long and confusing.

[Student 2, six weeks after Preessional)

The insight shown above and several similar comments from students adds support to the hypothesis that the density of nominalisations (through pre-modification) may have an effect on this sort of error. Indeed, further analyses of the corpus with the AntConc concordance programme showed that 51 of the 82 instances of 4GAIA errors were made determining pre-modified noun phrases.

6.4.10 Context 3IA

There was great variation in the frequency with which students made reference to Type 3 contexts across prompts, ranging from as low as 6.4% to 14.3% (as mentioned in Section 6.4.2). This analysis suggests underuse on behalf of the students, since the 'expert writers' never used Type 3 indefinites in less than 20% of the noun phrases in the three essays. In terms of accuracy of indefinite Type 3 *a/an*, 10.4% of all article errors related to omission of 3IA indefinite articles. There was some range in the TLU accuracy of students across the three prompts, but the median average across three essays was 0.89. Examples of correct and incorrect use are shown below in Figure 60.

These results are between Diez Bedmar & Papp's lower accuracy level findings and those of Crosthwaite's higher accuracy reports (2016a). Crosthwaite found that this article context is

3IA		A	report from YouGov SixthSense found that 93% of consumers would continue to shop somewhere, even if the retailers have their loyalty scheme.
3IA	HP now has	a	functional structure which can be seen in figure 3.
Error 7	Nevertheless, the manager used	^	very strange way to incentivize its employees.
Error 8	According to their website (Google, 2010), their matrix structure creates	^	more relaxed and free working environment.

Figure 60: 3GAIA errors compared to 3IA correct use

inaccurately used at lower levels but is generally mastered by Upper-Intermediate levels. As discussed in Chapters 3 and 5, a strong variable affecting this article type’s accuracy is likely to have been the extent to which students were familiar with the topic. It is possible that students’ accuracy improved in Task 2 due to both teaching/error correction and the case study that they had previously been given on a similar topic to the essay 2 prompt. After showing students examples of their correct and incorrect 3IA article use (Figure 60) student interviews again provided tentative evidence that article omissions can be caused by a lack of knowledge about the grammatical properties of the head noun. For example, Student 3 in response to Error 7 stated ‘ I think that’s a problem ...is It’s about whether way is countable of not? Is ‘way’ countable?’

Again, the location of the head noun at the end of long pre-modified noun phrases challenged students. For example, reviewing her Error 8 Student 1 reported:

Yes I understand it needs *a*. Let me read it again (20 seconds). I think I was confused by ‘environment’. I’ve never heard people say ‘*a* environment’. Also, it was at the end of the sentence. To be honest this is challenging. At my high school they gave us lots of tests like this and it was difficult when the word was in a...what do you call this? In a long group.

[Student 1, six weeks after Preessional)

Further analysis of the corpus with Antconc showed that many 3GAIA errors occurred with count nouns requiring determiners acting as head nouns in more complex nominal groups. These were often pre-qualified with adverbials or adjectives such as ‘very’. In fact, only 16 errors in the corpus were unmodified single nouns and 57 of the 73 Type 3GAIA errors were pre-modified. In addition to lexis familiarity, the pre-modification of noun phrases appears to be a variable affecting the accuracy of use in this article context. The two variables may also naturally be linked, in that students need knowledge not only of the nouns they find in their discipline, but of how these nouns are typically compacted and condensed into longer noun phrases.

6.4.11 Context 5DA

In terms of frequency, the omission of definite articles with proper nouns, idiomatic academic expressions and cultural uses (5GADA) represented a mid-level percentage of all article errors (6.6%). With a TLU of 0.80, the three interviewed students corrected the mistakes (shown in Figure 61) quite promptly when asked to do so, suggesting that some academic fixed expressions were careless slips while other errors may have been related to terms (e.g. the UK, the EU, the Middle East, the Caribbean) that the student had not known before but had since learned.

5DA		On the other hand, in ASML, if an employee overtime is too frequently, the manager might be required to report to the HR manager.
5DA	For example, E-series mobile phones of Nokia features to attract business people with the special design on ^buttons which are easily accessible to connect to	the Internet to check and send e-mail by one click.
Error 9		On ^ one hand, staffs can take part in the management of the company. On the other hand, staffs can be given some equity capitals.
Error 10	For example, the United Kingdom and Poland both belong to	^ EU.

Figure 61: 5GADA errors compared to 5DA correct use

6.4.12 Context 1DA

With the second lowest level of accuracy (TLU=0.67), this study supports previous findings that generic context definite articles are very challenging for Chinese learners (Diez Bedmar & Papp, 2008; Crosthwaite, 2016a). Accounting for 5.13% of article errors in a context that accounted for 5-9% of article use by either L1 writers or Chinese students, the errors were found, as shown in Figure 62, most frequently in the introductions, background statements and definitions provided by students.

1DA	According to Mintzberg (1979),	the	structure of an organisation can be defined simply as the....
1DA	An accountant is a practitioner of accountancy, which is	the	measurement, disclosure or provision of assurance about financial information...
Error 11	In the 21st century,	^	PC or laptop has changed our life.
Error 12	Segmentation refers to the process of dividing	^	whole market into smaller segments.

Figure 62: 1GADA errors compared to 1DA correct use

At interview, students demonstrated their confusion with generic contexts and Errors 11 and 12 were clearly not simple mistakes. The student who made Error 11 spent 50 seconds at interview hesitating between \emptyset , *a* and *the*, before deciding *the* was necessary. The student who committed Error 4 suggested *a* after some hesitation between \emptyset and *a* (not the definite article, as three L1 English tutors had instead agreed was more appropriate).

6.4.13 Context 3ZA

With a TLU of 0.8 across all essays, errors of over specifying articles in Type 3 \emptyset contexts were infrequent, but a contributing factor to the aforementioned ‘informal’ tone that was judged to make its use inappropriate. Most overspecification errors occurred in Type 4, not Type 3 contexts. Only 5% of article errors were within this Type 3 obligatory \emptyset article context. The majority of the 26 omitted \emptyset articles (overspecification of *a/the*), resulted from over

specification of the definite article (n=22), as shown in errors 13 and 14 in Figure 63 below, but there was also occasional overspecification of *a/an* (n=5).

3ZA	For example, Coca-cola divided its differentiated marketing into	∅ soft drinks which include Coca-cola, Diet coke, Sprite and Fanta.
3ZA	For example,	∅ customers will not go to Sainsbury's if it is located in the area where the transportation is not convenient.
Error 13	In the 21st century,	the retailing has increasingly become intensely competitive.
Error 14	The market has switched from	the transaction marketing to the relationship marketing since the 1980s

Figure 63: 3GAZA errors compared to 3ZA correct use

In 3GAZA contexts students again shared that, just as they had in 4GAZA contexts, they were not confident about whether an article was required but often supplied one on the balance of probabilities. As shown in the following two examples, the students saw this ‘gamble’ as more prudent than a less confident omission. The first student certainly remained confused by the researcher’s explanation about Error 13:

OK, so retailing is not countable. I can see that. But it’s not wrong to put *the* there is it? [researcher explained informal tone it added]. To be honest, if I know there’s a choice and I know adding *the* is not wrong, I always add it because it is not usually wrong. What is the answer here? Is it grammatically wrong?

[Student 1, six weeks after Preessional)

Asked about her Error 14. Student 2 explained:

I was wondering... I feel uncomfortable with *the transaction marketing* now. There is no article here? [Researcher confirms overspecification and explains how its use was overly informal for the register]. [Laughing] ? You know, sometimes in my mind I'm not sure. I often just add an article if I'm not sure!

After some minutes looking at the next set of errors, the same student returned the researcher's focus to error 14 to explain:

I think I also like balance sometimes. it was because of '*The market*'...so I wrote '*.the marketing*'. I wanted balance. Chinese people ... I think logically we need *the* in one part of a sentence if we see it in others...why not *the* here? It's more about balance. You know, Chinese people like balance. We like to match everything.

Analysing further the 22 instances of oversuppliance of definite article in Type 3 contexts within the corpus with Antconc, it was found that 17 occurrences had qualified head nouns.

6.4.14 Context IIA

The finding that Chinese students' median TLU of indefinite articles in generic contexts was 0.75 confirms Crosthwaite's (2016a) hypothesis that L1 transfer effects may be more prominent for indefinite article uses in generic contexts than in other contexts due to some equivalent uses of proximal demonstratives in other generic contexts. Indeed, Crosthwaite (2016a) reported a TLU of 0 in one essay prompt by B2 learners. Nevertheless, the analysis of such rare uses of articles is not without problems. Crosthwaite's finding that students showed a TLU of 1.00 in another prompt shows the difficulty of analysing this rare generic context of use in small samples with non-parametric data since the median value can be skewed by zero counts. Indeed, were all zero counts to be removed from the calculation, the median TLU value would have also been 1.00 across all Tasks in this study. Yet in the rare occasions of use, such as in definitions, students do find this context challenging, as shown by Errors 15 and 16 in

Figure 64 below, perhaps due to lack of L1 positive transfer effects. Unfortunately, these students were not interviewed and participating students had not made any 1GAIA errors.

1IA	A market segment has been described as	a homogeneous group of consumers with similar needs, wants, values and buying behaviour (Harrell, 2002:166).
1IA	While, another definition from Cole (1995) is a little bit different from Stacey, which is	an intangible web of relationships between people, their shared purposes, and the tasks they set themselves to achieve those purposes.
Error 15	Buchanan and Huczynski (1997) claim that	^ tall organization structure is the structure with a great deal of levels of hierarchy, such as the armed forces, the police and the civil.
Error 16	Schein(1984) define corporate culture as a model that ...	^ organization has found or improved in studying to solve their own problems, which involved in outer change and inner integration.

Figure 64: 1GAIA errors compared to 1IA correct use

6.4.15 Context 5IA

Chinese students showed the lowest accuracy in 5IA contexts (Mdn TLU = 0) and examples of both correct use and incorrect use are shown below in Figure 65. This evidence that students had low accuracy with fixed academic expressions colligated with indefinite articles supports earlier research by Liu and Gleason (2002) which suggested that inaccuracy with such idiomatic and cultural uses of articles remain at higher levels of proficiency. However, errors in this context accounted for only 0.6% of article errors and none of the three students interviewed had made such errors in their writing.

5IA	Take gender as an example. The buying behaviours of female...
5IA	As a result, the company encourage staff improving themselves
Error 17	For example, 13 employees committed suicide... ^ few months ago.
Error 18	In ^ short time, it could increase customer turnover, but it is useless to attract high-income customers.

Figure 65: 5GAIA errors compared to 5IA correct use

6.5 L1 transfer effects

These findings presented above suggest that the B2 level Chinese students had far greater accuracy with Type 2 definite articles and Type 3 indefinite articles than Type 1 generic articles. These results appear to lend more support to Crosthwaite's (2016a) hypothesis that Mandarin does have equivalent classifiers and demonstratives that somehow provide positive L1 transfer to 2DA, 3IA and 3ZA. In contrast, the use of bare nominals for generic contexts in Mandarin may have contributed to the Chinese students' poorer accuracy with generic context articles in this study. Indeed, Crosthwaite's (2016a) suggestion that indefinite generic articles are the least likely to have positive transfer effects have been confirmed by this study as this context showed the least accurate use apart from the 5IA context.

On the one hand, the deficit of pragmatic awareness that the Chinese students displayed in their overspecification of redundant definite articles lends weight to Díez-Bedmar & Papp's (2008)

hypothesis. Equally, the fact that classifiers and demonstratives are reportedly more ‘optional’ in Chinese (Li & Thompson, 1981; Robertson, 2000; Xu, Shi & Snape, 2016) may also provide insights regarding some of the confusion the interviewed students showed about the redundancy of some of their definite articles. It is certain that the complexity of the English article system and the variance in how different disciplines generalise about actors in their field (e.g. ‘The elderly’ versus ‘managers’) affects all L1 students. However, article-less languages are likely to have fewer positive transfer effects given the use of bare nominals in generic reference.

6.6 Linguistic context of noun phrases

Given the suggested effect of pre-modification highlighted in the students interviews, a summary analysis was made of the linguistic contexts of the noun phrases in the entire corpus (including the case studies), in particular with respect to the effect of noun phrase density. As the comparisons shown in Table 27 and

Table 28 demonstrate, the introduction of qualifying adjectives and nouns had a dramatic effect on accuracy of use: 64 percent of all article errors were found within noun phrases in which the head noun had at least one qualifying word.

Table 27: Density of noun phrases (in 610 article errors)

Article errors: head noun not pre-qualified	Article errors: one word qualifying head noun	Article errors: two or more words qualifying head noun
221	343	46
36%	56%	8%*

*Some Percentages were rounded up for ease of reading

Table 28: Analysis of 9186 correct noun phrases

Correct use: head noun not pre-qualified	Correct use: one word qualifying head noun	Correct use: two or more words qualifying head noun
6491	2510	185
71%*	27%	2%

*Some Percentages were rounded up for ease of reading

This error effect can be best exemplified by some examples (see Figure 66 below) of proper

^Aldi store
^KFC company
^Tesco Club card
^Intel Core chip

Figure 66: Omissions of article with nouns pre-qualified with proper nouns

nouns which qualified singular common count nouns. It may be that students were confused about which nouns were setting the ‘rules’ of determination, i.e. overgeneralising their learned knowledge that these proper nouns required no article.

This issue of noun phrase density also affected common nouns, as shown in Figure 67 below. This preponderance of premodifiers in nominal groups confirms the literature’s characterisation of academic writing as making extensive use of complex nominal groups (Halliday & Martin, 1993; Biber & Gray, 2010; Bennett, 2011). In some ways this shows the

^business environment
 ^management team
 ^rural market
 ^economic crisis
 ^loyal customer
 ^retention scheme
 ^concentration strategy
 ^higher needs
 ^employment relationship
 \$the consumer information
 \$the traditional marketing
 \$the customer loyalty
 \$the brand loyalty
 \$the unpaid overtime
 \$the foreign nationals
 \$the population growth
 \$the purchasing behaviour
 Errors with two or more words qualifying head noun
 ^undifferentiated marketing strategy
 ^information technology industry
 ^high speed calculation
 ^very strange way
 ^online retail store
 \$ the popular and profitable production
 \$ the internet search industries
 \$ the three important parts
 \$ the efficient accountancy information
 \$ the traditional pricing strategy

Figure 67: Typical omission and oversuppliance errors (with pre-modified head nouns)

success of the Preessional course in developing students' ability to engage in what Halliday & Martin (1993) term 'grammatical metaphor': objectifying actions and events in nominal groups rather than verbs in order to compress information (Biber & Gray, 2010) and make chains of arguments in the juxtaposition of these nominalisations (Halliday & Martin, 1993). Students' problems determining these more densely packed phrases is likely affected by the ambiguity created in compressed noun phrases in addition to the many other variables always affecting L2 students' accuracy.

This finding lends support to Fang, Schleppegrell and Cox's (2006) conclusion that novice academic readers/writers face challenges using densely packed nominalisations. The hypothesis that pre-modification could affect Chinese learners' confidence in article use would to some extent go against the L1 transfer assumption, since the head noun is always the last noun in Chinese. This hypothesis was tested further in the study presented in the next chapter.

6.7 Conclusion

The findings in this study have confirmed that one common perception among some teachers that Chinese students are extremely inaccurate with articles is a fallacy even at this Upper-Intermediate (IELTS 5.5/6.0) level. In fact, article use by Chinese L1 students is much more accurate than it is inaccurate. The two most frequent errors (omission of definite articles in referential definite article contexts and oversupply of the definite article in non-referential \emptyset contexts) were marginal compared to students' near target-like accuracy in both areas (2DA TLU of 0.88 and 4ZA TLU of 0.95, respectively). The reason these levels of accuracy are higher than those reported by Díez-Bedmar & Papp (2008) but lower than those of Crosthwaite (2016a) may be attributable to the narrower range of proficiency level than the former study and the slightly more challenging task demands than the latter.

The academic writing genre and the familiarity of topic lexis have been shown to greatly impact upon students' accuracy of article use. However, while Crosthwaite's (2016a) claims that B2 level Chinese students face few challenges with referential article use seems convincing when the students have a simple prompt with known vocabulary/genre, at B2 level they may continue to be less accurate with new topics that require more abstract levels of reasoning (e.g. discussion of possible scenarios, unreal conditions, and possibility). Since, most Postgraduate students will ultimately be required to write a dissertation, which will require dexterity in moving between generalised abstractions and specific examples in a way that is more similar to the essay Tasks than the case-study assignment, it is concluded that Chinese students at B2 level entry to the UK Higher education still face challenges with the article system in certain contexts.

In terms of L1 transfer effects, the strongest claims in the literature of a ubiquitous error effect that article-less background students suffer arbitrarily (fluctuation hypothesis) were not supported, as there were very few 'a for *the*' or '*the* for a' misuses of articles. However, as discussed in Section 8.5, these findings provide some limited support for the L1 positive transfer hypothesis, since the Chinese students at this level showed greater accuracy in the article contexts that have been shown to have optional equivalents in Chinese, and lower accuracy in generic and unspecific contexts that have no equivalent (Crosthwaite, 2016a). In addition to low accuracy in definite and indefinite generic contexts, this study has shown Chinese students' use of non-referential indefinite articles to be less accurate than other contexts, which could result from negative transfer because Chinese never takes any sort of classifier phrases in such noun phrases (Li & Thompson, 1989).

In its finding that oversupply of *the* definite article is frequent, even if not quite as frequent as that of definite article omission, this study confirms the findings of previous research (Chuang

& Nesi, 2006; Lee & Chen, 2009). Many uses of *the* definite article in 4ZA contexts were judged not only to be ‘marked’ but so inappropriate as to be considered incorrect by the three annotators. Moreover, when asked, three students who were interviewed conceded a lack of confidence and reported using articles whenever in doubt, on the basis that they were not grammatically impossible. The three annotators judged that many definite article overspecifications had a marked impact on the register of some of the students’ essays, to the extent that they were judged incorrect. This impact of article errors on register seems to echo Lee & Chen’s (2009) report of ‘a tendency to use *the* even when talking about general rather than definite subjects.’ (p.287).

On the one hand, there is no reason to suspect this problem to be limited to Chinese learners. On the other hand, it does show that excessive use of redundant definite articles may be one of the contributors to the informal tone that novice Chinese students are sometimes argued to display in their academic writing (Gilquin & Paquot, 2007, 2008; Hinkel, 2003). A detailed discussion of the implications of these findings for teaching will be provided in Chapter 8, but it should be highlighted here that students are challenged by such register problems. Indeed, they acknowledged their confusion. Rather than vague comments about ‘informal tone’ and ‘register’ in their error corrections, it is more likely that students would be helped by more focus in EAP writing classes on the conventions for generalising the most common terms in their discipline (plurals, mass nouns or generic *the*). Moreover, to increase their register awareness in their disciplines, students need to learn how their disciplines may or may not use adjectives as nouns (e.g. *the elderly*, *the poor*, *the young*), or may prefer to use mass nouns (e.g. government) or plural nouns (managers, students, teachers) when generalising about the main actors within a given disciplinary field. This thesis therefore frames article accuracy, in so far as this involves reducing overspecification of definite articles, as an issue of register

awareness. The argument that register is affected by article oversuppliance, may convince more EAP teachers and materials writers that article use cannot be ignored in the EAP syllabus.

The student interviews also provide support for the hypothesis that students often make article errors through omission or overspecification due to a lack of grammatical knowledge (e.g. countability), as has been suggested in the literature (Lu, 2001; Milton, 2001; Díez-Bedmar & Papp, 2008; Xu, Shi & Snape, 2016). This confusion about countability is also likely to be related to the link other researchers have highlighted between article accuracy and the familiarity students have with a topic and its lexis (Díez-Bedmar, 2015; Leedham, 2015; Crosthwaite, 2016a, 2016b). This study has also proposed the novel hypothesis that the degree of noun phrase complexity can affect whether students omit or remember a definite or indefinite article when obligatory. This hypothesis is confirmed in the next chapter, which lends support to the voices of those who call for greater focus in EAP on this aspect of academic writing (Biber and Gray, 2010; Bennett 2011).

In the previous Chapter it was concluded that error correction and teaching may have contributed to a temporary improvement in accuracy. Equally, however, as shown by the improved accuracy levels in the case studies, the effect of reading and topic familiarity should not be underestimated (Crosthwaite, 2016a). The finding that Chinese students' accuracy in article use was higher in the case study Task confirms that article use is greatly affected by students' knowledge of the topic-related lexis, suggesting that article accuracy is linked most with developmental factors and students' knowledge of the topic vocabulary (Díez-Bedmar, 2015; Leedham, 2015; Crosthwaite, 2016a). The use of a set text (a case study) in this task may have allowed students to familiarise themselves with new vocabulary and its grammatical characteristics. In contrast, asked to use new topic vocabulary in essays, without the contextualisation of the new vocabulary in a case study text, students made more errors in

articles. This may also be related to the needs for more abstract (less specific) levels of reasoning.

At the very least, it would seem that more familiar vocabulary can reduce the likelihood of article omission, which would appear to support Crosthwaite's (2016a) conclusion that Chinese students, by Upper-Intermediate levels can in the right circumstances present near target-like accuracy levels. While the responses to essay prompts 2 and 3 were more authentic (in demanding the use of referenced evidence), the lower accuracy of article use in prompt 1 responses may also reflect the students' unfamiliarity with the topic. Although the students had reviewed texts on motivation theories before being given the task, the keyword in the rubric ('fear') had not been contextualised within texts for the students and their inaccuracy in responses to prompt 1 may have been greatly affected by the lack of opportunities to see contextualised examples. The more authentic case study prompts may therefore allow more valid insights into what students are capable of once they are fully embedded in their disciplines' readings and aware of the genre's demands. In her criticism of the short essay tasks in many learner corpora studies, very different from the background reading and research-facilitated topic familiarisation in authentic academic writing, Leedham (2015) argues that this contact with the discipline specific texts allows students to show greater accuracy.

The hypothesis that proficiency would be the main determiner of article accuracy was not supported by the analysis in this study. However, the extremely small sample and the particularly small sample of B1 level students are likely to have greatly impacted on this analysis, so the current findings must be treated with caution and cannot be regarded as conclusive. As shall be shown in the next chapter, the important effect of proficiency required further investigation with a far larger number of students. The next study also allowed further investigation of the novel hypothesis proposed in this study that the degree of pre-qualification

in a noun phrase may also be an important factor in students' accuracy of articles in more academic genres of writing.

7 TESTING OF HYPOTHESES USING ONLINE MULTIPLE-CHOICE GRAMMATICALITY JUDGEMENT TEST

This chapter presents the final study of this thesis in which the methodology switches from a smaller to a larger scale, with the use of grammaticality judgement multiple-choice questions embedded within texts. A 100-item article use multiple-choice test was inserted within the review quizzes on the Virtual Learning Environment (VLE) of an English for Academic Purposes Preessional programme at the University of Birmingham between 2015 and 2017 and an analysis of the answers was used to investigate some of the hypotheses developed in previous chapters. Chapter 6 presented some of the linguistic contexts that may challenge B2 level Chinese students, but three aspects of Chinese L1 university students' English article use required further investigation. Firstly, the corpus data was collected from only 30 students. Thus, efforts to examine the effect of proficiency level had been previously constrained by the fact that only 10 of Chapter 6's participants had IELTS 6.0 levels (the minimum English proficiency requirements on the majority of university programmes in the UK).

A larger sample of Chinese students from a higher range of proficiency levels was thus required to investigate further the critically important issue of how students' overall language development related to their article use. The previous chapters reported two other findings that needed further attention, namely that students struggled in the interchanging focus in academic writing of discussing generalisations in one part of a text to providing specific examples in another part (and the interweaving between general and specific focus). Chinese students often appeared to overspecify definite articles when returning to general statements after giving examples. Finally, their omission of articles often appeared related to noun phrase pre-qualification.

The critical discussion of Methodology in Chapter 3 concluded that the balanced use of testing and corpus-based approaches can be beneficial and that the testing approach can complement the corpus-based paradigm. The advantages of multiple-choice tests (control over linguistic context, avoidance of ambiguous error, focus on rarer language forms) were compared to their disadvantages (the association of testing with a ‘deficit’ approach, a lack of authenticity/validity and the exaggeration of error frequency) for investigating student accuracy with grammatical forms. Although a corpus-based approach has generally superior validity (Sinclair, 1991; Johns, 1991; Granger, 1996; Chuang & Nesi, 2006), a testing approach can be used to address certain limitations imposed by real world constraints. The use of the testing methodology in this chapter is certainly not proposed to be a necessary step in verifying the findings of corpus linguistics. The assumption made in this mixed corpus-based and testing approach methodology is that only the corpus-based methodology can provide insights into the actual challenges students face in academic writing, but that a testing approach can complement research by addressing several issues that real world constraints make more difficult for corpus-based studies to examine. In this study these included the effect of proficiency on error and the impact of pre-qualification of noun phrases.

Thus, while it might be tempting to see the use of a far larger number of participants as a method of testing hypotheses developed regarding the order of use or article contexts according to the Bickerton Framework, this was not the intention. This testing approach is instead proposed as a method of overcoming the issue of broad IELTS bands and low participant numbers of the preceding study which made statistical inferences so challenging to measure. Where a corpus-based approach has identified an error type as a potential problem, the testing approach offers a practical way of testing the hypothesis with different proficiency levels. The scaled-up investigations into overspecification and noun pre-qualification and their relations to

general writing proficiency would have been problematic with a corpus-based study. For example, the aforementioned challenge of differentiating between acceptable/marked/incorrect use with regard to definite article redundancy meant that scaling up a corpus-based approach would have entailed parallel reliability testing beyond the limited means of the research project. A testing approach allowed for scaling up the participant numbers (far beyond the 30 students previously researched) which was necessary to make claims about complex and nuanced issues (pre-qualification/definite article overspecification) that could be in any way generalisable to most Chinese L1 Higher Education students at B2 level in the UK.

7.1 Study overview

This study maintains focus on the second Research Question:

Research Question 2: What are the linguistic contexts of obligatory article use in which Chinese L1 students at Upper-Intermediate levels of English L2 are most likely to make errors?

Firstly, this investigation goes deeper into the issue of oversuppliance of definite articles. The findings reported in Chapter 6 supported the observation of others (Chuang & Nesi, 2006; Lee & Chen, 2009) that Chinese L1 university students frequently oversupply *the*. Building on Lee & Chen's (2009) evidence of a marked effect on academic style, the evidence collected for Chapter 6 was used to speculate that Chinese students might be oversupplying *the* when moving pragmatically from specific examples to more generalised statements. In particular, it was noticed that this overspecification occurred in essay introductions (frequently Type 1 generic contexts) and critical evaluation of conditional/hypothetical abstract concepts (Type 4 non-referential contexts). Thus, when students were making generalised statements and claims, they frequently overuse the definite article when L1 English tutors would have used \emptyset to make

it clear they were generalising. Moreover, in the opinion of three EAP tutors (the researcher and two annotation checkers), this redundancy produced an informal tone in the writing.

In the present study, it was hypothesised that the observed oversupply would persist at higher 6.0 and 6.5 IELTS proficiency levels. Moreover, given the importance of familiarity with a topic and its lexis, it was predicted that proficiency level would have a negligible effect on accuracy among Chinese students who appear (when unfamiliar with the grammatical and pragmatic norms of new vocabulary) to strategically ‘gamble’ on definite articles being acceptable (even if marked).

Secondly, this study investigates the tentative evidence offered in Chapter 6 that pre-modification of noun phrases appears to affect article accuracy. In particular, as discussed in Section 6.6, more frequent omissions occurred in densely packed (pre-modified) noun phrases. The testing approach allowed for students to be presented with identical nouns in the two different conditions (simple noun phrases and pre-modified ‘complex’ noun phrase contexts). It was hypothesised that article use in complex noun phrases would be significantly lower among the students as a whole, but that proficiency level might have an important effect on accuracy of use of this kind.

More generally, this study examines the effect of general writing proficiency level on the students’ accuracy of article use. In the previous two chapters, the research focussed mainly on IELTS 5.0-6.0 proficiency levels, and the small sample size was shown to have further constrained the ability to review the important issue of students’ overall language development. It was hypothesised that students’ general writing ability would significantly affect their accuracy of article use.

7.1.1 Summary of three hypotheses

The three hypotheses can be summarised as follows:

1. Overspecification of definite articles in Type 1 and Type 4 generalisations (in which L1 writers would use \emptyset) is a frequent error and will be observed at IELTS 6.0 and 6.5 levels of proficiency among Preessional programme students.
2. Omission errors in Type 2DA, 3IA and 4IA contexts will be more frequent in pre-modified noun phrases than simple noun phrases.
3. A student's proficiency level on entry to the Preessional (as measured by IELTS writing tests) will be related to their accuracy of article choice at the beginning of the programme.

7.2 Methodology

The objective of the final study was thus to develop an online quiz that could ethically and reliably present students with a range of questions in order to test the above hypotheses. The issue of article use overspecification, however, is rarely covered in grammars or text books so most items in the final test were created specifically for this research or adapted from published grammar tests. The-100 item quiz is published in full in Appendix 9 (p.334).

7.2.1 Test development

Multiple drop-down question types are cloze type items embedded within texts (but with fixed responses), allowing for the students to be presented with typical article use choices. With the aim of presenting students with typical pragmatic choices they face when writing a text, it was particularly important to contextualise the questions within authentic texts.

The creation of a 100-item multiple-choice (multiple dropdown) article use quiz required five distinct stages of development. These comprised (1) the sourcing of possible questions; (2)

creating questions that could test the hypotheses; (3) preliminary checking of questions with L1 English tutors; (4) piloting of the quiz interface with students; (5) final review and development and (6) final reliability testing with L1 English tutors.

1. The sourcing of potential questions

The first stage in the process of creating the test items was to collect examples of students' errors collected in previous chapters. Ten words that students had overspecified with definite articles in the learner corpus were: *industry, crime, pain, fear, analysis, policy, effects, unemployment and demographics*. To contextualise these words in extracts from authentic texts, keyword searches were made for academic texts (mainly journal article abstracts) or published grammar tests that contained this vocabulary. Although these texts were then heavily adapted and paraphrased to incorporate other questions, the sources of these texts are also shown in Appendix 9.

Given the importance of topic and the predicted importance of noun phrase pre-qualification, all texts were analysed for lexical density (Ure, 1971) using the measure of the number of lexical words divided by the total number of words. In addition, the *Analyzemywriting.com* website was used to produce Flesch-Kincaid readability score for each text. This measure provides an equivalent US educational grade level required for text comprehension. As shown in Appendix 9 the final test was shown to include five registers of text: high density academic English, mid-density academic English, mid-density news English, mid-density general English and low-density general English.

In order to make the texts representative of academic English, efforts were made to approximate the obligatory context proportions found in the essays in Chapter 6: 6 % Type 1, 30% Type 2, 20% Type 3, 30% Type 4 and 15% Type 5. To achieve this, the questions were

further supplemented with a number of questions adapted from two popular grammar books that cover article use in some detail: Murphy's (2012) 'English Grammar in Use' and Hewings' (2013) 'Advanced English Grammar in Use'.

2. Creation of questions to test hypotheses

Illustrating the developmental process with reference to Question 10 shown in Figure 68, to investigate the observed oversuppliance error associated with 'crime' and 'policy' used in generalised statements, an abstract from a paper about 'Long term unemployment and violent crimes' (Almén & Nordin, 2011) was adapted. Analysis showed the lexical density to be 63.64% and its readability score on the Flesch-Kincaid scale to be 13.66 (university level), suggesting that it was a good context in which to test article use in an EAP setting. The Type 1 generic phrase 'property crime' and the Type 4 phrase 'future crime and policing policy', as underlined in Figure 68, were predicted to tempt students to use a redundant definite article if they had lower confidence in article use.

Question 10.

Abstract.

The positive association between unemployment and [\emptyset] property crime is well known (Mustard 2010; Lin 2008; Nordin 2009). This article discusses [a] study that evaluated the association of [\emptyset] long-term unemployment and [\emptyset] crime. This involved analysis of annual data from 288 municipalities in Sweden from 1998 to 2012. Results showed that unemployed adolescents are more prone to violent crimes than property crimes. Several recommendations are made that could advise [\emptyset] future crime and policing policy.

Figure 68: Example of question development (Question 10)

Multiple dropdown quiz questions were created and then uploaded to the university's Canvas VLE quiz tool. As shown in Figure 69, all dropdown menus gave a choice of four answers (one correct answer, three incorrect).

The screenshot displays a quiz question titled "Question 10" worth 7 points. The question text is as follows: "Abstract. The positive association between unemployment and [Select] property crime is well known (Mustard 2010; Lin 2008; Nordin 2009). This article discusses [Select] study that evaluated the association of [Select] long-term unemployment and [Select] crime. This involved analysis of annual data from 288 municipalities in Sweden from 1998 to 2012. Results showed that [Select] unemployed adolescents are more prone to violent crimes than property crimes. Several recommendations are made that could advise [Select] future crime and policing [Select]". The dropdown menu for the final blank is open, showing the options "a", "an", and "the". Below this question, the start of "Question 11" worth 4 points is visible.

Figure 69: Example of multiple dropdown question

In order to test the hypothesis that pre-qualification would affect article omission, students were presented with ten countable nouns in twenty different contexts, firstly in simple noun phrases and then as head nouns in pre-qualified nominal groups. Having identified the ten nouns that

were either found twice in the same text or could be added to other texts of similar difficulty, six of the nouns were found in juxtaposed forms while four required a few simple manipulations. Figure 70 shows how ‘system’ was presented twice in one text (Question 4) while ‘scale’ occurred in two texts (Questions 4 and 6).

Question 4

Abstract

[] pain is a part of childbirth. However, there had been very few studies into relative perceived pain levels at childbirth before 2015. Thus little is known about **[] scale of pain** that different women feel. Even in recent years, although there have now been [a] few empirical studies, there remains little research with the rigor and scale required to scientifically examine this crucially important area. Moreover, without **[] system** to reliably compare findings, researchers struggled to measure subjective self-reported perceptions and Teale's (2015) study was the first project to propose **[] severity of perceived pain classification system**. While there are still today only [a] small number of research projects investigating this area, interest is growing in this promising research field.

Question 6

Abstract

This article seeks to acknowledge [] fear as a strong presence in [] workforce by identifying from whence it comes. It further seeks to offer clarity on how individuals respond to [] fear. For this research, [a] sample of 776 employees were posed 19 questions which were measured on **[] Likert-type scale**. [] questionnaire was developed by [the] authors in the absence of any such measurement tool which blatantly asks employees what makes them fearful in their place of work. Distributions of [the] sample covered entry level, supervisor level, manager level, and senior manager level. Results indicate that concerns over the opinion of their direct supervisor and the fear of being fired or laid off are the primary fears of employees. [] analysis indicates additional categories or clusters of fear. This research recommends that manager-subordinate relationships and communication must improve to foster an open environment which reduces the instances of [] fear.

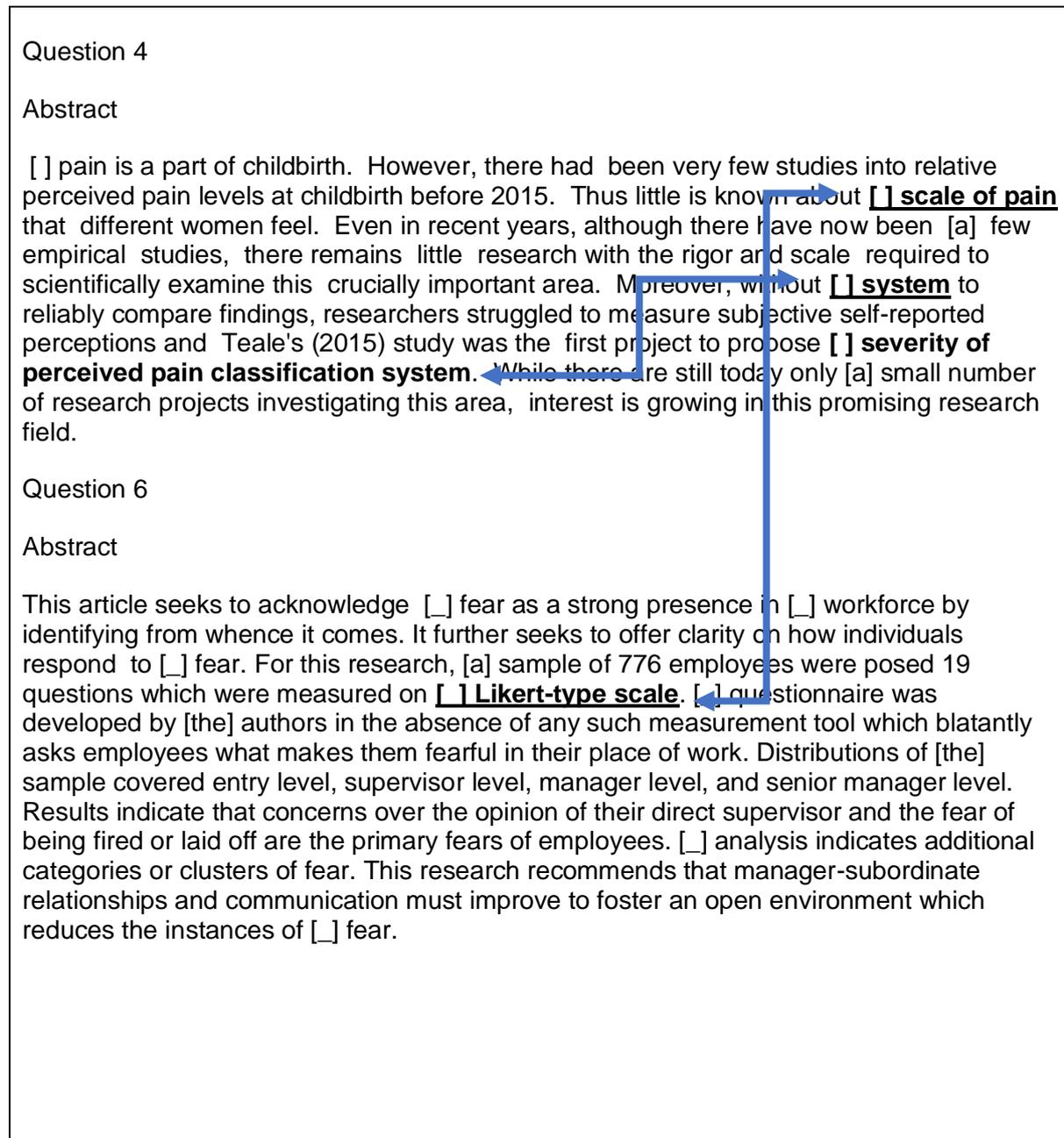


Figure 70: Paired noun phrase examples

3. Preliminary checking of questions with L1 tutors

Five L1 English tutors agreed to review the questions and provide feedback about any answers they disagreed with. The aim was to present students with dichotomous choices with only one correct answer. In fact, in many academic writing contexts *the/a/an/ Ø* can be used interchangeably with only a nuanced change in meaning (rather than unambiguous error), but the quiz questions aimed to present students with unambiguous choices. Questions that were answered incorrectly by two of the tutors were immediately discarded (on the assumption they were ambiguous). Any questions with one incorrect response were taken back to the tutor for discussion (and only included if they agreed with the answers given by the researcher and four other tutors retrospectively).

4. Pilot of quiz with L2 students

20 volunteer students took the quiz and gave feedback on the preliminary quiz interface which included 30 texts and 150 cloze choices.

5. Final review and development

Based on feedback that the original quiz was taking students too long to complete, the quiz was reduced in size to 20 texts with 100 cloze article choices in order to encourage maximum participation. As a result, the proportion of article error types was amended: 6% Type 1 generic contexts, 33% Type 2, 32% Type 3, 25% Type 4, 15% Type 5.

6. Reliability checking of quiz with L1 tutors

In the final development stage, three further L1 English tutors agreed to take the completed test. Scores ranged from 97-99%, with a 96.67 pairwise agreement and a Fleiss kappa of 0.93. Two quiz items that were not answered correctly by all tutors (signifying ambiguity of choice) were further modified.

7.2.2 Ethical considerations

As requested by the University of Birmingham Ethics Board (ERN_14-1455, ERN_16-1493) it was made clear to students that they did not have to consent to the use of their review test data by the researcher. First, a brief 10-minute overview of the research project was presented to the students at the end of their VLE induction on their first or second day on the Preessional course. Students were given some background information (see Appendix 4) about the research and several assurances about how their data would be used. Rather than ask students to sign a form under pressure, the form was only presented to the students, by the class teachers, at the end of the second week of the preessional programme without the researcher present.

7.2.3 The participants

The participants in this study were all enrolled on the postgraduate level EAP PG 10-week Preessional programme at the University of Birmingham between 2015 and 2017. Each year this programme, which runs from June to September, teaches general academic English four days a week and an 'English in My Subject' module about various disciplines one day of the week to 500 - 550 postgraduate students. The IELTS entry scores on entry to the Preessional typically range from 5.0 (overall) to 6.5 (overall). On successful completion, students progress to all schools across the university (apart from the Business School which is served by the aforementioned BME programme).

This programme was chosen, rather than the BME or undergraduate programme, because 1) the researcher was then on the management team of this course and had responsibility for the VLE and 2) the course was an early adopter of an online blended approach to learning. This blended approach involved a weekly online review quiz on the university VLE which tutors used to monitor learning and progress. Moreover, Unit 1 of the programme covered

nominalisations and article use, thus adding questions about article use to their week 1 review quiz was a justifiable addition to the materials.

Final participant numbers

Of the 1423 students who took the review quiz between 2014 and 2016, 466 L1 Chinese students consented for the use of their data in this study. Eleven students were seen to spend less than 10 minutes in the quiz interface (i.e. had not engaged meaningfully with the quiz) so their results were removed, leaving the quiz results of 455 participants who engaged fully with the quiz. These quiz results were added to the a spreadsheet with information about the students' IELTS scores.

7.2.4 L2 English proficiency levels

By 2015, due to the massive expansion of numbers, the Preessional programme was no longer using a placement test on entry to identify students requiring further language support (now offered on a teacher referral basis). Therefore, this study used the students' IELTS results as the most appropriate measure of English L2 proficiency. With overall IELTS bands ranging from 5.0 to 6.5 (four levels), statistical tests could be applied with significance that could not be achieved in previous studies (with only two IELTS band levels).

As shown in Figure 71 below, the overall IELTS results of the participating students (n=455) included IELTS level 5.0 (34 students), 5.5 (205 students), 6.0 (201 students) and 6.5 (15 students) IELTS bands.

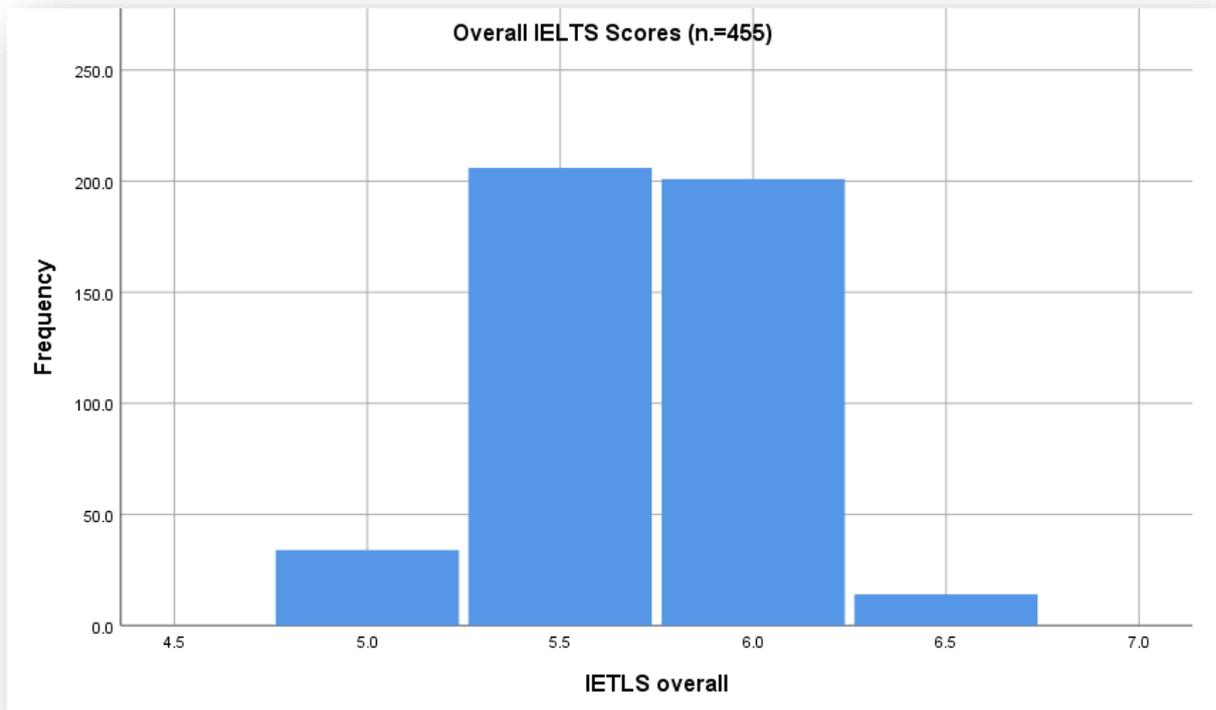


Figure 71: Histogram showing overall IELTS scores

However, as this thesis is focussed upon written accuracy rather than listening/speaking/reading comprehension, the main measure of writing proficiency level used in this study was the IELTS writing band achieved by these students prior to arrival. As presented in the histogram in Figure 72, the IELTS results of the 455 students who took the article use quiz included IELTS writing scores of 4.5 (4 students), 5.0 (105 students), 5.5 (239 students), 6.0 (90 students), 6.5 (11 students) and 7.0 (6 students). As shall be acknowledged in the findings, the extremely small number of participants in the IELTS 4.5, 6.5 and 7.0 levels means that the results are more representative of IELTS levels 5.0, 5.5 and 6.0 levels than others.

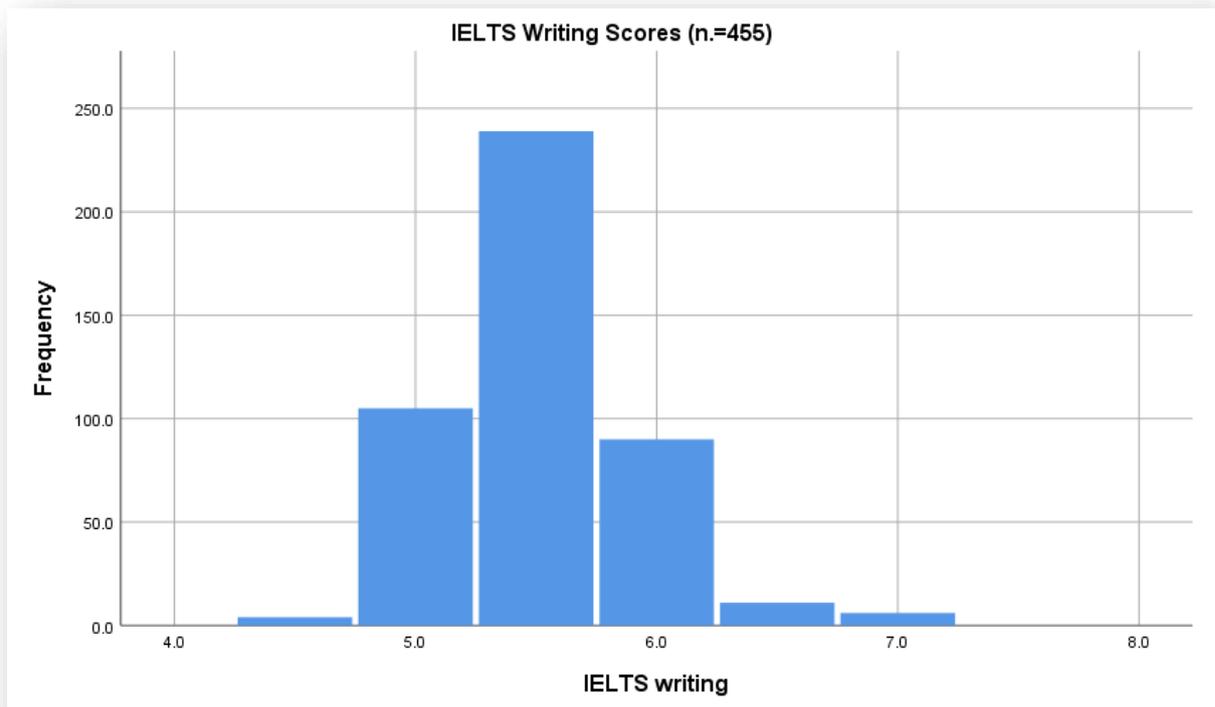


Figure 72: Histogram showing IELTS writing test scores

7.2.5 Procedures

The 100-item article use multiple-choice test was inserted into Unit 1 of the Virtual Learning Environment (VLE) between the end of the first week and the end of the second week on the 10-week EAP PG programme. Generally speaking, the review quizzes on the VLE do not form any part of the course assessment and there is variation in the extent to which individual tutors make the quizzes optional or mandatory for their individual classes (e.g. some tutors use the analytics to inform discussions in tutorials with students while others do not). Students could not see their feedback about their quiz responses/the quiz answers until the quiz was closed at the end of Week 2.

7.2.6 Data analysis

No other attempt was made to remove ‘outliers’ or ‘clean the data’ in any way other than removing 11 students who has spent fewer than 10 minutes on the quiz. After removal of these

11 respondents the distribution of the percentage of correct responses (mean 64.63, sd 8.67) of the remaining 455 participants was reviewed, as illustrated in Figure 73. Although the histogram appears normally distributed at first sight, a Shapiro-Wilk Test of Normality (see Appendix 10, Figure 96) showed that the distribution was not statistically normal (p value of 0.12). Non-parametric statistic tests were therefore used for this study.

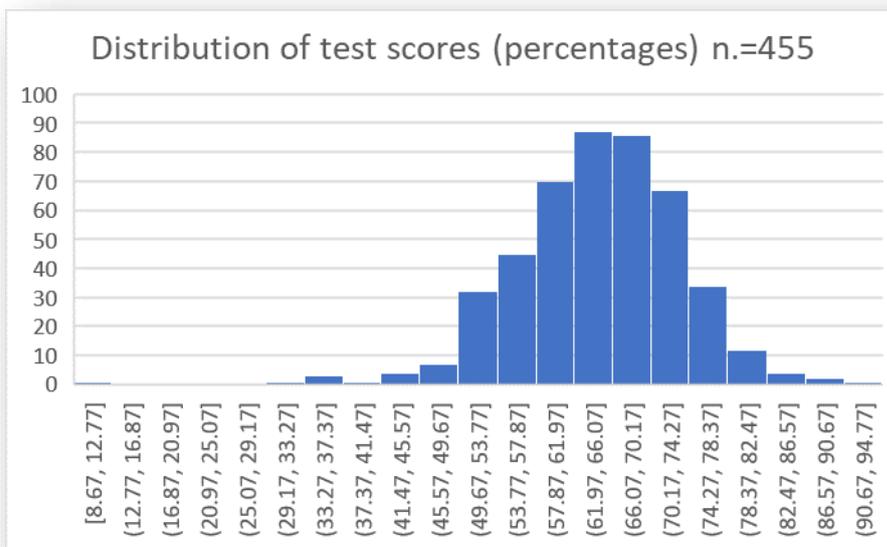


Figure 73: Histogram of test scores

After downloading students' responses from the Virtual Learning Environment to a spreadsheet, various question groups were further summarised using Microsoft Excel formulas. The researcher then checked the spreadsheet for data-entry errors and a colleague did a small audit to check for formula error.

7.3 Findings and discussion

7.3.1 Hypothesis 1

Overspecification of definite articles in Type 1 and Type 4 generalisations (in which L1 writers would use \emptyset) is a frequent error and will be observed at IELTS 6.0 and 6.5 levels of proficiency among Pre-session programme students.

As hypothesised, overspecification of definite articles was an extremely frequent error produced in the multiple-choice test. Indeed, as Table 29 shows, over half the respondents chose a redundant definite article (an error as judged by five L1 English tutors) in three of the

Table 29: Results of ten questions investigating oversuppliance (n=455)

Question extract from fuller text shown to students	% The ✘	% ∅ ✓	% Other ✘	NR ⁵
Abstract This article seeks to acknowledge [] fear as a strong presence in [] workforce by identifying from whence it comes.	31	43	22	3
Abstract The article discusses how [] latent semantic analysis (LSA) can be used to analyze electronic health records to show...	54	28	16	2
Compared to the service sector, the UK has witnessed a decline in [] industry since the 1950s.	50	35	14	1
Abstract [] pain is a part of childbirth. However, there had been very few studies into relative perceived pain levels at childbirth before 2015.	18	70	10	2
(end of paragraph) Several recommendations are made that could advise [] future crime and policing policy.	53	27	18	2
(end of paragraph). [] results support the notion of [] direct effects of the performance appraisal characteristics on the consequence variables.	46	33	19	2
(Start of abstract) [] Cluster analysis is often used for [] market demographics segmentation.	39	45	11	3
[] Cluster analysis is often used for [] market demographics segmentation.	38	45	14	3
(Abstract). This article discusses [] study that evaluated the association of [] long-term unemployment and [] crime.	23	15	60	2
This article discusses [] study that evaluated the association of [] long-term unemployment and [] crime.	35	49	13	3

⁵ NR = no response

ten questions testing overspecification in Type 1 and Type 4 contexts. Of equal importance, in all but one of the nine prompts, fewer than 50% of respondents correctly opted for \emptyset article (the article judged as most appropriate by five L1 English tutors).

Students' writing proficiency, as measured by their IELTS writing grades, had no significant effect on their scores in the ten questions testing overspecification. A marginal effect can be observed between IELTS level 4.5 and IELTS level 6, as presented in Figure 74 below. This shows the median number of oversupplied definite articles dropped from 10/10 to 6/10 between IELTS level 4.5 and 6.0. However, the scores show great variance and students with IELTS 6.0/6.5 and 7.0 made an equal median number of overspecifications with the definite article.

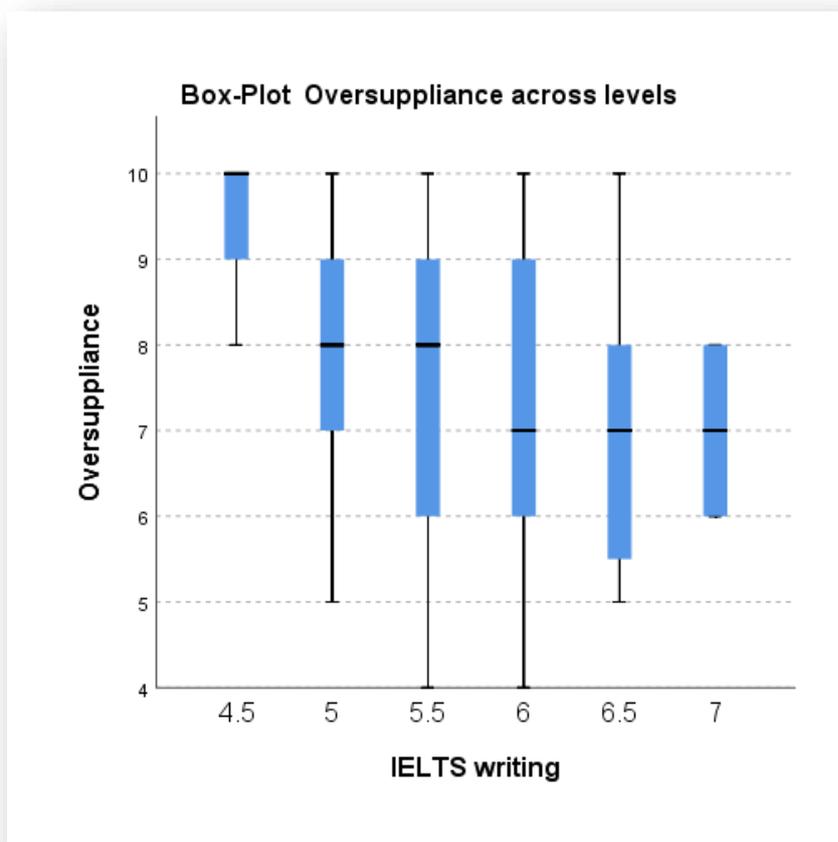


Figure 74: Oversuppliance (ten questions) box-plot (n=455)

In fact, Figure 74 shows the Mdn score (7/10) remained constant between IELTS 6, 6.5 and 7.0 writing levels. As a result, analysing the results of all six groups with an Independent-Samples Kruskal-Wallis test, no significant differences ($P \leq 0.05$) were observed in the frequency with which students at different IELTS levels oversupplied definite articles ($H(5)=9.330, n=455, p=.097$). However, while these findings may be representative of the Preessional cohort of students, reliable generalisation to the wider population in HE would need more representative samples of students at the lower IELTS 4.5 and higher IELTS 7.0 levels.

Notwithstanding the likely effect of proficiency at lower levels, the fact that overspecification remained an issue for students with IELTS writing scores of 6, 6.5 and 7.0 provides tentative evidence to support the view that, at least at the start of their programme, many B2 Chinese students may oversupply definite articles with certain words in Type 1 and Type 4 contexts.

7.3.2 Hypothesis 2

Omission errors will be more frequent in contexts of pre-modified noun phrases than simple noun phrases.

Table 30 presents the percentages of omitted articles in ten paired nominal groups (simple noun phrases and pre-modified noun phrases). Pre-qualification has a negative impact on accuracy in eight out of the ten noun phrases, particularly with regards to the nouns *algorithm*, *scale*, *industry*, and *system* with omission rates of 23%, 20%, 23% and 28%, respectively. A Wilcoxon Signed Rank test showed that the differences between students' accuracy of articles with simple noun phrases and the same students' accuracy with pre-qualified noun phrases were highly significant ($P \leq 0.01, Z=12055, n=455, p=.000$).

Table 30: Articles omitted in twenty nominal groups (with and without pre-modification)

Nominal Group	Type	Omission %	Correct %	Other %	% No Response
[an] algorithm	Simple	6	83	10	1
[the] clustering algorithm	Complex	23	72	2	3
[a] pilot	Simple	4	92	2	2
[a] long haul passenger airline pilot	Complex	7	87	4	2
[a] month	Simple	0	97	2	1
for [a] third consecutive month	Complex	3	95	1	1
[a] scale	Simple	2	95	0	3
[a] Likert-type scale	Complex	20	76	1	3
[the] industry	Simple	10	85	3	2
in [the] car manufacturing industry	Complex	23	66	9	2
[the] system	Simple	14	74	10	2
[a] severity of perceived pain classification system	Complex	28	67	3	2
[the] law	Simple	7	90	1	2
[a/the] particular law	Complex	5	88	5	2
[the] method	Simple	6	91	0	3
[the] active learning method	Complex	11	87	0	2

(Table continued)	Nominal Group	Type	Omission %	Correct %	Other %	% No Response
	[the] market	Simple	4	89	5	1
	[the] housing market	Complex	10	76	11	3
	[a] change	Simple	4	89	5	2
	[a] rapid change	Complex	2	93	3	2

The effect of English writing proficiency level on the issue of omissions in article use was more complex, as illustrated in the boxplot shown in Figure 75. In terms of simple nominal groups,

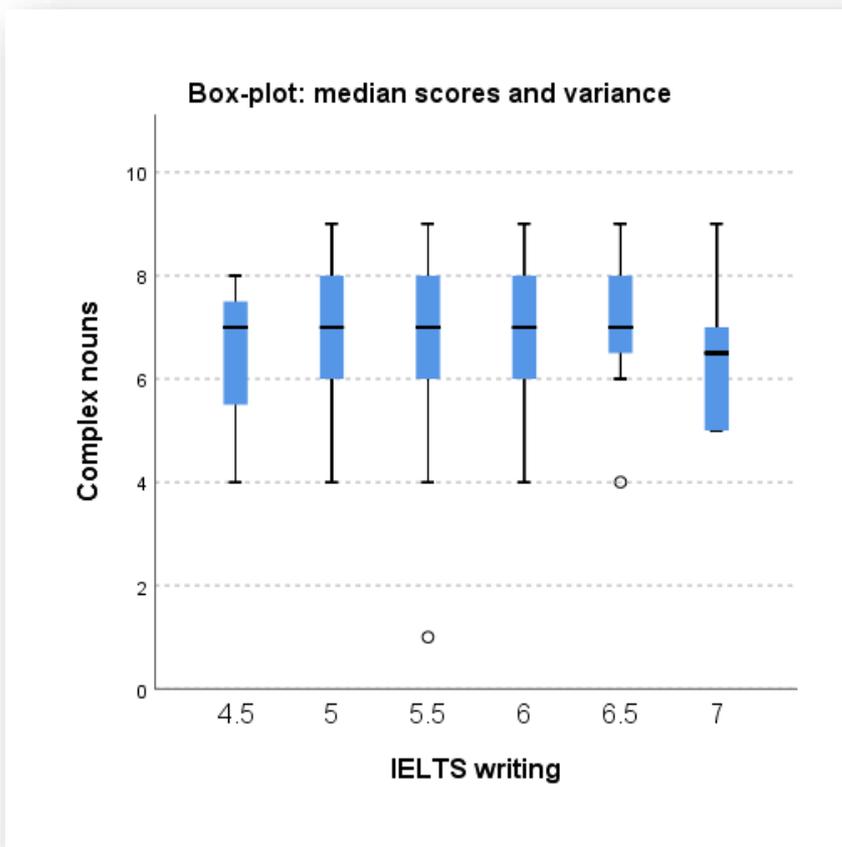


Figure 75: Boxplot of omission rates (grouped by proficiency) in complex noun phrases

students with higher IELTS writing scores scored better in the ten questions involving simple noun phrases (a median of 8/10 correct) than the students with the lowest IELTS writing scores (median 6.5/10). A Kruskal-Wallis test showed significant differences ($P \leq 0.05$) between the students' scores with the ten words within simple nominal groups when grouped by IELTS writing proficiency scores ($H(5)=13.195$, $n=455$, $p=.022$). However, when these same ten words were placed within pre-qualified nominal groups, writing proficiency level no longer had a significant effect. As shown in Figure 75, the students scored a median of 7/10 in all groups and a Kruskal-Wallis test showed no significant ($P \leq 0.05$) differences in the variances ($H(5)=3.346$, $n=455$, $p=.647$).

7.3.3 Hypothesis 3

A student's proficiency level on entry to the Preessional (as measured by IELTS writing tests) will be related to their accuracy of article choice at the beginning of the programme

The Mean score in the 100-item test overall was 64.67% (with a Standard Deviation of 8.66). As presented in Figure 76, IELTS writing scores appeared to be positively associated with test scores. A Spearman's rho two-tailed test showed there was a moderate positive correlation (highly significant at $P \leq 0.01$) between IELTS writing band and overall scores in the 100 question quiz ($r_s = .306$, $n=455$, $p=.000$), with students at higher proficiency levels showing greater accuracy in the quiz. Furthermore, a Kruskal-Wallis test ($P.= 0.000$) showed that the differences between the median values of the students grouped by IELTS writing test score were significant ($H(5)=25.222$, $P \leq 0.01$, $n=455$, $p=.000$).

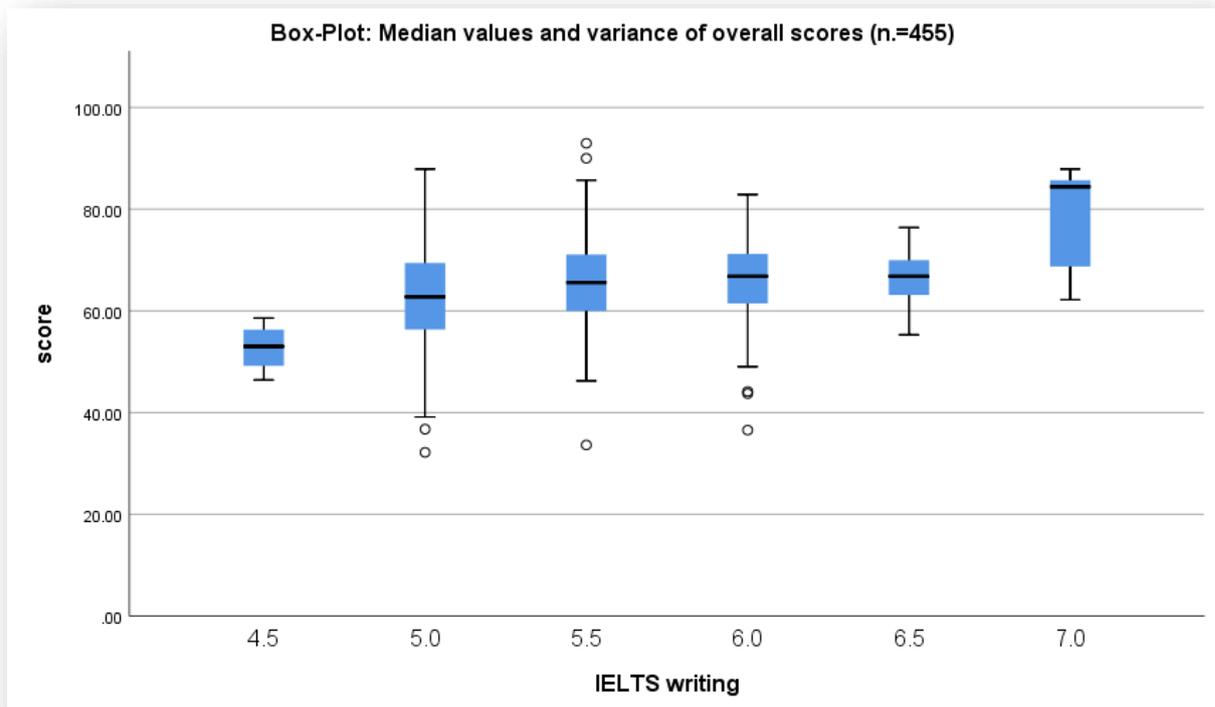


Figure 76: The relationship between general writing ability and overall test scores (n=455, 100 question items)

7.4 Conclusion

As predicted, a testing approach has enabled focussed attention on the ‘problems’ students have with articles rather than revealing their generally correct use as highlighted by the corpus-based studies in earlier chapters. The mean score of 64.67% should not be interpreted as a measure of students’ accuracy since the students faced many more complex choices than they would normally find in academic writing. Moreover, the methodology could also be criticised as also testing students with items of vocabulary (e.g. ‘scale’, ‘system’, ‘industry’) that the corpus-based study had identified as challenging – in effect setting the students up for failure. However, results of the testing approach have given some insights into the extent to which

different types of article errors are affected by proficiency level and some of the possible causes of error.

As hypothesised, on entry to the university Preessional L1 Chinese students frequently over supplied definite articles in Type 1 and Type 4 generalisations (in which L1 writers would use \emptyset) at all levels of entry proficiency. The statistical tests presented in this study provide some evidence that this tendency to oversupply definite articles in general statements and claims about a topic were not significantly linked to their general writing ability. Further replication of this study with greater numbers of students with IELTS grades 6.5 – 7.0 is necessary, as the vast majority of the students in this study had IELTS 5.5 - 6.0 overall levels of English proficiency and it is likely that the small number of higher level students skewed the results. Nevertheless, as most students arrive on UK preesssionals with IELTS 6.0 levels of English (and many students start UK academic programmes each September with this score), this finding is noteworthy. Faced with unfamiliar new topics and vocabulary students appear unaware of the nuances of register caused by overspecification. Their likely strategy of adding a determiner ‘if in doubt’ may explain the impression reported by other researchers of an overly oral tone in Chinese students’ L2 academic English writing (Cobb, 2003; Hinkel, 2003; Granger, 2004; Mayor, 2006; Gilquin & Paquot, 2007; Lee & Chen 2009).

On the one hand, the quiz items used in this study were ‘cherry picked’ from previous errors and the low scores certainly exaggerate the extent to which students make article errors in normal writing. Moreover, it is not suggested that the omission errors in dense noun phrases or overspecification errors affect Chinese L1 students uniquely. Indeed, other L1 background students are likely to make such errors, as may L1 English home students albeit to a lesser extent as they are also novice academic writers who may present a conversational tone on entry to university but will learn to show progressively greater register awareness throughout their

academic programme. However, article-less L1 background students may find the issue of using bare noun phrases in general statements (after specifying the noun phrases in detailed examples earlier in their writing) particularly confusing. Thus, the finding does provide some support for the argument that register awareness, which is generally agreed to be a central tenet of EAP teaching, should be extended on Preessional programmes to include the effect of article use. Students with article-less L1 backgrounds may arguably need extra help in building their confidence to use \emptyset articles. Interestingly, these students appear to lack the confidence to apply the identical \emptyset + bare noun structure in L2 English that is required in non-referential contexts in their own L1. By making greater reference to how expert writers move from specific examples (with *a/the*) to generalised statements (with bare uncountable nouns and plural count nouns) in academic texts, students could be helped to notice in parallel both the general-specific text structure and the pragmatic choices of article use which these moves of focus entail.

With regard to the second hypothesis, this study provided some evidence that pre-modified noun phrases are more strongly associated with omission errors than simple noun phrases. The Chinese students in this study made more omission errors when the head noun was obscured by the use of different pre-modifiers. This supports Biber & Gray's (2010) view of academic language posing unique challenges to learners because of its 'compressed' nature. Moreover, while students' accuracy with articles in simple noun phrases was associated with proficiency level, no significant relationship was shown by proficiency to their use of articles in more complex nominal groups. This finding suggests that Chinese learners have no problem with the grammatical rules in Type 2 and Type 3 contexts when applied to simplified language (or the prototypical examples in grammar books), but have less accuracy in authentic academic English. In short, it appears that it is not the rules of grammar but the application of these rules

in densely packed noun phrases that students find challenging, particularly when academic texts obscure grammatical choice. This would lend weight to the argument that L2 students of English for academic purposes need help noticing these dense nominal groups in academic English (Fang, Schleppegrell & Cox, 2006). It would appear that academic writing and its nominalised abstractions can obscure grammar mappings for L2 English learners in the same way as they have been shown to obscure meaning (Halliday, 1985; Halliday and Martin, 1993).

Replication studies with a far greater number of paired noun phrases are now required. It is also acknowledged that the effect of sentence structure and transitivity was not controlled in article quiz questions. Nevertheless, these findings taken in parallel with those of the corpus study findings show one possible cause of article omission for Chinese students that could usefully be drawn attention to in EAP textbooks.

Finally, this study has investigated the effect of general writing proficiency on Chinese students' confidence in selecting the correct article across all types of article. In terms of article use in all contexts (including idiomatic use and proper nouns), students' scores in the test were highly correlated with their IELTS writing scores. On the one hand, it therefore appears that Chinese students show greater accuracy in their decisions in tandem with their greater general confidence in written English. However, this effect was not significant in relation to their overspecification of articles in Type 1 and 4 contexts or omission of articles in complex noun phrases. Given the very small number of the lowest IELTS 4.5 level and advanced IELTS 7.0 level students, these results should be treated with a degree of caution. There is a clear need for future studies that can recruit higher numbers of the lowest and highest proficiency level students (and thus represent the overall population of Chinese L1 students in HE).

The theoretical implications of these three main findings are developed in the next chapter along with some recommendations. One final methodological conclusion suggested here is that a testing approach has been shown to complement the findings of a corpus-based study. Particularly with regard to oversuppliance and the challenges involved in reliably distinguishing between redundancy (dispreferred forms) and inappropriacy (error), this methodology has helped to investigate two hypotheses developed from the earlier corpus-based studies. It has been argued that while only corpus-based studies can identify actual features of student writing and demonstrate how accurate students are in different contexts, such a testing approach can complement and provide more nuanced understanding to the hypotheses made in studies using learner corpus methodologies.

8 CONCLUSIONS

8.1 Restatement of aims

This research project had four main aims. First, it aimed to investigate how EAP tutors currently teach or correct English article errors in academic writing. Second, it sought to examine whether pedagogical interventions have any effect on article accuracy. Third, it focussed on the sorts of English article errors made by Chinese L1 students (with Upper-Intermediate English L2 levels) on entry to UK universities. Finally, it aimed to identify the reasons why some article uses challenge these learners. As stated in the introduction, a greater knowledge of the challenges created by the English article system for Chinese learners and a clearer understanding of whether and how accuracy can be accelerated would help EAP tutors to integrate a focus on articles within a student centred text-based/data-driven approach and avoid less effective practices such as overcorrection of article uses in a manner that does not lead to greater accuracy. This concluding chapter will first summarise the findings related to each research question, then evaluate some of the limitations and needs for future research before ending with some practical recommendations for the EAP tutor. As the final comments will explain, these recommendations will support the argument made in the introduction that an occasional lexico-grammatical focus on the article system (fully integrated within a genre-based approach) can be consistent with the emphasis on text structure, functional moves, genre and register awareness that is typical of the text-based/data-driven approaches most advocated in the literature.

8.2 Summary of main findings

Contrary to some EAP tutors' assumptions demonstrated in interviews, it is necessary to stress the extremely high accuracy that B2 level Chinese L1 students demonstrated in the majority of authentic academic writing tasks. While this research has investigated 'problems' of article

use for Chinese learners and suggested that certain challenges faced by Chinese learners may be influenced by their L1, the majority of the errors and variables examined in this research have identical causes to those made by all L1 groups of L2 English learners. In fact this research project has confirmed that most uses of articles in academic writing are affected by variables that concern all students equally: general level of proficiency, familiarity with the topic lexis, genre of the task and the extent to which their attention is consciously focussed on article accuracy.

However, the findings in this research equally do not support a naturalistic assumption that Postgraduate Chinese learners' article errors will 'sort themselves out' without intervention by the time the students need to submit their dissertation or thesis at the end of their academic programme. The corpus-based studies and the testing methodology in this research showed that Chinese L1 students with IELTS 6 and 6.5 levels of academic writing continue to make article choice errors in L2 English academic writing and that these errors sometimes contribute to an informal tone in their writing. While the evidence in Chapter 6 supports the view that it is well within these students' ability to use articles more accurately in simpler descriptive tasks (such as the case study genre) when they are fully familiar with new vocabulary, Postgraduate level students will be required to use sources and levels of abstraction beyond that of case study reports later in their studies and it is likely that their article issues will surface again, as they return to unfamiliar topics with less specific referents.

On the one hand, students' more in depth research and background reading affords greater lexis familiarisation and knowledge of colligations, which will contribute to growing article accuracy during their studies. On the other hand, students could be helped by leaving the preessional programme with the autonomous learning skills that enable them to acquire, record and learn new vocabulary in their discipline with attention to register awareness and

how a topic's terms are generalised. Through EAP reading paradigms, students might also usefully be taught how to notice the pragmatic effect of articles. If students can leave preessional programmes with the independent confidence in proofreading their work with attention to head nouns in dense nominal groups, perhaps distant from their determiners, their EAP tutors will have contributed greatly to accelerating students' accuracy in academic writing.

8.2.1 Research Question 1

To what extent do EAP teachers in Higher Education programmes in the UK explicitly teach or correct English article use?

The answer to this question that emerges from the research reported in this thesis is that most EAP tutors teach and correct article use in L2 academic writing while only a small minority of tutors totally ignore the issue. While explicit teaching in a decontextualised 'rules' based approach is less common, many tutors use consciousness-raising techniques in reading classes or frame attention to articles within proofreading skills sessions fully compliant with the authentic text-based approach in EAP. Moreover, many tutors use student-centred approaches to error correction (guided self-correction and peer marking) that again appear informed by EAP best practices. Unfortunately, however, many teachers also overcorrect article use in a more traditional manner that is arguably less consistent with contemporary recommended EAP approaches, either because they perceive students expect such corrections or because they assume that corrections lead to learning.

Chapter 4 characterised five types of strategic response to article errors among EAP tutors by the presentation of five 'teacher types': 1) tutors who teach English articles within EAP text-based best practices, 2) the optimistic 'rule giving' teacher, 3) the 'proofreader' (error hunter)

4) the reluctant corrector and 5) the principled ignorer. Most teachers surveyed in this study reported data-driven approaches, noticing techniques and text-based approaches within the first ‘EAP paradigm’ category. However, a smaller number of tutors continue to use prototypical grammar exercises that are most consistent with decontextualised approaches within an EFL paradigm. These tutors appear to believe that Chinese students do not understand the concept of article use and, assumedly, that they can succeed (where others have been unsuccessful) by providing what they believe to be a better/simpler explanation of article rules. ‘Reluctant’ error correctors do not wish to focus on article use, due to their doubts about its usefulness or their own lack of confidence in the article system, but feel obliged to do so in response to student expectations. A small group of ‘principled ignorers’ appear to believe that any focus on article accuracy is inconsistent with the best EAP practices or progressive World English arguments. However, the survey in Chapter 4 suggests that only a small minority of EAP tutors have such principled objections.

The findings in Chapter 4 pertaining to error correction showed that EAP tutors’ stated beliefs about EAP principles and their reported best practices in teaching are sometimes inconsistent with their indiscriminate correction of article errors in academic writing. Some EAP tutors see themselves as proofreaders whose main role is to correct every error they see on the assumption that students learn from frequent correction. In fact, the most common ‘teacher type’ identified in the survey was a combination of Type 1 and Type 3 (teaching within the ‘EAP paradigm’, but correcting errors with less regard to learner autonomy). That is to say, while many tutors report many modern data-driven methods for whole class teaching and more student-centred approaches to error correction (peer marking), many appear to supplement best practices with the more traditional and questionable ‘mark all errors we see’ approach in their own written feedback. This confirms earlier research that reports a tension between EAP tutors stated

positions/beliefs and their actual practices (Etherington & Burgess, 2002; Barnard & Scampton, 2008).

The extent to which the different approaches taken by EAP teachers are validated in light of this research is very much arguable. Although the studies presented here showed that teaching and error-correction had a significant effect on article accuracy of a few types of article use, this improvement was not sustained six weeks after receiving the corrections. On the one hand, this may be less relevant to Preessional EAP teachers and their students who are facing high stakes assessments at the end of the course (for which temporary improvement in accuracy is arguably a valid focus). Yet some tutors may be persuaded to abandon the implicit assumption that correction leads to sustained learning and devote the considerable time required for such corrections by both teachers and students to more constructive parts of the feedback process. In terms of the assumptions made by ‘ignoring’ teachers (that articles are eventually acquired more accurately without intervention), this research has confirmed that most article uses are strongly correlated with general writing proficiency. Nevertheless, certain errors (oversuppliance in generalised statements and omission in pre-qualified noun phrases) were less connected to proficiency. Thus, these assumptions of students improving naturalistically without help are also not supported.

8.2.2 Research Question 2

What are the linguistic contexts of obligatory article use in which Chinese L1 students at Upper-Intermediate levels of English L2 are most likely to make errors?

This question was addressed both in terms of raw frequency and in terms of the ratio of correct/incorrect occurrences of articles in different contexts. The results of all investigations

presented here have shown that Chinese students achieved varying degrees of accuracy in different contexts of English article use.

In terms of raw frequency, the errors in article use by Chinese L1 students were frequently made by omitting definite articles or (next most frequently) by oversupplying definite articles when inappropriate, confirming previous research in this area (Chuang & Nesi, 2006; Lee & Chen, 2009). In terms of *a/an* articles, the corpus-based evidence in this research suggested that omission was the more likely error, not redundancy. Finally, in contrast to the claim made by Chang (2001), this research has shown misuse of ‘*the* for *a/an*’ or vice versa to be extremely rare. However, when frequency of use is taken into account (and errors are expressed as a ratio of correct to incorrect use), this research showed that Chinese students were marginally least accurate with *a/an* articles, followed by *the* and lastly (most accurate) in \emptyset article contexts.

In terms of the Bickerton Framework used throughout this thesis, when writing short essays, the corpus study presented in Chapter 6 shows evidence that Chinese students are most challenged by the following article contexts (in order of difficulty): IDA<4IA<1IA<5DA=3ZA<1ZA<2DA<3IA<4ZA<5ZA (see Sections 2.2.1 and 6.3 for explanation of Framework. Interestingly, with the exception of *a/an* use in non-referential contexts (4IA), an inverse relationship between accuracy and frequency of occurrence (Type 4>2>3>5>) can be seen in this pattern, reinforcing previous research that has found the most frequently occurring language items are the most quickly acquired (Larsen-Freeman, 1976). A strong case could therefore be made for grammar and EAP materials writers to pay greater attention to such rare uses, to help learners notice them in their reading and less attention to the anaphoric references so overrepresented in grammar (assuming simpler uses of article will be acquired naturally by learners).

In Type 1 (generic) contexts Chinese learners at Upper-Intermediate English L2 level frequently omit and oversupply articles and display lower accuracy in generic definite and indefinite contexts than when discussing more specific Type 2 or Type 3 referents. This broadly confirms previous research findings (Master, 1995; Snape, Leung & Ting, 2006; Ionin et al., 2011; Crosthwaite, 2016a). While generic use (as defined in this thesis) is far less frequent than other uses, in both Chinese L1 students' and L1 tutors' essays (6.4-11.7% of articles) their function in EAP is pertinent, in as much as contribute to defining terms and providing the background for topics. Given the complexity and difficulty of teaching generic article use, some recommendations are made in Section 8.4.

It was found that indefinite articles in non-referential (4IA) contexts were the second most inaccurately used context (a TLU of 0.71). More generally, Chapter 6 reported that indefinite articles overall were the least accurately used article by the participants (in ratio terms). This finding is contrary to that of Díez-Bedmar & Papp (2008) who found that Chinese students were more accurate with indefinite than definite articles, but supports Master's (1987) finding that *a/an* mastery is acquired only at the latest stages of L2 development. The divergence in this finding underlines the difficulty of comparing studies that define proficiency levels differently (Díez-Bedmar, 2015). The relevance of this finding is that Type 4 contexts were shown to be the single most frequent occurring article use context in the essays of both Chinese L1 students and English L2 tutors. Chinese students' relative inaccuracy with indefinite articles, in addition to their frequent overspecification of definite articles in 4ZA contexts is thus found in many of the most common language functions in academic essays: generalising, discussing future scenarios and conditional clauses in non-referential contexts.

Leaving the Bickerton Framework analysis, one main finding of this research was that the dense nominalisation that often characterises academic English (Halliday & Martin, 1993,

Biber & Gray, 2010, Bennett, 2011) was also associated with lower article accuracy among Chinese L1 learners. Students made significantly more article omission errors in pre-qualified nominal groups than simple noun phrases. Moreover, while there was a significant effect of proficiency upon the number of article omission in simple nouns phrases, there was no significant effect on the omission rate in complex noun phrases. As shall be explained in Section 8.4, this finding has implications for the way students are taught proofreading skills.

8.2.3 Research Question 3

To what extent does the Chinese students' L1 background affect (1) TLU and (2) their types of article error?

It is often assumed that Chinese students (and students from other Asian L1 backgrounds) will find articles particularly difficult to master because their first language does not have an article system at all. However, conflicting findings in this research respectively support and challenge the L1 transfer effect hypothesis.

There is some support for the assumption of L1 transfer from the students' omissions of articles in many generic article contexts. Students' lower accuracy with generic definite articles (0.67) than \emptyset generic context articles (0.86) in the three essays (Chapter 6) provides evidence for the L1 transfer effect hypothesis. The corpus-based results in this research demonstrated that the B2 level Chinese students had far greater accuracy with Type 2 definite and Type 3 indefinite articles than Type 1 generic definite articles. Mandarin does have equivalent classifiers and demonstratives – generic references are normally achieved through bare nominal singular forms without measure words (Li & Thompson, 1981). Therefore, the hypothesis that this difference leads to a lack of positive transfer effects for definite generics while the equivalents in 2DA, 3IA and 3ZA forms can create positive transfer effects (Snape, Leung & Ting, 2006;

Díez-Bedmar & Papp, 2008; Crosthwaite, 2016a) appears convincing. As Chinese has certain demonstratives and classifiers that can be optionally used to pseudo grammatically determine specific referents, this hypothesis claims that the use of English articles with specific referents is less completely new to the students' L1 parameters.

Evidence of negative transfer can also be inferred from the students' relative inaccuracy in non-referential Type 4 indefinite contexts requiring 'a/an'. Chinese does not allow for the use of any classifiers in such contexts (Li & Thompson, 1981) and their greater issues in non-referential contexts could be explained by L1 interference.

On the other hand, the students examined here also oversupplied the definite article in many contexts in which Chinese generally uses a bare nominal, somewhat contradicting the idea that Chinese students' errors closely follow the article-less features of their L1. Contrary to using the same bare nominal form in 4ZA contexts in a similar way to their L1, students were shown to add redundant definite articles. Chinese students' evidenced lack of confidence in \emptyset article Type 4 contexts thus shows the complexity of L1 transfer effects. Interviews suggested that Chinese students believed they have a choice of \emptyset or *the* in such generalised statements and that the definite article has an emphasising function, somewhat reflecting the fact that classifier/demonstrative use in Chinese is a choice rather than an obligation (Li & Thompson, 1981). It could be argued that article-less L1 background students lack pragmatic awareness of article use (Díez-Bedmar & Papp, 2008). However, a simpler conclusion could be that Chinese students frequently face challenging choices of whether to treat new vocabulary terms as countable or uncountable and, when in doubt, often 'gamble' on the word being a countable noun requiring a determiner. The hypothesis that students gamble on the language form being the opposite to their L1 would be an interesting area for future research.

In terms of gravity of error, Chinese students' overspecification of definite articles in \emptyset (4ZA and 3ZA) context has been argued in this thesis to occasionally cause a spoken tone inappropriate for academic essays. In interviews, Chinese students showed that they sometimes failed to choose \emptyset + uncountable noun structures when they mistook the noun for a single countable noun and \emptyset + plural structures with a misconception that they could add emphasis through the use of definite articles. On the one hand, a strong argument can be made that students of all L1 backgrounds face such errors given the rather arbitrary nature in which different articles are permissible. Indeed, all novice writers (including L1 speakers) are likely to develop greater confidence in register nuances as they become familiar with the discipline specific lexis. However, a convincing argument can be made that article-less L1 background students need greater help in building confidence of using \emptyset when generalising. The students interviewed in this study reported a "nothing to lose" gambling strategy that had not been expected at students at B2 levels of writing. By inference, EAP materials that juxtapose how new lexis in their disciplines is determined in specific contexts but unspecified in general statements (as outlined in Section 8.4) could be valuable.

In sum, as shown by the analysis based on the Bickerton Framework and again evidenced in students' greater accuracy in case studies than essays, the more specific the referent (in equal contexts of lexical density), the more confidence Chinese students seemed to show in article choice. This greater confidence in specific contexts may be somewhat influenced by positive L1 transfer effects. However, this thesis concludes that L1 is a minor contributor to most errors and, counter-intuitively, students do not use positive transfer effects (bare nominal forms) in many expected contexts. Questioned about errors made in their essays, most interviewed students appeared to make errors due to unfamiliarity with the lexis, confusion caused by the dense nature of academic language and the grammatical characteristics of the

head noun. As such challenges are shared by all L1 background students, this thesis supports only a weaker form of the contrastive language hypothesis (L1 contributes to some forms of error but is not the main effect).

Research Question 4

Does the explicit teaching or correcting of English article usage lead to more target-like use of articles by Chinese L1 university students whose L2 English displays inaccuracy?

On the one hand, by the use of a control group that had no extra attention focussed upon articles, Chapter 5's findings showed that teaching article use or correcting article use can have a short term significant effect of increasing students' accuracy of article use in some contexts. In particular, improvements in definite article accuracy (and the reduction of overspecification errors) were significant when the teachers focussed students' attention on article use. These findings therefore to some extent support the claim that explicit teaching can improve students' accuracy (Master, 1990; Master, 1995; Master, 1997; Bitchener & Knoch, 2008) and that error correction reduces inaccuracy (Ferris, 1999; Chandler, 2003; Bitchener, Young & Cameron, 2005; Ferris & Kurzer, 2019). However, the improvements were not sustained six weeks after the extra attention had ceased. This adds weight to the idea that teaching and article correction improve article accuracy only for as long as consciousness is raised (Master, 1997).

For teachers who employ the 'scatter gun' approach to article error correction, especially on an assumption of sustained learner improvement, rather than a temporary impact on surface errors, this finding may have some relevance. In fact, many reasons can be given for discouraging teachers from the excessive written correction of all errors. Over and above the temporary effect of error correction, Chapters 4 and 5 have highlighted the challenge of the reliable identification of article errors and there is likely to be a strong risk of unhelpful miss-

corrections if tutors try to mark work hastily since accurate error correction is extremely labour-intensive. Several students also reported that they felt discouraged and embarrassed by article corrections and this attitude is likely to have been under-reported. Occasional focussed error correction, especially in a peer feedback context as highlighted in the recommendations, may be justifiable. However, given the equal impact upon article accuracy of teaching, a strong argument is made here for the preference of simple attention focussing activities (e.g. teaching of common patterns or highlighting of examples of frequent error types on the board).

8.3 Limitations and future research

The variable most difficult to control throughout this research has been the important influence of topic and vocabulary familiarity upon article use. The effect of task prompt was admittedly underestimated at the study's design stage and has since been shown to massively impact on measures of article accuracy (Díez-Bedmar, 2015; Crosthwaite, 2016a, 2016b, 2017). It is necessary to stress that accuracy in article use will be mainly decided by students' familiarity with the topic, related lexis and the nature of the task. Thus particularly Chapter 6's findings must be treated with a degree of caution because it is possible that different TLU rates would have been found with different essay prompts. This effect of task prompt was again highlighted by the higher accuracy shown by the students in the case study (discussed in Section 6.4.6). Indeed, the choice of text topic was also acknowledged to have affected the accuracy levels reported in the testing approach (which is why the TLUs for different contexts were not compared with the corpus results). For this reason, these findings are concluded to have their greatest merit in showing the relative accuracy levels between different contexts in the same topic prompt. Future research on the longitudinal progress of students' accuracy of articles might best maintain focus on the same topic, perhaps by analysing students' drafting of an extended piece of work over time.

The strength of the corpus-led research was argued to be its use of authentic academic task types. Nevertheless, the essay assignments required far fewer words than the assignments faced by most Postgraduate students in their main programmes. Future research could usefully look at student accuracy in authentic Postgraduate dissertations since comparisons of different chapters could provide insights into relative accuracy in different article contexts (i.e. moving from general to specific focus).

A final limitation of the corpus-based research studies was also acknowledged to be the small number of participants. On the one hand, these limitations were somewhat addressed by the testing approach with 455 Chinese students, with the two novel findings of the effect of pre-qualification and overspecification being tested with a representative sample of students within which the effect of proficiency could be framed. On the other hand, the very small number of C1 level students (IELTS 7.0) in this study means that there is a need for future research to confirm the findings regarding development between IELTS 6.00 – 7.00 levels and investigate later IELTS 7.5+ levels of proficiency.

8.4 Recommendations for EAP instructors

The first advice to be offered to EAP tutors is to more clearly understand the possible strengths and weaknesses of their Chinese L1 students at 5.5, 6.0 and 6.5 levels of English proficiency, as examined in this thesis. These students were found to be more accurate than inaccurate and were rarely observed to have any conceptual deficit with regards to the English article system. To the extent that these students do make errors, it has been shown in this thesis that most of these are developmental: students improve accuracy as their vocabulary and proficiency levels increase. They do however face three further challenges that do not seem associated with general English development. Firstly, in non-specific contexts (such as generic uses or generalisations, unreal or conditional clauses) when using less familiar lexis many Chinese

students display a ‘nothing to lose’ approach to definite articles, adding them when inappropriate and occasionally causing a conversational tone in their writing. This oversupply was observed even among students with IELTS 6.5 writing ability (and in the very small sample of IELTS 7.0 students participating in this study). Secondly, in densely packed noun phrases students are more likely to become confused with the head noun and its grammatical properties and omit both definite and indefinite articles when required. Thirdly, Chinese L1 students show the most inaccuracy in some of the rarest uses of articles, for example within generic uses within definitions.

With regard to the issue of overspecification of definite articles, two teaching approaches are recommended which, figuratively speaking, focus students’ attention on articles as a ‘side dish’ rather than ‘the main course’ of a lesson. Firstly, effective noticing of article use can regularly be integrated into the EAP teaching of text structure and register awareness. Previous research has shown that register awareness can be significantly improved in EAP courses (Crosthwaite, 2016b) and occasional focus on article use could form part of such genre and register awareness. For example, the structural shape of research projects is often visualised in EAP for learners with the hourglass shape (Swales and Feak, 2004), as illustrated in Figure 77. In sessions dealing with this aspect of structuring academic writing, the way in which most count nouns (e.g. system) are used in a \emptyset +plural noun construction in an Introduction/Conclusion can be juxtaposed with the more specific references in the main Methods or Results. Of equal importance, tutors could present lexis along with any divergent patterns of use related to the general-specific cline (e.g. ‘The elderly’ or ‘policy’) as shown when presenting or revising new lexis. By inference, article use can be seen to be most teachable in Preessionals taught in departmental disciplines.

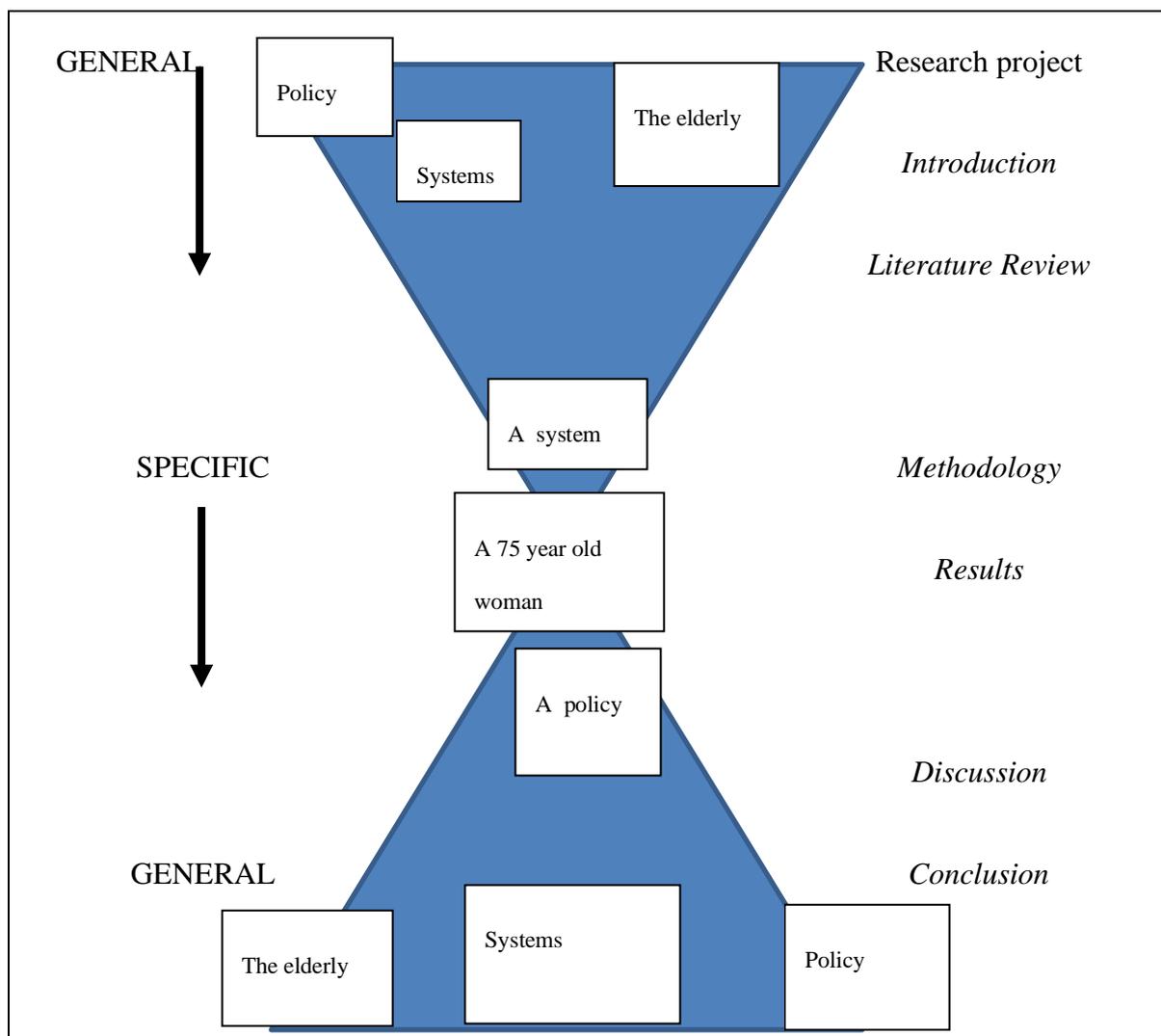


Figure 77: Mapping specific-general functions of lexis to research project structure

By preference, it is recommended that students be asked to notice article form juxtapositions through teaching, rather than via correction for reasons already discussed (the dangers of inaccurate corrections, time demands and the temporary effect). Moreover, whenever possible, students should be focussed on authentic texts from their own discipline or their own academic writing. An example is shown in Figure 78 of the results that one Chinese student (in the researcher's insessional English class) found by analysing his own PhD thesis.

When *the AC/DC converter* was invented in 1905.... (**Introduction, generic use**)

New generation *[XY] AC-DC converters* have reduced... (**Background chapter, generic use**)

The experiment first tested *the [XY] converter* in stressed conditions. The converters were then checked for damage...(Methodology, referential use)

The results show that *[XY] converter (2)* was ... (**Findings, referential use**)

In conclusion, further research is needed into *[XY] converters'* reaction to....(**Conclusion, generic use**)

Figure 78: Deduced uses by Chinese L1 Engineering student [anonymised]

A second approach that also suits the aforementioned issue of article omissions in densely packed noun phrases lies in the use of activities that develop students' careful consideration of head nouns within densely packed nominal groups. Given the need to develop students' own autonomous proofreading skills, asking students to check each other's work (after a brief presentation of typical errors related to omissions with pre-qualification or overspecification) is far more likely to raise their future attention towards article errors (with the proviso that peer corrections are checked by the tutor). While improvements may be temporary in the first instance, once this focus has become an independent learning habit, with practice students can use such a focus throughout their academic careers.

8.5 Final comments

This research has shown that L1 Chinese students entering university at Upper-Intermediate levels of English (the B2 level with which most students arrive) show near target-like accuracy when writing about specific referents when they are familiar with the language in simpler genres of writing. While article errors are the most frequent grammatical error made by Chinese

learners, this is mainly due to the fact that they are the most commonly occurring word in academic English. However, regardless of level, Chinese B2 level students are, as seen in the results presented in this thesis, less accurate with less familiar language in dense pre-qualified noun phrases. Moreover, these learners are less accurate in generic uses of articles or in texts requiring more critical discussion about unspecific referents. At B2 levels, this thesis has shown that Chinese L1 students frequently overspecify referents when they should instead be generalising and speculating about more abstract concepts with bare noun phrases in plural or mass noun forms. This can add an unintended informal register to their writing which is inappropriate for some academic genres. The two most novel findings in this research are that neither omission of errors in dense nominalisations nor overspecification in unspecific contexts are mastered by higher B2 level Chinese L1 learners and that proficiency level may have little effect until much higher levels. While errors may 'look after themselves' over a lifetime, they appear not to be developmental errors that disappear by IELTS level 6.5.

Some of the anecdotal observations that motivated this research were confirmed. Many EAP tutors do appear to be overcorrecting article misuse indiscriminately. Occasional error correction of articles may be appropriate for justifiable proofreading purposes, to quality control peer correction, to model the proofreading process for students or highlight a function of articles related to lesson aims (for example, pointing out overspecification in generalisations). However, this thesis has presented EAP tutors with several arguments against the overcorrection of article errors. Firstly, it is extremely time-consuming for tutors and learners. Secondly, it is very easy to miss-correct articles if a text is read hastily. Lastly, the evidence offered in this thesis suggests that constant correction has little sustained effect.

EAP tutors' continued correction practices, even against their better judgement, is likely to arise from the tensions they feel between theory and students' expectations. It is clear that many

EAP tutors feel under some pressure to provide corrections regardless of received wisdom. EAP Preessionals have been marketed to students as a means not only to learn about academic genres, study skills and the process of academic writing, but also as programmes which develop their language proficiency and accuracy. While most errors have a minor effect on comprehension, articles can negatively affect the register of English and perceptions of a writer's meaning. In turn, as speculated by one Chinese tutor in Chapter 4, it is likely that Chinese L1 students, who come from a background in which a focus on grammar and accuracy takes up the greater part of college English preparation classes, are confused by the reduced focus on form in EAP. In the knowledge that they will have to write in challenging academic genres within months of leaving a preessional programme Chinese students either need more information about how EAP pedagogy makes assumptions of naturalistic acquisition or, as this thesis argues, greater occasional focus on form within their EAP syllabus.

This thesis has not argued for the appeasement of student expectations through a return to decontextualised grammar type activities. Students frequently ask for such activities, but this thesis has shown that they have little sustained impact on written accuracy. The added 'English language content' bolted on to the EAP syllabus on many UK Preessional programmes in recent years as a solution to students' perceived accuracy problems is equally not an ideal solution. Instead, a strong case is made for fully integrating an occasional focus on lexicogrammatical forms within EAP text-based best practices. It has been shown that such a focus can be contextualised within a genre-approach to EAP. While no evidence has been offered in this thesis to support the efficacy of such pedagogy or for self-correction and peer correction, such practices appear more consistent with the EAP literature, pose less risks of discouraging learners, are more time-efficient and appear to give students the skills they will need in their future studies without the presence of the tutor, thereby promoting learner autonomy.

In terms of error gravity, although most article errors are trivial surface errors that have little impact on academic writing, this thesis has shown that article omission errors on occasion can affect communication. Furthermore, some students appear to be oversupplying definite articles in essay conclusions and generalised claims to the extent that the reader perceives an informal tone to the register of writing. While all writers make mistakes in writing, the Chinese students interviewed for this research showed they were often confused about article use in unspecific contexts. Further research is required to investigate why Chinese students are sometimes hesitant about applying the Ø determiner to bare noun plurals, even though their L1 similarly requires bare noun phrases. It was speculated in this thesis that some Chinese students have decided to add articles whenever in doubt, and future research would usefully examine whether this strategy remains ‘fossilised’ at IELTS 7.0 - 8.0 levels of proficiency. The fact that Chinese learners made fewer oversuppliance errors when extra attention was focussed on this problem in addition to the finding that this error persisted at IELTS 6.5 and 7.0 writing levels lead to the recommendation that EAP tutors should teach students the proofreading skills to check for this informal style they may unconsciously add to their writing. Rather than overcorrecting these errors themselves, tutors should be training students to have learner autonomy and self-correct for these problems when they leave the EAP course.

The findings in this study have a number of further practical implications. It is important to train new entrants in the EAP field in such student-centred approaches to teaching proofreading and article accuracy rather than insisting that EAP never involves a focus on form. The argument for such an integration of a lexico-grammatical focus upon determiners within the ‘EAP paradigm’ of text structure, functional moves and register awareness is also an argument for teaching EAP students in discipline-related classes (looking at the article system mappings unique to various topics and genres). English article teaching would therefore ideally sit within

a syllabus that intertwined discipline-specific registers and other lexico-grammatical aspects (e.g. verb tense, transitivity, hedging language). Fundamentally, given that most EAP teachers continue to focus on language form and correct errors regardless of advice from the doyens of EAP, a strong case can be made for greater discussion about how EAP tutors can and should focus on the grammar of such small words if they do not feel they can ignore them.

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APPENDICES

APPENDIX 1

Teacher Survey [Online] Questionnaire (Chapter 4)

**Teaching of English Articles /EAP
Teacher attitudes**

4 Questions (5 minute survey)

Imagine you have a student (in a lower level Foundation, Preessional or Insessional class) who regularly submits pieces of writing such as this (see below). Firstly, how would you describe it?

In UK, all companies want to promote the consumer loyalty, but many people change the company and do not care about brand.

It contains errors (in the overuse and underuse of definite articles)

OK, it's not 'natural' or 'native-like', but in terms of accuracy there are no real errors (in article use)

The articles are used accurately

I'd like to know how often you ever 'teach' students about article use [a/an, Ø, the] in the classroom. For example, going over rules, looking at correct use/errors on the board, or helping students deduce such rules for themselves (any lessons in which you explicitly focus students on article accuracy). How often to you 'teach' this?

Never

Occasionally (e.g. at least once as their teacher in the year/term/ in their 20/15/10/6-week programme)

Sometimes (e.g. two or three times as their teacher in the year/term/ programme)

Often

Most weeks

Going back to this piece of writing (see below) how likely would you be to highlight any written errors you saw in your feedback to students (written or verbal). This could mean annotating/marking errors, underlining errors or simply pointing them out to students in a tutorial. Please consider the situations below:

In UK, all companies want to promote the consumer loyalty, but many people change the company and do not care about brand.

	Very unlikely	Unlikely	Not sure	Likely	Very likely
In a piece of writing they produced quickly in class	<input type="radio"/>				
If this was in a weekly writing homework	<input type="radio"/>				
In the first draft of an assessed piece of work (e.g. you're allowed to micro-mark the introduction)	<input type="radio"/>				
In a conference paper you plan to submit (and co-present) with the student	<input type="radio"/>				

Can we help students improve their accuracy in English article use and (if so) how can we help them improve? I'd be interested to know if you have any thoughts on this or suggestions/recommendations.

Long answer text

APPENDIX 2

BALEAP Mailing List Responses to Survey Question 4 Open-Response (Chapter 4)

Can we help students improve their accuracy in English article use and (if so) how can we help them improve? I'd be interested to know if you have any thoughts on this or suggestions/recommendations.

(101 responses)

Supported self study

I believe that by drawing their attention to focused examples and errors, we can then get the students to extrapolate 'rules' and formulate hypotheses about when (not) to use articles.

it is something they need to 'notice' and get feedback on - usually through text analysis of related work or through dictogloss.

There seems little point in teaching "rules", apart from eg abstract nouns, and advise to use plurals to avoid error, but would, if had time, occasionally distribute a short piece of student writing and error correct/analyse in class. I would consider this mostly to be covered in giving individual student feedback on their writing both orally and in writing.

Students correct an anonymous piece of work and explain the reasons for any changes they make. Possibly working in pairs rather than individually as it would increase discussion of the task. The piece of work could be actual or a fictional piece created by the tutor and containing typical errors. Alternatively, after a few weeks, amalgamation of the group's own typical errors would be interesting if time-consuming to produce.

This is something students need to 'acquire' rather than learn. So perhaps the best approach is promote noticing: to draw attention to / ask questions about the use of articles as they occur incidentally in a lesson, rather than explicit lesson segments.

Yes by consistently pointing out instances of misuse when it would impact on meaning or the impression they give of themselves. Asking them to record their own speech and identifying article use/misuse works well.

Not sure. I think articles are one of 'final errors', if you like, NNS that have been in an English country for many years can still make errors with articles. It may be improved with greater exposure to language and language environment than direct teaching in class.

Through awareness raising exercises, regular "small doses", texts (from students' own academic fields) with articles removed, proofreading samples of student writing.

There is no easy answer, sometimes it is because their first language does not have articles. Getting them to notice and a bit of translation (even though it is unfashionable) can get them to recognise the difference.

Providing guided opportunities to notice. As much exposure to authentic material as possible.

Yes we can Firstly draw attention to the errors. Then isolate them and explain some simple rules of thumb, explaining that it is a common area of error. Then recommend a grammar text book (eg Murphy/Hewings) Then recommend a series of journal articles in their subject- tell them to look at the noun phrases

Learn about articles ourselves. Know more about how they work, while still acknowledging that even the best theorists (e.g. Hawkins) do not themselves have a definitive answer on this. Teach heuristic rules explicitly. Highlight errors in S work and give them the opportunity to correct. Praise improvement in use.

Simplify article use by showing that the definite article is an audience oriented particle which signals to the reader - you know what I'm talking about.

It seems me that the biggest area our students have difficulty with is generalising. After that, they need to be explicitly reminded that 'a' = 'one &/or any' while 'the' answers the question 'which'. My students have also found it helpful to be reminded that prepositional phrases, especially the construction 'the x of y', very often signal a need for 'the'. I've found a good way to raise their awareness (and hopefully increase their accuracy, but I've never tested this) is to have them regularly mark a short passage (from a journal, a text book, or news article usually): they highlight all the nouns, then they examine which take articles and explain why (not for all, but for a sampling, usually one each of null, a/an, and the).

We can certainly help them improve their accuracy in English article use. I often use comparison with their first languages, which helps them clarify similarities and differences and may serve as memory hooks of when to use or not to use articles in English. Analysing texts and asking the students to explain why a particular article is used or why there is no need for an article is also very useful. Perseverance and constant repetition of rules in various forms does, eventually, bring an improvement.

I think it is partly a developmental stage which improves over time (like the 3rd person s), which also encourages students as some can get very down about the difficulties they have with articles. I haven't found generic exercises such as 'correct the errors' in random sentences help really. However I have found that activities which help students notice their own specific errors in their own writing does seem to make some difference.

If time allows, sit down with the student on a one-to-one basis as they are writing (or correcting something written) and ask them to explain the reasoning behind their article use or non-use, and put them on the right path if necessary. Direct them towards some reinforcement activities which they can do on their own. Monitor future written work to see if article-related errors persist.

In science subjects it can be important to use articles accurately, and so close marking can be helpful. These questions are not helpful however as they are too regimented. Academic writing correction focuses on different aspects of a student's writing each time, depending on many many other factors, articles are only one element of this. Sometimes the mistakes made change the meaning that is intended, then it may be important to focus on that at that moment. So much to add. But a terrible choice for a PhD.

plenty of tutor-facilitated targeted self-study (i.e. rather than classroom teaching)

By teaching them with noun phrases and discussing specificity

I think it's very difficult, especially if a student's first language has a different or no article system. Perhaps trying to raise their awareness of the importance or significance of articles in English and how meaning changes ("I have cake/a cake", "he has time/the time"). Otherwise, particularly as higher level

students are sometimes quite able to self-correct if an error is pointed out, it seems that they just don't see it as being that important!

For example: Introduce and revise the rules of use; look at examples correct use in texts and identify reasons for the presence/absence of articles. However, improvement is likely to be slow and a non-native speaker will probably still make occasional errors even if they achieve a very high level of proficiency.

Yes, teach, practice with paragraphs of error-filled text, etc.

Not sure how much we can. [Is it even desirable? I think that depends on context. For a subject tutor who struggles with NNS writing, it could help (at least reducing their emotional recoil from "otherness"). For a more confident tutor, it's much less important. In a less parochial sense, English is becoming much more global (cf English Next et al), with washback into "Centre" countries from other users.] Is it practical? I suspect not in most cases, as habits will have formed long ago and actual use is very hard to understand and emulate. Something like Rosetta Stone might do much more good than teachers in classrooms.

This is the most complex area of English grammar with so many rules (all of which have exceptions) that I know there is a theory that students cannot improve in terms of accuracy through conscious application of rules. However, as with all areas of grammar, I think occasionally revising the rules, together with subconscious acquisition gained through immersion (reading most of all) might lead to a gradual reduction in the number of mistakes.

I am not sure we can 'teach' the use of articles beyond a very elementary stage, I always tell students that the grammar rules are likely to hinder as much as help them. I recommend a 'language awareness' approach - to pay attention to the use of articles in anything they read/hear/etc. For me, how articles are used needs to be learned almost instinctively ...

This is a difficult one; I think reading and noting collocations (eg consumer loyalty) helps. I often compose a paragraph of student errors and put it on the whiteboard and elicit feedback from groups. I do occasionally devote time specifically to article use but early on in a 40 week pre-session course. I've been teaching EAP for 9 years, and although I think high accuracy is important in article use, it is quite minor compared to development of content, paragraph support and analytical skills.

Collect the mistakes we find in their work and periodically present them back to the group along with error free examples. Ask them to identify whether correct or incorrect and to rewrite the incorrect ones.

students look at a text. mark all articles and absences of articles. try to extrapolate some rules. discuss. repeat periodically.

Yes, we can help. Constantly flagging it up in corrective feedback may help over time. Access to a grammar reference source such as [redacted] Dictagloss is a handy activity to focus learners on accuracy at the end of a task cycle.

As an awareness-raising exercise, I sometimes give a handout with article use explained, and ask them to go through the rules deciding which ones also apply in their language and which are different (of course this doesn't work with students whose 1st language has no articles! it does work with eg L1 Spanish speakers...). Otherwise, I tend to focus on articles when giving feedback rather than through a dedicated lesson on the topic - eg by collecting some article errors, especially ones which could be misleading in terms of meaning, putting them up on a slide, adding some phrases/sentences where articles ARE used correctly, and asking pairs/groups to locate (and of course try and explain) the errors.

I used to think article errors were relatively unimportant, and in many cases (e.g. "in UK") I still think they are. But then I realised that if I was reading a student text in a less familiar (to me) area I often genuinely didn't know whether, for example, they were speaking generically about something or whether they were actually referring to something specific and had simply omitted the article (or vice versa, were they referring to something specific, or had they added an unwanted article when actually the intention was to refer generically) (hope this makes sense!). Otherwise, I ask them, when they are reading articles in their field, to stop sometimes and read one paragraph in detail, focusing on all the nouns and explaining to themselves why the author has chosen to use an article or not, in each case. And sometimes I might take a paragraph myself, remove all articles, and ask them to put back the articles where appropriate. Hope this helps!

For me it is very bound up with nouns and countability, so we need to focus on those areas in our teaching-but getting students to 'notice' the gap between expert users usage and their own work is also key.

Awareness-raising will be useful for some students, allowing them to improve their understanding/use over time. Short focused activities (e.g. correction exercises, use of corpora lines to note patterns) may also help (some) students appreciate when/where/why the use/omission of an article may to blur meaning.

I find it difficult to explain and believe that extensive reading on part of the student is the best solution

Students can only improve their accuracy in this if they themselves believe it is important i.e. will be better for the reader and/or get them a better grade. Most students 'know' the rules, but don't notice their application. Recognising correct use (error correction of modified texts), using this in editing their own work or that of peers, and responding to feedback from tutors - these are crucial.

Articles can be persistently problematic for students even at advanced levels of proficiency. At lower levels, raising students' awareness of their use of articles can make a difference, with peer correction being useful in this regard.

Yes, but it's very difficult. Awareness raising, examination of rules, practice exercises.

I think it's about making them aware of the differences between their L1 grammar structure and English. In some languages, articles are not used so it's making them aware of the differences and allowing them to see that if they're not used sometimes it can impede meaning. With countries' names such as the UK, the USA 'the' is part of the name so is needed. However, at the same time, if meaning can be inferred then sometimes it's not worth bothering with too much as students can get mixed up and there are bigger errors that can be focused on.

Encouraging them to read (ideally, extensively) relevant academic articles and papers (or in this case, just any old text!) and NOTICING / concentrating specifically on how articles are used.

I'm unconvinced that beyond pre-academic study it's really worth explicitly teaching this point at all, for the little return which may come from doing so, not least in terms of its impact on meaning. By the time students reach undergraduate or postgraduate level, I doubt if it's more than a minor irritation to their subject lecturers (with perhaps a few exceptions in language-related subjects). With more and more English-medium research published (and edited) by non-native speakers of English, occurrences of article 'errors' may well become increasingly frequent. On the other hand, if you put on a session or workshop (or series of such) specifically dedicated to this area of grammar, I'm sure it will be quite popular.

Article usage is a particularly hoary subject. Many advanced near-native academics working in UKHE exhibit errors of one kind or another, often displaying consistent patterns of error influenced by L1. We used to talk about 'error gravity' a long time ago, and I believe that inaccuracy in this particular area is seen as 'error lite'. We correct such, almost instinctively, but we cannot hope that we can be fully effective in view of the low functional load that this complex bit of grammatical kit brings to bear.

I generally ask students to proofread and peer check. I think that students can generally avoid article errors when they concentrate on articles specifically. However, when grammar is not the focus I think there is a tendency to translate from the student's L1 which means they make errors with articles.

review of general rules eg. specific / abstract / introducing for first time noticing in authentic texts ie. when reading, especially academic articles in their subject discipline dictaglosses / writing up lecture notes

Yes - I would get them to look at examples of successful student work in the context they are going into and get them to notice the use of the articles particular to that context. I would then help them establish some of the context rules for this (generalised) and highlight where they don't follow these at appropriate times in their own work.

Yes. I use some example sentences (with overuse of 'the') and have students identify which uses of the definite article is correct. After these sentences have been argued about and checked :- students have to create rules of use derived from them (i.e. 'the' should be used with e.g. superlatives, and rivers, but not with e.g. cities or months - exceptions are discussed). Then students test each other on the rules. A few weeks later, I test them again / recycle info / check understanding (repeat as necessary). In addition, I have them check each other's work for correct use of articles (according to the rules they've been learning) - often students simply don't notice their own errors. Possibly have them identify nouns, noun phrases in their writing and decide whether the definite, indefinite or zero article needs to be used. Sometimes students overuse 'the' at the beginning of a text, where they should initially use 'a/an' - this leads on to a discussion of (reader/writer) shared knowledge & grammatical cohesion. While it's important to teach use of articles, at the end of the day, mistakes with articles are usually non-impeding, so it is important that marking criteria reflects this.

We can help but it is a slow and ongoing process. I try to focus on a limited number of rules at any one time. Perhaps more useful to get students to explain correct usage in well written texts rather than always responding to errors.

Yes, I think we can. Feedback and consciousness raising activities work well in addition to form-focused instruction. I would say that I wouldn't focus on articles if there are other serious problems with a learner's writing - I suppose I see articles as quite advanced; more advanced than a number of my learners perhaps.

By analysing texts and the way articles are used there and why

I think this is the most difficult aspect of English for a NNS to acquire; even very high-level students have the occasional problem with articles. I think by drawing students' attention to proof-reading their own writtwn work for article mis-use is possibly the best we can do for them.

Some basic rules e.g. with plural country names (the UK, USA etc) are helpful. Ideas which are harder to grasp quickly, e.g. talking about generic versus specific items, can be illustrated through reading and recognising article use. In my experience, there is no quick fix to problems with article use and students tend to be worried about it.

It seems a very persistent type of error, although students usually know 'the rules'. In teaching/clarifying situations, I tend to focus on examples where the meaning is unclear because of mistakes in articles, eg general or specific reference, which could confuse a reader/listener rather than dwell on easily understood examples (eg 'UK')

Learning how to use articles takes a long time so we can't expect perfection, but if they can get a few right, that's a good thing and it increases the positive impression of the work.

To be honest, I think that the teaching of general English deals with this area more explicitly. Rarely does EAP material address this, yet it is, unlike many grammar areas, something that appears in general English materials from beginner to advanced. Therefore, course writers clearly perceive it as an important topic to revisit. They acknowledge that learners rarely get the hang of it immediately. I would say that I am less likely to address it explicitly as an EAP teacher because it is less important than other features of EAP. This focuses on meaning, argument and expression - only when these are unclear would I consider articles as a discrete item in an EAP lesson. I would be interested to read this research to see how the teaching of articles relates (or not) to EAP specifically.

I try to teach them some basic 'rules'. 'The' is used for something specific, one of a kind, unique. 'A, an' are used for one of many. And such...

1. Raising awareness of use of articles as well as understanding how they work with countable and uncountable nouns, certain phrases and usages is very important, especially for speakers of languages which have no articles, or use them differently. So some activities where students can work out some patterns/'rules' can help. 2. Otherwise, extensive reading can be a strategy to develop article awareness, perhaps unconsciously, as well as other areas of grammar. 3. Learning collocations which contain articles is useful to build up an understanding of their use. (hope this helps)

Not sure if this can really be taught without including determiners. If students are of a high enough level they can usually conceptually grasp the starting point that an English NP (that is not a person, place or uncountable) will need something more: a determiner, pluralisation, or both. I find this particularly useful in trying to get past the frustration of the exceptions/sometimes arbitrary nature of article/determiner use with speakers of language groups which don't use articles and who are more likely to struggle with their use.

<https://www.amazon.com/Book-Practice-toward-Mastering/dp/0472086391> This book outlines 125 rules for articles, some of which are American "in the hospital v in hospital". A further inconvenient truth is that he writes the answers to each exercise directly below the exercise. Clearly, Cole knows more about articles than how to write an effective textbook. To me, the book is proof of what a Herculean task we face and also proof that we are following a tone of article rules that we were never explicitly taught. I believe that students can be taught basic rules of when an article is needed, but true finesse with choosing defining v non-defining seems more like something that has to be picked up the same way that natives do it: through massive exposure and experience with the language. To be a bit provocative, we could help students learn articles by admitting that the vast majority of native English teachers have no idea what the actual rules are. For example, it's Oxford University (with no article) but it's the University of London. This rule is covered in Cole. They just have a feel for what's right. That's the difference between being able to grab a guitar and play a song and being able to write the song down with full musical annotation. If all you can do is grab a guitar and play, maybe you shouldn't attempt to teach people annotation. Teachers, on the other hand, will generally as a point of pride have a go at it, trying to apply simple rules to too many contexts, making up rules they think fit, and possibly just lying to avoid telling a student they simply don't know. ^That was me many years ago until I realized how it is the opposite of teaching to do that. Teachers should never be afraid to say "I don't know" and admit to the limits of their knowledge.

My response to this is to get students to closely analyse reading texts which have either been introduced as part of the syllabus or which they independently chosen and to look for specific language use issues - in this case the use of the article (pre-teaching article use if appropriate) and to compare in pairs, then larger groups and finally in plenary discussion. I might add that, for example, I often work with very able Kazakh students who really do struggle with the use of the article even when verging on or even reaching C1 level.

Articles, by comparison with many other features of English, are cosmetic and have no real function i.e. they don't carry any additional information or tell you anything you wouldn't know if they were not there. therefore these are not a top priority. However, if students have chosen to study in English that means they must do their best to achieve a good level of proficiency and after mastering all the rest of the grammar getting details such as articles and prepositions adds polish to the end product [spoken or written]. Another view is that these errors are relatively 'quick-fixes' and I've taught on courses where the aim seems to have been to sort out the easy problems while glossing over the more fundamental ones. Regarding actually teaching - I'm afraid I have no magic formula to offer, only constant practice and feedback.

I combine teaching of articles with the notions of specificity/definiteness and generality. I use circles (as in set theory) to draw these notions and I also try to mention the use of ind/def art. and bare plural for generics (all in very simple terms)

Rather depends on what is meant by improve! I think we can raise awareness and use noticing skills to help them to see how article use is accurate in some texts and inaccurate in others, including in their own writing. To what extent this has an impact on their real time accuracy, either in writing or in speaking, is of course a much more difficult point to measure

I think seeing the definite article as part of teaching text cohesion (its function in signalling previously mentioned items, assumed prior knowledge or something fully defined or unique) is the important teaching point. I would teach it alongside the use of cohesive general nouns and the use of 'This' as a cohesive marker, especially in topic sentences - This approach/ The reason for this etc. Attempts to devise 'rules' are a waste of time and show lack of understanding in teachers and materials writers.

Real minefield. The so-called rules on articles are not at all useful. Constant exposure to and discussion of instances of articles - or not - helps but I do think correction is important when done in a positive and sympathetic way. Learners won't thank a teacher if she/he simply avoids correcting in this vital area. George

I 'teach' articles mainly with PhD students, who are usually aiming for a high level of accuracy and want to focus on the nitty-gritty of language. I take their frequent errors as a starting point and focus on common patterns in academic discourse (e.g. 'in the 19th century' vs. '19th century literature') with the aim of enabling them to reduce, if not eliminate, their errors in this area. Generally speaking, whether or not I would correct the use of articles in your example sentence would depend on what the rest of the student's writing was like. Missing/unnecessary articles here don't seem to impede understanding or create ambiguity, so I wouldn't bother if the student had, for example, problems with sentence structure that did prevent them from putting their points across.

I suppose the use of a copus could be useful.

Making them aware of errors (at least in their writing - orally is another matter?!) and asking them to work out why these are so, in tandem with discussing the use of articles in pieces of text and encouraging them to work out why articles/non-Articles are used. A good example of this (which I've

adapted to use with other relevant texts) is an activity about traffic in New Zealand in Bruce, I. (2011) Theory and concepts of EAP, Palgrave Macmillan (sorry, full ref. and page number not to hand!)

Correcting surface errors like articles are part of our role as EAP tutors. I feel this is best done using error codes and the student's own work rather than abstract sentence level grammar exercises.

I think it is important to sensitise students to the issue of article use and encourage them to self-correct in revision drafts. So an overview of article use (quite well covered in Bailey) and then pointing out examples little and often. Some students don't seem to think the issue important, while others agonise over accuracy. I tell my students that, while clear expression of meaning is more important than total grammatical accuracy, poor use of articles can be like an irritating scratching noise as you read, so it helps the reader if you get it right. I try to maintain a balance between not sweating the small stuff - as often a meaning is clear even with the poor article use (sic) - and producing grammatically accurate (and therefore more readable and possibly more authoritative) text. I also teach the use of articles as part of coherence.

Yes, we can help. Noticing - encourage students when reading to notice use of articles. Read (interesting/easier article) first time for content, second time for language, focussing on articles. Students choose sentences to write down to refer to when writing.

I have not yet come across an effective way of correcting the use of articles where they have been wrongly learned in the first place, which is often the case with international students I have taught. My EAP experience consists mostly in fairly short pre-session courses, on which there is usually little to no time for language development. I think scheduling more time for articles, as well as other aspects of language which pose difficulties, incorporating follow-up sessions, and perhaps focusing exclusively on general language feedback on some of students' written assignments (and asking for revisions of what they have written with a focus on articles) could be helpful.

The students I teach are on a foundation year for undergraduate study in English speaking universities. They have come from a background of learning English with a strong focus on grammar and speak a first language that does not include articles. I tend to highlight examples as they come up in class and in written work asking for suggestions and focusing on generalities of use as appropriate. I tend not to look at article use with planned focuses on any particular use, however, as students tend to recognise the points from previous study quite quickly and this does not seem to reduce error frequency. I believe highlighting the errors they make will over time increase the likelihood of self correction taking place especially if I regularly highlight the most commonly made errors .

We can help them but it is a slow drip feeding process.

I'm a second lang learner myself at PhD level and make mistakes with articles and prepositions. I'd teach the rules which are sort of vague anyway but in general I'd let it go. They will never be perfect but comprehensible and comprehensive input exposure to language will eventually reduce the occurrences ;)

I don't see why not - after all, it's a basic building block of TEFL. However, as a pre-session EAP teacher, there was hardly any time on the course to focus on language systems - our syllabus was mostly skills-focussed.

It's a huge challenge but students can improve. One way of helping them, of course, is through consciousness-raising, i.e. having them puzzle out differences in meaning caused by the presence or absence of certain articles. E.g. `Japan` vs. `the USA`, it's also worth using the `automaticity` principle and getting students to learn key examples as formulaic phrases.

Clearly we can help them, and these errors need to be highlighted as they are non-salient. However, as ever with error correction are you sincere in your use of the word 'improve', or are you seeking perfection. Incremental improvement and awareness is feasible, but complete accuracy is likely to remain elusive. As my focus here is on awareness, the classroom intervention on articles is one which occurs early, and creates the vocabulary of feedback which will be used throughout the year. The aim is to develop triggers which can rapidly indicate errors in article use and aim for self-correction and, later, self-regulation.

Analysis of example texts focusing on sentence and paragraph level patterns and structures.

Firstly, students need to be aware that they have a problem with their use of articles. Show them some examples of how use of articles can change the meaning of sentences; this will demonstrate to your students that misuse of articles can be a serious issue. Having explained to students how articles work in English, have students peer-correct one another's work, and self-correct their own work. Ultimately, students acquire English article usage by doing a massive amount of reading.

Analysing/deducing rules; controlled practice; reading and noticing article use; focused writing practice

There's no magic wand - they just have to learn the rules and develop an ear for how articles are used. This latter is tricky of course because articles tend to be unstressed and therefore difficult to pick out.

Peer-correction Reference to actual texts/sources

The resources or explanations I use depend on how much detail I want to get into, on the level of the student, and on how eager they are to use accurate language. General guidelines on usage only work as a starting point, but in a grammar lesson, it is often a question of practice. In any case, I would use the student's own production to try and understand their thinking process first.

With some high level students (C1) I encourage them to produce their own cloze exercises by taking a text, and using Word, doing 'replace all' for the articles and substituting them for an underlined gap and then trying to replace the missing articles and checking with the original, as it is only by huge amounts of practice that they will gain a feeling for article use (which is not 100% consistent even by natives!) However, this practice does not help with zero articles - that would require a cloze produced by a teacher. This develops learner autonomy and encourages them an investigative frame of mind.

Depends on the students first language. For those whose first language does not feature an article, students most frequently depict huge problems with the concept and ineptitude with the usage. Prolonged, regular teaching is wasteful of time seldom resulting in apparent gains in knowledge and usage.

By drawing their attention to the rules and meaning of articles and reinforcing this when giving feedback. Encouraging them to notice and think about why articles are used in any reading they do.

Use newspaper and magazine articles, asking students to highlight a/an/the/0 examples on a regular basis then cross-reference to the article/zero rule. Doing this regularly can focus their attention on their own use.

Firstly, I try to set appropriate expectations: this is an area that even very advanced users find difficult if their L1 does not have articles (I use the example of a senior UN official from Vietnam). I tell students that they are unlikely to make dramatic progress in five weeks or in eighteen hours of in-sessional,

though they can make progress over longer timescales. Secondly, I try to teach both relatively straightforward rules (country names with common nouns; superlative adjectives) and the general principle. For the latter I use a flowchart produced in-house, which encourages students to ask the question "Is this use general or specific?". I tend to rephrase this as "Do the writer/speaker and the reader/listener both know which one they are talking about?", which students seem to find helpful. Thirdly, I find it interesting that you describe the options as [a/an, Ø, the]. I know this is the standard formulation, but it seems to me that many student errors with plural -s are actually part of the same system network (in the SFL sense of a series of choices). However, I am not an SLA specialist, so this maybe misguided.

What an interesting survey! I coordinate an in-sessional service in an ancient university. The service is predominantly used by PG students, of which about 30% are PGRs. Much of our teaching takes place in one-to-one tutorials. I'm answering your questions in this context. I spend a lot of time teaching article use to PGs. We tend to approach teaching articles using [redacted] material: [redacted] [redacted]. One of the strengths of Caplan's approach is not to teach articles, but the noun phrase. Another is to start the unit with a diagnostic test so that the one-to-one teaching can be highly targeted. We combine this with getting students to notice and explain the meaning of articles in their disciplinary reading. We then get students to nominate electronic articles in their discipline and we (teach them to) make (self-)study material using their reading texts. I've seen able students in challenging disciplines (in terms of article use) go from 30% accuracy to 95% accuracy in a semester. In short, the key is to connect article use to meaning, to motivate learners by getting them to notice articles and to interpret them more sensitively when reading, and (as a teacher) to take account of disciplinary variation. BTW - Caplan is coming to our EAP conference at St Andrews in Feb 2017. You would make a very interesting conference speaker/delegate if you have time to come to StA. The conference theme is Coherence & Cohesion. My contact details [redacted]. In any case, good luck with your thesis.

Of course. This needs to be progressively trained. Accurate determination is an essential aspect of academic writing (almost by definition!).

Dear Richard, this is a very interesting area indeed. I first came across the problem in a major way in South Africa, where it is widely accepted now that speakers of Bantu languages do not use the article correctly, even in academic writing. If you are interested, Vivien de Klerk, Rhodes University in Grahamstown, has done research on this. However, in an academic context in Europe I do teach and correct the incorrect use, mainly because many subject tutors are not as "liberal". Good luck with your Phd! [redacted]

Helping them to identify usage in context, then awareness of their own errors through teacher correction and finally, self correction.

This certainly is a difficult aspect of grammar to teach and sometimes the use of the article does not even affect meaning. I'm not sure that 'grammar lessons' help so this is not really something I do. Individual feedback followed by tutorials is the best way to tackle this area of grammar. Independent work that is checked and discussed with the student is also helpful.

Explicit examples and practice activities, particularly showing how strange English sounds without articles. [redacted]

English articles are definitely a tricky issue to teach. There seem to be some very clear rules about their use, but because there are so many, students often confuse them. Students whose L1 has this grammatical feature (e.g. French, Spanish, Italian) will make fewer mistakes, but students whose L1 is a case-based language (e.g. Polish, Serbo-Croat, Russian, Ukrainian), or students who are Arabic or

Chinese speakers will need to be continually supported with frequent exercises and focused correction of their writing.

Yes, we can. Written and oral feedback on written work. Remedial teaching 'of article use' in class.

I point out to them the frequency of these errors, and ask them if they want me to indicate where they are, and go over the rules with them. I also let them know whether or not they interfere with communication or change the meaning of the sentence. However, the errors are so widespread (and difficult to address) in speakers of EFL/ESL that my own feeling is that the use of articles is changing in most varieties of English, especially in ELF contexts, and many students feel they are probably not worth concentrating on.

The articles in the example are being used correctly in Indian English.

Many students see improving their use of articles as a difficult task. The rules might seem clear, but when it comes to applying them students continue to make mistakes and feel frustrated and discouraged about their inability to get them "right". As in the sentence above, often the errors do not impede meaning; a proficient user of English can "fill in the gaps" without any trouble and there is no ambiguity. However, if students' work is going to be published or produced for a wider audience, they need to aim to produce work which is as accurate as possible. Not all readers are tolerant of grammatical inaccuracy and it could undermine the authors' authority. I think if we don't point this out to students, we do them a disservice. As for practical ways of improving students' accuracy in improving English article use, I don't think there is any magical fix! I think most of it is in the hands of the students. They need the will to improve this particular aspect of grammar, continued noticing of its use in written texts, proof-reading of their own writing, perhaps practice grammar texts as part of independent study. The teacher can help by focusing students' attention on articles regularly as part of feedback on students' written production. Whilst it is useful to dedicate a lesson to article use, as it fulfills student expectations to "do grammar", it is more important for teacher intervention to be timely and consistent.

Through text analysis and students chunking noun phrases. These chunks should then be recorded in their unique and originally created academic phrasebanks

Exposure to natural written / spoken English and awareness raising of patterns in article use.

APPENDIX 3

Transcripts of Six Tutor Interviews (Chapter 4)

The interviews were semi-structured. All tutors were asked questions 1-2 as worded below, but answers were followed up with various prompts.

1. Question 2 asked about how often you teach the article system to your students. Can you talk a little more about when you teach them and how you teach them? When are you most likely to teach article use?
2. Question 3 asked about how likely you'd be to highlight the errors/give feedback in the example. In general, do you give corrective feedback? How often and when do you give corrective feedback? How do you do it?

Interview Transcripts

Interview Tutor #1

Question 2 asked about how often you teach the article system to your students. Can you talk a little more about when you teach them and how you teach them? When are you most likely to teach article use?

Teaching the article system? To be frank, I don't have enough time to teach it in the classroom in one session of its own. With the time pressure and everything we cover, I don't have time to dedicate time to this. We should be focussing on the process of researching and drafting their work and looking at how texts hang together. It might come up in cohesion and I might send them to a grammar reference for homework. But I don't formally teach it in EAP. I think it's quite a trivial surface error. But each time when I correct writing...when I check students' writing, I will check and point out any errors in articles most of the time.

Question 3 asked about how likely you'd be to highlight the errors/give feedback in the example. In general, do you give corrective feedback? How often and when do you give corrective feedback? How do you do it?

I would like to say I do peer correction and things like that...but I just don't have time. Each time... I correct the errors – I often use codes for all grammar errors. Students will get articles marked two or three times...sometimes more if there's a high stakes assignment. Maybe that's not ideal, but we are so short of time. So, each time if I spot any error I will just mark it. And then in the tutorial time I will talk through it. And...if..actually if there are more than one students making similar mistakes...in sort...maybe in of in similar usages, I will collect examples and talk through very briefly in the classroom as a group.

How often do you correct their errors?

Most weeks I'll micro-mark a few paragraphs of their writing. For the important assessed work I'll probably mark two pages of the first draft of the assignment.

Do you think that helps?

Definitely. Without correction they wouldn't normally realise that they 've used the article in the wrong way and after I've picked it up they normally ask questions and try to reason...find the correct way and they ask questions. OK, no I wouldn't be able to evaluate how effective this practice this. But I think in my opinion they do get better over time.

In question 4 you were asked for recommendations/suggestions about helping students improve their accuracy of English Articles in writing....(do you have any further comments?).

I gave a reference to a book which I'd recommend. Really, it's also about talking to them about their expectations. They can improve but they shouldn't aim for perfect – that's really unlikely to happen.

Interview Tutor #2

Question 2 asked about how often you teach the article system to your students. Can you talk a little more about when you teach them and how you teach them? When are you most likely to teach article use?

Yes I do. So, this year I had a really high level group at the 10-week stage and I didn't do some things I normally do. But then I realised these students still had to do a presentation and I often teach articles related to speaking and presentation skills. And yes, these students are high level, but they still needed to stress articles in their speaking more, and I think in future I'll do it like I normally do.

In writing it's really complicated. What I've found is...in a way some of them are very clear about articles and ...this is always the case...if you give them a gap-fill they would get it right most of the time, but in their own writing it's another thing. I think it's because the flow is interrupted too many times, so they don't feel it.

So, thinking about what I normally do....In the 15-week Preessional I did this - I had one session which was..like a 45 minute session where we look specifically at articles and then there were two or three times when it came up and we had 5-ten minutes each time. And then there's the ARP feedback, so maybe I help them with articles 5 or 6 times on a longer preessional. But I didn't do this so much with the 10-week students.

Right, how do you do that?

OK...so...we had...we used the academic skills coursebook and there was a reference I think in the extra materials to proofreading. It comes up really late in the materials, apart from the Unit 1 focus on noun phrases. I think there was a proofreading exercise at the end. There was also that poster like sheet explaining things that we can give them to download. It was helpful-ish. But for me this EAP is a big change, I'm new to it. For me, most of my teaching in the past 5 years has been heavily European so for an awful lot of articles it's identical usage. They just overuse the definite articles in generalisations. So I normally use that old Headway thing – give them something to look at and then look through a text to think about why they're there. Then they have information about usage that they then read through. So it's more awareness raising than anything else.

Question 3 asked about how likely you'd be to highlight the errors/give feedback in the example. In general, do you give corrective feedback? How often and when do you give corrective feedback? How do you do it?

So on your questionnaire I put not sure for the first one (do you correct article errors during in class writing?) because it would really depend what the focus of the in class writing was. If it's got nothing to do with the focus, no I probably wouldn't. For the homework one...not sure but likely. It would depend again. But for more regular writing tasks, it may depend on the student. If they normally are good at them, then I would mention errors. But if they are terrible

all the time I tend to mark errors less. For the ARP and high stakes writing, I have to admit that I mark article errors. I highlight the words and write 'articles' on areas where there are problems. But I only do that for a few pages, then I tell them 'that's for you to now go and find other errors in the rest of your work'. For the last one – when co-presenting with another person – it would depend on the personality. If that person wants everything to be perfect, I'd tell them.

OK, last question. In question 4 you were asked for recommendations/suggestions about helping students improve their accuracy of English Articles in writing....(do you have any further comments?). Do you have any more tips? Can we help students improve their English article accuracy and if so, how?

OK, so from what I have....from what I've understood. OK look I've got my Diploma but I've not done ...I'm not someone who's done a lot of reading on this. But from what I've understood, articles are late acquired. So, to a certain extent, it's one of those things that is cyclical. It comes up at various points in what you're teaching. It's just a complicated thing. So, what I've done in the past with ...because I have taught Russians and East Europeans...so for speaking, making it part of the rhythm. I teach it more in the speaking skills. You can make them understand that there's a space for the article, even by clapping it out. For example 'as a result'...you clap on the syllable....include them in a group. The focus shouldn't be on 'why', it's just look it's there in that chunk of language. As with everything, for some students it really helps them, for some students it's like water of a duck's back. Another thing is that box where is says known and unknown and in the next rows 'listener knows', 'speaker knows'...and students see they have to click both boxes to see they can use articles. It shows them clearly that this thing needs to be known by both the reader and the writer to use the. And if it's not known by both reader and writer then it will be a or an. But it's one of those things that's really hard to get them right. They make mistakes even at higher levels.

Interview Tutor # 3 (Appendix 3)

Question 2 asked about how often you teach the article system to your students. Can you talk a little more about when you teach them and how you teach them? When are you most likely to teach article use?

Not so much teach, but I ask students to focus on some article effects and then get them to check their own work. In EAP it's about getting them to notice language patterns in academic contexts. And after that it's also about peer marking and self-correction, more than teaching. We have to get them to notice these patterns first.... Yes I do introduce it more formally at

the start. I often look at correct use first, maybe at how it works with definitions of generalisations in the introduction, which is normally a plural form without article. This is important because I can't assume they've been taught it (article system) in the way I want them to understand it. It fitted in quite nicely in the 10-week course this year at the beginning – I brought forward the stuff about proofreading. But rather than focus on errors, I first looked at how correct use worked. Then I put a powerpoint slide up with a research article I'd chosen but simplified a bit. I got them to focus on how articles determining specific examples at some points and generalisations in others – I think I got this idea from Swales. Then I gave them some proofreading exercises with correct and incorrect article use. Then I got them to start peer marking their own work. I actually do that with every written task – they peer mark it every time....before it comes to me. And that first time it was with articles.

Question 3 asked about how likely you'd be to highlight the errors/give feedback in the example. In general, do you give corrective feedback? How often and when do you give corrective feedback? How do you do it? It's just peer marking?

Yes, going back to your questionnaire, the only thing I think teachers should be micro-marking themselves – because it's so high stakes – is the ARP extended writing assessment. Otherwise no. I think there's a lot of teachers overmarking articles. The problem is, the student is just going to depend on your spoonfeeding. And do they actually learn? You're not going to be there in their main programme – they have to learn to do this themselves. And we have these really amazing motivated students in EAP which is so great – I come from an ESOL background where I spent so long trying to get students to take responsibility, but our Preessional students get this more quickly.

Do you have any more tips? Can we help students improve their English article accuracy and if so, how?

I think we can accelerate their progress, definitely, by helping them see the importance of articles for moving us from non-specific to unspecific ideas, but they need to leave our course ready to help themselves and learn how they do this in their own subject. We have lots of independent learning resources for grammar and academic writing online – we can signpost them to this in tutorials, but then turn it around and ask them to show you what they've been working at on their own initiative in tutorials.

What place do you think grammar and a focus on form has in a Preessional EAP course?

Well my understanding of EAP is that we're focussed on meaning in texts and I...I mean the object is to help students understand the academic community and the expectations of this community. OK, no we're not language teachers and we shouldn't be structuring what we do around language form, but let's be honest - it's impossible to not teach some aspects of

grammar alongside the functions of academic language in a text. So when we teach academic caution, I'm focussing students incidentally on the modal verbs, tense choice and adverbs in the text that helps the writer hedge their language. How can we focus students on genre differences of reflective writing and a lab report without focussing on how personal pronouns are used in the former and greater use of passives might be found in the latter? Equally, I think a focus on articles is useful when we look at definitions or generalisations.

Interview Tutor #4 (Appendix 3)

Question 2 asked about how often you teach the article system to your students. Can you talk a little more about when you teach them and how you teach them? When are you most likely to teach article use?

Yes, we need to teach articles in EAP if the students are IELTS 6.5 or below. For higher level students, I think they're sorting themselves out alone, but most Preessional students from China need help. The Chinese students really struggle with articles because their first language doesn't have them. There isn't much time, but I'll try at least twice to pull some of the students' errors that I've noticed and put them on the screen. They need to see how important articles can be especially in definitions or about how generic articles work in an engineering topic and the difference between when they generalise about a term in one paragraph but may need to refer to specific and known things in another paragraph. And apart from that I send them to grammar reference books. I tell them they should all have Hewing's grammar book so if they get a correction they don't understand they need to look it up and learn the usage. I correct their errors too so they can see what they need to learn.

Right, how do you do that? Question 3 asked about how likely you'd be to highlight the errors/give feedback in the example. In general, do you give corrective feedback? How often and when do you give corrective feedback? How do you do it?

I have codes, but I don't have time to mark the whole assignment, so I just do a section and I may ask them to re-write the errors. And we discuss in tutorials of course.

OK, last question. Do you have any more tips? Can we help students improve their English article accuracy and if so, how?

I get students to keep a note of all new vocabulary and they should write down collocations and regular phrases too. To be honest, articles can be taught lexically. The rules don't always make sense, it's often just a case of learning phrases and lexical bundles that contain articles.

Interview Tutor # 5 (Appendix 3)

Question 2 asked about how often you teach the article system to your students. Can you talk a little more about when you teach them and how you teach them? When are you most likely to teach article use?

It depends on the context and when they are. If they're on a 15-week programme I wouldn't try to overwhelm them by micro-marking them. Recalling your questionnaire from before. From the get go I would try to introduce them to the idea of proofreading and learner autonomy. So in the first week I'd expose them to the idea of how to correct some of these problems. I created proofreading prompts... (checking countability, plurality). For articles I get them to deduce three basic rules – that every single noun phrase needs a determiner, the known/unknown principle and about generalisations. And I take them through these intensely in this one session. So I'd expose the issues to them like this and make them aware of it, but I wouldn't keep pressing it. I wouldn't keep micro-marking it. If they wanted to, in tutorials I'd direct them to further resources, but it's something they have to do autonomously. OK, if it was the ARP (extended writing assignment) I feel there's too much at stake so normally I micro-mark the third page, or I would micro-mark a page or two, but they'd have to go over the rest of it. Of course, it depends on where their weaknesses are. If they are fairly strong, yes, it might be something we can focus on. But if they have bigger problems, these minor issues of inaccuracy are not a priority. As teachers we're automatically programmed to find mistakes, but I try to hold myself back.

Question 3 asked about how likely you'd be to highlight the errors/give feedback in the example. In general, do you give corrective feedback? How often and when do you give corrective feedback? How do you do it?

I didn't correct much on the 6-week course this year. But on the 10-week course last year, I marked them ...I would just put 'G' for grammar and I would leave it up for the student to work out what the mistake is. I would leave it up to them to come to me if they didn't understand what this issue was. I really want to reinforce learner autonomy. So another thing I do is peer marking. I think er...I've especially learned this with learner autonomy, it's more about promoting their confidence. So with peer marking, it doesn't matter if they're not 100%. It's ok, but they will learn from their mistakes from making mistakes. And obviously I will do some quality control.

Do you think correction of any sort helps them develop their accuracy long term?

...Er...I'm a bit off topic here but, especially coming from an ESOL background, where it's even more painful they will expect to be spoon-fed. But as teachers our goal is to promote learner autonomy. I think it only helps them in the short term. In the long-term they need to be

able to do this themselves. I never go beyond specifying it's 'grammar' ...I never just give it to them. If I find a student has repeatedly made the same mistakes, I might write at the top 'you need to check this again for articles.

Do you have any more tips? Can we help students improve their English article accuracy and if so, how?

When I found out on the 10-week programme, that the 10-week students are used to being in that top 20% always. And they've gone from being big fish in a small pond to a small shrimp in the ocean. They don't realise it's more about academic skills we're teaching them, not language. They expect more language, but in EAP it's about academic discourse and skills. It's more about hedging and showing students how to put their academic voice in a text.

What place do you think grammar and a focus on form has in a Preessional EAP course?

There are EAP teachers who think there shouldn't be any language focus in EAP. I should state that my experience is mixed. It depends on the programme. On the Preessional courses with older higher level students some teachers say 'I'm not here to teach you language, I'm here to teach you skills'. But then these teachers are correcting lots of errors so they are focussing students on language, but not giving their students the signposts and autonomous learning skills at the same time.

Interview Tutor # 6 (Appendix 3)

Question 2 asked about how often you teach the article system to your students. Can you talk a little more about when you teach them and how you teach them? When are you most likely to teach article use?

I think this is a really excellent topic. These are the trivial things that can show that you're a non-native. I think it's great you're looking at this. I'm sure loads of Chinese students are struggling with this usage. But because they often don't have a native tutor maybe they can't look at it. And there are more urgent problems they need to look at that we can help with.

To be honest when reflecting on my marking, I wouldn't normally focus on article errors. I prefer more often to focus on the way they structure their ideas. I don't normally focus on grammatical errors, I focus on how they convey their meaning. Also, to be honest with you, as I...I did my Masters. And when I did all those assessment essays, I did realise that for me personally article use...to be honest I do actually have this confusion in where to use articles...for me it is still difficult...as I found out. It is so complex.

Question 3 asked about how likely you'd be to highlight the errors/give feedback in the example. In general, do you give corrective feedback? How often and when do you give corrective feedback? How do you do it?

To be honest, in your examples you sent to me of misuse. If I feel they just stand out, if they are very inaccurate and confuse the reader, that would be when I'd point them out. I don't feel that confident correcting them, but I kind of feel I have to. Some students expect corrections.

Could you think of any cultural reasons for misunderstanding article use? As you're Chinese, perhaps you can help me understand whether it's the students' background or their misunderstanding of academic genres that is the problem.

I don't think it's a problem with genre...they understand what's needed in academic writing. But it's a pragmatic problem. In the Chinese system, we don't really have this article system. So it's confusing where and when to put them. We have words when we want to be specific, we can say 'this one' or 'that one'. But I think like those....I mean with these unspecific words.... I think that pragmatically, we don't have the articles system. I remember when I first learned about this article system. I was in middle school. I remember the teacher saying the article was like a hat that you have to put before of...a noun...so a noun cannot be without a hat. But it's very confusing, even now.

I was teaching English actually at University in China for five years. You know in China it's compulsory for the students to study English for the first two years. We call it 'College English' and we have a dedicated coursebook that they will study no matter what their subjects are. On reflecting on these practices, we did actually do a lot of grammar practice. In fact, more often or not we're using multiple choice questions with texts, so you only need to pick out the correct answer. So you're not really producing your own writing. It's very different...picking out the correct one...to writing your own one. This college English is more about grammar. A major part of it is to consolidate grammar points and a major part of it is to show them exam papers and 60-70% of the exam is multiple choice. I don't know why students make more errors in their writing than they do in the tests, but I think it's like....like being on a simulator to learn to drive a car. However long you go on a simulator, it cannot prepare you for driving your own car on the road. And English for Chinese students is like this. I actually use this analogy when I teach essay writing. Knowing the rules is quite different to using the rules accurately. Chinese students spend so much time on those multiple-choice questions but their knowledge is not useful in real language situations. I notice some students overuse definite articles. It is sometimes that Chinese students want to reinforce something. But it is really confusing.

Do you think it can have any negative effects when we correct students? Are there any dangers of overcorrecting students? I worry what would happen if I tried to learn Chinese writing and had lots of corrections on parallel forms like measure words or something

I wouldn't have thought so, to be honest. They are all very keen. They can see that attending this course can help them to improve. Actually, one of the feedback I had from students at the end of the 6-week Preessional was 'why don't you teach more grammar' and 'why don't you teach pronunciation'. I think they would like more grammar.

APPENDIX 4

Information Sheet

Voluntary participation in research project

Background information

I am investigating frequent student errors in English article use (*a/an/the*). I wish to identify the contexts that typically cause students the most confusion with a view to developing further online resources to help students work on this grammatical aspect more independently.

Your rights/promise of confidentiality

Your answers will be treated with complete confidentiality and any published examples of errors analysed will be 'anonymised' (shown without your name). No one apart from the researchers (Richard Nickalls and a small number of colleagues) will see your individual responses (these will NOT be shared with other teachers or departments).

Analysis of your written work/quiz answers will inform both my research and the development of pedagogic materials that could help students with article errors.

What do you get from participation?

If you agree to participate, you will receive extra feedback about your accuracy in article use. However, even if you do not participate, you will also be signposted to further resources that can help you develop your confidence in this area of grammar. All Preessional students will be invited to an end-of-study workshop, regardless of participation.

You will not receive any financial payment for your participation. However, all participants will be entered into a prize draw.

Summary of your right to refuse

- This project is voluntary. You can choose not to participate.
- There is no consequence if you choose not to participate.
- You are free to withdraw from this research project at any time before the end of the Preessional and you retain the right to withdraw your results within a month after competing the programme.
- The analysis will be anonymised and you will never be identifiable in any presentation or publication of this research.

For further information, contact: R.Nickalls@bham.ac.uk

Consent Forms

Consent form for corpus data collection

Dear student

Thank you for expressing your interest in participating in this research project.

I wish to invite you take part in a research project and ask for your formal consent to use some of the homework that you will submit for some research I am doing (and might publish). As explained, your work will be treated with complete confidentiality and any examples of errors analysed or published will be ‘anonymised’ (shown without your name).

About the study

Some students will be invited to extra sessions, depending on whether you are in a control/experimental group. All students (regardless of participation)) will be invited to a session about English article use in week 14 that may help you use articles more correctly.

If you are part of the experimental group, it should be stressed that you will be analysing some errors made by your classmates and that (vice versa) your classmates will be asked to help identify some errors in your own writing. You should only agree to participate in this research if you are willing to discuss some article errors (including your own) identified in non-assessed homework essays and placement test with the other study participants.

You will not receive any financial payment for your participation. However, all participants will receive extra feedback about their essays and you may find the extra grammatical instruction may help you write more accurately.

Your written work may be included in a 'learner corpus' which will be analysed to find typical errors that students make in academic writing. The results of the analysis of individual participants' errors will not be shared with your teachers or the programme director. Any analysis of this 'corpus' of written work will be presented as a whole, without reference to individuals.

Confidentiality and your rights

- This project is voluntary. You can choose not to participate.
- There is no consequence if you choose not to participate.
- You are free to withdraw from this research project at any time before, during or after the study. You retain the right to withdraw your results within a year after the study is completed.
- The source files and personal information you submit/disclose will be treated with complete confidentiality and stored very carefully on an encrypted computer drive.
- The corpus assembled from these files will be anonymised. You will never be identifiable in any presentation or publication of this research.

If you still wish to participate in this project, I would be grateful if you could fill out the details of the form provided and sign the form with your English or First language signature.

Information about the researchers

<p>Richard Nickalls (PhD student)</p> <p>EAP Tutor & EISU Website/IVLE Coordinator</p> <p>English for International Students Unit (EISU)</p> <p>University of Birmingham</p> <p>Selly Oak Campus</p> <p>Elmfield House</p> <p>Birmingham B15 2RT</p> <p>r.nickalls@bham.ac.uk</p>	<p>Dr Jeannette Littlemore (Lead supervisor)</p> <p>University of Birmingham</p> <p>Edgbaston</p> <p>Birmingham</p> <p>B15 2TT</p> <p>j.m.littlemore@bham.ac.uk</p> <p>Dr Nicholas Groom</p> <p>University of Birmingham</p> <p>Edgbaston</p> <p>Birmingham B15 2TT</p> <p>n.w.groom@bham.ac.uk</p>
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Agreement of consent/biographic information

Name: _____

First language: _____

Age: Under 20 [] 20-29 [] 30-40 [] 40+ []

Second language (other than English): _____

How long have you lived in England? (years/months) _____

Current level: (B1/B2/C1): _____

How many years have you been studying English? _____

I give my permission for my submitted work to be used for research purposes (please tick):

Signed _____

Consent documentation for use of online review (multiple-choice test) results

(Background information sheet given to students at VLE induction)

Dear student

I wish to use some of your review tests scores (which I showed you today) for my research into Preessional students' grammatical errors.

As explained, your score results will be treated with complete confidentiality and any examples of errors analysed or published will be 'anonymised' (shown without your name).

Confidentiality and your rights

- You can still do the review quizzes and receive feedback without giving your consent.
- There is no consequence if you choose not to participate.
- The data will be treated with complete confidentiality and stored very carefully on an encrypted computer drive.
- The results analysed from these scores will be anonymised. You will never be identifiable in any presentation or publication of this research.

Prize Draw

I cannot pay you for letting me use your review test data. However, I have explained that your consent could help me develop improved independent learning resources for the Preessional VLE. Moreover, if you consent to my use of your data I will put your name into a prize draw and two students will win a £20 Amazon gift voucher.

Information about the researchers

Richard Nickalls (PhD student) EAP Tutor & EISU Website/IVLE Coordinator English for International Students Unit (EISU) University of Birmingham Selly Oak Campus Elmfield House Birmingham B15 2RT r.nickalls@bham.ac.uk	Dr Jeannette Littlemore (Lead supervisor) University of Birmingham Edgbaston Birmingham B15 2TT j.m.littlemore@bham.ac.uk Dr Nicholas Groom University of Birmingham Edgbaston Birmingham B15 2TT n.w.groom@bham.ac.uk
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If you are happy for me to use your quiz score data, please detach and sign the consent form at the end of this document. Please contact me (r.nickalls@bham.ac.uk) if you wish to know more about how the quiz scores will be used.

Richard Nickalls

Consent for use of my quiz data for research purposes

I give consent for my quiz scores to be used for analysis by Richard Nickalls for the purposes of Research into English article errors.

Name: _____

Class: _____

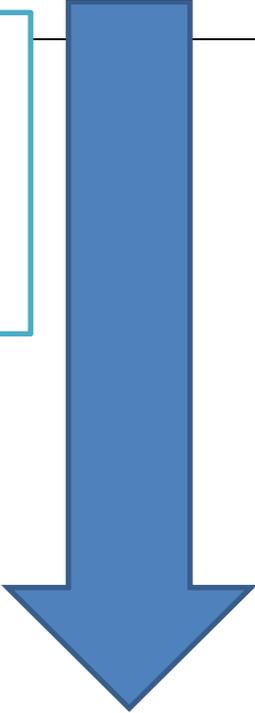
First language: _____

Date: _____

Signature: _____

APPENDIX 5

Pedagogic worksheet

Is the noun (Side A)	
A common noun?	A proper noun? (Capitalised)
<div style="border: 1px solid blue; padding: 5px; width: fit-content;"> <p>Singular common count nouns must have a determiner!</p> </div> 	<p>Most proper nouns take \emptyset null article</p> <p><i>William and Kate are engaged</i></p> <p>I shop at <i>Aldi</i> and <i>Waitrose</i></p> <p>Many exceptions (some arbitrary), Article <u>IS</u> used</p> <p>When Proper noun qualifies a common noun:</p> <p><i>an Aldi store</i></p> <p><i>the Kate look</i></p> <p>with Plural states/countries/unions</p> <p><i>the United States</i></p> <p><i>the United Kingdom</i></p> <p><i>the European Union</i></p> <p>with Rivers</p> <p><i>the Thames</i></p> <p>with Mountain Ranges</p> <p><i>the Alps</i></p>

To discuss nationalities that have no plural form

Germans / the English/the French

With Proper nouns that are unique and important

the Sun, the Prime Minister, the Queen

Common noun?



Do you wish to determine?

A single noun that your reader does not know about

The single noun that your reader knows about

The plural nouns that your reader knows about

The thing(s) your reader should know about

The 'ranked' thing: the only, the best, the 2nd

The thing (as apart from another)

Other determiners include numbers or other words (some, its, their, this, these, such)

Do you wish to leave general?

Use \emptyset + mass noun

Information is important.

Use \emptyset + plural count noun

Companies need information.

Use a + singular count noun

A company without information cannot plan.

Exceptions (a few rare uses need noting):

She/he is in hospital, at home, at school (following a preposition, we use \emptyset with certain buildings referred to as a class).

She/he invented the XYZ device/concept/ method (breakthroughs and inventions)

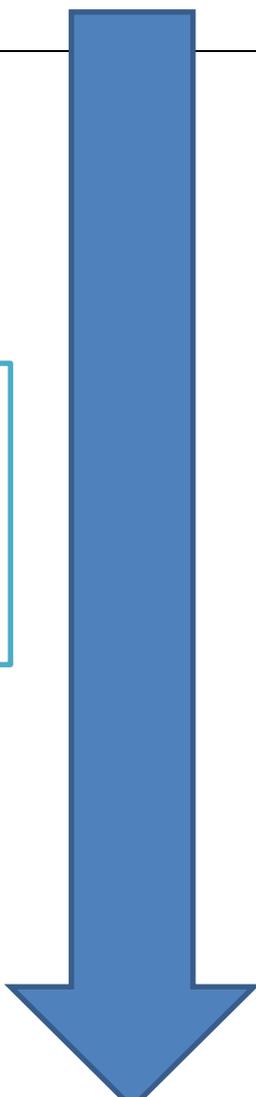
She/he plays the piano/the guitar (musical instruments)

The lungs/the heart/the liver (parts of the body)

When speaking as an expert about an entire class of animals: the African Elephant has larger ears than the Indian Elephant

	When using adjectives to class a group of people: the old and vulnerable, the poor
--	--

b) Now read the text and look for examples to put in each box. (Side B/C)

A common noun?	1) A proper noun? (Capitalised)
	<p style="text-align: center;">Most proper nouns take \emptyset null article</p> <div style="border: 1px solid black; height: 150px; margin: 10px 0;"> <p>2a.</p> </div> <p style="text-align: center;">Many exceptions (some arbitrary), Article <u>IS</u> used</p> <p style="text-align: center;">When Proper noun qualifies a common noun: <i>an Aldi store</i> <i>the Kate look</i></p> <div style="border: 1px solid black; height: 30px; margin-top: 10px;"> <p>2b.</p> </div>

Rule 1: Common singular count nouns need a determiner!



with Plural states/countries/unions

the United States

with Rivers

the Thames

with Mountain Ranges

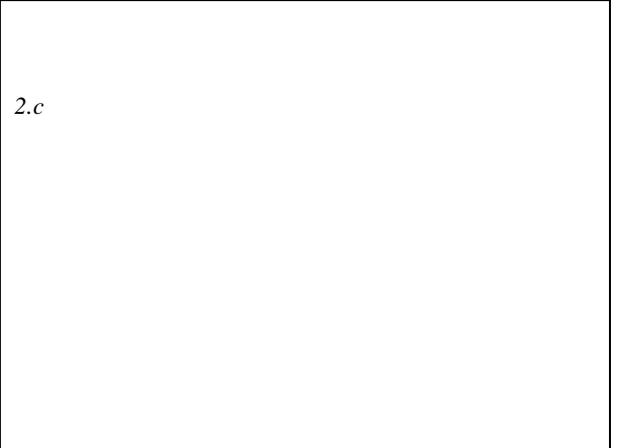
the Alps

To discuss nationalities that have no plural form

Germans / the English/the French

With Proper nouns that are unique and important

the Sun, the Prime Minister, the Queen



2.c

<p>Common nouns?</p>  	<p>2) Do you wish to leave use general?</p> <p>Use \emptyset + mass noun</p> <p>Information is important.</p>
---	--

3) Do you wish to determine (make specific)?

A single noun that your reader does not know about

3a.

The single noun that your reader knows about

The plural nouns that your reader knows about

The thing(s) your reader should know about

3b.

The 'ranked' thing: the only, the best, the 2nd

2a.

Use \emptyset + plural count noun

Companies need information.

2b.

3c.

Use a + singular count noun

A company without information cannot plan.

The thing (as apart from another)

2c.

3d.

Exceptions (a few rare uses are very illogical):

She/he is in hospital, at home, at school (following a preposition, we use \emptyset with certain buildings referred to as a class).

4. Other determiners include numbers or other words (some, its, their, this, these, such)

4.

She/he invented the XYZ device/concept/ method

She/he plays the piano/the guitar (musical instruments)

The lungs/the heart/the liver (parts of the body)

When speaking as an expert about an entire class of animals: the African Elephant has larger ears than the Indian Elephant

When using adjectives to class a group of people: the old and vulnerable, the poor

Did you find any such illogical uses?

2.d.

APPENDIX 6

End-of-study anonymous survey (Chapter 5)

1. Overall, how useful has participating in this research been for you?

- A. Very useful
- B. Quite useful
- C. Not sure
- D. Not very useful
- E. A waste of time

1. Do you think your use of English articles has..

- A. Become a lot more accurate
- B. Become a little more accurate
- C. Not changed
- D. Become a little less accurate
- E. Become a lot less accurate

2. Your teacher marks your writing homework and points out an error in an article, e.g “Art. – you forgot the definite article).

How do you feel? (which one emotion below best described your reaction?)

- A. Very negative (I really dislike receiving feedback like this)
- B. Negative (I dislike receiving feedback like this)
- C. Not sure
- D. Positive (I like receiving feedback like this)
- E. Very positive (I really like receiving feedback like this)

3. In an academic writing class a teacher notices an error that you make with your article (*a/an/the*) and tells you. While other students are reading/writing he quietly explains a rule to you (about article use).

How do you feel? (which one emotion below best described your reaction?)

- A. Very negative (I really dislike receiving feedback like this)
- B. Negative (I dislike receiving feedback like this)

- C. Not sure
- D. Positive (I like receiving feedback like this)
- E. Very positive (I really like receiving feedback like this)

4. Please use this space to provide any further (positive or negative) feedback you'd like to share.

Student responses

1. Overall, how useful has participating in this research been for you?

- A. Very useful [16]
- B. Quite useful [6]
- C. Not sure [1]
- D. Not very useful [0]
- E. A waste of time [0]

5. Do you think your use of English articles has..

- A. Become a lot more accurate [12]
- B. Become a little more accurate [9]
- C. Not changed [2]
- D. Become a little less accurate [0]
- E. Become a lot less accurate [0]

6. Your teacher marks your writing homework and points out an error in an article, e.g "Art. – you forgot the definite article).

How do you feel? (which one emotion below best described your reaction?)

- A. Very negative (I really dislike receiving feedback like this) [0]
- B. Negative (I dislike receiving feedback like this) [2]
- C. Not sure [1]
- D. Positive (I like receiving feedback like this) [7]
- E. Very positive (I really like receiving feedback like this) [13]

7. In an academic writing class a teacher notices an error that you make with your article (*a/an/the*) and tells you. While other students are reading/writing he quietly explains a rule to you (about article use).

How do you feel? (which one emotion below best described your reaction?)

- A. Very negative (I really dislike receiving feedback like this) [0]
- B. Negative (I dislike receiving feedback like this) [2]
- C. Not sure [3]
- D. Positive (I like receiving feedback like this) [6]
- E. Very positive (I really like receiving feedback like this) [12]

8. Please use this space to provide any further (positive or negative) feedback you'd like to share.

It is useful because I can learn from my fault. When I do mistakes, it is easy to remember them.

This is very helpful for me to know where my mistakes are and to evaluate myself for improving my weaknesses.

I learnt little about this form my teachers. I learnt it mostly form grammer textbooks. When doing exams, I encountered little difficulty about article, but in writting I often hesitated how to use it.

I like the correction from teacher, however, when I make some stupid error, I feel a little bit embrass and lesser confidence in English.

I always receive guidance from my teacher and I feel this is helpful to my learn English better. I hope teachers could give me help usually.

It is useful for me,which help me have a better understanding about the difference of operation and marketing,I really appreciate it.

I think the feedback from the teacher is helpful for me. I can learn more from the feedback and I will try my best to avoid these error next time.

I have learned about the article use since I was in a primary school. I just can remember some general rules for using article. It is helpful but not as much as I expect. I still want to study more about this topic because it is very important for learning English.

it is very useful to help me improving English. :)

APPENDIX 7

BME Teaching materials (Chapter 5)

Study task 44

With your group, read the following extract from a student's essay. A tutor has underlined errors and has indicated problems using the correction symbols found in appendix 1 of this guide. Discuss the errors and how the student could correct them.

W.W., Prep Sing/pl Modal Aux. Vb., Sub., Art. Pl. expr! Conj. W.W. Ref.	<p>Many people believe that price is the only <u>thing</u> people <u>care</u> in the internet market and brands have little <u>contributions</u>. Although price transparency is one of the most important factors that people <u>will</u> consider on the internet, I still disagree with the above opinion. Not <u>only brand represents</u> the quality of products, but <u>it</u> has also many benefits for <u>the</u> customers. This article will discuss what <u>the brand is</u> and <u>shopping situation</u> on the internet. <u>So</u>, we can easily evaluate the price transparency is not the rule that governs <u>consumption</u> on the internet.</p> <p>According to <u>Professor Bibb (in 2001)</u>, “a brand is a name, term, design, symbol or any other feature that identifies one seller’s <u>good</u> or service as distinct from those of other sellers.” <u>Brand</u> is also a communication tool that guarantees the quality of products and provides <u>the sense</u> of safety or</p>
--	--

Sing/Pl.	satisfaction for customers. <u>So</u> , some luxury brands such as BMW or BENZ not only represent the quality of products but they also can satisfy people's <u>desire</u> .
Art.	
Art.	
Conj.	
Sing/pl	

- What are this student's typical mistakes?

Identifying your own key errors is useful as you can then actively check for these when you proofread your own work

APPENDIX 8

One-to-one semi-structures interviews with three students (Chapter 6)

Highlighted error:

The previous studies also formed two theories towards **the** entrepreneurs.

Eventual correction given to student after discussion:

Previous studies have also formed two theories towards entrepreneurs.

#1: This one, I'm not sure. I'm not sure how to use towards... = towards is a special word?

Researcher: So you're not sure whether to say 'the entrepreneurs' or zero article entrepreneurs? Can you explain why you're not sure?

#1: Is it ' entrepreneurs', no article?

Researcher: Yes that's right, you don't need an article here. Do you know why?

#1: The entrepreneur or entrepreneurs with s. =

Researcher: that's correct. Why did you make the mistake?

#1: Habit? Sometimes in my mind I just use the like a habit. I see..now.

Figure 79: Student 1, conversation #1

Highlighted error: Innovation and value are the major selling points in **^consumer goods industry.**

Eventual correction given: Innovation and value are the major selling points in the consumer goods industry

#1: This is wrong? But I think we use the only for one specific noun. Here I am being general. In all consumer good industry.

Researcher: That's impossible here.

#1:: (Laughing)! It doesn't make sense!

Researcher: I think the easiest rule to remember is that a singular count noun needs a determiner. This word industry.

#1:: Whatever! (laughing)

Researcher: Is it count noun or non-count.

#1:: Sighs...OK it's a count count noun. But I was thinking....

Researcher: It's a tricky word that catches a lot of people out (researcher shows LJ more examples).

Figure 80: Student 1, conversation #2

Highlighted error: The limitation of the previous research explained **the** personality traits and cognitive factors separately as independent aspects.

Eventual correction given: The limitation of the previous research was that it explained personality traits and cognitive factors separately as independent aspects.

Researcher: Actually I think this one isn't needed.

#1:: But It's the previous research. It's correct because it talked about the previous research before.

Researcher: In this part of the essay, are you talking about traits and factors in a general way or a specific way?

#1: Specific way... personality traits.

Researcher: I think in this part of the conclusion you are talking about personality traits in a general way.

#1: Sometimes I think specific and sometimes general....OK I think I make a mistake. Personality traits in general way?

Figure 81: Student 1, conversation #3

False self-correction: Firstly, **the** personality traits identified demonstrate both pros and cons. (#1 thought the underlined (correct use) was a mistake.

#1:: Yes this was a mistake. I mean personality in general.

Researcher: Actually, it was correct. You need a definite article. The personality traits identified.

#1: But you said in the conclusion it is general [10 secs] I think I understand but sometimes I ...

Researcher: the thing is this word 'identified'. I think this changes the meaning in this sentence. You are not being specific about the study again.

Figure 82: Student 1, conversation #4

Highlighted error: the manage team decided to enter **new** growing market with **new** product.

Eventual correction given: The management team decided to enter a/the new growing market with a new product.

Researcher: you didn't notice a mistake in this sentence I'm afraid.

#1: [5 secs] Oh yes a mistake, a new product.

Researcher: Any idea why you missed this mistake when you proofed it.

#1: I didn't see it [2 secs] I see the mistake after I look at it...

Researcher: I'm afraid there's another. Where's the head noun in 'new market'?

#1: growing

Researcher: no the head noun here is market

#1: [the new growing market]

Figure 83: Student 1, conversation #5

Highlighted error: The other one is the build-up method, which only subdivides the market by a single factor, such as gender in **cosmetics market** and age in **dress market**.

Researcher: Is this correct or is there a problem?

#1: Hmm...can I take my time? This is stressful now, you take me back to my high school... [student reads and rereads sentence for 50 seconds]...I'm not sure but I would prefer to put nothing there. Let me read it again...[10 second pause]... no I'm not sure. [Teacher gives student correction]...but ...oh...there should be the here? It's confusing. It confuses me because cosmetics is plural...ah ...ok I understand it is singular now.

Figure 84: Student 1, conversation #6

Highlighted error: The use of SAP is considered to be more attractive for **the** logistic applications.

Eventual correction given: The use of SAP is considered to be more attractive for logistic applications.

#2: I'm not sure about this one.

Researcher: So, logistical applications. Are you writing here about these applications in general or in a specific sense?

#2: [20 secs Silence..] I think I know the grammar. The grammar says you can use both with and with no article here.

Researcher: Yes. Look it's arguably ok. Maybe it's more style than an error. But I think most native speakers of English would think you were being a bit informal here. You haven't mentioned this before and I think you're writing about it in a general way.

#2: I think initially maybe I want to emphasise the application. But now thinking again I think it's a general idea, yes.

Researcher: Look, this isn't 'wrong' in some contexts. Arguably this isn't an error, but just a stylistic problem. I personally think most native speakers would write applications with zero article. You see, using 'the' here makes it sound like we have shared knowledge. But you haven't mentioned it before, so for me it sounds informal. But I must say, it's a difficult one. I might change my mind tomorrow!

#2: /Researcher: (laughing)

#2: So it's correct in grammar to use both but in a general way it sound more normal to not have an article?

Researcher: Yes I think so. But of course if you mentioned it before or in another context like a presentation it would be correct.

Figure 85: Student 2, conversation #1

Highlighted errors: Due to **the** overuse of conventional energies, the government needs to invest in **the** sustainable energies. (later in paragraph). Rather than invest in **the** traditional energies, the government needs to bulk transmission of **the** renewable energy.

Eventual correction given: Due to the overuse of conventional energy (supplies), the government needs to invest in sustainable energy (sources).

Researcher: There's are two errors here I'm afraid.

#2: So I think I should put the energy or energies?

Researcher: No I think in this context – in all these sentences energy is a mass noun.

#2: Oh...[surprised sounds] [5 secs] I think energies is countable.

RN:[Yes I'm sure some specialists can talk about energies in the plural. You'll see some phrases with energies yes, but but I guarantee you here it's a mass noun. There is no plural form here. I'm 100% sure that any native speaker would write energy here as a mass noun – because in this context people in the energy field would talk about energy. You could talk about sources of energy – sources can be plural but not energy here. as a mass noun or energy sources or sources of energy.

#2:: oh?! You say fossil fuels. I thought you have many energies: coal, gas, nuclear energies.[

(Researcher shows ZW some googled examples).

#2: [inaudible agreement/nodding his head]

Figure 86: student 2, conversation 7

Highlighted error: Many companies have adopted **NASA technique** in the last 50 years.

Eventual correction given: Many companies have adopted NASA techniques (/technology/innovations) in the last 50 years.

Researcher: No, technique is countable here.

#2: [surprised] It is countable?

Researcher: yes, so you'd probably add an s to make it plural.

#2: Actually I wanted to use technology here. I remember I used technology a lot before, so I wanted to change the word.

Figure 87: Student 2, conversation 8

Highlighted error: Criminals can overcome such IFRS regulations in countries with **the** weaker investor protection

Eventual correction given: Criminals can overcome such IFRS regulations in countries with weaker investor protection

Researcher: in this context protection is the head noun and it is a non-count noun. Are you sure this is correct?

#2: Yes. [5 secs]. Protection is the head noun but I am being specific here.

Researcher: You're being specific here...

#2: [The investor protection. Not any protection, specific investor protection]

Researcher: no I'm afraid you're incorrect here. Well..it sounds very informal like this. It would be better as a zero article.

#2: Maybe I mean...[7 secs] I actually think this word is difficult.

Researcher: You were being more general about criminals in general?

#2: Yes...[2 secs] Yes I think before I wrote the protection I thought...but I think count or non-count, it is specific. It is general. Zero article?

Researcher: Zero article. I can't see any mention of this non-count noun before.

#2: (agrees non-verbally)

Figure 88: Student 2, conversation 9

Highlighted error: Moreover, the youth are always affected by **the peer pressure**

Eventual correction given: Moreover, the youth are always affected by peer pressure.

Researcher: So, let's look at this sentence, number 3.

#3: OK Ok

Researcher [Are you...]

#3: [Oh! Mistake! Ha ha. OK so youth are always affected...]

Researcher: No the youth is right.

#3: Oh! [5 secs]. The youth but the peer pressure has zero article?

Researcher: Why do did you write 'the peer pressure'. It's possible in some contexts, but not..

#3: [but I'm being specific....not any pressure, I mean the peer pressure]

Researcher: No I think you've qualified the word pressure which is a mass noun. You're still speaking in a general way. It's the first time you mention peer pressure?

#3: Yes! Ha ha. Sometimes I think I understand but sometimes I don't.

Figure 89: Student 2, conversation 10

Highlighted error: The gap between two groups of people's income has [^] negative effect on consumption.

Eventual correction given: The gap between two groups of people's income has a negative effect on consumption.

Researcher: I'm afraid there is an error you missed. There's a word missing.

#3: Ah...oh (nodding head). The negative effect. Yes OK

Researcher: There has to be an article yes. Is it a or the?

#3: The negative effect.

Researcher: Really? Have you mentioned the negative effect before?

#3: Yes..mmmm..I just think you can't say a negative effect. I want to say a greater impact of the effect. I want to say this effect has a wide range not a certain effect.

Researcher: I think a native speaker would say a negative effect.

#3: (surprised)

Researcher: For me I think you'd only use the definite article here if you'd mentioned this effect before. Did you?

#3: Yes I think so yes...

(after 3 minutes in which #3 and researcher search error)

#3: No...OK.

Researcher: So I think the best way to explain this is that you're not being specific, you're talking about things in general. An effect is a singular count noun so it needs an article. You haven't mentioned this – you don't want to determine it definitely, so you use the indefinite article.

#3: OK (laughs)

Figure 90: Student 3, conversation 11

Highlighted error: To solve different *hukou* problems of migrants in different cities, ^Chinese central government decentralises the power of

Eventual correction given: To solve different *hukou* problems of migrants in different cities, the Chinese central government decentralises the power of

#3: Mmmm....OK..... the migrants in different

Researcher: [no it should be the Chinese central Government]

#3: OK, so perhaps it is specific. OK.

Researcher: the main thing is you have a count noun: government. You need a determiner.

#3: OK

Figure 91: Student 3, conversation 12

(teacher made the mistake)

Highlighted error: Zara's regular new looks and dynamic brand attract people to ? shop.

Correction withdrawn.

Researcher: Yes it's a mistake. So, shop – count noun or mass noun?

#3: [5 secs] No. I mean to shop. I use a verb.

Researcher: Oh...yes of course. I'm sorry. It's fine. Yes that's not an error if it's a verb.

Figure 92: Student 3 conversation 13

APPENDIX 9

Chapter 7's Multiple-Choice quiz on article use

Key	<p>Type 1 generic contexts (6)</p> <p>Type 2 definite contexts (33)</p> <p>Type 3 indefinite contexts (32)</p> <p>Type 4 non-referential contexts (15)</p> <p>Type 5 Idiomatic/proper nouns contexts (15)</p> <p><i>*lexical density=the number of lexical words (or content words) divided by the total number of word (Ure, 1971)</i></p> <p><i>** Readability measured by Flesch–Kincaid readability test (providing equivalent US grade level required).</i></p>
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	Items	Lexical density / Text type	
1	4	Low Density General English	<p>I had [a] productive morning at work. I developed [an] algorithm that could make [a] change to how we enter [the] market.</p> <p>[* Lexical density: 40.92%; ** Readability score: 5.33]</p>

2	3	High Density Academic Writing	<p>Abstract.</p> <p>The article discusses how [Ø] latent semantic analysis (LSA) can be used to analyze electronic [Ø] health records to show medical terms and keywords related to the same medical condition appearing across documents. The authors also cover how [the] method could be applied to the management of medical treatment by identifying unique cases for special attention.</p> <p>[* Lexical density: 63.64%: ** Readability score: 13.66 source (2)]</p>
3	2	Low Density General English	<p>Can I give you [a] piece of advice? Do you know [the] active learning method?</p> <p>[* Lexical density: 46.67%: ** Readability score:8.54]</p>
4	6	High Density Academic Writing	<p>Abstract</p> <p>[Ø] pain is a part of childbirth. However, there had been very few studies into relative perceived pain levels at childbirth before 2015. Thus little is known about [the] scale of pain that different women feel. Even in recent years, although there have now been [a] few empirical studies, there remains little research with the rigor and scale required to scientifically examine this crucially important area. Moreover, without [a] system to reliably compare findings, researchers struggled to measure subjective self-reported perceptions and Teale's (2015) study was the first project to propose [the] severity of perceived pain classification system. While there are still today only [a] small number of research projects investigating this area, interest is growing in this promising research field.</p> <p>[* Lexical density: 66.16%: ** Readability score: 12.85]</p>

5	8	Mid-Density General English	<p>I have two brothers. [The] older one is training to be [a] pilot with [Ø] British Airways. [The] younger one is still at [Ø] school. When he leaves [Ø] school, he wants to go to [Ø] university to study [Ø] law.</p> <p>[* Lexical density: 52.78%; ** Readability score: 3.65)</p>
6	10	Mid Density Academic Writing	<p>Abstract</p> <p>This article seeks to acknowledge [Ø] fear as a strong presence in [the] workforce by identifying from whence it comes. It further seeks to offer clarity on how individuals respond to [Ø] fear. For this research, [a] sample of 776 employees were posed 19 questions which were measured on [a] Likert-type scale. [The] questionnaire was developed by [the] authors in the absence of any such measurement tool which blatantly asks employees what makes them fearful in their place of work. Distributions of [the] sample covered entry level, supervisor level, manager level, and senior manager level. Results indicate that concerns over the opinion of their direct supervisor and the fear of being fired or laid off are the primary fears of employees. [The] analysis indicates additional categories or clusters of fear. This research recommends that manager-subordinate relationships and communication must improve to foster an open environment which reduces the instances of [Ø] _fear.</p> <p>[* Lexical density: 54%. ** Readability score:12.73]</p>
7	3	Mid-Density General English	<p>[Ø] tennis is my favourite sport. I play four times [a] month if I can but I'm not [a] very good player.</p> <p>[* Lexical density: 52.38%: ** Readability score:3.11]</p>
8	22	Mid density (News genre)	<p>It has been announced that for [a] third consecutive month there has been [a] rise in [the] number of people unemployed, rather than [the] fall that has been predicted. [The] rise was blamed on continuing uncertainty over government economic policy, and couldn't come at [a] worse time for [the] Prime Minister, who is facing [Ø] growing</p>

			<p>criticism over [the] way [the] policy is being so frequently changed. [Ø] MPs are increasingly voicing [Ø] fears that despite the recent devaluation of [the] pound and cuts in [Ø] interest rates, [the] government still expects [the] recovery of the economy to take three of even four years. To make [Ø] matters worse, [the] number of small businesses going into [Ø] liquidation is still at a record level, and [the] housing market is showing no signs of recovery. Some backbenchers expect [an] election before [the] end of the winter unless there is [a] rapid change of fortune.</p> <p>[* Lexical density: 51.02%: * * Readability score:14.18]</p>
9	3	Mid-Density General English	<p>We spent [a] pleasant evening having [Ø] drinks at [Ø] home.</p> <p>[* Lexical density: 55.55%: * * Readability score:4.96]</p>
10	6	Mid Density Academic Writing	<p>Abstract.</p> <p>The positive association between unemployment and [Ø] property crime is well known (Mustard 2010; Lin 2008; Nordin 2009). This article discusses [a] study that evaluated the association of [Ø] long-term unemployment and [Ø] crime. This involved analysis of annual data from 288 municipalities in Sweden from 1998 to 2012. Results showed that [Ø] unemployed adolescents are more prone to violent crimes than property crimes. Several recommendations are made that could advise [Ø] future crime and policing policy.</p> <p>[* Lexical density: 58.9%: ** Readability score: 11.6]</p>
11	4	News genre	<p>Since [a/the] particular law affecting random alcohol testing was changed, there has been [an] alarming rise in the number of pilot arrests. This was illustrated by the case of [a] long haul passenger airline pilot who broke [the] law and was found to be three times above the new legal limit.</p> <p>[Lexical density: 52.94%: * Readability score:21.71]</p>

12	1	Mid-Density General English	There are millions of stars in [Ø] space. [* Lexical density: 52.86%; * * Readability score:0.63]
13	4	Mid-Density General English	[Ø] unemployment is increasing at the moment and it's getting difficult for [Ø] people to find [Ø] work. In [the] long term, I plan to move country if things don't improve. [* Lexical density: 53.57%; * Readability score: 6.73]
14	5	High Density Academic Writing	Abstract. Performance Appraisal is an important part of management. This study investigates [the] effect of features of performance appraisal systems (PAS) on marketing managers' behavioural and psychological responses. [A] survey of US marketing managers was conducted to test [the] developed hypotheses. [The] results support the notion of [Ø] direct effects of the performance appraisal characteristics on the consequence variables. [* Lexical density: 60.34%; * * Readability score:14.28]
15	4	Low Density General English	When I left [the] station, I had to stand in [a] queue for [a] taxi for [a] long time. [* Lexical density: 36.84%; ** Readability score:5.48]
16	3	Mid Density Academic Writing	[Ø] most main roads in this part of [the] country follow the line of roads built by [the] Romans. * [Lexical density: 55.56%; ** Readability score:5.2]

17	1	Low Density General English	It took us a long time to get here. It was [a] long journey. [Lexical density: 50 %; ** Readability score: -0.22]
18	2	Mid Density Academic Writing	[∅]Africa has [the] highest fertility rate of the_world, nearly 7%. [* Lexical density: 54.55%; * * Readability score: 8.01]
19	6	Mid density (News genre)	Compared to the service sector, [the] UK has witnessed a decline in [] industry since the 1950s. For example, there has been [a] decline in [the] car manufacturing industry. This came on top of huge market uncertainty in [the] industry following the revision of [the]diesel emission standards system. [* Lexical density: 51.02%; * * Readability score:13.19]
20	3	High Density Academic Writing	[The] Oxford English Dictionary defines organizational structure as a formal and informal framework of policies and rules, within which [an] organization arranges its lines of authority and communications, and allocates rights and duties. [* Lexical density: 58.82%; * * Readability score:21.95]
Total:100			

Question Text Sources

[1] [6] [9] [13] [17] adapted from Murphy, R., (2012) *English Grammar in Use*, Cambridge: Cambridge University Press.

[2] Fresneda, J., Gefen, D., Endicott, J., Larsen, K. (2014) A Guide to Text Analysis with Latent Semantic Analysis. *Journal of Information Systems*. 41 (3). 233-235.

[3] [19] Author invented texts

[4] Adapted from Wilson, C. L., & Simpson, J. A. (2016) Childbirth Pain, Attachment Orientations, and Romantic Partner Support During Labor and Delivery. *Personal Relationships*, 23(4), 622–644. doi:10.1111/per.12157

[6] Cooper, R.K., (1997) Applying emotional intelligence in the workplace. *Training & development*, 51(12), pp.31-39.

[8] [11] [12] Adapted from Hewings, M. (2013) *Advanced English Grammar in Use*, Cambridge: Cambridge University Press.

[14] Adapted from Idowu, A. (2015) Performance Appraisal Systems and their Effects on Employee Motivation. *Proceedings of the 2nd Business & Management Conference*, Madrid.

[18] [20] Reproduced with kind permission from anonymous students.

APPENDIX 10

Supplementary Figures not shown in main body of thesis

Chapter 5

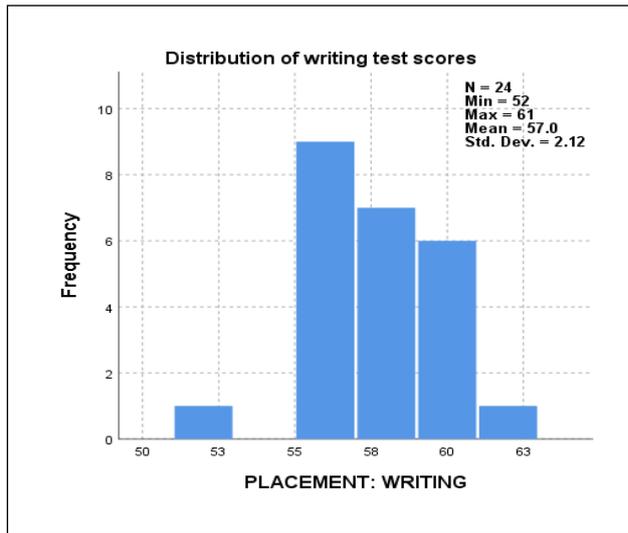


Figure 93: Distribution of written placement test scores (Chapter 5)

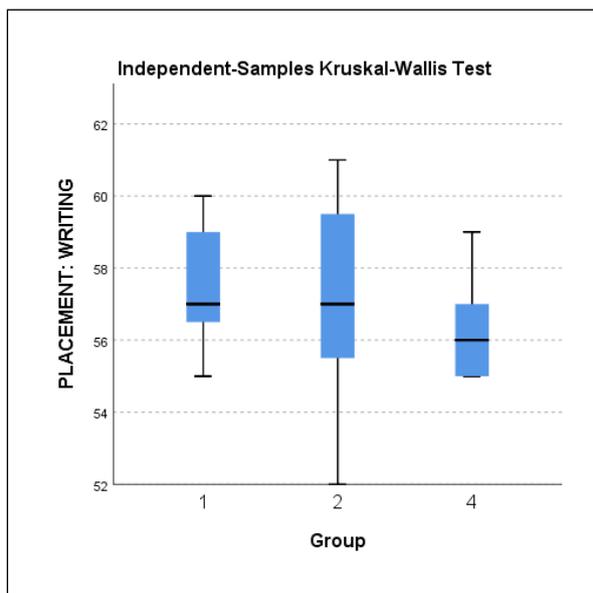


Figure 94: Distribution of student scores in the placement test

Chapter 7

Tests of normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
score	.024	455	.200*	.992	455	.012

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

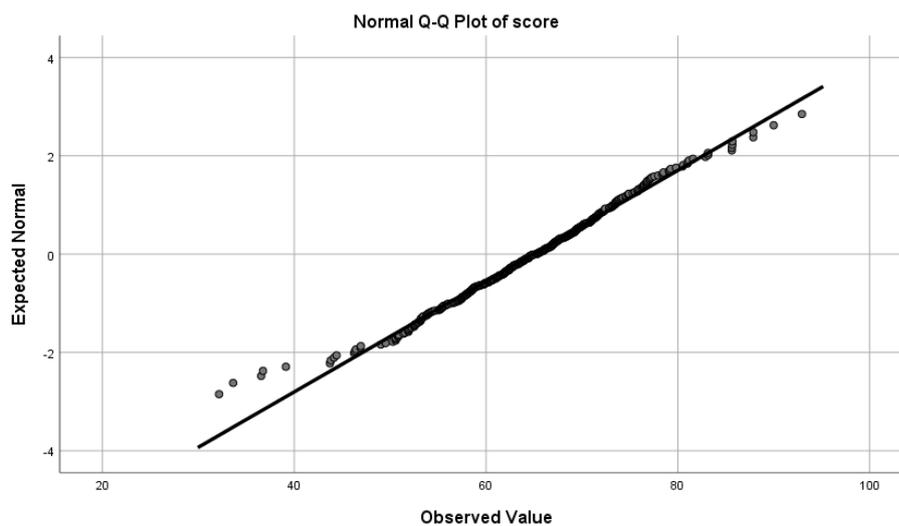


Figure 95: Test of normality (Q scores)

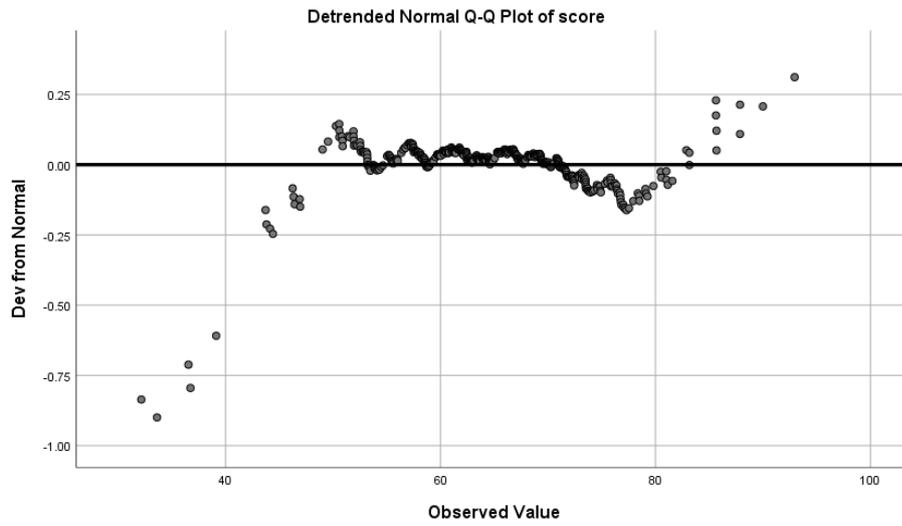


Figure 96: Tests of Normality (Detrended Q scores)