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**Addressing the Grammar Needs of Chinese EAP Students:  
an Account of a CALL Materials Development Project**

**by**

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A thesis submitted in partial fulfilment of the requirements for the degree of  
Doctor of Philosophy in Applied Linguistics and English Language Teaching

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## ABBREVIATIONS

### General Abbreviations

<b>CALL</b>	Computer Assisted Language Learning
<b>COBUILD</b>	Collins Birmingham University International Language Database
<b>C-R</b>	Consciousness-Raising
<b>HEFP</b>	The Higher Education Foundation Programme
<b>EA</b>	Error Analysis
<b>EAP</b>	English for Academic Purposes
<b>EFL</b>	English as a Foreign Language
<b>ELT</b>	English Language Teaching
<b>ESL</b>	English as a Second Language
<b>NSs</b>	Native Speakers
<b>NNSs</b>	Non-native Speakers
<b>SLA</b>	Second Language Acquisition
<b>TL</b>	The Target Language

### Abbreviations in Chapter 1

<b>CBI</b>	Computer-based Instruction
<b>FFI</b>	Form-focused Instruction

### Abbreviations in Chapter 2

<b>CA</b>	Contrastive Analysis
<b>CIL</b>	Chinese Interlanguage
<b>ICLE</b>	International Corpus of Learner English

**ID** L2 Learners' Idiosyncratic Dialects

Abbreviations in Chapter 4

**IELTS** International English Language Testing System

Abbreviations in Chapter 5

**SWK** Speaker/Writer Knowledge

**LRK** Listener/Reader Knowledge

Abbreviations in Chapter 6

**GCRT** Grammar Consciousness-raising Tasks

**IT** Interpretation Tasks

**PE** Production Exercises

Abbreviations in Chapter 7

**CELTE** Centre for English Language Teacher Education

**VB** Microsoft Visual Basic



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## DECLARATION

I hereby declare that this thesis is entirely my original work and has not been submitted for any higher degree in another university.

The papers listed below were written and presented at academic conferences during the period of the preparation of this thesis. Content from these papers has been adapted for use in the thesis.

Chuang, F-Y. & H. Nesi (2005) GrammarTalk: developing computer-based materials for the Chinese EAP student. *A workshop to be held at the joint conference of BALEAP (British Association of Lecturers in English for Academic Purposes) and SATEFL (The Scottish Association for the Teaching of English as a Foreign Language) on "New Approaches to Materials Development for Language Learning"*. Heriot Watt University, Edinburgh, 15th-17th April 2005.

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Chuang, F-Y. & H. Nesi (2004) Accuracy and the Chinese learner: an EAP approach to teaching grammar. *University of Portsmouth Working Paper. The proceedings of the "Responding to the needs of the Chinese learner in higher education" conference*. University of Portsmouth, July 2004.

Chuang, F-Y. & H. Nesi (2004) Chinese EAP students and the article system: how supplementary e-learning materials can target a neglected problem. *Paper presented at the professional issues meeting of British Association of Lecturers in English for Academic Purposes (BALEAP). "Blended Learning: Pedagogy and Practice"*. Oxford Brookes University, February 2004.

Chuang, F-Y. & H. Nesi. (2003) Developing electronic self-access remedial materials for Chinese ESL learners. *Paper presented at the conference "Independent Language Learning"*. Department of Languages, Faculty of Education and Language Studies, the Open University, December 2003.

Chuang, F-Y. (2003) An investigation into the interlanguage of Mandarin-speaking learners of English. *Poster presentation at the conference "Directions in Educational Research: Postgraduate Perspectives"*. School of Education, Leicester University, July 2003.

## ABSTRACT

This study investigated the grammar needs of Chinese EAP Foundation students and developed electronic self-access grammar materials for them. The research process consisted of three phases. In the first phase, a corpus linguistics based error analysis was conducted, in which 50 student essays were compiled and scrutinized for formal errors. A tagging system was specially devised and employed in the analysis. The EA results, together with an examination of Foundation tutors' perceptions of error frequency and gravity led me to prioritise article errors for treatment; in the second phase, remedial materials were drafted based on the EA results and insights drawn from my investigations into four research areas (article pedagogy, SLA theory, grammar teaching approaches and CALL methodologies) and existing grammar materials; in the third phase, the materials were refined and evaluated for their effectiveness as a means of improving the Chinese Foundation students' use of the article.

Findings confirm the claim that L2 learner errors are systematic in nature and lend support to the value of Error Analysis. L1 transfer appears to be one of the main contributing factors in L2 errors. The salient errors identified in the Chinese Foundation corpus show that mismanagement of the article system is the most frequent cause of grammatical errors; Foundation tutors, however, perceive article errors to be neither frequent nor serious. An examination of existing materials reveals that the article is given low priority in ELT textbooks and treatments provided in pedagogical grammar books are inappropriate in terms of presentation, language and exercise types. The devised remedial materials employ both consciousness-raising activities and production exercises, using EAP language and authentic learner errors. Preliminary evaluation results suggest that the EA-informed customised materials have the potential to help learners to perform better in proofreading article errors in academic texts.



# CHAPTER 1

## RESEARCH BACKGROUND

This introductory chapter aims to give an overview of the background issues related to this study. It starts with the description of the research context and the identification of the research issues, followed by a review of the related literature. The aim and objectives of this study are then shaped based on insights drawn from the investigation.

### 1.1 Research context

#### 1.1.1 The Higher Education Foundation Programme (HEFP)

Recently there has been a substantial increase in the number of Chinese students studying in British Higher Education. While some of these students enrol directly onto degree programmes, others begin their university career with a one-year pre-degree programme designed to improve their subject knowledge, their language and study skills, and their understanding of British academic culture. The Warwick Higher Education Foundation Programme (HEFP) is one such programme. Its aim is to help students improve their general English and English for academic purposes and develop both subject knowledge and study skills for their future degree study; students are expected to gain the necessary academic background and confidence for UK higher education after completing the course (Source: the prospectus of the Warwick Higher Education Foundation Programme, 2003). In the past, most of its

students came from Europe and from countries where English is spoken as a second language, but nowadays more than half of the participants are Chinese. For example, in the academic year of 2001/2002, 76.4 % of the students enrolled on the Warwick HEFP Business Studies course were Chinese; 94 % of Science/Engineering students were Chinese; 47 % of Social Studies students were Chinese and 47 % of Law students were Chinese (Source: data from the Warwick Higher Education Foundation Programme, 2001/2002). Chinese learners have become the majority on British Higher Education Foundation programmes.

### **1.1.2 Grammar, written accuracy and the Chinese learner**

The learning requirements of Chinese foundation students are somewhat different from those of the students for which the HEFP was originally designed. A recent survey of the wants and needs of Chinese students on the Warwick programme (Wei, 2003) found that most students were generally satisfied with the programme content, but considered grammar instruction to be the least satisfying feature of the English component. The English language tutors commented that Chinese students were generally weaker than their European counterparts in academic writing and made recurring grammar errors that they found difficult to correct. The survey identifies two major concerns: frequent and persistent grammar problems in the students' written work, and the mismatch between students' wants and course content (the students wanted more explicit grammar instruction). As the intensive Foundation programme is aimed to help students improve their subject knowledge, study skills and language skills, activities in the Foundation English classes tend to be more communicative oriented, content-based and skills-based, and explicit form-focused instruction is

usually unsystematic and incidental. The two identified problems suggest the need to provide extra grammar input for Chinese participants.

Most undergraduate students at British universities are required to produce a considerable amount of writing for assessment purposes, and so written accuracy is an important factor for the foundation students' future academic success. A lack of written accuracy "may interfere with the comprehensibility of their message (or ideas) and mark them as inadequate users of the language" (Ferris, 2002: 9). As Richards (1973: 131) points out, "deviancy from grammatical or phonological norms of a speech community elicits evaluational reactions that may classify a person unfavourably". Studies of error evaluation have found that levels of error tolerance vary among different academic disciplines (Vann, Meyer, and Lorenz, 1984; Santos, 1988, Janopolous, 1992), nonnative readers tend to be less lenient (Vann et al., 1984; Santos, 1988) and so are younger professors (Santos, 1988). The research evidence leads Ferris (1995, 1999, 2002) to conclude that some university faculty are less tolerant of typical ESL grammar errors, and making typical ESL errors may stigmatise students and negatively affect the grading of their work. The conclusion has an important implication for the foundation students: to prepare for their future studies, apart from developing all kinds of language skills, improving written accuracy is also an essential.

Although written accuracy is no less important than written fluency, British L2 writing classes are often more concerned with academic literacy than with grammar. Grammatical, lexical and syntactic errors in written work may be corrected and commented on by tutors, but class time tends to be spent discussing rhetorical



structure rather than morpho-syntactic problems. Jarvis (1997: 44) describes a typical academic writing component in British university pre-sessional English for Academic Purposes (EAP) courses:

The academic writing syllabus is often defined in terms of discourse functions; timetabled input will therefore focus on areas such as cause and effect, classification, description, process and procedure, narrative, etc. Project classes, by contrast, will tend to focus on the writing process and encourage the brainstorming, researching and organising of ideas; this will then be followed by planning, writing a draft, editing of work, etc.

His description shows that EAP writing classes aim to equip non-native students with appropriate academic writing competence by helping them to develop different skills required in the writing process, which include researching, organising, planning, drafting and editing. This suggests that grammar is not one of the focuses, and far more attention is paid to the development of fluency than to the improvement of accuracy in the writing syllabus. Of course, through repeated exposure to suitable models, students may eventually learn to produce work at an acceptable level of accuracy, but this process can be speeded up and levels of accuracy can be further enhanced by providing learners with opportunities to explicitly study grammatical forms and their roles in communicatively effective text. Exclusive focus on meaning cannot help the learner develop a full and complex L2 grammar, and he/she is likely to fail to develop to targetlike levels and lead to the fossilization of problematic linguistic forms (Swain, 1985, 1998; Williams, 1995)

## **1.2 Written accuracy and form-focused instruction**

Researchers have advocated the importance of formal instruction in L2 acquisition. Rutherford and Sharwood Smith (1985: 275) claim that formal instruction will

“significantly increase the rate of acquisition over and above the rate expected from learners acquiring the language under natural circumstances where attention to form may be minimal and sporadic”. Ellis (1988: 4) states, “naturalistic acquisition is often a very slow process; instruction may not alter the way in which learning takes place, but it may help to speed it up”. In view of the failure of the communicative approach to deliver high levels of accuracy, Long (1991: 45-46) proposes the practice of “focus-on-form” in the L2 classroom, which “overtly draws students’ attention to linguistic elements as they arise incidentally in lessons whose overriding focus is on meaning or communication”. He contrasts this practice with traditional approaches to teaching forms, which provide discrete-point grammatical presentation and practice following predetermined structural syllabi - what he has referred to as “focus-on-forms” (ibid: 47). This focus-on-form practice has gained broad support (Harley, 1998; Swain, 1998; DeKeyser, 1998; Doughty & Williams, 1998). Spada (1997: 73) also promotes “form-focused instruction” (FFI) and regards it as “any pedagogical effort which is used to draw the learner’s attention to language form either implicitly or explicitly”; it can include the teaching of grammatical rules and the provision of corrective feedback. Ellis (2001: 1-2) redefines the term “FFI” as “any planned or incidental instructional activity that is intended to induce language learners to pay attention to linguistic form”, which obviously includes both ‘focus-on-form’ and ‘focus-on-forms’ instructions.

The effectiveness of formal instruction has been extensively researched, and the results have lent support to the value of formal instruction in L2 acquisition. Long (1983: 359) draws on findings from 13 early studies of instructional effects to conclude that, when compared with naturalistic exposure, “there is considerable

(although not overwhelming) evidence that L2 instruction is beneficial 1) for children as well as adults, 2) for beginning, intermediate, and advanced students, 3) on integrative as well as discrete-point tests, and 4) in acquisition-rich as well as acquisition-poor environments”. Larsen-Freeman and Long (1991) review studies of the potential of formal instruction in four areas: 1) accuracy orders/developmental sequences, 2) acquisition processes, 3) rate of acquisition, and 4) the level of ultimate L2 attainment. They conclude that formal instruction does not seem able to alter developmental sequences, but does appear to have positive effects in the other three areas with the effect on rate of acquisition being especially evident. N. Ellis’ (1995: 136) review reveals that “...implicit and explicit modes of operation interact in interesting ways...[and] demonstrate that a blend of explicit instruction and implicit learning can be superior to either just explicit instruction or implicit learning alone”. R. Ellis (1990, 1994, 1998, 2001) reviews studies of formal instruction and concludes that well-planned formal instruction can result in definite gains in accuracy if the structure is ‘simple’. If the structure is difficult and the learner is unable to process the instruction, it is likely that it will only lead to improved accuracy in planned language use when learners can pay conscious attention to the form, but will have no effect on accuracy in unplanned language use. Ellis, however, is optimistic that in such cases learners may store some explicit representation of the feature, which may aid subsequent acquisition of the feature for use in unplanned discourse (Ellis, 1994: 623).

Spada’s review (1997) of classroom and laboratory research on the effects of FFI also supports the view that formal instruction is beneficial to L2 acquisition, and the findings further suggest that 1) explicit instruction may be particularly effective in L2



classrooms which are communicatively-based and/or where the L2 is learned via subject-matter instruction, and 2) while positive evidence alone can facilitate learning, certain forms may require instruction for continued development. Norris and Ortega (2000) summarize findings from 49 experimental and quasi-experimental L2 instruction studies published between 1980 and 1998 and conclude that form-focused instruction generally results in large proficiency gains with durable effects, both focus-on-form and focus-on-forms interventions are equally effective, and explicit types of instruction (deductive rule presentation or inductive rule formation) are more effective than implicit types (e.g. recast).

All the reviews above suggest that formal instruction is an effective means of promoting targetlike accuracy and higher levels of L2 acquisition. Chinese foundation students need to reach a satisfactory level of accuracy in a relatively short period of time (less than a year), and so explicit grammar instruction can certainly play an important role in this process.

### **1.3 Written accuracy and error correction**

#### **1.3.1 Studies of error correction**

Corrective feedback in L2 writing is one possible way of improving L2 students' written accuracy. Its effectiveness has been extensively investigated in terms of different variables such as provision of feedback, types of feedback (e.g. direct vs indirect correction; selective vs comprehensive correction), timing of feedback, student preferences of feedback and uptake of feedback, etc. (Lalande, 1982; Semke,

1984; Robb, Ross & Shortreed, 1986; Kepner, 1991; Leki, 1991; Sheppard, 1992; Frantzen, 1995; Lee, 1997; Ferris, 1997; Ashwell, 2000; Fazio, 2001; Ferris & Roberts, 2001; Chandler, 2003). The findings so far have been inconclusive, however, and there is no real consensus as to how, when or what to correct. In view of the research evidence and the practical constraints on error correction (e.g. limitations of teachers' time, patience and grammatical knowledge), Truscott (1996) concludes that all forms of error correction in L2 writing are not only ineffective but also potentially harmful, and should be abandoned. On the other hand, Ferris (1999, 2002) suggests that error correction can be effective if teachers understand their learners' common errors and systematically correct just a few at a time. She advocates the practice of selective correction and claims that selective correction is more effective than comprehensive correction (i.e. mark up all errors) because it focuses on patterns of error and allows teachers and students to attend to a few major error types at a time. This method, according to Ferris, can enhance students' awareness of their most frequent and serious grammar errors.

Ferris' proposal is not new. Hendrickson (1978) has called for error-correction researchers to analyse learner errors in order to establish priorities for error correction:

Research is needed to determine which errors occur most frequently at various stages of second language learning among learners of varying native languages. The results of this research could serve as a basis for building hierarchies of language learning features; these hierarchies would have multiple applications including the establishment of priorities for correcting errors selectively and systematically (p. 392).

However, few correction studies have attempted his proposal to scrutinize L2 writing errors and build hierarchies of linguistic features for treatment. Without a proper understanding of the L2 writer's errors (e.g. frequency and distribution of errors),

effective strategies are unlikely to be devised for error correction and treatment.

Ferris (2002) has revived Hendrickson's appeal to examine L2 learner errors in order to build a solid base for the practice of error correction. She further proposes the need to supplement corrective feedback with grammar instruction and emphasizes that instructional materials (e.g. topics and content) should closely follow the learner's written error profile.

### **1.3.2 Grammar plus vs grammar minus**

Studies of error correction also lend support to the provision of grammar instruction in L2 writing classes. Frantzen and Rissell (1987) investigated how university students of Spanish self-corrected their compositions. The teacher first circled grammatical errors in the compositions and then asked students to correct them in class. The results showed that the students could correct the errors by applying rules with varying degrees of success. It was, however, difficult for them to know which rule to apply in a given case and "correcting seems to involve a binary-guessing process, success in which to some extent follows order of difficulty" (ibid: 106). The findings suggest that students need explicit grammar instruction to become better self-editors of their writing. Lalande (1982) inspected the effects of different rewriting activities. The control group only had to rewrite their compositions by copying the teacher's corrections (correct forms provided); the experimental group had to adopt the 'extensive rewriting' method in which they followed error codes to self-correct their writing and were encouraged to use their grammar books and ask for teacher or peer assistance if they could not solve them. The results showed that the experimental group outperformed the control group in grammatical and orthographic error



categories in their final writing. The success of the 'extensive rewriting' method suggests that grammar materials and instructions are useful in helping the L2 writer to become a competent self-editor and to improve his/her accuracy.

Some studies, however, seem to cast doubt on grammar in L2 classes. Frantzen (1995) investigated the effects of grammar supplementation on written accuracy in an intermediate Spanish content course. The experimental group received a grammar component (daily 10/15-minute grammar review and corrective feedback), but the comparison group did not. Two types of pre- and post- tests were administered. Both groups significantly improved their grammatical accuracy over the semester on both test instruments. The plus-grammar group significantly outperformed the non-grammar group on the discrete-point grammar test, but not on the in-class essay writing. The results suggest that grammar can effectively help the L2 learner 'learn' the form and the effects are durable, but for the 'learned knowledge' to be proceduralized into implicit and acquired proficiency that can initiate spontaneous L2 production, other factors (e.g. naturalistic exposure, developmental readiness, production practice) may be required. This can partially explain why the plus-grammar group failed to outperform the non-grammar group on the in-class essay writing. Another reason is that essay writing is an integrative skill which involves interaction between developing linguistic competence and skills of organising information in texts (Yates & Kenkel, 2002); the L2 learner tends to have difficulty in concurrently attending to meaning and to form, and thus often prioritises meaning processing at the expense of formal accuracy (VanPatten, 1990, 1996).

Polio, Fleck and Leder (1998) examined 64 ESL students' 30-minute drafts and 60-minute revisions, both at the beginning and at the end of a semester. They found that the subjects could self-correct grammar errors without teacher feedback and their written accuracy improved from draft to revised essay and over the semester. An experimental group who received error feedback and editing instruction (grammar review and editing exercises) did not outperform the students who did not receive any of them on measures of accuracy. However, Polio et al. were cautious when judging the value of correction and grammar instruction in view of other factors. For example, the treatment was not strong enough or was not administered for a sufficiently long period of time.

One point Polio et al. failed to consider was that in their study the students' drafts were timed written work, and the time constraint made it likely for the students to make 'slip' mistakes. When revising the draft, even without teacher feedback, the students could easily spot the slips and correct them, as James (1998: 236) points out, "self-correction of a slip can be achieved without the benefit of feedback from another person". In the case of un-timed assignments, I would argue, the effects of feedback and grammar instruction are likely to be significant. My hypothesis is that errors in un-timed written work (e.g. Chinese foundation students' essay assignments) are more likely to indicate learners' linguistic deficiencies because they have the time to self-edit surface-level mistakes; many of the remaining errors tend to be their 'real' linguistic problems. In that case, it would be difficult for them to self-correct the assignments without proper grammar interventions. This assumption is supported by James' (1998: 247) assertion that providing learners with corrections is essential in

those cases where “the language processing task is difficult” and learners cannot self-correct errors.

#### **1.4 Meeting the needs of the Chinese learner**

Given that L2 instruction research has demonstrated the effects of formal instruction on promoting accuracy, providing grammar input should be an effective way of treating recurring errors in L2 writing. It is speculated that while corrective feedback can help the L2 learner to rewrite the same piece of writing more accurately, its effect on improving long-term written accuracy may be limited. A common scenario is that the L2 teacher marks up (i.e. underlines or circles) errors with or without providing the correct form or error code. If the learner uses the feedback in his/her revision, the revised writing should be more grammatically accurate. Some errors, however, may involve complex grammar rules and the feedback may not be strong enough to treat them; without extra grammar instruction, the learner is unable to understand the problematic linguistic features and is very likely to make the same errors in his/her subsequent writing. This may well explain why some studies of error correction (Hendrickson, 1980; Cardelle & Corno, 1981; Lalande, 1982) have found corrective feedback beneficial to students' revisions, but few have found it effective in terms of improving long-term accuracy (i.e. the learner's ability to write more accurately later).

Due to the limitations of corrective feedback, it is necessary to provide grammar instruction for the treatment of persistent errors in L2 writing, and this accords with the proposals of SLA researchers and practitioners. For example, in view of the fact



that “conformity to standard English conventions of grammar and mechanics” is essential for most types of academic writing, Frodesen (1991: 265) regards grammar instruction as a necessary component in an L2 writing course. Byrd and Reid (1998) advocate teaching grammar in the composition classroom by addressing practical issues such as analysing ESL/EFL learner errors, responding to language problems and teaching the grammar of different types of academic writing. When treating recurring errors, Ferris (1995, 2002) emphasizes the need for grammar instruction as well as teacher feedback. Chinese foundation students tend to have recurring errors in their writing which tutors find difficult to correct; providing them with extra grammar input is therefore indispensable if written accuracy is to be achieved.

Celce-Murcia’s (1991) view lends further support to the idea of providing Chinese foundation students with extra grammar input. From a teacher’s perspective, she discusses grammar pedagogy and provides a grid (Figure 1.1) that is a visual aid to help teachers to decide to what degree they ought to deal with grammar in their own classes. Celce-Murcia points out that the need to focus on form depends on instructional variables (educational objectives) and learner variables (cognitive style, age, proficiency level, educational background). If the teacher is teaching productive skills (in particular, academic writing), helping students to achieve a high degree of formal accuracy is essential. She considers that formal instruction is beneficial to learners with the following characteristics: 1) they have an analytic style and learn best by formulating and testing hypotheses or rules, 2) they are adolescents or adults, 3) they are at the intermediate or advanced proficiency level, and 4) they are literate and educated.

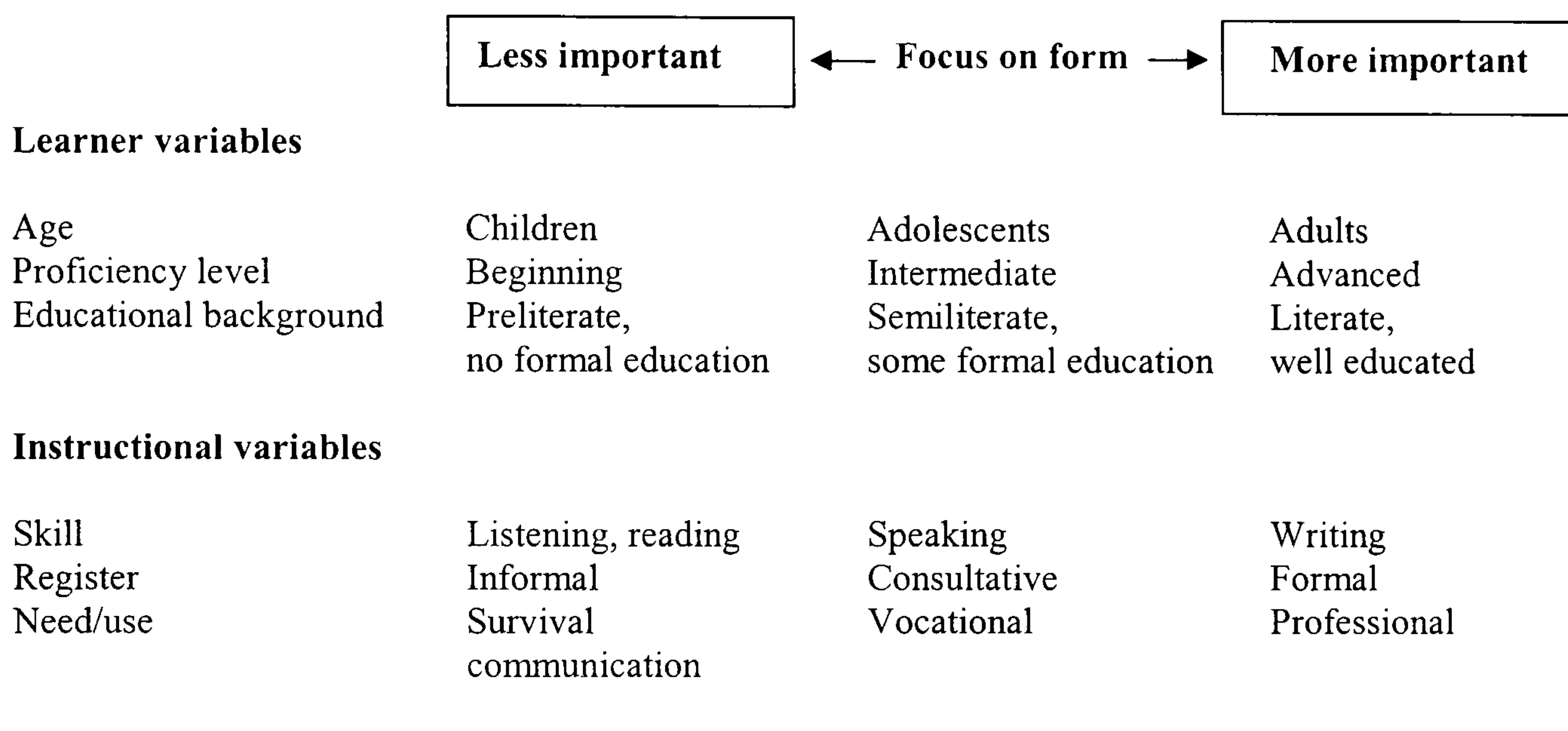


Figure 1.1: Making informed decisions about the role of grammar in language Teaching  
(Celce-Murcia, 1991: 465)

According to the grid, when teaching academic writing to literate young adults with a high-intermediate proficiency level, focusing on form is important if the teacher wants to help them successfully complete their composition requirements. The Chinese foundation students meet all these criteria. Moreover, Oxford, Hollaway and Murillo (1992) suggest that Chinese learners are thinking-oriented and fond of detail and precision, show an analytic tendency in their learning style, and may naturally prefer to engage in formal language learning aimed at achieving accuracy. All these imply that providing Chinese foundation students with extra grammar input would be important and worthwhile.

## 1.5 Grammar materials development

### 1.5.1 Learner errors and remedial materials

Another crucial factor may have contributed to the ineffectiveness of the grammar components in Frantzen (1995) and Polio, et al. (1998) discussed above in Section

1.3.2. A closer examination reveals that the instructional materials these researchers used were not specially developed based on the students' actual grammar errors, and therefore may not have addressed their specific language problems. If the materials had been properly written or tailored to meet the students' immediate grammar learning needs, the grammar instructions in the two studies might have been more effective.

Researchers suggest that effective remedial materials should closely reflect learner errors. Corder (1967: 166) claims that L2 learners produce L2 output using "a definite system of language", and so their errors are "the evidence of this system and are themselves systematic". Analysing L2 errors not only enables L2 teachers to monitor their day-to-day teaching, but also helps them to design "a remedial syllabus or a programme of reteaching" for their learners (Corder, 1973: 265). Because the majority of L2 student written errors occur in systematic patterns, analysing errors enables us to detect the patterns and inform the development of instructional materials for L2 learners (Ghadessy, 1976).

James (1998: 235) also recognizes the value of error analysis (EA) and emphasizes that analysing learner errors enables us to identify the principles which should guide effective error remediation. He maintains that an effective way of treating L2 errors is to help learners to notice the gap between their interlanguages and the target language, i.e. learners need to do error analysis themselves. He points out that the criterion the task should follow is that "the forms learners are encouraged to notice and the cognitive comparisons they are asked to make are based on their own recent learning experience, particularly where that experience is negative" (ibid: 258). This suggests



that remediation should focus on the salient errors learners make, and remedial materials should include activities in which learners are induced to notice their problematic grammatical features by comparing their production and the target form. To raise learners' grammatical consciousness, Rutherford (1987) proposes the use of consciousness-raising (C-R) tasks in which learners are required to judge or discriminate between grammatical and ungrammatical items. He emphasizes that the actual language content used in the C-R tasks should derive from learners' work because "it is obviously best if what is to be judged emanates... from learner production itself and is embedded in the original context" (ibid: 161). The proposals of James and Rutherford are echoed by Ferris (2002). She advocates the provision of brief grammar minilessons in L2 writing classes focusing on problematic features derived from the examination of student written work. As for activities suitable for the minilessons, Ferris points out that the most obvious applications would be for students to practise newly learned linguistic features "by finding and correcting errors in sample student texts and then in their own texts" (ibid: 27).

L2 errors are often systematic in nature, and so analysing learner errors is useful because it can reveal the systematic deviances of learners' interlanguage from the target language (TL), which, in turn, can serve as a base on which learners' interlanguage grammar can be described and better remedial materials can be developed. In short, for the development of more effective remedial grammar materials, it is first necessary to conduct a thorough analysis of learner errors.

### 1.5.2 A self-access e-learning resource

It seems pedagogically sound and practically useful to provide grammar instruction in L2 writing classes. However, this may be technically difficult. Ferris (2002) raises the question of how much class time should be dedicated to grammar instruction given that many other issues critical to L2 writing also need to be covered in class. Each student has his/her grammar learning needs and thus the delivery modes of in-class grammar lessons have to be varied (e.g. the entire class, small groups, one-on-one conferences). Time constraints may decrease the effectiveness of lessons, and the diversity of learner needs may complicate the treatment and exhaust the teacher. Intensive foundation programmes need to help students develop subject knowledge, language skills and study skills, and students usually have a very tight schedule. It is difficult to allocate suitable times for explicit grammar lessons, let alone to deliver them in different modes.

Because computer technology can offer interaction and interactivity, I envisage an electronic-based self-access resource, to support but not interfere with the more communicative and skills-based activities typically practised in the Warwick Foundation Programme English classes. In other words, instead of in-class grammar lessons, I suggest that instruction is offered in the form of e-learning materials, implemented as a self-access resource. Studies of computer-assisted instruction in general, and of Computer Assisted Language Learning (CALL) in particular, are able to support this proposal. Kulik and Kulik (1987) reviewed studies of computer-based instruction (CBI) and found that CBI could help teachers save instructional time and had positive effects on students' attitudes towards learning. Niemiec and Walberg's

(1987) review indicated that computer aided instruction was moderately effective, and seemed particularly successful with younger students. McEnery, Baker and Wilson (1995) investigated the effects that two approaches had on teaching grammar and found that the computer aided group outperformed their human-taught counterparts in terms of accuracy. Similar results were found in Nagata (1996) in which natural language processing was employed to provide sophisticated error analysis and feedback; as a result, the computer feedback was more effective than simple workbook answer sheets for developing learners' grammatical skill in producing Japanese particles and sentences. Nutta (1998) also found that the computer-based students in his study scored significantly higher on open-ended tests on verb tenses than the teacher-directed students. All these findings suggest that computer-based grammar instruction can be as effective or even more effective than traditional delivery modes (e.g. workbooks and lectures).

Moreover, computer technology makes it possible to provide rich input in the form of multimedia programs; interactive materials can provide immediate feedback on exercises and are generally bound to be more motivating than print-based materials. Computer-based self-access materials enable the learner to learn at his/her own pace; they can be used outside class, and so more class time can be spent covering other issues.

## **1.6 Research aim and objectives**

Chinese foundation students' language problems and their learning requirements prompt us to provide extra grammar instruction to help them improve their written

accuracy. The current study is an attempt to address this issue and its design is based on the following assumptions drawn from the research literature reviewed in the previous sections:

1. Grammar instruction can effectively promote the L2 learner's written accuracy.
2. Grammar instruction is useful when treating recurring formal errors in L2 writing.
3. L2 errors occur in systematic patterns, and examining these errors can reveal the learner's linguistic problems and inform us about his/her immediate learning needs.
4. Effective instructional materials should take into account the learner's error profile.
5. Self-access e-learning grammar materials have the potential to help the L2 learner to improve written accuracy.

In accordance with these five assumptions, the aim and objectives of this study are stated below.

- Research aim

The aim of this study is to investigate the grammar needs of Chinese EAP students and develop computer-based remedial materials for them with a view to helping them improve their written accuracy.



- Research objectives

The objectives of this study are:

1. To identify, classify and quantify the formal errors in the written production of Chinese HEFP students.
2. To examine the frequent errors Chinese HEFP students make and detect their systematic error patterns.
3. To investigate different pedagogical interventions for the treatment of problematic linguistic features.
4. To formulate design principles for the development of remedial materials.
5. To evaluate the effectiveness of the materials as a means of improving Chinese HEFP students' written accuracy.

## **1.7 The structure of this thesis**

This study consists of three phases. In the first phase, I conduct an error analysis of the Chinese foundation students' written production and prioritise a linguistic feature (the English article system) for treatment; in the second phase, I follow the EA results to develop e-learning grammar materials; in the third phase, I revise the materials and evaluate their effectiveness as a means of improving the foundation students' use of the article. The thesis has eight chapters. The 1<sup>st</sup> chapter describes the research context, identify the research issues and states the aim and objectives of this study. The 2<sup>nd</sup> chapter investigates error analysis (EA) with a view to formulating an EA methodology for this study. The 3<sup>rd</sup> chapter documents the development of an error tagging system. The 4<sup>th</sup> chapter reports on the process and results of the EA study, the prioritising of article errors and the article error profile. The 5<sup>th</sup> chapter reviews

article pedagogy and examines article treatments provided in textbooks and grammar reference books. The 6<sup>th</sup> chapter investigates three research areas: second language acquisition, grammar teaching approaches and CALL methodologies. This leads to the formulation of materials design principles and the draft version of remedial grammar materials. The 7<sup>th</sup> chapter reports on a series of materials revisions and a small-scale materials evaluation. The final chapter draws conclusions from this study and outlines further research plans.

## CHAPTER 2

### ERROR ANALYSIS

This chapter aims to investigate error analysis (EA) with a view to formulating an effective EA methodology for this study. It starts with an overview of error analysis and its counterpart paradigms, followed by a critical review of EA literature with a focus on EA methodologies. A tentative EA approach is proposed for this study and its rationale is justified.

#### 2.1 What is error analysis

Error analysis (EA) examines the errors of second language learners. It was extensively studied in the late 1960s and early 1970s (Corder, 1967, 1971, 1973, 1981; Selinker 1972; Richard 1974) but discredited during the 1970s and early 1980s. Its contribution, however, has been reassessed following some significant publications in the field of Second Language Acquisition (SLA) (Kellerman & Sharwood Smith, 1986; Odlin 1989; Ellis, 1994; James 1998). To understand the application of EA, it is necessary to investigate the notion of error and the historical background of EA and other competitive paradigms, namely contrastive analysis and learner interlanguage.

##### 2.1.1 The notion of error

The notion of error has evolved through a number of different psycholinguistic climates. Three distinct notions have been identified.

### **2.1.1.1 Errors as negative transfer from the mother tongue**

Until the late 1960s, the dominating theory concerning second language learning was behaviourism, which regards language learning as habit formation. An L2 learner is seen as acquiring a set of new language habits (i.e. a new language system).

Concurrence of the systems of the target language (TL) and the learner's mother tongue will lead to a new system which combines features of both systems (Fries & Pike, 1949), or to intersystemic interference (Weinreich, 1953) which is the cause of errors. In short, errors result from interference of two different sets of language habits.

Under the 'bad habits' stigma, errors are regarded as negative transfer or interference from the learner's mother tongue. They play a negative and inhibitive role in L2 acquisition and should be overcome or avoided if possible.

### **2.1.1.2 Errors as positive evidence of learners' hypothesis testing**

In the late 1960s, the behaviouristic account of L2 learning was seriously questioned. Chomskyan generative linguistics succeeded in highlighting the previously neglected mental makeup of learners as the main force in the learning process. Meanwhile, Corder (1967: 165, reprinted in 1981) published an article entitled "The significance of learners' errors", in which he compared a child learning his mother tongue and a learner learning a second language and argued that a child's incorrect utterances are "evidence that he is in the process of acquiring language...". The child learner "is



using a definite system of language” and testing his hypotheses at every point in his development, and so his errors are the results of his hypothesis testing and “evidence of this system and are themselves systematic“ (ibid: 166). Similarly, a second language learner uses the same ‘hypothesis testing’ strategy in the learning process. Corder regarded errors as constructive indicators of the L2 learner’s current state of L2 knowledge. This concept of ‘transitional competence’ gave rise to the concept of the idiosyncratic dialect (ID) (Corder, 1971, reprinted in Corder, 1981) which Corder used to label learner language. He argued that deviant items in the learner’s ID should not be termed as ‘ungrammatical’ because they are in fact grammatical in terms of his/her ID grammar. This view is echoed by Stevens (1969, cited in Richards & Sampson, 1974: 4), who maintains that if a learner is seen to progress through a regular pattern of error identified in the productions of all learners, his errors could be taken as evidence not of failure but of success and achievement in his L2 learning.

Under this “hypothesis testing” notion, errors are regarded as positive and facilitative in language acquisition. They provide evidence of a system, that is, evidence of the state of the learner’s knowledge of the target language (Gass & Selinker, 1994: 66). This notion has inspired a research trend – error analysis.

### **2.1.1.3 Errors as part of learner Interlanguage**

In response to the focus on L2 errors, the concept of learner language arose. Many terms are used to refer to learner language: idiosyncratic dialects (Corder, 1971, 1981), interlanguage (Selinker, 1972) and approximative systems (Nemser, 1974).

The main argument for this notion is that learner language, just like any other language, has its own grammar. The L2 learner passes through a series of grammars, each one systematic in nature; L2 interlanguage is not an imperfect imitation of the target language, but a system in its own right, error-free by definition (Selinker, 1972). According to this view, learner interlanguage should be described as a whole and errors should not be separated from the whole text. The learner's partial success, reflected in the construction of rules, is seen as representing the construction of an evolving system of grammatical and phonological rules (Richards & Sampson, 1974). Focusing on errors alone has blocked the researcher from seeing the whole picture. Under this notion, errors are not regarded as negative or positive, but rather as an integrated part in a 'natural' and evolving language system.

### **2.1.2 Three Paradigms**

The different notions of error have brought about different paradigms in SLA research. In this section, error analysis is investigated, together with two competitive paradigms: contrastive analysis and learner interlanguage.

#### **2.1.2.1 Contrastive analysis**

Errors are negative transfer from the learner's mother tongue. Contrastive analysis assumes that L2 learners tend to transfer to their L2 utterances the formal features of their L1s. Lado (1957: 2) claims, "individuals tend to transfer the forms and meanings and the distribution of forms and meanings of their native language and culture to the foreign language and culture"; comparing the learner's L1 and the TL

can predict transfer (i.e. negative transfer) and the errors which he/she will make.

Lado links up transfer and habits with the concepts of 'ease' and 'difficulty' in learning the grammar of a TL. The structures which are 'similar' in the L1 and TL will be easy to learn while the structures that are 'different' will be difficult. Fries (1945) emphasizes the value of CA and maintains that "the most efficient materials are those that are based upon a scientific description of the language to be learned, carefully compared with a parallel description of the native language of the learner" (Fries, 1945: 9, cited in Selinker, 1992: 6).

The CA hypotheses are based on transfer theory, which in turn is formulated within a Stimulus-Response (Behaviourist) theory of psychology (James, 1980). CA researchers claimed that by systematically comparing the L1 and L2, an inventory of areas of ease and difficulty could be predicted and appropriate grammar teaching approaches and materials could be devised to help learners overcome or avoid these predicted learning difficulties. However, not only did the psychological basis of CA (i.e. Behaviourism) prove to be faulty, but also the empirical evidence found in many studies invalidated the CA hypotheses. For example, Dulay and Burt (1974) analysed 513 speech grammatical errors made by child ESL learners, and found that only 4.7% of the errors reflected the children's first language. The same conclusion was reached in Dulay, Burt and Krashen (1982) when they examined the findings of nine child studies. They also reviewed studies of adult L2 learners and found that only a minority (8%~23%) of the total adult errors might be classified as interlingual errors.

Because of its faulty theoretical basis and contrary empirical evidence, CA was labelled as a weak predictor of learner performance, and the strong version of CA (i.e.



CA for error prediction) was invalidated in the 1970s. Its weaker version (i.e. CA for error explanation), however, has given rise to a new name for the paradigm – crosslinguistic influence. The practice of CA can provide a preliminary step to understand language transfer and explain the possible cross-linguistic interference phenomenon (Gass & Selinker, 1983; Odlin, 1989). In other words, the value of CA is more on the insight it can provide for the explanation than prediction of errors. Language transfer or crosslinguistic influence, be it positive or negative, is an indisputable phenomenon; resorting to CA to explain and probe L2 interlingual errors is still necessary.

#### **2.1.2.2 Error analysis**

In response to the failures of the behaviorist theory and CA, EA came into the spotlight in the late 1960s when the psycholinguistic climate emphasized the role of the learner's mental makeup in the learning process. The EA paradigm regards errors as evidence of learners' hypothesis testing and an indispensable feature of the L2 learning process. Corder (1967, 1981) explicitly declares the importance of learner errors:

They are significant in three different ways. First to the teacher, in that they tell him, if he undertakes a systematic analysis, how far towards the goal the learner has progressed and, consequently, what remains for him to learn. Second, they provide to the researcher evidence of how language is learnt or acquired, what strategies or procedures the learner is employing in his discovery of the language. Thirdly, they are indispensable to the learner himself, because we can regard the making of errors as a device the learner uses in order to learn. It is a way the learner has of testing his hypotheses about the nature of the language he is learning. (Corder, 1967: 167)



According to Corder, analysis of learner errors can provide vital information for teachers, researchers and learners. With the information, teachers can assess learners' progress, researchers can outline L2 learners' acquisition sequences (i.e. learners' built-in syllabus) and learners can revise and improve their L2 knowledge. The ultimate aim is to devise a better syllabus in order to facilitate L2 acquisition.

Dulay et al. (1982: 141) point out EA's success in three aspects: it has elevated the status of errors, highlighted the multiple origins of errors (not just L1 transfer) and contributed substantially to the theoretical consciousness-raising of applied linguists and language practitioners. They also indicate that EA is not perfect, however. Many studies criticise EA in terms of its methodological procedures and its scope. Bell (1974: 35) attacks EA for its use of inadequate learner data and the subjectivity of its interpretations of errors, and labels EA as "an inadmissible pseudoprocedure with a methodology that is impossible in principle and in practice". Hammarberg (1974) points to the insufficiency of EA because the practice is limited to the study of errors and neglects the description of the non-errors, which will prevent researchers from seeing the whole picture. Schachter (1974) points out a flaw in EA – its failure to recognize the learner's avoidance behaviour (the learner tends to avoid difficult TL items). Schachter and Celce-Murcia (1977) urge teachers to be aware of the limitations of EA, as they claim that EA has six potential weaknesses: 1) the analysis of errors in isolation, 2) improper classification of errors, 3) insufficient quantitative data, 4) inadequate explanations of errors, 5) incorrect suggestion of difficult areas and 6) the use of limited and biased samples. These criticisms severely dented its reputation and EA was labelled as an imperfect research tool in the 1970s and early 1980s.

Although EA was discredited in the 1970s, it is undeniable that a good way of understanding the L2 learner's learning is by directly examining his/her speech or writing with a focus on errors he/she has produced. Ellis (1994) assures us that the study of learner errors is useful and indicates that EA is still widely practised by researchers, often as a supporting means of investigating a specific research question (e.g. Felix, 1981, Pavesi, 1986) or as special efforts to revitalize EA (e.g. Taylor, 1986, Lennon, 1991). James (1998) also maintains that EA can be employed to uncover cognitive, linguistic and pragmatic complexities involved in SLA, and that its practical value has made EA much more practised than it is given credit for. He echoes Ellis' view that many EA studies are still conducted despite the odds, with some continuing the traditional practice, some addressing criticisms and modifying methodologies, and some exploiting EA as a supporting tool. James himself proposes a 10-step EA model and explicitly addresses errors and EA in language learning and use, thus making a substantial effort to invigorate EA.

### **2.1.2.3 Learner interlanguage**

Embracing Selinker's (1972) interlanguage hypothesis, the learner interlanguage paradigm suggests a wholly descriptive approach to studying learner language and rejects the practice of comparing L2 interlanguage with the TL. Advocates emphasize that learner language, just like any language, has its own grammar and should be described and studied objectively. According to Bley-Vroman (1983: 15), "language systems should be considered on the basis of their own internal logic", and it is a mistake to "measure the internal systematicity of an interlanguage by comparing it with the target language" because such practice commits the "comparative fallacy".

He maintains that attempting to account for learner language in terms of how far it deviates from the TL cannot provide any insight into its actual nature and systematic features.

James (1998), however, disagrees with the Interlanguage paradigm critique of EA (i.e. comparing learner language with the TL). In his view, Interlanguage and EA enterprises are targeting different things: the former is interested in “the properties of languages” and the “language learnability” issue while the latter is interested in “the problems of learners” and “the processes of teaching” (ibid: 7). He agrees with Cook (1993: 22) that EA is “a methodology for dealing with data, rather than a theory of acquisition” (cited in James, 1998: 7) and points out that EA should not be criticised for things it is not designed to do.

The above review shows that EA is a potentially valuable tool for SLA research. However, since it is mainly criticized in terms of its methodology, it is essential to devise a set of valid analysis procedures before embarking on EA studies.

## **2.2 EA Methodologies**

EA has long been criticized as an imperfect research tool. Ellis (1994: 67) concludes that the main critiques of EA fall into two categories: “limitations in scope” and “weaknesses in methodological procedures”. In terms of limitations in scope, he documents three main criticisms: 1) EA fails to provide a complete picture of learner language, 2) most EA studies are cross-sectional in nature and this can seldom inform us about how the learner develops L2 competence over time, and 3) the learner’s



avoidance of difficult features can invalidate EA results. Ellis, however, does not think the first two weaknesses are necessary criticisms as 1) EA does not prohibit researchers from examining both errors and non-errors, and 2) EA can also be used in longitudinal studies to investigate L2 acquisition at different stages. He regards the third weakness, avoidance, as a real problem because EA can only examine what the learner has produced and cannot detect what he/she has avoided. In terms of methodological procedures, Ellis also documents many criticisms. Since EA's main problem is its methodology, it is thus necessary to examine the weaknesses in each EA step in the hope of developing a satisfactorily validated EA approach for this study. In the following sections, I will investigate the steps of EA, discuss their weaknesses and try to formulate solutions.

## **2.2.1 The steps of EA**

### **2.2.1.1 General EA steps**

Corder (1974) proposes five steps in EA research: 1) collection of a sample of learner language, 2) identification of errors, 3) description of errors, 4) explanation of errors, and 5) evaluation of errors. Gass and Selinker (1994) suggest similar EA steps: 1) collection of data, 2) identification of errors, 3) classification of errors, 4) quantification of errors, and 5) remediation. Most of the steps are included in EA studies; however, error evaluation, as Ellis (1994) observes, is not usually undertaken by EA researchers, as it is treated as a different issue from EA.



### 2.2.1.2 Corder's algorithm for identifying idiosyncratic dialects

Corder (1971, 1981) proposes the concept of idiosyncratic dialects (i.e. a learner's language) and suggests that there is no methodological difference between error analysis and the study of learner language. He devises an algorithm for identifying learners' idiosyncratic dialects (see Figure 2.1) and explicates its three stages as follows (1981: 21-24):

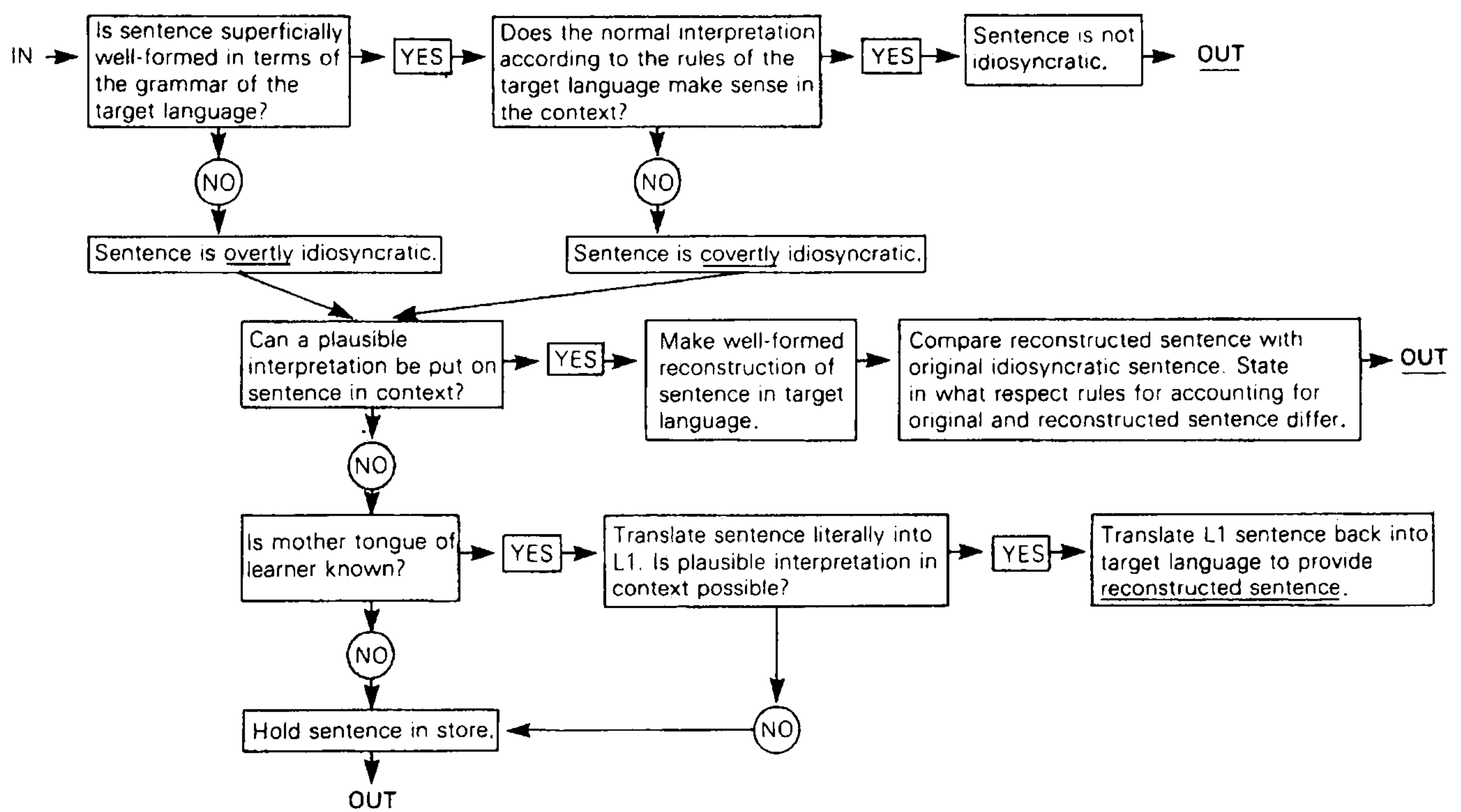


Figure 2.1: Corder's algorithm for identifying idiosyncratic dialects (Corder, 1971; 1981: 23)

#### 1. Recognition of idiosyncrasy

Corder recognizes that EA should focus on both overtly and covertly idiosyncratic sentences. He defines overtly idiosyncratic sentences as sentences which are superficially ill-formed in terms of the grammar of the TL and covertly idiosyncratic sentences as sentences which may be superficially well-formed but are unacceptable in context. To recognize both kinds of

idiosyncrasy, he suggests that every sentence needs to be analysed following the algorithm. When an overtly/covertly idiosyncratic sentence is encountered, an acceptable interpretation must be formed in the light of the context. Based on the interpretation, a well-formed sentence is constructed, which is what a native speaker would have said to express that meaning. If an acceptable interpretation cannot be found, the way to arrive at such an interpretation is to refer to the learner's L1 (i.e. literal translation). If an adequate L1 interpretation can be found, it can then be translated back into a reconstructed well-formed TL sentence. The end point of the process of identifying idiosyncrasy is two sentences: the idiosyncratic sentence and its well-formed translation equivalent. However, if the learner's L1 is unknown and thus the L1 interpretation of the sentence in question cannot be found, the sentence will be excluded from the analysis. In other words, sentences with ambiguous meanings are not readily suitable for analysis.

## 2. Description of a learner's idiosyncratic dialect

In Corder's view, if stage 1 is successfully completed, we can get the data of a set of paired sentences with the same meaning: one in the learner's dialect and the other in the target language. They are compared and the differences are described.

## 3. Explanation

At this stage we have to attempt to explain how and why the learner's idiosyncratic dialect is of the nature it is. Apart from L1 transfer, the learner's

language environment, personal qualities (e.g. personality and age) and internal processing mechanisms should all be taken into account.

Corder's algorithm provides a clear and logical sequence for the identification of idiosyncratic sentences. Some useful points from the algorithm are: (1) every sentence should be examined; (2) a covert error can be filtered out by inspecting its contextual information; (3) if a sentence cannot be satisfactorily interpreted, we can try to get an authoritative interpretation by referring to the learner's mother tongue; (4) when the meaning of a sentence in question is unclear, the sentence should be withdrawn from analysis.

### **2.2.1.3 James' 10-step EA model**

James (1998) elaborates Corder's algorithm and proposes a 10-step EA model (see Figure 2.2). Steps 1-4 correspond to Corder's stage 1 and the "ungrammatical" and "unacceptable" errors in James' model match Corder's "overt" and "covert" errors respectively. In step 5 "Describe errors", James suggests that errors can be inspected from two perspectives and described in terms of two taxonomies (i.e. the linguistic system of the target language and the learner's modification of the target surface structure). In step 6, he tries to distinguish errors from slips and mistakes. The 'errors vs mistakes' distinction is also emphasized in Corder (1967). Steps 7 and 8 correspond to Corder's stage "explanation of errors". When explaining errors, L1 transfer and other factors should all be taken into account. Step 9 is to determine error gravity (i.e. evaluation of errors) so that the most serious error can be treated first.

Step 10 is to develop remedial materials and modify the syllabus, which reflects the objectives of EA propagated by Corder (1967).

1.	Sample learner language		
2.	Register each utterance of sample and its context		
3.	Is utterance x normal? (wholly or in part?)		
	3(a) in some plausible context? Yes	3(b) in this context? Yes	ACCEPT (nondeviant)
	NO (ungrammatical)	NO (unacceptable)	
4.	Reconstruct intended form (NS target form) and note the miscorrespondence(s)		
5.	Describe the error in terms of	5(a) LEVEL and unit of the TL system	
		5(b) Learner modification of target (omission, etc)	
6.	Can the learner self-correct	6(a) YES...Unprompted	SLIP
		6(b) YES...Prompted	MISTAKE
		6(c) NO ...Ignorance/Incompetence	Error
7.	Carry out a back-translation of deviant form into learner's L1		
8.	Is the translation good?	YES	INTERLINGUAL (Interference/Transfer)
		NO	Alternative diagnosis INTRALINGUAL, INDUCED.
9.	Determine gravity		
10.	Remedial work/modify syllabus		

Figure 2.2: James' 10-Step EA Model (James, 1998: 269)

James' model includes not only common EA steps but also relevant issues such as the differentiation of errors and mistakes and the evaluation of error gravity. In terms of error description and explanation, James suggests that researchers describe errors using two types of error taxonomy, and explain errors considering all the possible factors. His model is probably the most comprehensive EA model to be devised so far. This, however, does not imply that every EA study has to undertake all the steps



suggested in the model. Researchers need to tailor the scheme to meet their own needs.

## **2.2.2 The weaknesses of EA**

The critiques of EA are well documented (Dulay, Burt & Krashen, 1982; Ellis, 1994; James, 1998). Some of them have been noted in previous sections. This section will be dedicated to investigating problems which are perceived to be critical in terms of the development of a satisfactorily validated EA approach.

### **2.2.2.1 The phenomenon of avoidance**

One of the criticisms of EA is that it is fundamentally flawed because learners avoid difficult structures (Schachter, 1974). Corder (1981: 59-60) recognises that L2 learners' output data is biased because of both external and internal constraints. The data is normally material produced as exercises in classroom conditions with restricted topics, restricted functions, time, etc. Learners themselves also place limitations upon the data by using the language that they feel most confident about. To correct this sampling bias, Corder proposes the method of elicitation procedures. An elicitation procedure, as he defines it, is "any procedure which causes a learner to make a judgement about the grammatical acceptability of a form or provokes him into generating a linguistic response." (ibid: 61). It places constraints on learners so that they are forced to use certain lexical items or syntactic structures. Their failure or success in using the target item can reveal their understanding of the item.

James (1998) regards the phenomenon of avoidance as the result of learners' ignorance of the TL. He points out that when L2 learners are not aware of an L2 item needed for the context, they may choose to be silent or resort to "the communication strategy of paraphrase and circumlocution" (ibid: 176). Paraphrasing will result in "the covert error of underrepresentation" of the L2 item while circumlocution will cause the overt error of either "verbosity or vagueness" (ibid: 176). In other words, according to James, the phenomena of underuse, wordiness and ambiguity in L2 learners' production are likely to be indicators of their avoidance behaviour. If James' hypotheses are correct, the way to detect learners' avoidance behaviour would be to compare learner corpora with native speaker corpora. By comparing these two kinds of corpora, learners' overuse and underuse of a certain TL item can be detected and the phenomenon of possible avoidance can be revealed. Dagneaux, Denness and Granger (1998) also point out the potential of computerized corpora-based techniques as a means of tackling the problem of avoidance.

#### **2.2.2.2 The confusion between error description and explanation**

Dagneaux et al. (1998: 164) criticize EA categories for being fuzzy because they often "rest on hybrid criteria" and "mix two levels of analysis: description and explanation". They exemplify this point using a typology made up of four categories: spelling error, grammatical error, vocabulary error and L1 induced error. They point out that the design is faulty because spelling errors, grammatical errors and vocabulary errors may also be L1 induced, and thus there is an overlap between the categories. To avoid this confusion, Dagneaux et al. advocate a purely descriptive system. This accords with

Ellis' (1994) view that researchers should describe errors in terms of the surface properties of the deviances instead of the sources of the deviances.

### **2.2.2.3 The overlap of error categories**

While it is easy to assign errors to general linguistic categories, it is difficult to assign them to subcategories (Ellis, 1994). Dagneaux et al. (1998: 164) point out that error categories “are often ill-defined” and “involve a high degree of subjectivity”. They exemplify the problems with two categories - “grammatical errors” and “lexical errors” which they claim are rarely defined; this makes it difficult to interpret the EA results, as several error types (e.g. prepositional errors) fall somewhere in between and it is difficult to know in which of the two categories they have been counted.

Dagneaux et al.'s concerns point to two severe problems with EA: 1) error categories lack precise definitions and 2) error categories overlap. Both problems can invalidate EA results. It is thus necessary to investigate how errors can be consistently assigned to clear-cut and mutually exclusive categories in the following section.

### **2.2.3 Error taxonomies**

EA researchers usually classify and describe errors following a certain taxonomy.

According to James (1998: 102), an error taxonomy is a classification of errors according to certain “constitutive criteria” which “reflect observable objective facts”.

These criteria can be non-linguistic (e.g. the sex, age or nationality of the learner) or language-related. Various kinds of taxonomies have been proposed (Dulay, Burt & Krashen, 1982; James, 1998). To answer the question of whether they can be

employed in the present study, a full investigation into the different taxonomies is essential.

### **2.2.3.1 Dulay, Burt and Krashen's system**

Dulay et al. (1982) propose four kinds of error taxonomies, namely, linguistic category taxonomies, surface strategy taxonomies, comparative analysis taxonomies and communicative effect taxonomies. The former two types of taxonomy are more suitable for the description of errors while the latter ones are suitable for the explanation of errors. Linguistic category and surface strategy taxonomies are examined in this section.

- Linguistic category taxonomy

Dulay et al. define the linguistic category taxonomy as a taxonomy “which classifies errors according to the language component or the particular linguistic constituent the error affects” (ibid: 146). This means that this kind of taxonomy describes errors in terms of the linguistic units they belong to. Dulay et al. indicate that this type of taxonomy is very common in EA and can be used either as a main reporting tool or as a supporting tool which adds to the description of errors provided by other taxonomies. It is very popular because the linguistic units included in the taxonomy are similar to those included in textbooks, and researchers, teachers and learners are familiar with them. James (1998: 96) also suggests that “descriptive grammars” are very suitable for describing errors as “they



cover grammar from the morpheme to the thematic organization of discourse” and “offer the best framework for practical error description”.

When employing a linguistic category taxonomy, we need to decide which language level is being targeted and its respective linguistic categories.

According to James (1998), an error can be located at the level of phonology, graphology, grammar, lexis, text or discourse. If it is a grammar error, it can be described in terms of word class (e.g. noun, verb) and the grammatical system it affects (e.g. tense, number, voice). We can also assign a rank to the error “in terms of where it lies on the hierarchy of units that constitute its level” (e.g. clause-phrase-word-morpheme) (ibid: 105). He indicates, however, that the main problem with this scheme is that while linguistic units at the level of grammar are well defined, categories at other levels of language (e.g. phonology, lexis, text/discourse) are still not very clear.

It is concluded that the linguistic category taxonomy is a suitable tool for describing morpho-syntactical grammar errors because 1) researchers, teachers and learners are familiar with the linguistic units, and 2) the word classes and grammatical systems they affect are generally well defined.

- Surface strategy taxonomy

Dulay et al. (1982: 150) define the surface strategy taxonomy as a taxonomy which “highlights the ways surface structures are altered”. They

name four kinds of surface structural deviations, namely, omission, addition, misformation and misordering. According to them, omission errors are characterized “by the absence of an item that must appear in a well-formed utterance” (ibid: 155). The item can be a content word (e.g. nouns, verbs) or grammatical morpheme (e.g. noun and verb inflections). Addition errors are characterized “by the presence of an item which must not appear in a well-formed utterance” (ibid: 156). Three types of addition errors are proposed as follows:

<b>Error type</b>	<b>Definition</b>	<b>Example</b>
Double Markings	Two items other than one in a sentence are marked for the same feature.	*He <u>did</u> not <u>went</u> there.
Regularization	Learners apply the rules used to produce the regular ones to those that are irregular.	*He <u>goed</u> to school. *There are many <u>sheeps</u> .
Simple addition	All other addition errors which are not describable as errors of double markings or regularization.	*The fishes <u>does</u> not live in the water. *He is <u>in</u> over here.

(ibid: 157-158)

Another error type, misformation, is characterized “by the use of the wrong form of the morpheme or structure” (ibid: 158). Dulay et al. identify three subtypes of misformation errors. They are:

Error type	Definition	Example
Regularization	A regular marker is used instead of an irregular one.	*There are many <u>gooses</u> . *I <u>runned</u> to school.
Archi-forms	One member of a class of forms is wrongly selected to represent others in the class. The selected form is called an archi-form.	This/ that/ these/ those that dog; * <u>that</u> dogs (in this case, `that` is the archi-demonstrative adjective representing the entire class of demonstrative adjectives)
Alternating-forms errors	Various members of a class are freely alternated with each other.	* <u>this</u> cars; * <u>those</u> dog *I <u>seen</u> her yesterday. *He would have <u>saw</u> them.

(ibid: 158-161)

The last error type, misordering, is characterized “by the incorrect placement of a morpheme or group of morphemes in an utterance” (ibid: 162). Dulay et al. indicate that misordering occurs because learners carry out word-for-word translations of their L1 surface structure.

Dulay et al.’s surface strategy taxonomy is helpful in that it pinpoints the possible deviances of surface structures. However, a serious problem with the taxonomy is that the error categories are fuzzy and not mutually-exclusive. For example, both addition and misformation categories include a subtype called “regularization”, which, by their definitions, refer to the same feature. Another example is the inflection error category.

According to Dulay et al.’s definitions, omission errors involve the absence of an item that must appear in a well-formed utterance, and misformation errors involve the use of the wrong form of the morpheme or structure. This means that the verb inflection error in “\*I walk to school yesterday” can be classified as either an omission (omission of –ed) or a

misformation error. Without a clear-cut boundary between categories, the analysis results will be difficult to interpret.

### **2.2.3.2 James's system**

James (1998: 106) examines Dulay et al.'s surface strategy taxonomy and argues that it should be renamed as "Target Modification Taxonomy" since it is based on "the way in which the learner's erroneous version is different from the presumed target version". He adds one more category "blends" to the original four categories, renames some of them and proposes a taxonomy with five error types, i.e. omission, overinclusion, misselection, misordering and blend.

James does not explicitly define omission errors. He points out that they are "typical of untutored learners or learners in the early stages of learning" and tend to "affect function words rather than content words" (ibid: 106-107). He disagrees with Dulay et al.'s description of the non-use of 3rd. person -s and progressive -ing as omission errors.

James renames Dulay et al.'s "addition" category "overinclusion". He points out the overlapping problem in its subcategories and the questionable distinction between "double marking" and "regularization", which seem to refer to the same phenomenon. For example, "sheeps" and "putted", as Dulay et al. define, are regularization errors. James argues that they can be seen as double-marking errors and proposes that double-marking errors should be



included under a new heading, “blends”, while regularization and simple addition errors are still accommodated in the category of addition which he relabels “overinclusion”. James’ solution, however, does not solve the question he has raised – how to differentiate between regularization and double-marking errors. If they are not mutually exclusive, his proposed “blend” category will be problematic as well.

James (1998) strongly criticizes Dulay et al.’s misformation category. Firstly, he disapproves of the label “misformation” and proposes a new name “misselection” for the category. He argues that, in the examples given by Dulay et al. (e.g. I seen her yesterday), what the learner has done is not to misform but to misselect. Secondly, he points out that the misformation subtype “regularization errors” appears to denote the same thing as the addition subtype “regularization errors”. Thirdly, he rejects the subtype “alternating forms” because this category of errors can “be adequately described in terms of the other categories” (ibid: 110).

As for misordering errors, James basically approves Dulay et al.’s definition and indicates that this category is not controversial.

Apart from the four categories discussed above, James proposes an additional category called “blends” which occurs “when two alternative grammatical forms are combined to produce an ungrammatical blend” (ibid: 111). He exemplifies it using the error “According to Erica’s opinion,...”. The sentence is incorrect because “according to Erica” and “in Erica’s opinion” are blended.

James has scrutinized Dulay et al.'s surface strategy taxonomy and pinpointed its weaknesses (e.g. overlapping). His five-category scheme is useful in that the proposed categories (e.g. misselection and blends) are original and inspiring. Some of the new terms are more transparent than Dulay et al.'s. For example, the term "overinclusion" describes the behaviour of including a redundant item better than Dulay et al.'s "addition". Another new term "misselect" is also useful. However, he does not clearly define them and fails to provide solutions to some of the criticisms he has raised against Dulay et al.'s categories, and so his system is very likely to be criticised for the same problems as Dulay et al.'s (e.g. overlapping). Moreover, his suggestion that "misselect" should replace Dulay et al.'s "misform" is confusing. A closer look at these two terms reveals that they literally describe the L2 learner's different behaviours. "Misform" refers to the behaviour of incorrectly structuring or developing a TL item (e.g. to form the past tense form of a verb) while "misselect" denotes the behaviour of choosing a wrong TL item (e.g. different tenses). It seems that the main difference between them is the degree of conceptual processing in the process. Although the distinction seems vague, as long as clear guidelines are provided the analysis results will be valid and the implications could be useful. For example, we could classify all mechanical errors (e.g. subject-verb agreement) as misformations because they mainly involve incorrect applications of 'simple' transformation rules. On the other hand, we could classify as misselections those errors which involve misunderstanding of 'difficult' form-function connections (e.g. wrong choice of tenses and aspects). If the analysis results show that misformation errors

are more frequent in the learner production, this would imply that remedial materials need to be designed in a way to tackle mechanical errors (e.g. practical drills); if misselection errors are more frequent, materials should be designed to treat learners' misconceptions (through consciousness-raising activities, for example). It is predicted that learners with higher proficiency will make fewer misformations than misselections.

In accordance with findings from the above investigation, three conclusions are reached. First, both the linguistic category and surface strategy taxonomy are suitable for describing errors and can be combined to enable researchers to describe errors in more detail. Second, the surface strategy categories proposed by Dulay et al. (1982) and James (1998) can be tailored to meet the needs of different studies. Third, it is necessary to redefine or redevelop the subtypes of each surface strategy category in view of the problems inherent in both Dulay et al.'s and James's systems (ill-defined and overlapping categories).

### **2.3 Reviews of empirical EA studies**

There are many empirical EA studies. Based on the methodologies employed, the studies are roughly grouped into three categories, namely, traditional EA, automatic EA and corpus linguistics based EA. It is necessary to review this body of research literature so that a suitable EA approach can be formulated for the present study.

### 2.3.1 Traditional EA studies

Traditional EA studies, as defined here, are studies in which researchers carry out error analysis manually without using electronic learner corpora and text retrieval programs (e.g. concordancers). Studies investigated in this section include Dalgish (1985), Nanjaiah (1994), Yip (1995) and Li and Chan (1999a, 1999b, 2001).

Dalgish (1985) examined the essays of 350 ESL students with different L1 backgrounds (Chinese, Spanish, Russian, etc.). He conducted EA manually, and entered the errors and the learners' L1s onto a computer with the aim of building a database. The findings showed that for all learners, sentences containing vocabulary or idiom errors and preposition errors outnumbered all other grammatical errors. Preposition errors, in terms of percentage, were rather constant cross-linguistically and their most prominent feature was due to idiomaticity involving verbs and adjectives. Dalgish suggested that software development should focus on sentences involving verbs or adjectives and related prepositions, and that verbs that typically do not take prepositions should also be tested. Another error discussed in the paper was the subject-verb agreement error. It was found that speakers of languages with a verbal agreement system (e.g. Spanish) did not seem to find this syntactic structure any easier than speakers without such a system (e.g. Chinese). There were, however, cross-linguistic differences. For instance, speakers of Greek, Korean and Spanish had problems with prepositional phrases interfering with the determination of the subject and verb-form choice; Chinese and Russian speakers had more trouble when adverbs appeared between subjects and verbs.



Dalgish (1985) exemplifies a good way of designing remedial materials. The development of a database of learner errors is an effective way to achieve what Dalgish proposed – “grounding our lessons firmly on the results of error analysis” (ibid: 60). The database contains authentic errors which can be retrieved to illustrate the learner’s learning difficulties and enrich the content of remedial materials.

Nanjaiah (1994) investigated the written English (examination papers and translations) of 74 college students in India, with Kannada as their mother tongue. Three levels of errors were inspected, namely, spelling and punctuation errors, morphological errors and syntactical errors. His EA steps included data collection, error identification, description, quantification and explanation, and remediation. When identifying errors, he followed Corder’s algorithm (1971) to identify deviant sentences and compare them with their equivalent TL forms. Errors were described in terms of linguistic categories. In some cases, the surface structural deviances of the errors were also indicated. Following the error description, quantitative data such as the relative and absolute frequencies of different error types were calculated. Finally pedagogical intervention was proposed for treating the errors.

One good point about Nanjaiah’s suggestions for error remediation is that they explicitly address problematic features identified in the students’ work. Many of the suggestions, however, appear to be quite shallow because causes of errors are insufficiently considered. Nanjaiah should have taken into account more factors such as L1 transfer, L2 complexity, teaching approaches and learning contexts, together with the error profile so that his suggestions for remedial instruction could be more insightful and practical.

From a slightly different perspective, Yip (1995) examined the interlanguage of intermediate or advanced ESL learners who were graduate students from Taiwan, Mainland China and Hong Kong. The data included their compositions, oral reports and casual conversation. Instead of examining the data for errors, Yip only focused on four constructions which she claimed are salient in Chinese interlanguage (CIL). For each CIL construction, she first used grammatical theory to characterize its properties and formulate hypotheses to account for its occurrence. Then the subjects' production data was examined and judgement tasks were carried out to test these hypotheses. Finally the learnability of the constructions was discussed and learning strategies were suggested to tackle the CIL structures. The four CIL constructions inspected are as follows:

Error type	Example	
Pseudo-passive	*New cars must <u>keep</u> inside.	(ibid: 97)
Passivized ergative	*I do not think that such abusive action should <u>be happened</u> to a twelve-year old child.	(ibid: 130)
Pseudo-tough-movement	*I am <u>very easy</u> to forget. *I am <u>boring</u> to study.	(ibid: 154)
Existential pseudo-relatives	* <u>There are</u> many varieties of cancers exist.	(ibid: 175)

Yip's study is interesting because it is an original attempt to investigate the causes of the four CIL structures in depth and to probe their learnability. She claims that the four structures are the "hallmarks of Chinese learners whose interlanguage grammar has reached a certain stable state and still falls short of the target norms" (ibid: 14). However, she does not present any statistic evidence to validate this claim. Research evidence is needed to prove that these four CIL structures do appear regularly and systematically in the interlanguage of Chinese learners.

Another Chinese interlanguage study is Li and Chan (1999a, 1999b). Li and Chan (199b: 92-93) examined the essay writing of Hong Kong Chinese secondary students at three discrete proficiency levels (elementary, intermediate and advanced) and established a lexical taxonomy and a structural taxonomy of the interlingual errors the students made (see Table 2.1 and 2.2). They suggest that since many lexical errors also involve structural problems, both taxonomies need to be set up in such a way that they are cross-referenced, so that the lexical taxonomy can provide the reader with a quick reference and the structural taxonomy can be referred to and give detailed explanations on the structure in question. This cross-referenced bi-taxonomy approach seems useful and practical in terms of designing remedial materials, and it indicates that Li and Chan are aware of the possible overlap of lexical and grammatical errors (i.e. lexical-grammatical errors). However, they do not indicate the absolute and relative frequencies of each error type, and so we cannot know how frequent each error type is in the students' production.

Error type	Example
Wrong collocation	*Prices here are very <u>cheap</u> .
Misspelling	*Both plans A an B are acceptable. Jack finally agreed to the <u>letter</u> .
Intransitive verbs used transitively	*He <u>cares me</u> very much.

Table 2.1: A lexical error taxonomy of Hong Kong Chinese learners' interlingual errors

Erroneous structure	Example
Pseudo-passive	*Erhu can <u>play</u> like this. (Yip, 1995: 97)
Ergative construction	*The World War III <u>will be happened</u> . (Yip, 1995: 129)
Pseudo-tough movement	* <u>My boss is inconvenient</u> to see you.
Existential pseudo-relative	* <u>There are</u> a lot of people died.
Independent clause as subject	* <u>She was eager to quit</u> embarrassed her boss.
Faulty parallelism	* <u>Her hair</u> is longer than <u>her mother</u> .
Unnecessary topic-comment structure	* <u>In my opinion</u> , I think it is workable to include vocabulary section within each unit.

Table 2.2: A structural error taxonomy of Hong Kong Chinese learners' interlingual errors

In a consecutive study, Li and Chan (2001) demonstrated how they adopted a consciousness-raising approach to treat three common errors (pseudo-tough movement errors, the misuse of the verb 'concern' and the phrase 'on the contrary'). They described their remedial materials as characterized by four features: 1) structured input to help learners to notice the error and the correct form, 2) proceduralized instruction to help them to understand the form, 3) provision of explicit rules, 4) and reinforcement exercises to consolidate learners' understanding. The study, however, did not investigate the effectiveness of these materials.

### 2.3.2 Automatic EA studies

Automatic EA studies involve the use of automatic grammar/style checkers to examine L2 texts for errors. This is an exciting research area although research findings have not been very encouraging so far. Brock (1993) examined three disk-based text analysers (RightWriter, Grammatik IV and Correct Grammar) and concluded that they were unable to serve as stand-alone revision aids for ESL writers because the advice they offer is sometimes incorrect and can only attend to surface-



level problems rather than deeper meaning-level problems. Wei and Davies (1997) examined the effect of Grammatik V on EAP students' written accuracy and found that the results were unsatisfactory; they proposed the need to reprogram the software to cater for the errors non-native EAP students typically make. In response to Grammatik IV deficiencies, Liou (1991, 1992) went through error analysis, linguistic analysis of English and natural language processing to develop a text-analysis programme for Taiwanese college students. The test results showed that the program performed slightly better than Grammatik IV. Jacobs and Rodgers (1999) tested the value of a French grammar checker and concluded that it was useful in terms of acting as a flagging tool to bring possible errors to users' attention, but users should always evaluate the advice. Because the feedback tends to be inaccurate, Pennington (1992) argues against the use of grammar and style checkers by student writers. EA researchers (Granger, Meunier & Tyson, 1994; Milton, 1998) also point out that most of the checkers cater for native speaker errors instead of learner errors; since these two kinds of errors are very different, current checkers are of little use for L2 learners. Dagneaux et al. (1998: 165) emphasize that for "L2 aware" checkers to be produced, it is a prerequisite to establish "comprehensive catalogues of authentic learner errors and their respective frequencies in terms of types and tokens".

Although current grammar/style checkers are not very reliable, some researchers have modified and employed them in L2 writing classes (Warden & Chen, 1995; Warden 1995; Yao & Warden, 1996; Chen, 1997; Warden, Chen & Reynolds, 2000). Garton and Levy (1994) tried to employ Grammatik to analyse learners' errors. To customise this software, firstly, they gathered a large database of EFL students' writing and ran it through Grammatik. The results directed them to turn off the rules that did not apply

to their students and to add necessary rules to the program. After the alterations, the database was run again to test the revised checker. This strategy of tailoring an existing checker seems feasible.

Warden and Chen (1995) incorporated Grammatik V in their custom built program QBL (Quick Business Letters) in order to provide automatic error feedback to the college students in their writing classes. To enhance the reliability of the checker, the authors modified the Grammatik parsing engine based on the common errors found in the students' writing. Their final version of Grammatik was programmed to find 45 error types specifically for Taiwanese EFL writing students.

To test the effect of the system, different studies were carried out. Chen (1997) compared the error rates and editing behaviours between a test group who received a computer-generated error profile and a control group who only received a placebo (the computer printout given back to them simply reported zero errors found). Both groups received the same feedback from the teacher (handwritten corrections and comments on content). The results showed that the control group was able to significantly reduce eight error types, while the test group was able to reduce fifteen. Spelling errors were quickly reduced for both groups, but the test group was unable to lower spelling errors as much as the control group, and on the contrary increased their capitalization and possessive errors. In terms of students' editing behaviour, the checker feedback caused the test group to delete more from the document than the control group. Overall, the test group increased the amount of editing, and the control group decreased editing while both groups reduced the number of errors at an equal rate. While speculating on the somewhat contrary results, Chen failed to question the

reliability of the modified version of Grammatik. Since the checker was not tested for its reliability, it is possible that the feedback it generated was incorrect. The automatic feedback might have contained incorrect instructions and misled the students, and this may well explain the results. It is essential that modified checkers should be properly tested, otherwise it is always possible that incorrect checker feedback will lead to deviant L2 production.

Another consecutive study, Warden et al. (2000), showed more positive results. Warden et al. claimed that the computer-generated feedback could reduce error rates. They did not demonstrate the reliability of the modified checker, however. As indicated above, it is necessary to test the reliability of the modified checker before it is employed to help student writers.

The above reviews lead to four conclusions. First, reliable 'L2 aware' grammar/style checkers still seem to be unavailable commercially. Second, modified versions of existing checkers have been used in various studies, but the results are inconclusive. Third, revised checkers need to be tested for reliability before being employed in L2 writing class. Fourth, a feasible way to modify checkers is to modify them based on the learners' common errors; if this information is unavailable, it should be obtained by means of a thorough error analysis.

### **2.3.3 Corpus linguistics based EA**

Another trend in EA research embraces the tools and methods employed in corpus linguistics. These studies generally use electronic corpora and text retrieval software



(e.g. concordancers) in the analysis processes. A very common research interest is to investigate stylistic differences between native speakers (NSs) and non-native speakers (NNSs). The procedures include compiling NS and NNS corpora, using a concordancer to do keyword searches in both corpora, comparing the data and noting the stylistic differences (e.g. the difference in the use of a particular word). This type of research method is labelled the 'text retrieval' method in this study. Another research interest concerns formal learner errors. Learner corpora are first processed and error-tagged, and the coded corpora are then tag-searched using a concordancer to retrieve error instances. This type of method is named the 'error retrieval' method in this study. Since the focus of the present study is learner errors, I will review the second type of research, including studies by Milton and Chowdhury (1994), Milton (1998, 2001), Granger (1993), Granger, Meunier and Tyson (1994), and Dagneaux, Denness and Granger (1998).

Milton (1998, 2001) adopted the error retrieval method to examine the written work (assignments and exam papers) of Hong Kong Chinese learners of English, with a view to creating automatic grammar and writing tutorials. The tagging method is described in Milton and Chowdhury (1994), and is well worth examination.

According to Milton and Chowdhury, their tagging method adopts the following principles (ibid: 133-140):

- With a focus on word-class errors, errors are tagged mainly at the word level. Collocations and some syntactic units are tagged at the phrasal or clausal level (e.g. `at_length {advp}`, and `and_so_on {conj}`). Rhetorical errors are not investigated.



However, some errors (inappropriate words in context, redundancy errors and wrong word order) can only be properly tagged at the semantic, syntactical or discoursal level.

- The error coding procedure is to allow retrieval and facilitate further study of the errors rather than to attempt complete error descriptions by means of the codes. The tagset (i.e. categories of error) is based on patterns that emerge as researchers proceed through the corpus.
- The tags should carry as much information as possible. In terms of linguistic features, each tag marks the word class and approximate error-type of the error.
- Each error type has its corresponding code.
- Punctuation marks are not regularly tagged. The main error types marked include sentence fragments, comma splices, irregular use of hyphens, apostrophe errors, and errors in negative and verb contractions.
- The COBUILD dictionary is used as an authority on acceptability and other authoritative grammars are used to label syntactic categories. Native intuition is used as the ultimate determiner of error.

Milton and Chowdhury (1994) demonstrate great efforts to devise a tagging system.

The advantages of their system are:

1. They make their targeted language items very clear. They limit the level of error tagging to word-class and collocational units because they aim at creating automatic grammar and writing tutorials and it is computationally simpler to associate error with form-function relationships at the word and collocation level than with larger or more amorphous linguistic units and

relationships. However, they also recognize possible cases where errors can only be properly tagged at the semantic, syntactical or discoursal level and thus emphasize the need to look beyond the word-class level if there is no discrete way to describe the errors.

2. They show how errors can be described using combined taxonomies. For example, they labelled the wrong item “advance” {*adj#+d*} (\*It is important for you to study the advance {*adj#+d*} technology). “Adj” indicated the word class of the error and “+d” indicated its surface structural deviance (an omitted ~d is needed). Although they did not seem to follow the two types of taxonomies (linguistic category and surface strategy) and their tags do not appear to be very systematic, their tagging demonstrates the possibility of describing errors using a combined scheme.

However, some technical issues concerning their tagging principles need further discussion. They are:

1. Should an error-tag carry as much information as possible?

Milton and Chowdhury argue that with the availability of powerful retrieval software (e.g. concordancers), researchers should put in a tag as much information as they need so as to facilitate data retrieval for further study.

Their tag scheme contains information about an error’s linguistic categories, surface structural alterations and possible alternative interpretations. It is a feasible way of describing an error in terms of linguistic categories or surface structural alternations or the combination of the two. There are also alternative interpretations in their tags. For example, in “\*Hong Kong is a

prognative {adj#| /#sp} society”, “pragmatic” can be interpreted as an adjective substitution error or as a misspelling error. However, although the practice of offering alternatives enables researchers to describe errors more objectively, it will result in unwieldy tags and make it very difficult to accurately calculate errors as the same error can be counted more than once. One interpretation is sufficient for error retrieval and can avoid problems with the calculation of errors. Milton and Chowdhury also emphasize that their tagging is intended to allow retrieval and facilitate further study of the errors, rather than to attempt complete error descriptions by means of the codes. All this indicates that it is unnecessary to note alternative interpretations in a tag.

## 2. Should a tag reflect a constituent-structure hierarchy?

In terms of linguistic categories, Milton and Chowdhury’s tags mainly indicate the word class of the error. They mentioned that their tags might need to reflect “a constituent-structure hierarchy and a hierarchy of delicacy of detail” (ibid: 131), but their tags do not appear to reflect this. The tag structure does not specifically mark the level of language (e.g. grammatical, lexical, textual) the error belongs to, nor does it mark the subtype of a word class. In short, their tags lack a constituent-structure hierarchy or a hierarchy of delicacy of detail. If they had included this information the tags would have been more organised and informative. Also, it would be easier to quantify the relative frequencies of different errors if this information (i.e. language level, subtype of word class) was included.

### 3. How to make coding more systematic?

Milton and Chowdhury indicate that every error type should have a code. If there are a substantial number of different errors, there will be many codes. Making coding more systematic is a good way to reduce the number of codes. However, they used different codes for the same surface structural deviance at different levels. For example, {#+}, <word class> and <phrasal category> were used to refer to omission errors at the morphological, word and syntactic level respectively. It would be more consistent if a code could be used to mark omissions across all linguistic levels. For example, if {#-} refers to omissions, {#M-} and {#S-} can refer to omission errors at the morphological and syntactic level respectively.

### 4. If an item includes more than one error, should all the error types be marked in the same tag?

According to Milton and Chowdhury, if an error involves more than one problem, the tag should denote as many of them as possible.

e.g.

It will make the students can't\_concern {mod~adv\_adj#+ed#neg |}  
about school work.

This principle is useful in achieving a more informative error description, but it can result in unwieldy codes. In my view, if the information can effectively facilitate error retrieval, it should be included; otherwise, it should not.

Whether this proposed coding principle is useful requires further empirical testing.



Another computerized learner interlanguage project is Granger et al.'s International Corpus of Learner English (ICLE). The project collected and analysed the essay writing of advanced EFL learners who were university students from various L1 backgrounds (French, Dutch, Chinese, etc.). Granger et al. (1994) explicitly point out that their methodology is a combination of human and computer processing, that their procedures consist of two main steps: processing the learner corpus and analysing the corpus, and that devising an error tagging system is necessary if formal EA is the concern. They initially proposed the following guidelines on which their tagging system was based:

- The stage of linguistic description of errors must be clearly separated from the psycholinguistic stage, which involves analysing the source of error.
- Error categories must be clearly defined, overlap as little as possible and be sufficiently broad to minimise the risk of arbitrary classification.
- Each error will carry a general category error code (grammatical, lexical, textual, stylistic or orthographic). The general code should be accompanied by one or more specific codes indicating the exact nature of the error.

(ibid: 104-105)

Dagneaux, Denness and Granger (1998) followed the above guidelines and demonstrated a purely descriptive system that described errors in terms of linguistic categories. The authors emphasized that a categorization in terms of the source of the error (e.g. L1 transfer, over-generalization) was rejected because of the high degree of subjectivity involved. Their error tag structure is hierarchical: each tag consists of one major category code and a series of subcodes. There are seven major category

codes: **F**ormal, **G**rammatical, **LeX**ico-grammatical, **L**exical, **R**egister, **W**ord redundant/word missing/word order and **S**tyl. These codes are followed by one or more subcodes. For instance, the code GVT stands for Grammatical/Verb/Tense errors. Dagneaux et al. claim that this hierarchical tag structure can facilitate the retrieval and analysis of errors.

However, Dagneaux et al. emphasize that descriptive categories alone are not enough to guarantee consistent analysis. They propose that “an error tagging manual, which defines, describes and illustrates the error tagging procedures” should be made so that the analyst can have clear guidelines to follow in case an error allows more than one analysis (ibid: 167). They exemplify this point with the error “\*an advice”. In their tagging system, this error could be categorized as ‘GA’ (i.e. Grammatical Article error) or as ‘XNUC’ (i.e. leXical-grammatical error involving the count/UnCount distinction in Nouns. In cases like this, the analyst needs to follow a guideline and choose one and the same analysis throughout the whole corpus in order to ensure the consistency of analysis.

To enhance EA validity, Dagneaux et al. devised a bilingual team with two researchers: a native speaker and a non-native speaker with a good knowledge of English grammar and a matching L1 background. The native speaker identified errors and entered correct forms, and the researcher assigned to each error an appropriate tag.

The above ICLE studies are very inspiring. Granger and her fellow researchers demonstrate how computer technology can be used to assist error analysis, and at the same time, they recognize the limitations of technology and the importance of human

processing. In terms of tagging system development, they firmly grasp the principles of clear-cut error categories and a purely descriptive scheme, and strive to design a tagging system which, in their view, can ensure EA validity. Three useful principles or techniques are drawn from their studies. First, a bilingual team should be involved in the process in order to enhance the reliability of the EA results. Second, a hierarchical tag structure is useful. Each tag can consist of one major category code, and a series of subcodes that provide further information about the error. Third, to ensure a consistent error classification, tags should describe errors in terms of a descriptive system and a tagging manual should be developed to provide guidelines for the coder.

However, their coding system is designed to describe errors using linguistic categories. This decreases the descriptive detail a tag can provide. A purely descriptive system that employs both linguistic categories and surface structural deviances can describe errors in more detail, which, in turn, can facilitate error searches and analysis.

## **2.4 The development of my EA approach**

In this section, I will decide on a suitable EA approach and shape a tentative error tagging system for the present study.

### **2.4.1 The chosen EA approach**

The above literature review has identified three types of EA approaches: traditional EA, automatic EA and corpus linguistics based EA. To choose a suitable approach

for the present study, it is necessary to consider the aim of the study, the data to be examined and the technical issues that need to be addressed.

This study aims to analyse grammar errors in Chinese HEFP students' written production and to develop remedial materials. The corpus includes 50 long essays (about 88,000 running words). It is likely that thousands of errors of various natures will be identified. In that case, the way to achieve valid EA results is to choose/develop an EA approach which can help me to achieve the following two things:

- (1) An accurate and efficient quantification of errors
- (2) A consistent classification of errors

In terms of the first issue, the use of computing technology is probably the solution. Among the three EA approaches, traditional EA does not use computing powers; its tool is usually down to 'pencil and paper' (or a word processor), and the researcher has to calculate errors manually. This practice is feasible if there are only a small number of errors. It would be, however, very time consuming and error prone when it deals with a substantial number of errors. Another approach, automatic EA, may be efficient in detecting and calculating errors, using grammar and style checkers. However, L2 studies suggest that checkers are not satisfactorily reliable and are unlikely to detect covert errors (i.e. errors that are grammatically correct but unacceptable in context). The third approach, corpus linguistics based EA, seems able to address the first issue – an accurate and efficient quantification of errors. By using text retrieval programs to search error-coded corpus, the researcher can calculate the number of errors correctly and efficiently, and the instances of errors can be retrieved



for further study. Therefore, it is decided that a corpus linguistics based EA should be adopted in the present study.

In accordance with the aim of this study, the chosen EA approach should consist of seven steps, namely, collection of data, identification of errors, classification of errors, quantification of errors, explanation of errors, evaluation of errors and remedial materials development. Each process involves a particular task: in the data-collection step, non-electronic data need to be converted into electronic form; in the error-identification step, errors are identified and correct forms are entered next to them; in the error-classification step, the identified errors should be categorised and tagged following a tagging system; in the error-quantification step, errors should be calculated using a text retrieval program; in the explanation step, the sources of errors are investigated; in the error-evaluation step, a problematic linguistic area is prioritised for treatment; in the remediation step, remedial materials are developed and tested.

In view of the seven EA processes, it is clear that an error tagging system is required for the tagging process. The system needs to be properly developed and tested for reliability because a valid tagging system is a prerequisite for valid EA results. Also it can help me to address the second issue – a consistent classification of errors.

#### **2.4.2 My tentative error tagging system**

My proposed error tagging system consists of two kinds of taxonomy: a linguistic category taxonomy and a surface strategy taxonomy. This is in response to James'

(1998) argument that a combined-taxonomy approach can generate a bi-dimensional or even multi-dimensional error profile which can facilitate a more thorough understanding of learner errors. The linguistic category taxonomy describes errors in terms of the linguistic units they belong to while the surface strategy taxonomy describes errors in terms of their surface structural deviances. The combination of the two not only enriches the information a tag can provide but also enables me to examine errors from different analytical perspectives. As Dulay et al. (1982) claim, by looking at the various forms of surface structural deviances, researchers can inspect errors from another perspective across all the linguistic units.

One point to note is that the two kinds of taxonomies are both descriptive in nature. They are used to describe errors in terms of linguistic categories and surface properties, and are different from explanatory taxonomies which are used to explain the sources of errors. This tagging system, combining different analytical perspectives, is by no means a “descriptive-explanatory hybrid system” (Dagneaux, Denness & Granger, 1998: 166).

To develop a reliable tagging system, each error category needs a clear definition and categories should not overlap. These principles are closely observed while I am formulating the tentative taxonomies outlined in the following section.

#### **2.4.2.1 Three levels of language**

When using linguistic category taxonomies in EA, researchers need to first decide the targeted level of language and then the respective linguistic categories can be decided

(James, 1998). This study is intended to examine Chinese students' formal errors by focusing on three levels of language: grammatical, lexical and lexical-grammatical. The idea of including the lexical-grammatical category is derived from studies by Granger, Meunier and Tyson (1994), Milton (1998) and Li and Chan (1999b). Granger et al. argue that it is necessary to include the lexical-grammatical category because some lexical items also involve grammatical problems. This view has been well reflected in some other studies. For example, Milton (1998) designs online grammar and writing tutorials in a way that the errors which cannot be unambiguously classified as lexical or grammatical errors can be cross-indexed, so that learners can have multiple access points to examples, rules and correct patterns. Li and Chan (1999b) suggest that lexical error taxonomies and grammatical error taxonomies need to be set up in such a way that they are cross-referenced because many lexical errors also involve grammatical problems. As Granger et al. (1994: 107) point out, "linguists usually subdivide errors into two discrete categories: lexical vs. grammatical. This obviously involves quite arbitrary decisions" when some errors can clearly be classified in both categories. They suggest that reference tools, particularly those aimed at more advanced learners, must account for this overlap between grammar and lexis.

The present study aims to develop remedial materials based on EA results. It would be helpful to explicitly mark lexical-grammatical errors in addition to lexical and grammatical errors in the tagging process. This categorization will be able to facilitate cross-referencing between remedial materials for lexical and grammatical errors.

### 2.4.2.2 My tentative linguistic category taxonomy

Three levels of language, namely, grammatical, lexical-grammatical and lexical, are investigated. Their respective error categories, together with error tags, are described as follows:

- My tentative grammatical error categories

My tentative grammatical error categories (see Table 2.3) are derived from the linguistic units outlined in Thomson and Martinet (1980). Their scheme is comprehensive and easy to follow.

Linguistic Unit	Tag
Determiner	{det G}
Determiner, article	{detart G}
Noun	{n G}
Noun, proper	{npro G}
Noun, abstract	{nabs G}
Noun, collective	{ncol G}
Noun, common	{n G}
Pronoun	{pro G}
Pronoun, personal	{proper G}
Pronoun, demonstrative	{prodem G}
Pronoun, quantitative	{proqua G}
Pronoun, distributive	{prodis G}
Pronoun, interrogative	{proint G}
Pronoun, possessive	{propos G}
Pronoun, relative	{prorel G}
Adjective	{adj G}
Adjective, demonstrative	{adjdem G}
Adjective, quantitative	{adjqua G}
Adjective, distributive	{adjdis G}
Adjective, interrogative	{adjint G}
Adjective, possessive	{adjpos G}
Adjective, comparative	{adjcom G}
Adjective, superlative	{adjsup G}
Adverb	{adv G}
Adverb, manner	{advman}
Adverb, place	{advpla}
Adverb, time	{advtim}
Adverb, frequency	{advfre}
Preposition	{pre G}
Verb	{v G}
Verb, irregular	{vir G}
Verb, present participle	{prtp G}



Verb, past participle	{pstp G}
Infinitive	{inf G}
Gerund	{ger G}
Auxiliary (be/do/have)	{aux G}
Tense	{tns G}
Tense, present simple	{tns G prt}
Tense, present continuous	{tns G prtcon}
Tense, present perfect	{tns G prtper}
Tense, present perfect continuous	{tns G prtperc}
Tense, past simple	{tns G pst}
Tense, past continuous	{tns G pstcon}
Tense, past perfect	{tns G pstper}
Tense, past perfect continuous	{tns G pstperc}
Tense, future simple	{tns G fut}
Tense, future continuous	{tns G futcon}
Tense, future perfect	{tns G futper}
Tense, future perfect continuous	{tns G futperc}
Voice	{vce G}
Voice, active	{vce G act}
Voice, passive	{vce G pas}
Conjunction	{con G}
Existential	{exi G}
Punctuation	{pun G}
The following errors are beyond the word-class level but are also classified as grammatical errors.	
Errors beyond word class	Tag (Word class not available)
Redundancy	{G r}
Sentence fragment	{G sf}
Relative clause	{G relc}

Table 2.3: My tentative grammatical error categories

- My tentative lexical-grammatical error categories

My tentative lexical-grammatical error categories are derived from Granger et al. (1994). Granger et al. define lexical-grammatical errors as cases where the morpho-syntactic properties of words have been violated. These include the following four features:

Linguistic Feature	Example
Countable vs uncountable noun	*The Europe of 1993 aims at <u>progresses</u> in the fields. [progress]
Attributive vs predicative adjective	*This <u>afraid</u> man was trembling. [frightened]
Transitive vs intransitive verb	*He <u>cares</u> me very much. [cares for]
The syntactic complementation of nouns, verbs, adjectives and adverbs	*Our old Europe will <u>rejuvenate</u> . [be rejuvenated]

(ibid: 107)

The four features are adopted as my tentative lexical-grammatical error categories ( $\{ G | /L \}$ ).

- My tentative lexical error categories

The linguistic units proposed in my lexical error categories are based on Granger et al.'s (1994) lexical classification that is shown in Figure 2.3.

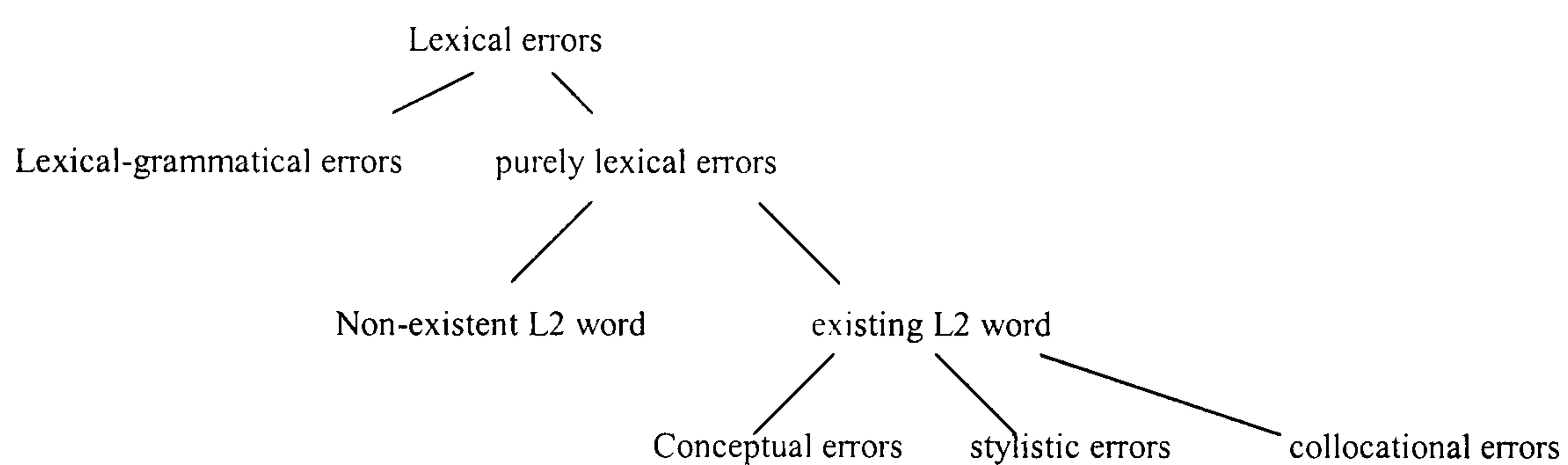


Figure 2.3: Granger, Meunier and Tyson's lexical classification (Granger et al., 1994: 107)

According to their classification, purely lexical errors can be grouped into four broad categories: non-existent L2 words, conceptual errors, stylistic errors and collocational errors. Their "non-existent L2 word" category contains instances of lexical strategies such as word coinage and borrowing. For example:

\*European citizens are being sensibilized to Europe [becoming more aware of]

\*An unnegligible opportunity [significant]

\*Look mistrustingly at Europe [mistrustfully] (ibid: 108)

Conceptual errors are due to insufficient knowledge of the denotative or referential meaning of words. For example:

\*The late dispute between France and Belgium [recent]

\*Study abroad during a few months [for]

\*Their population is as important as the rest of Europe [large]

(ibid: 108)

Their collocational error category is a broad one which includes all errors connected with the syntagmatics of words. It covers a wide spectrum from restricted collocations to idioms. For example:

\*Other countries are too busy with their inner problems [domestic]

\*Efforts are done in this direction [made]

\*But, on the other side, we will form a new nation [hand].

(ibid: 108)

Granger et al.'s purely lexical errors contain a useful list of lexical subcategories that I can adopt in my lexical categorization. The categories they suggest, however, do not include "orthographic errors" (i.e. spelling errors). The "non-existent L2 word" category is defined as "word coinage and borrowing", which does not seem to incorporate spelling errors. Because spelling errors are not unusual, it is thus necessary to either redefine the non-existent L2 category to cover them or add another category "misspelling" to purely lexical errors. Another error subcategory, "stylistic errors", is not adopted because the present study only focuses on formal errors and stylistic errors are not examined. My tentative lexical error categories, together with their tags, are as follows:

Error type	Tag
Misspelling	{ L ~ ms }
Non-existent L2 word	{ L ~ ne }
Lexical misconception	{ L   mc }
Collocational error	{ L   col }

### 2.4.2.3 My tentative surface strategy taxonomy

In terms of surface structural deviances, my proposed categories are omission, overinclusion, misformation, misselection, disorder and blend. They are derived from Dulay et al. (1982) and James (1998). Their categories have provided an effective framework by which surface structural deviances can be systematically investigated. However, some drawbacks of their systems, if not properly corrected, will severely damage the validity of the analysis results (see my discussion in Section 2.2.3). I need to redefine the error categories so that they are mutually exclusive. The definition of each surface structural deviance, together with its error tag and example, are attempted as Table 2.4.

Though great efforts have been made to set clear boundaries between different error types, there are still ambiguous issues that need further discussion. For example, misformation errors and misselection errors are sometimes very confusing (e.g. Is “\*He is interesting in reading (interested)” a misformation or misselection?) My incentive to include these two types is to contrast error tendencies (See my discussion in Section 2.2.3.2). The findings may be interesting, but defining their boundaries is not straightforward. It is suggested that an exemplified tagging manual needs to be developed, in which clear instructions and examples are provided to illustrate



different cases (Dagneaux et al., 1998). Since there are not predetermined subcategories for these two categories, I need to carry out pilot studies to uncover possible cases and document their respective error subtypes and examples with a view to compiling a tagging manual.

<b>Error type &amp; Tag</b>	<b>Definition</b>	<b>Example</b>
<b>Omission</b> {-}	An omission error is a missing item (e.g. a word or a group of words) which should appear in a well-formed sentence.  Note: the missing item must be a whole word. Missing inflected morphemes (e.g. -s, -ed) are not included in this category.	He {v G - be} very good at maths.
<b>Overinclusion</b> {+}	An overinclusion error is a redundant item (e.g. a word or a group of words) which should not appear in a well-formed sentence.  Note: the overincluded item must be a whole word. Redundant inflection morphemes (e.g. +s, +ed) are not included in the overinclusion category.	He went <u>to</u> {pre G + to} there.
<b>Misformation</b> {~}	A misformation error is an item which involves the misformation of morphemes (e.g. inflection errors)  Note: Some errors, though involving the misformation of morphemes, also involve complicated conceptual judgements (e.g. wrong selection of tenses). They are not included in the misformation category.	He <u>go</u> {v G ~ agr} to school every day. He <u>putted</u> {vir G ~ pst} on his coat. There are many <u>sheeps</u> {n G ~ plu} He bought many <u>book</u> {n G ~ plu}. He bought a <u>books</u> {n G ~ sin}. <u>This</u> {adjdem G ~ agr} books are very interesting.
<b>Misselection</b> {}	The selection of wrong items, which usually involves complicated conceptual judgements (e.g. wrong selections of tenses).	Many companies <u>are</u> {tns G   prt} already networked.
<b>Misordering</b> {[]}	A misordering error is the incorrect placement of an item (e.g. a word or a group of words) in a sentence.	He <u>yesterday</u> {adv G []} went to school.
<b>Blend</b> {^}	Two structures can be used to express the same meaning. The learner fails to make a clear choice and instead combines a part of each to produce an erroneous structure with characteristics of both (James, 1998:111).	<u>According to Erica's opinion,</u> {advp G ^} we should buy a new car.

Table 2.4: My tentative surface structure taxonomy

#### 2.4.2.4 My tentative tagging principles

Based on insights drawn from Granger et al. (1994) and Milton and Chowdhury (1994), the following tentative principles are formed to guide me in the tagging process.

- Errors are tagged mainly at the word level. Collocations and some syntactic units are tagged at the phrasal or clausal level. Rhetorical errors are not investigated. However, inter-sentential and word-order problems are indicated if necessary. Some errors can only be properly tagged at the semantic, syntactical or discoursal level. These errors include redundancy, inappropriate words in context, sentence fragments, missing relative clauses/clauses and wrong word order. Marking word class is not compulsory in these cases, e.g. \*Because it is raining. {G - sf}.
- The error coding procedure is to allow retrieval and facilitate further study of the errors, rather than to attempt complete error descriptions by means of the codes. There are no completely prescribed error categories. The tagset will grow out of the patterns that emerge as the researcher proceeds through the corpus.
- In terms of linguistic categories, the tag indicates the language level of the error, its word class and its subtype. The structure reflects a constituent-structure hierarchy.
- There should be spaces between the different components of the tag. It would be easier for me to specify the keyword if I left space between the components of a tag. For example, if I want to retrieve the instances of redundancy error, I can specify the search keyword as "G \* r". If there is no space between each

part of the code, a “\*r” keyword search will generate an incorrect retrieval because all the strings with “r” (e.g. pre) will be retrieved. To eliminate this possibility, I will leave a space between different parts of a tag.

- The first part of the tag is to mark the word class of the corrected form of the error, not the error itself. The second part is to indicate the language level of the error. The third part is to mark its surface structural deviance. The final part is a subcode to provide further information about the error.
- The tags for surface structural deviances are marked in the following ways:
  - the involved rule/item, + the involved rule/item, ~ the intended rule/item, | correct form/rule
- Only the main error is marked; the error resulting from the correction of the antecedent error is not marked.

### **2.4.3 Strengths and weaknesses of my tentative tagging system**

My proposed tagging system consists of two types of error taxonomies and complies with the principle of precise categorisation. It serves as a facilitative framework by which errors can be systematically classified, satisfactorily described and efficiently retrieved. The researcher has to understand the system and code the errors consistently. The strengths of the proposed system are:

- It should be able to facilitate consistent error classifications
- It should be able to facilitate accurate error quantifications
- It should be able to facilitate comparisons between conceptual errors and mechanical errors

- It should be able to facilitate efficient error retrievals at different language levels, word classes and their subtypes.
- It should be able to facilitate cross-referencing between remedial materials for lexical and grammatical errors.

One drawback of the system is that the complexity of tags may slow down the tagging process. To improve this tentative system, it is necessary to carry out pilot studies so that it can be tested and vital modifications (categorization, error codes, tagging principles, etc) can be made.

## **2.5 Conclusion**

EA is a useful tool although its methodological procedures have been severely criticised. My reviews of EA studies, however, show that useful principles can be followed to enhance the validity of EA results. A corpus linguistics based EA approach is chosen for the present study and a tentative tagging system is devised. The system needs further modification to enhance its reliability.



## CHAPTER 3

### THE DEVELOPMENT OF MY TAGGING SYSTEM

To validate the tentative tagging system described in Section 2.4.2, I went through three stages to develop and revise the system. The three stages of development are illustrated as Figure 3.1. This chapter details the procedure and results of each stage and presents the final validated system.

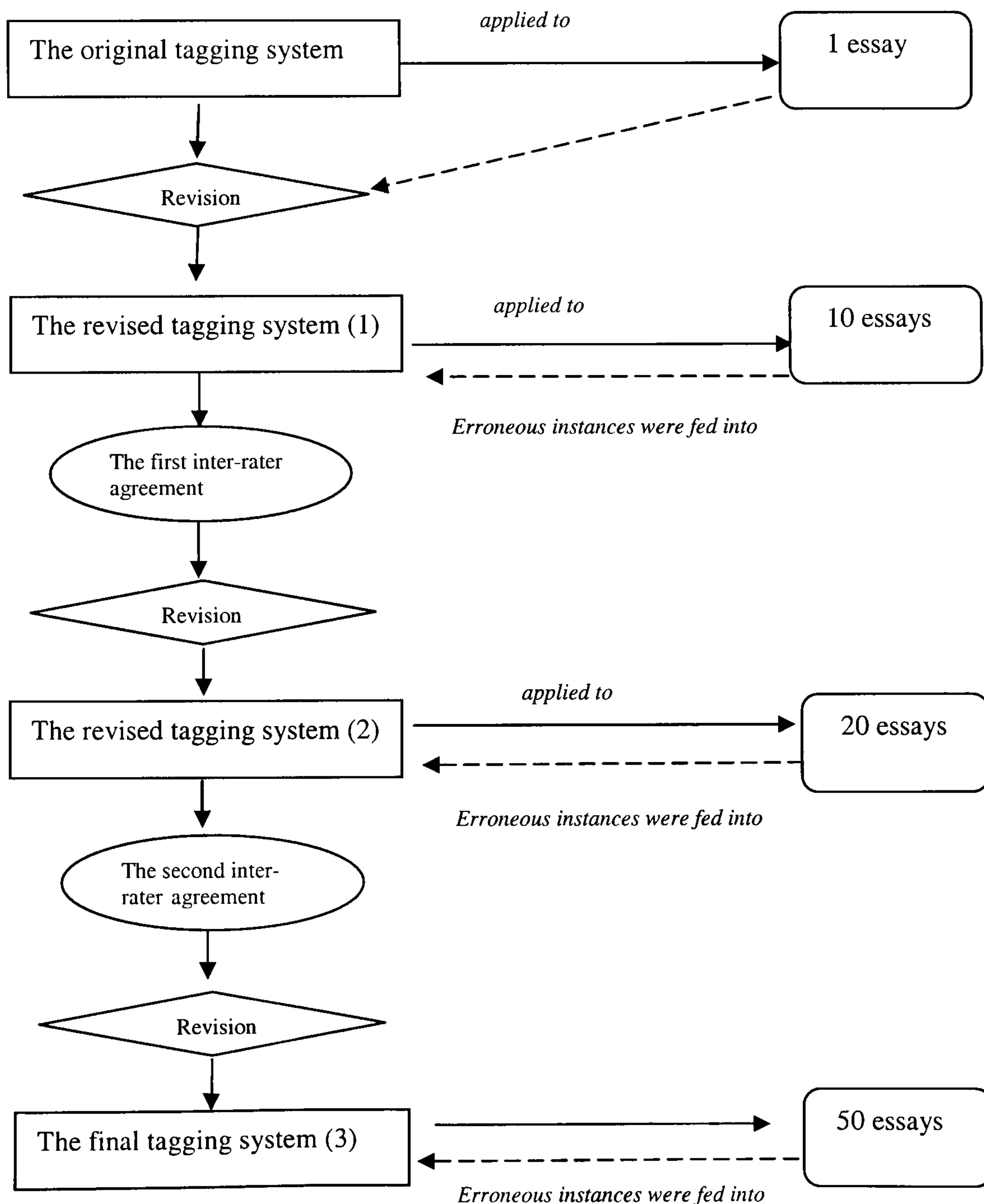


Figure 3.1: The three stages of development of my tagging system

### **3.1 Developmental stage 1 - A pilot study**

In order to test the potency of the tentative error tagging system described in the previous chapter, a pilot study was conducted, in which an essay was error-tagged and the tagged text was analysed with Word Smith Tools. In this section, I document the process and results of the pilot study, and suggest some required revisions to the system based on the implications drawn from the study.

#### **3.1.1 Procedure**

The pilot study consisted of the following four steps:

1. Firstly, an essay was chosen for the pilot study.

The criterion for choosing the essay was that, though randomly chosen, it should have a medium grade. Medium-graded essays are likely to contain an adequate number of errors to which tags can be assigned. Essays with higher grades often have fewer errors for the system to test, while low-graded essays tend to contain more errors beyond the word class level, which can severely obstruct readability and comprehension and result in vague text. Sentences with ambiguous meanings are not suitable for error analysis (Corder, 1971). Following this principle, an essay with a word count of 1591 was chosen.

2. Secondly, the type-written essay was converted into electronic raw data.

An “HP psc 700 series” scanner and one of its accompanying applications, Adobe Acrobat 4.0, were used to perform the conversion.

3. Thirdly, errors were identified and tagged.

After the essay was converted, the tagging process was carried out, in which errors in the essays were identified and then tags were entered next to them.

4. Fourthly, the tagged text was analysed.

After the tagging process was completed, the tagged errors were retrieved for further analysis using the Concord program in WordSmith Tools version 3.0 (Scott, 1999).

### 3.1.2 Results

The errors were first analysed from the perspective of linguistic categories in three levels of language, and were then analysed according to their surface structural deviances. The results are shown in Tables 3.1, 3.2 and 3.3.

Keyword entered	Language level	Frequency	Error profile (frequency)
G	Grammatical	81	<ul style="list-style-type: none"> <li>• See Table 3.2.</li> </ul>
"/"L	Lexical-grammatical	6	<ul style="list-style-type: none"> <li>• Misselection between prepositions – 5</li> <li>• Omission of the existential “it” in the syntactic structure of the adjective “easy”- 1</li> </ul>
{* L	Lexical	6	<ul style="list-style-type: none"> <li>• Wrong collocation – 5</li> <li>• Lexical misconception - 1</li> </ul>

Table 3.1: Breakdown of three targeted language levels

Keyword entered	Grammatical category	Frequency	Erroneous feature (frequency)
{det*	Determiner	25	<ul style="list-style-type: none"> <li>• Missing definite article – 13</li> <li>• Redundant definite article - 7</li> <li>• Misselection between ‘the’ and ‘a/an’ – 5</li> </ul>
{n*	Noun	12	<ul style="list-style-type: none"> <li>• Misselection between singular and plural nouns- 5</li> <li>• Non-agreement in number between noun and adjective – 4</li> <li>• Wrong collocation – 2</li> <li>• Lexical misconception – 1</li> </ul>
{v*	Verb	2	<ul style="list-style-type: none"> <li>• Misselection between gerund and verb– 2</li> </ul>
{pre	Preposition	7	<ul style="list-style-type: none"> <li>• Misselection between prepositions – 5</li> <li>• Missing preposition – 2</li> </ul>
{adj*	Adjective	5	<ul style="list-style-type: none"> <li>• Wrong use of noun as adjective - 2</li> <li>• Non-agreement in number between adjective and noun – 2</li> <li>• Missing possessive adjective – 1</li> </ul>
{pro*	Pronoun	11	<ul style="list-style-type: none"> <li>• Failure to use pronouns to replace mentioned nouns – 8</li> <li>• Non-agreement in number between pronoun and noun - 2</li> <li>• Wrong use of “it” for “this” – 1</li> </ul>
{adv*	Adverb	5	<ul style="list-style-type: none"> <li>• Redundant adverb – 3</li> <li>• Wrong placement of adverb in sentence - 2</li> </ul>
{tns	Tense	7	<ul style="list-style-type: none"> <li>• Misselection between tenses – 7</li> </ul>
{pun	Punctuation	6	<ul style="list-style-type: none"> <li>• Wrong use of comma for full stop – 3</li> <li>• Missing comma – 1</li> <li>• Redundant comma – 1</li> <li>• Redundant apostrophe – 1</li> </ul>
{aux*	Auxiliary	3	<ul style="list-style-type: none"> <li>• Missing auxiliary “be” – 1</li> <li>• Non-agreement in number between subject and auxiliary “have” – 1</li> <li>• Non-agreement in number between subject and auxiliary “be” – 1</li> </ul>
{vce	Voice	2	<ul style="list-style-type: none"> <li>• Wrong use of active voice for passive – 2</li> </ul>
{con	Conjunction	3	<ul style="list-style-type: none"> <li>• Missing conjunction “and” – 1</li> <li>• Redundant conjunction “and” – 1</li> <li>• Wrong use of conjunction for infinitive – 1</li> </ul>
{exi	Existential	1	<ul style="list-style-type: none"> <li>• Missing existential “it” – 1</li> </ul>
{relc	Relative clause	1	<ul style="list-style-type: none"> <li>• Wrong use of prepositional phrase for relative clause - 1</li> </ul>
{ger	Gerund	1	<ul style="list-style-type: none"> <li>• Missing gerund – 1</li> </ul>
{inf	Infinitive	1	<ul style="list-style-type: none"> <li>• Missing “to” – 1</li> </ul>
{G	All the errors which are beyond word-class level	1	<ul style="list-style-type: none"> <li>• Subordinate clause as complete sentence (sentence fragment) - 1</li> </ul>

Table 3.2: Breakdown of the linguistic error categories



Keyword entered	Surface structural deviance	Frequency	Erroneous feature (frequency)
-	Omission	23	<ul style="list-style-type: none"> <li>• Missing definite article – 13</li> <li>• Missing preposition – 2</li> <li>• Missing “and” – 1</li> <li>• Missing auxiliary “be” – 1</li> <li>• Missing existential “it” – 1</li> <li>• Missing possessive adjective – 1</li> <li>• Missing comma – 1</li> <li>• Missing gerund - 1</li> <li>• Sentence fragment – 1</li> <li>• Missing “to” in infinitive - 1</li> </ul>
+	Overinclusion	13	<ul style="list-style-type: none"> <li>• Redundant definite article – 7</li> <li>• Redundant adverb – 3</li> <li>• Redundant conjunction “and” - 1</li> <li>• Redundant comma – 1</li> <li>• Redundant apostrophe – 1</li> </ul>
“~”	Misformation	10	<ul style="list-style-type: none"> <li>• Non-agreement in number between subject and auxiliary - 2</li> <li>• noun and adjective/determiner - 6</li> <li>• pronouns and referred nouns - 2</li> </ul>
	Misselection	45	<ul style="list-style-type: none"> <li>• Misselection between tenses – 7</li> <li>• Misselection between ‘the’ and ‘a/an’ – 5</li> <li>• Misselection between singular and plural nouns – 5</li> <li>• Misselection between gerund and verb– 2</li> <li>• Misselection between prepositions – 5</li> <li>• Wrong use of “it” for “this” – 1</li> <li>• Wrong use of noun as adjective - 2</li> <li>• Wrong use of comma for full stop – 3</li> <li>• Wrong use of active voice for passive – 2</li> <li>• Wrong collocation – 2</li> <li>• Lexical misconception – 1</li> <li>• Failure to use pronouns to replace mentioned nouns – 8</li> <li>• Wrong use of conjunction for infinitive – 1</li> <li>• Wrong use of prepositional phrase for relative clause – 1</li> </ul>
[]	Misordering	2	<ul style="list-style-type: none"> <li>• Wrong placement of adverb in sentence - 2</li> </ul>
^	Blend	0	<ul style="list-style-type: none"> <li>• None</li> </ul>

Table 3.3: Breakdown of the surface strategy categories

### 3.1.3 Insights drawn from the pilot study

In the pilot study, I tested the tentative tagging system by applying it to a student essay and found the strengths and weaknesses of the system. They are discussed in this section.

1. Errors can be efficiently calculated and retrieved

The combination of the tagging system and a text retrieval program (WordSmith Tools) enables me to retrieve data very efficiently and systematically. A string search of an error tag can generate all the instances of the error type.

2. The combined-taxonomy approach can sufficiently describe errors

Each tag contains information of two kinds: the linguistic unit and the surface structural deviance of the error. It enables me to describe errors very easily and systematically.

3. Native intuition is required in determining errors

When tagging the errors, I was constantly confused by some grammar points, e.g. the use of articles, prepositions, tenses, etc. In these cases, the COBUILD dictionary and other authoritative grammar reference books were used as an authority on acceptability. These sources were not always adequate, however, and native intuition was needed as the ultimate determiner of error. Being a non-native speaker of English, it is very likely that my judgements on errors are inaccurate. It was decided that a native speaker, ideally an EAP tutor, should help me with the identification of errors. This accords with Dagneaux et al.'s (1998) suggestion that error analysis should be carried out by a bilingual team – a cooperation between a native speaker of the target language and a researcher who could be a non-native speaker, but with a good knowledge of English grammar and a matching L1 background as the learner.

4. Ambiguous sentences should be excluded from the corpus

In the tagging process, it was found that some sentences could not be interpreted unambiguously, which made it difficult to assign to them appropriate tags. For example, I could not interpret the phrase “in concern with” in the following sentence:

\*The use of information technologies is also in concern with a shift in the teacher’s role.

If the learner was available, he/she could be consulted so that his/her intended meaning could be established and the suitable tag could be assigned.

However, in this study, the learner was not available to clarify the meaning; therefore, it was decided that ambiguous items should be excluded from the analysis. This decision basically follows the principle suggested by Corder (1971) that sentences with ambiguous meanings are not readily suitable for analysis.

5. The code should be simplified and modified

To reduce tagging time and enhance code readability, it was decided to shorten the tags and rearrange the components in a tag. For example, the code {detart G – the} was changed to {dtar – the G} with the first two parts describing the linguistic unit and surface deviance of the error and the final part indicating its language level. “X” was introduced to replace “G/L” for lexical-grammatical errors (e.g. {detart G | the /L} became {dtar | the X}). The sign “#” replaced “~” because “~” is more likely to appear in the students’ essays (e.g. pp 17~34) and may interfere with the calculation of misformation errors (~).

Following these changes, the tagging rules needed to be modified accordingly.

It was also decided that the first part of the tag should mark the word class of the error, not the corrected form. This way of tagging would be more helpful because it would make comparing an error and its correction easier. For example,

\* All cars will need to pay tax when in using {gr | n G}.

The tag “{gr | n G} clearly indicates that the error involves wrong use of gerunds for nouns.

6. A clearly exemplified tagging manual should be developed to clarify error ambiguities.

In the tagging process, ambiguities occurred constantly. For example, it was difficult to differentiate between two pairs of error categories: misformation vs misselection errors and lexical-grammatical vs lexical errors. They are elaborated as follows:

- Misformation vs misselection errors

It is difficult to set clear boundaries between misformation and misselection errors. For example,

- 1) Understanding how information technologies have affected our life is important. [lives] {n G ~ agr} or {n G | sin}
- 2) One consequence of the knowledge explosion and changes in job skills is the gradual transformation of business organizations and the use of information technologies in it. [them] {proper G ~ agr} or {proper G | sin}
- 3) Information technologies have its first impact in the economic sphere by changing what we produce. [their] {adjpos G ~ agr} or {adjpos G | sin}



- 4) Information technologies provide intellectual advantage. [advantages]  
{n G | sin}

In example 1, the first tag, {n G ~ agr} denotes that the word “life” violates the rule of “agreement in number”. The more accurate form is “lives” because of the possessive determiner “our”. The second tag, {n G | sin} indicates that “life” is a misselection error. The learner misselects the singular form “life” instead of the plural form “lives”. To choose the appropriate tag, we need to first differentiate between misformations and misselections.

The presumptions underlining these two categories are that, in the case of a misformation error, the learner knows about the grammar rule but fails to comply with it; in the case of a misselection error, he has no clear understanding of the involved rule and thus makes a misjudgement. The former is more likely to be mechanical errors while the latter mainly includes conceptual errors. The problem with these assumptions is that the decision on “mechanic” or “conceptual” is likely to be subjective when a confusing erroneous item occurs and the learner is not available to elucidate how he/she commits the error. However, the argument in favour of retaining the two categories (misformation vs misselection) is that the results may reveal useful insights into different kinds of deficiency in the learner’s L2 competence and help me to gain deeper understanding of the errors. The prerequisite for their effectiveness is that they have rigid boundaries and do not overlap. As long as these boundaries are clear and the researcher respects them and classifies errors consistently, the results should be valid.

In the light of the above arguments, it is essential that the two categories are defined clearly if they are to be retained. It was found in the pilot study that exemplifying instances for the two categories is a better way to distinguish them than providing general definitions. In this sense, initially there may be no completely prescribed error subtypes for the two categories. New subtypes for each of them are likely to emerge during the tagging process. These will be identified and added to the two categories while the researcher proceeds through the corpus.

In this pilot study, errors of non-agreement in number were classified as misformation errors. The reason for this is that the rule of agreement in number is supposed to have been introduced to L2 learners in a very early stage and thus the learner's infringement of the rule should be regarded as a misformation error (as in examples 1, 2 and 3 above). Example 4 seems to involve a rule about generic or non-specific count nouns, which the learner may be unfamiliar with or unaware of, and so the error should be classified as a misselection. In accordance with this classifying rule, two subtypes, "non-agreement in number" and "singular noun form for plural noun" will be added to the misformation and misselection categories respectively. Some erroneous items emerging in this pilot study are as follows:

### **Misformation**

Non-agreement in number:

Understanding how information technologies have affected our life is important. {n G ~ agr}

One consequence of the knowledge

### **Misselection**

Singular noun form for plural noun:

More banks offer customers online computer payment of monthly bill. {n G | sin}

Information technologies provide intellectual advantage. {n G | sin}

explosion and changes in job skills is the gradual transformation of business organizations and the use of information technologies in it. {proper G ~ agr}

Information technologies have its first impact in the economic sphere by changing what we produce. {adjpos G ~ agr}

Some groups of workers have been displaced by this new information technologies. {adjdem G ~ agr}

It is expected that new subtypes of misformation and misselection will emerge as the researcher tags more essays.

- Lexical-grammatical vs lexical errors

Although lexical-grammatical and lexical errors were thought to have been adequately defined, it was found in the pilot study that the distinction between them was not very straightforward and that confusion occurred in some cases. For example, it was difficult to decide if the error in the following sentence is a lexical collocational error or a lexical-grammatical error.

\*The increasing number of WWW pages are set up and teach people how to use the Internet. [An] {detart L | col} or {detart G | the /L}

It is thus necessary to exemplify these two categories more extensively.

Granger et al. (1994: 107) define lexical-grammatical errors as errors “where the morpho-syntactic properties of words have been violated”. This pilot study adopted their definition and their proposed subtypes to identify errors of

this kind. The identified instances and new insights are listed below and will be added to the definitions initially derived from Granger et al.

In terms of the violation of countability, a new insight drawn from the pilot study was that in cases where nouns were tagged as lexical-grammatical errors they were invariably noncount. Plural common noun inflection errors were tagged as grammatical errors (e.g. He bought two book. [books] {n G ~ agr}). It was decided that this consistent division would be retained in subsequent analysis.

In terms of the transitivity pattern of verbs, an insight from the pilot study was that this subtype might include many preposition errors as verb complementation often involves prepositions.

As for the incorrect syntactic complementation of nouns, some instances were identified in the essay. For example,

- 1) \*The applications of information technologies in producing commodities actually extend the older forms of life. [to] {pre G | in /L}
- 2) \*They have had their first impact in the economic sphere. [on] {pre G | on /L}

The lexical error category in the pilot study comprised misspelling, non-existent L2 words, misconception and collocational errors. The first three subtypes were very straightforward, but collocational errors were occasionally confused with lexical-grammatical errors. For example,



\*The increasing number of WWW pages have been set up.

{detart L | col} or {detart G | the /L}

The sentence involves wrong association of “the” with “number”. Is it a lexical-grammatical error in which the morpho-syntactic properties of the word “number” are breached or a collocational error in which the phrase “a number of” is wrongly produced as “the number of”? Based on the context, it could be understood that the learner intended to produce the phrase “a number of”. Being a phrase, it should be marked as a lexical collocational error.

Another similar instance was:

\*The countries were previously behind the iron wall. [iron curtain]  
{n L | col}

Cases exemplifying lexical-grammatical and lexical errors would be gradually compiled to clarify their ambiguity.

#### 7. The linguistic category taxonomy should be revised.

The linguistic units included in the tentative linguistic category taxonomy are mainly based on Thomson and Martinet’s (1980) classification. Though the categorization has proved to be workable, it is open to criticism. For example, the framework might be outdated because it was devised more than 20 years ago. It was suggested that a linguistic category taxonomy based on a newer classification of word class should be developed. Collins COBUILD English Language Dictionary (1994) seems to be a very authoritative reference book which provides more updated and comprehensive definitions and

categorization of word classes. Therefore, I decided to revise my tentative linguistic category taxonomy by adopting the linguistic categories and definitions used in the dictionary. Some of the categories from Thomson and Martinet (1980) were also retained. Table 3.4 shows the linguistic units and their tags included in my revised linguistic category taxonomy.

Linguistic unit	Tag
Determiner	{dt}
Determiner-article (a/an/the)	{dtar}
Determiner-demonstrative (this/that/these/those)	{dtde}
Determiner-distributive (e.g. either/neither/each/every)	{dt di}
Determiner-quantitative (e.g. some/any/no/one)	{dtqu}
Determiner-numeral (e.g. one/two/three)	{dt nu}
Noun	{n}
Noun, proper (e.g. name, title)	{npr}
Noun, plural (The noun is used with a plural verb when it is the subject of the verb, e.g. clothes/police/contents/fireworks/jeans/binoculars)	{npl}
Noun, singular (The noun is a singular noun and is always used with a determiner, e.g. business/jumble/brink/standstill/labouring)	{nsi}
Noun, uncount (The noun is an uncount noun, e.g. happiness/furniture)	{nuc}
Noun, mass (A mass noun. It normally behaves like an uncount noun. However, unlike an uncount noun, it can also treat the things that it refers to as countable, e.g. tea, sugar, cheese)	{nma}
Noun, count (The noun is a count noun, e.g. book/door)	{n}
Pronoun	{pn}
Pronoun, personal (I/you/he/she/it/we/you/they/me/him/her/us/them)	{pnpe}
Pronoun, reflexive (Himself/herself/myself/themselves/yourself/yourselves/ourselves)	{pnrf}
Pronoun, indefinite (Anybody/anyone/anything/everybody/everyone/everything/somebody/someone/something)	{pnid}
Pronoun, demonstrative (This/that/these/those)	{pn de}
Pronoun, quantitative (e.g. some/any/no/few/many/much/one/twenty)	{pnqu}
Pronouns, distributive (e.g. each/either/neither)	{pn di}
Pronoun, interrogative (e.g. which/what/whose)	{pnwh}
Pronoun, possessive (e.g. mine/yours/his/hers/ours/theirs)	{pnpo}
Pronoun, relative (e.g. who, which, that)	{pnrl}
Adjective	{aj}
Adjective, classifying (A classifying adjective, e.g. a big red <i>woollen</i> scarf)	{aj}
Adjective, colour (A colour adjective such as red or blue)	{aj}
Adjective, qualitative (A qualitative adjective)	{aj}
Adjective, interrogative (e.g. which/what/whose)	{adjint}
Adjective, possessive	{ajpo}
Adjective, comparative	{ajco}
Adjective, superlative	{ajsu}
Adverb	{av}
Adverb, broad negative	{avbn}

(Broad negative adverbs, e.g. hardly, scarcely, barely, seldom)	
Adverb, sentence (An adverb or an expression with an adverbial function applies to a clause or a sentence as a whole. They are usually placed at the beginning of a clause followed by a comma or in the clause separated by commas. Some come at the end of the clause. E.g. however, of course, anyway...)	{avse}
Adverb, +adj/adv (Adverb of degree, e.g. a <i>very/relatively/wonderfully</i> funny story)	{avde}
Adverb, after vb (e.g. He looked <i>down</i> /He hurried <i>indoors</i> )	{avav}
Adverb with vb (The adverb comments on a verb and is not used before an adjective or another adverb. It may come before or after the verb, e.g. She was <i>busily</i> engaged in building a hut/He typed <i>busily</i> .)	{avwv}
Adverb, interrogative (When? Where? Why? E.g. When is he coming?)	{avwh}
Adverb, relative (When/where/why, e.g. the day <i>when</i> they arrived, the hotel <i>where</i> they were staying, the reason <i>why</i> he effused...)	{avrl}
Preposition	{pr}
Verb	{v}
Verb, transitive	{vt}
Verb, intransitive	{vi}
Verb, ergative (Verbs which are both transitive and intransitive in the same meaning. They are described as v-erg because there is a restriction on the type of subject which can be used with the intransitive verb. With v-ergs, the object of the transitive verb can be used as the subject of the intransitive verb. E.g. We could open the door. The door opened easily.)	{ve}
Verb, irregular	{vir}
Verb, present participles	{prtp}
Verb, past participles	{pstp}
Infinitive	{if}
Gerund	{gr}
Auxiliary	{au}
Auxiliary, be	{aube}
Auxiliary, do	{audo}
Auxiliary, have	{auha}
Modal (A small group of words such as can, could, may, might, must, ought to, shall, should, will and would. Need, dare and "used to" are called semi-modal.)	{md}
Tense	{tn}
Tense, present	{tnpr}
Tense, past	{tnpa}
Tense, future	{tnfu}
Aspect	{ap}
Aspect, simple	{apsi}
Aspect, perfect	{appe}
Aspect, continuous	{apco}
Voice	{ce}
Voice, active	{ceac}
Voice, passive	{cepa}
Conjunction	{cj}
Conjunction, coordinate	{cjco}
Conjunction, subordinate	{cjsu}
Existential	{ex}
Punctuation	{pu}
Error beyond word class	Word class not available
Redundancy	{r}



Sentence fragment	{sf}
Relative clause	{rc}
A clause is needed	{cl}

Table 3.4: The revised linguistic category taxonomy (first revised)

Note 1:

In the adjective category, three subtypes (classifying, qualitative and colour) share the label {aj}. The reasons are 1) the distinction between classifying and qualitative adjectives is insufficiently precise, and 2) all subtypes are used to describe the quality of a noun and can be roughly grouped together.

The revised system derived from the pilot study was applied to 10 essays. Erroneous instances taken from those essays were fed into the system, and some more tags and tagging rules were formulated from this experience. The system then went through the second stage of development - checking inter-rater agreement. The process and results are detailed in the following section.

### **3.2 Developmental stage 2 - Inter-rater agreement checking**

In order to test inter-rater agreement and further refine the tagging system derived from the first stage of development, my supervisor and I tagged an essay individually. We then compared and discussed the tagging differences between us and reached agreement about the tags; the system was modified accordingly. In this section, I document the processes, record the differences between our codes and reports on the modified codes and tagging rules.



### 3.2.1 Procedure

One of the learner essays was randomly chosen. Initially my supervisor identified the formal errors in the essay. She then tagged the identified errors following the first-revised system. Afterwards she sent me the two files: one was the error file and the other was her tagged file. I tagged the error file without referring to her tagged file. After finishing my tagging, I compared my tagged version with hers and marked up the differences between these two versions. Finally we discussed the differences and decided the final tags.

### 3.2.2 Results and discussion

18 different pairs of tags were identified and discussed. The discussions are reported in this section. In each discussion, I first list the different versions of tags (My supervisor's version is in bold), followed by our discussion and the final agreed tags.

#### Discussion 1

- The Economic and Monetary Union (EMU), which consisted of 11 European countries at the initial time in 1979... {avse # initially Lw} {**avse | initially Lcl**}
- One of the most important things has been concerned is how the euro serves them better than before. {sp | concerns Lw} {**n # concerns Lmc or Lcl**}

Some sentences are wordy and stylistically different from native speakers' language. They can be both ungrammatical and wordy or just wordy in style. Although stylistic difference is not the focus of this study, ungrammatical and wordy items can still be tagged. In order to more exactly mark this type of error, I tagged it as "Lw" which

stands for “lexical wordiness”. Learners make wordy sentences because they do not use precise words or phrases. However, my supervisor suggested that a new tag {Sw} (i.e. stylistic wordiness) should be added to the tagging list and it should be a stand-alone tag which is separate from other tags. As a separate tag, {Sw} can be used to tag sentences which are ungrammatical and stylistically wordy or sentences which are stylistically wordy but grammatical. For example,

- ...countries at the initial time {Sw} (i.e. stylistically wordy but grammatical)
- One of the most important things has been concerned {sp # concerns G} {Sw} is... (i.e. ungrammatical and stylistically wordy)

One thing to note is that tagging stylistic wordiness did not mean that I would necessarily analyse this type of error in this study. The data, if examined, however, might be able to provide more insights into the interlanguage of this group of learners.

## Discussion 2

- Moving among countries will seems {pr – like G} {cj - like G} to go {if # going G} to other places within one country.
- What factors made them have drawbacks {n | reservations Lmc} {n | reservations Lmc} to {pr | about Xnpr} {pre | about G} this way of thinking?
- A more complicated future is waiting {v | lies Lcl} in front of {pr | ahead for Lcl} the euro. {sp | lie\_ ahead\_ for Lcl}

Sometimes it seems more reasonable to tag erroneous words in a collocational unit collectively instead of individually. For example, instead of marking “seems to go” in this sentence “Moving among countries will seems to go to other places” as two errors (i.e. {pr – like G} and {if # going G}), I will treat the whole chunk as a misformation error of the correct version “seems\_like\_going”. To facilitate this kind of chunk

tagging, a new code “sp” (i.e. sentential parts) will be added to the taxonomy so that it can be used to tag the erroneous unit which consists of more than one word and thus extends over more than one part of speech. For example,

- Moving among countries will seems to go {sp # seems\_like\_going Lmc} to other places.
- It is said that there is no such a thing {sp | nothing G} can run without a core.
- What factors made them have drawbacks to {sp | reservations\_about Lmc} this way of thinking.
- A more complicated future is waiting in front of {sp | lies\_ahead\_for Lcl} the euro.

### Discussion 3

- It is an area prepared for the single currency and enables people, goods and services within European to move with minimal restrictions. {n | Europe Lmc} {n # **Europe G**}

The word “European” can be a noun or an adjective. If it is regarded as a noun in this instance, this error will be tagged as “Lmc” - a lexical misconception of the words “European” and “Europe”. If it is regarded as an adjective, it will be tagged as a grammatical error involving wrong choice of adjectives in place of nouns. Since the learner is unavailable, we cannot really know how he produced this error. However, given what I know of intermediate learners’ language knowledge, I decided to tag the error as “Lmc” because I think the learner was more confused about the meaning than the derivational form. In other words, if the learner had known the meaning of the word “European”, he could have avoided this error.

One thing I would like to point out is that this same learner used “European” as an adjective (e.g. European countries, European identity, European currency, European project, etc) in his essay. He also used it as a noun in the following instances:

- The greater integration brings a greater cultural exchange among European.
- Different social life styles are likely to be integrated and will gradually stabilize the unity of European as a whole.

These examples suggest that the learner knew that the word “European” could be a noun or an adjective. However, he did not seem to know the word as a noun very well because he failed to use a plural form in the first instance above and made the wrong choice of “European” instead of “Europe” in the second sentence. These two instances support my assumption that this error is more lexical than grammatical in nature. Therefore, this kind of error will be tagged as “Lmc”. Examples of Lmc errors are:

- ...enables people, goods and services within European to move... {n | Europe Lmc}
- 12 countries: Austria, France, Germany, Finland, Ireland, Italy, Netherlands, Portugal, Spain, Belgium, and Luxembourg and Greek {n | Greece Lmc}

#### Discussion 4

- Euro {n + Euro G} {n [] G} though naturally appears {v + appears G} glitches {v – have\_occurred G}, {dtar – the G} benefits bring {v | pp G} {pa | **brought** G} to either the individual European country or the entire euro-zone is {v # ag G} significant.

Some sentences contain so many errors or omit so many necessary words that tagging them is almost like rewriting the entire sentence. These messy sentences often fail to convey clear meanings as well. In order to make error tagging more objective, it was decided to tag messy sentences as {Q}. {Q} means that the sentence will be excluded



from the analysis and I will not attempt to mark any errors in the sentence. For example,

- Euro though naturally appears glitches, benefits to either the individual European country or the entire euro-zone is significant {Q}.

## Discussion 5

- As soon as the process gets easier than before, a boost to trading \_\_ likely to occur. {v – be G} {v – is G}
- It is a country with a great deal of democracy and join the EMU may result in disorder in society. {v | gr G} {v # **joining** G}
- The contribution made by the early found defects is great. {aj | rcl G} {aj | **that were discovered early on** Lcl}
- Giving up part of their culture to gain a strong economic and political position... may be seen as a betray of the country. {v | n G} {n # **betrayal** G}

In order to facilitate the retrieval and generalization of errors, we decided to use a general term to represent errors of the same kind. For example, instead of using {v | joining G} or {v | going G}, we decided to use the tag “{v | gr G}” to mark these two cases. We also decided to use the base form of the copula to represent all its inflected forms. However, when tagging auxiliary errors, we can use the inflected form (e.g. is/are/was/were, has/have/had, do/does/did) after the surface strategy code because the word class code (i.e. aube/audu/auha) can be used to facilitate the retrieval and generalization of errors.

e.g.

- ...a boost to trading [] likely to occur {v – be G} (use the base form of copula)
- ...countries who do not keen on the euro {v | be G} (use the base form of copula)
- Thus, if the EU [] managed by 12 different brains. ... {aube – is G} (use the inflected form “is”)
- Why [] he like to go? {audu – did G} (use the inflected form “did”)
- The contribution made by the early found defects is great. {aj | rcl G}

- ...may be seen as a betray ... {v | n G}

## Discussion 6

- Some countries can specialize in one good or service...while other countries specialize in other {aj | others G}. {n # others G}
- ...close cooperative relationships link them altogether. {av | all\_together Lmc} {n | all together Lmc}
- Apart from the worrying of losing identity,... {gr | n G} {n # worry G}

According to a revised tagging rule, the initial part of the tag is the original word class of the error, not the word class of the revised version. My supervisor failed to follow the rule and caused the discrepancies between our versions in the cases above. After discussing the advantages of this tagging rule, we agreed that the rule should be followed because this way of tagging would make comparing an error and its correction easier. For example, when we look at the tag “{gr | n G}”, we know immediately that this error is the wrong choice of a gerund in place of a noun. Moreover, this way of tagging is necessary if we want to compare the frequencies of errors and non-errors regarding a specific item (e.g. the). The agreed codes for the above examples are:

- ...other countries specialize in other {aj | others G}. (wrong choice of “other” in place of “others”)
- ...link them altogether {av | all\_together Lmc} (wrong choice of “altogether” in place of “all together”)
- Apart from the worrying of losing identity. ... {gr | n G} (wrong choice of a gerund in place of a noun)

## Discussion 7

- Some countries can specialize in one good or service...while other countries specialize in other {aj | others G}. {n # others G}

In order to set a more clear-cut boundary between misformation and misselection errors, we decided that errors involving wrong choice between different word classes (e.g. adjectives and nouns) would be regarded as misselection errors.

e.g.

- ...other countries specialize in other. {aj | others G}.

## Discussion 8

- The price transparency will increase competitions. {n # pl Xnu} {n # si Xns}

One of the tagging principles is that the code after the sign “#” should mark the intended rule/item, not the correction. The learner misformed the plural form of the uncount noun “competition” in this context. My supervisor did not follow this rule to tag the error. The correct tag should be:

- The price transparency will increase competitions. {n # pl Xnu}

## Discussion 9

- ,as a return {n | result Lcl} {n | result Lmc} there will be a high standard of living.

Some errors are better treated as phrases instead of individual words. The above error can be tagged in two ways. If we tag the error as “Lcl”, we will treat it as a

collocational error. If we tag it as “Lmc”, we will treat it as a misconception of the two words, return and result. We decided to tag this error as a collocational error because “as a result” can be treated as a unit and remedial materials for collocational errors can offer practice with chunks, which are very useful for intermediate learners.

e.g.

- ,as a return {av | result Lcl} there will be a high standard of living.

#### Discussion 10

- ...and the increased mobility provides an opportunity for culture mixing, ...  
{n | the \_mixing\_of\_cultures G} {n # **the mixing of cultures Lmc**}

The learner often made wrong choices between compound nouns and nouns defined by prepositional phrases (e.g. of...). Compound nouns seemed to be a problematic area and required a new tag to highlight them. Therefore, the new tag {ncp} (compound nouns) was added to the tagging list. For example,

- ...an opportunity for culture mixing, ... {ncp | the \_mixing\_of\_cultures G}

#### Discussion 11

- If one member state gets bog {v | pp G} {pa | **bogged G**} down into hard situations, other member states...

Some errors should not be tagged as voice errors although they miss out required past participles. For example, the above instance shows that the base form of the verb “bog” wrongly replaces the past participle “bogged”. Should we tag it as voice error or verb error or even both? In order to more exactly describe the error, we decided to



add a new code “{cev” (i.e. verb-form related voice error) to the tagging list. This “verb related” voice error refers to a voice error in cases where the structure is not totally in the wrong voice. The learner starts with the right voice but fails to use the right inflected form of the verb (e.g. past participle). In the above instance, the learner starts with “gets” (a passive construction) but fails to inflect the verb “bog” to form its past participle “bogged”. This error will be tagged as the following:

- If one member state gets bog {cev | pp G} down into hard situation,...

## Discussion 12

- The countries have close co-operation relationships... {n | aj G} {aj | **co-operative Lmc**}

This error could be a lexical error which involves the confusion over the words cooperation and cooperative (i.e. the learner does not know cooperation is a noun) or a grammatical error which involves misselection between adjectives and nouns (i.e. the learner knows the two words, cooperation and cooperative, but thinks the nominal form “cooperation” is required in this context). The error could even result from the learner’s attempt to form a compound noun. Since the learner is unavailable, I decided to tag this as a grammatical error. It was not regarded as a compound noun problem because it cannot be re-expressed with an “of” construction (i.e. relationships of cooperation)

e.g.

- ...have close co-operation relationships... {n | aj G}

## Discussion 13

- The loss of nearly all control over the country's economy can be accounted for {pr + for Xvpr} {pr + for G} the main issue against the euro.

It was decided that verbs followed by redundant prepositions would be tagged as Xvt errors (a lexical-grammatical error related to transitive verbs). Verbs that need to take prepositions would be marked as Xvpr if they took no prepositions or wrong prepositions. For example,

- The loss of nearly all control over the country's economy can be accounted for {pr + for Xvt} the main issue against the euro.
- People can spend money within the euro-zone without bothering {pr – about Xvpr} the exchange rates and currency commission.

## Discussion 14

- ...the most amazing event that ever happened before {apsi | pe G} {tnpa | pr G} {apsi | pe G}

Because tenses and aspects are two separate categories in the tagging system, it was decided that errors that involve wrong choice of both tenses and aspects would be tagged using two tags. The above instance shows that the correct form is the present perfect, but the learner chose the past tense. It is thus necessary to use two tags (i.e. a tense tag and an aspect tag) to mark this error.

e.g.

- ...the most important event that ever happened {apsi | pe G} {tnpa | pr G}

## Discussion 15

- The contribution given {v | made Lcl} {v | **made Xnv**} by the finding, is great.
- Many external factors give {v | have Lcl} {v | **create Xnv**} negative influences and prevent the euro from...
- A long period of preparation lets {v | make Lmc} {v | **makes Xnv**} everyone feel rightly proud.
- The sheer scale of the euro operation also brings {v | has Lcl} {v | **has Xnv**} great effect to {pr | on Xvpr} {pr | **on Xnpr**} {sp | **has\_effect\_on Lcl**} their traditions.
- What effects will it give {v | have Lcl} influences to {pr | on Xnpr} {sp | **have on Lmc**} the traditions of individual countries?

Xnv is not a possible tag in the system. It was decided that verb errors that are associated with nouns would be classified as collocational errors. Verb errors that involve misconception of lexical items would be tagged as Lmc. For example,

- ...the contribution given {v | made Lcl} by ...
- Many external factors give {v | have Lcl} negative influences...
- A long period of preparation lets {v | make Lmc} everyone feel rightly proud.

When the verb and its associated preposition are wrong because of a corresponding noun, it was decided that they would be tagged collectively as a collocation unit instead of two individual errors (i.e. a verb error and a preposition error). The following instances show that the verb (e.g. brings) and the preposition (e.g. to) are treated as a unit with the “sp” code.

- The sheer scale of the euro operation also brings great effect to {sp | **has\_effect\_on Lcl**} their traditions.
- What effects will it give to {sp | **have\_on Lcl**} the traditions of individual countries?

## Discussion 16

- ...as a response to changes of {pr | in G} {pr | **in Xnpr**} the world,...
- In {pr | from G} {pr | **from Xnpr**} my own point of view,...

Preposition errors can be grammatical errors or lexical-grammatical errors. It was decided that cases in which the wrong preposition is related to a verb or a noun would be marked as Xnpr and Xvpr respectively. In the Xnpr cases, the noun can be before or after the preposition. e.g.

- The boost in {pr | to Xnpr} the industry is significant.
- ...as a response to changes of {pr | in Xnpr} the world,...
- In {pr | from Xnpr} my own point of view,...

## Discussion 17

- ...made them loss {n | v G} {v | **lose Lms**} confidence in the euro.

This error involves wrong choice between nouns and verbs. According to my tagging categorisation, it should be a grammatical error. However, the two words “loss” and “lose” look very similar so that it may be possible that the learner misspelled the word “lose” in which case this error should be treated as a lexical misspelling error.

Because the learner is not available, I cannot know for sure how he produced this error. In order to keep a consistent tagging, this instance will be classified as a grammatical error involving the wrong use of a noun for a verb (e.g. made them *loss* {n | v G} confidence), although I shall keep in mind the other possibility while developing remedial materials for this kind of errors.



## Discussion 18

- Firstly, with the same currency, it is easier for companies to see price differences between companies across borders, {pu | cs G} {pu | **full stop G**} this is assumed to be a convenient way for businessmen who trade with foreign buyers.

This error involves not only a full stop error at the end of the first sentence but also a missing capital at the beginning of the second sentence. Errors of this kind are tagged as comma splice errors in the tagging system.

e.g.

- Firstly, with the same currency, it is easier for companies to see price differences between companies across borders, {pu | cs G} this is a ...

Apart from the 18 discussions above, we also made the following modifications to the system:

1. Only two tenses should be marked – present and past.
2. A new category of meaning-related error should be included to code those errors which are only incorrect when in context. Whether this category is useful would require further testing.

After the revision, the system was applied to 20 essays (10 of them were the previously tagged essays and 10 were non-tagged essays). Erroneous instances were further fed into the system, and a second revised version was devised.

### **3.3 Developmental stage 3 - Inter-rater agreement checking**

In order to check inter-rater reliability, two coders, together with the researcher, tagged the same essay independently following the second revised tagging system.

The procedure and results of the evaluation are documented in the following two sections.

#### **3.3.1 Procedure**

One of the students' essays was randomly chosen. Two native speaker raters were asked to identify and tag the formal errors in the essay. They were given the second revised tagging system and instructed to tag errors following the tags and rules in it. No training was given because I assumed that the tagging manual was sufficiently self-explanatory to guide the raters. Initially, one rater identified many more errors (43 more errors) than the other one, and so the second rater had to redo her tagging in order to tag those errors she had failed to identify. In the end, 85 errors were identified and tagged by both raters and I also tagged them myself without referring to their versions. The three versions were compared. Five errors were excluded from analysis because one rater regarded them as meaning unclear and could not be properly tagged. The remaining 80 tags in the three versions were then compared. Because each tag contained three parts, each part (i.e. linguistic category taxonomy, surface strategy taxonomy and language level taxonomy) was compared separately and the reliability for each taxonomy was calculated.

### 3.3.2 Results

Each tag describes an error in terms of three taxonomies – a linguistic category taxonomy, a surface strategy taxonomy and a language level taxonomy. In this section, I compare the three versions of codes (the researcher vs the first rater; the researcher vs the second rater) and report their corresponding and non-corresponding codes. Because of the complexity of the code structure, the raters sometimes failed to tag all three parts. It is decided that cases with missing parts will not be compared. Also one rater described a few errors using codes which were not in the tagging system. These cases will not be compared, either. It is also decided that for the surface strategy I will ignore the words written as corrections and just look at the codes (+, -, #, | and []), as obviously there are sometimes a number of equally correct correction alternatives. Table 3.5 shows the inter-rater agreement of the second version of tagging system between the first rater and the researcher, and Table 3.6 shows the agreement between the second rater and the researcher.

The researcher vs the 1 <sup>st</sup> rater								
Linguistic category taxonomy: corresponding codes			Surface strategy taxonomy: corresponding codes			Language level taxonomy: corresponding codes		
researcher	rater 1	frequency	researcher	rater 1	frequency	researcher	rater 1	frequency
dtar	dtar	15			28	G	G	56
n	n	10	-	-	20	Lmc	Lmc	3
pr	pr	9	+	+	15	Xnpr	Xnpr	1
md	md	5	#	#	3			
pu	pu	5	[]	[]	1			
pnpe	pnpe	3						
sp	sp	3						
if	if	2						
auha	auha	2						
appe	appe	1						
tnpa	tnpa	1						
cjsu	cjsu	1						
aube	aube	1						
vb	vb	1						
cjco	cjco	1						
v	v	1						
aj	aj	1						
ceac	ceac	1						
sf	sf	1						
dtnu	dtnu	1						
<b>Total</b>		<b>65</b>	<b>Total</b>		<b>67</b>	<b>Total</b>		<b>60</b>
Linguistic category taxonomy: non-corresponding codes (15)			Surface strategy taxonomy: non- corresponding codes (13)			Language level taxonomy: non- corresponding codes (14)		
researcher	rater 1	frequency	researcher	rater 1	frequency	researcher	rater 1	frequency
n	aj	2	-		1	G	Lmc	5
appe	tnpr	1	#		1	G	M	2
v	n	1		#	1	G	Lne	1
dtpo	pnpo	1	-	+	1	Xnu	G	1
gr	n	1	+		1	Lmc	Lms	2
v	vb	1	#		1	Xajs	Lcl	1
aube	vb	1		#	1	Lms	Lne	1
cjco	pu	1		#	2	Lcl	G	1
sp	sf	1	+		1			
v	if	1		-	1			
v	vph	1		#	1			
aj	n	1		#	1			
vb	if	1						
gr	vb	1						
<b>Total</b>		<b>15</b>	<b>Total</b>		<b>13</b>	<b>Total</b>		<b>14</b>
<b>Total valid codes</b>		<b>80</b>	<b>Total valid codes</b>		<b>80</b>	<b>Total valid codes</b>		<b>74</b>
<b>Proportional correspondence: 65/80 = 0.81</b>			<b>Proportional correspondence: 67/80 = 0.84</b>			<b>Proportional correspondence: 60/74 = 0.81</b>		
Linguistic category taxonomy: codes missing (0)			Surface strategy taxonomy: codes missing (0)			Language level taxonomy: codes missing (6)		
researcher	rater 1	frequency	researcher	rater 1	frequency	researcher	rater 1	frequency
0	0	0	0	0	0	G	No code	6

Table 3.5: The inter-rater reliability of the second version of tagging system (the researcher vs the 1<sup>st</sup> rater)



The researcher vs the 2nd rater								
Linguistic category taxonomy: corresponding codes (58)			Surface strategy taxonomy: corresponding codes (54)			Language level taxonomy: corresponding codes (63)		
researcher	rater 2	frequency	researcher	rater 2	frequency	researcher	rater 2	frequency
dtar	dtar	13			22	G	G	59
n	n	9	-	-	17	Xnu	Xnu	1
pr	pr	7	+	+	12	Lmc	Lexical choice	3
v	v	3	#	#	3			
md	md	4	[]	[]	0			
if	if	2						
appe	appe	2						
vb	vb	2						
aj	aj	2						
auha	auha	1						
tnpa	tnpa	1						
cjsu	cjsu	1						
aube	aube	1						
gr	gr	1						
cjco	cjco	1						
pnpe	pnpe	3						
pu	pu	5						
<b>Total</b>		<b>58</b>	<b>Total</b>		<b>54</b>	<b>Total</b>		<b>63</b>
Linguistic category taxonomy: non-corresponding codes (12)			Surface strategy taxonomy: non- corresponding codes (13)			Language level taxonomy: non-corresponding codes (12)		
researcher	rater 2	frequency	researcher	rater 2	frequency	researcher	rater 2	frequency
n	aj	2		#	5	Xnpr	G	1
dtar	dtqu	1		+	1	Lmc	X	2
ceac	aube	1	#		2	Xns	G	1
dtpo	pnpe	1	-		2	Lms	X	1
n	dtqu	1		-	1	Xvpr	Xvt	1
dtnu	det	1	+		1	G	X	1
v	sp	1	+	-	1	G	Lexical	1
sp	pr	1				G	M	3
auha	aspe	1				G	Xvs	1
aube	vau	1						
md	v	1						
<b>Total</b>		<b>12</b>	<b>Total</b>		<b>13</b>	<b>Total</b>		<b>12</b>
<b>Total valid codes</b>		<b>70</b>	<b>Total valid codes</b>		<b>67</b>	<b>Total valid codes</b>		<b>75</b>
<b>Proportional correspondence: 58/70 = 0.83</b>			<b>Proportional correspondence: 54/67 = 0.81</b>			<b>Proportional correspondence: 63/75 = 0.84</b>		
Linguistic category taxonomy: codes missing (10)			Surface strategy taxonomy: codes missing (13)			Language level taxonomy: codes missing (5)		
researcher	rater 2	frequency	researcher	rater 2	frequency	researcher	rater 2	frequency
sp	register	3		No code	2	G	No code	2
pr	No code	2	-	No code	4	G	Regis ter	3
gr	Lexical	1	+	No code	1			
cjco	No code	1		register	2			
v	No code	1		lexical	1			
dtar	No code	1	+	register	1			
sp	No code	1		Run on	1			
			[]	No code	1			

Table 3.6: The inter-rater reliability of the second version of tagging system (the researcher vs the 2<sup>nd</sup> rater)

### 3.3.3 Discussion

Since each tag contained three parts, each part (e.g. language level, linguistic unit and surface structure alternation) was compared separately. In the case of the researcher vs the 1<sup>st</sup> rater, the results indicated 81% reliability for language level, 81% reliability for linguistic category and 84% reliability for surface strategy. In the case of the researcher vs the 2<sup>nd</sup> rater, the results indicated 84% reliability for language level, 83% reliability for linguistic category and 81% reliability for surface strategy. These results suggest that even though there were some discrepancies in rater judgement the system is sufficiently reliable to be employed in the present study.

Two modifications to the system were made in the light of findings from the three raters' tagging. First, the "blend" category in the surface strategy taxonomy proved unhelpful. The raters did not assign any errors to this category, so I decided to remove it from the taxonomy. Second, the "meaning-related" category in the linguistic category taxonomy appeared to be somewhat confusing. Strictly speaking, quite a few error types involve contextual information at the semantic, syntactical or discoursal level to some degree (e.g. article errors, modal, tense/aspect errors, pronoun errors, lexical misconceptions, etc). Most of these errors, however, were not coded as meaning-related errors by the raters even though the tagging system suggests that they should be coded as meaning-related errors (there are only five instances of M errors in the three tagged versions). Moreover, the tagging principles already explicitly point out that tagging will sometimes go beyond the word-class level, and some errors can only be properly tagged at the semantic, syntactical or discoursal level. The meaning-related (M) error category appears to contradict the principles. It

was decided that this category should be removed, and all the errors mentioned above should be coded as grammatical, lexical-grammatical or lexical errors.

This third revised system was applied to 50 essays. Erroneous instances taken from those essays were further fed into the system.

### 3.4 The final version of tagging system

After the three developmental stages, my tentative tagging system was validated and revised. The final version of tagging system is presented in this section. Tables 3.7, 3.8, 3.9 and 3.10 list the grammatical, lexical-grammatical, lexical categories and surface structure taxonomy respectively.

#### 3.4.1 My linguistic category taxonomy

##### 3.4.1.1 My grammatical error categories

<b>Grammatical Category &amp; Tag</b>	<b>Definition</b> (Main source: the Collins COBUILD Dictionary (1994))	<b>Example</b>
Determiner		
Determiner-article {dtar}	a/an/the	in <u>the</u> {dtar + the G} Europe in {dtar - the G} UK Allowing car use only on some days of <u>a</u> {dtar   the G} week can solve the problem. The economy was booming at the {dtar   that G} moment, EMU are aiming to give each member {dtar - a G} better life. The euro, after its three year testing period without <u>the</u> {dtar   a G} form of cash, was... I will give you <u>a</u> {dtar # an G} example.  Note: an uncount noun with a redundant article will be tagged as {n # si Xnu} instead of {dtar + an G}. e.g. ... lead to <u>an</u> increased <u>competition</u> {n # si Xnu}
Determiner-demonstrative {dtde}	this/that/these/ those	Britain does not need to afford <u>this</u> {dtde # ag G} transfers. ...to deal with {dtde - this G} human health problem.
Determiner-Possessive	my/your/his/her/ its/our/their	I have finished my lunch. Have you finished <u>your</u> ? {dtpo   pnp G} Transgenic food may mislead consumers with <u>their</u> {dtpo # ag G} appearance.



{dtpo}		Genes determine how they look, their height, <u>their</u> {dtpo   the G} colour of {dtpo - their G} eyes and hair,...
Determiner-distributive {dtdi}	either/neither/each/ every/another	Travelling in Europe seems like going to <u>another</u> {dtdi   other G} places within one country.
Determiner-quantitative {dtqu}	some/any/no/ many/all	
Determiner-numeral {dtnu}	one/two/three...	People believed that the euro would become the only <u>one</u> {dtnu + one G} currency that could challenge the dollar.
Determiner-Wh-word {dtwh}	whose/which	Genetic engineers cut and paste genes from one organism to another, and in <u>which</u> {dtwh   this G} way a new organism is produced.
Noun {n}		
Noun-proper {npr}	name/title	His name is <u>john</u> . {npr # ca G}  Tom is a student. <u>Tom</u> {npr   pnpe G} goes to school on weekdays.
Noun-compound {ncp}	A noun which has a single meaning but is made up of two or more words.	This offers an opportunity for <u>culture mixing</u> {ncp   the _mixing_of_ cultures G}; The single currency will eliminate foreign exchange <u>transactions</u> {ncp   si G} costs.
Noun-all the other nouns {n}		Britain has more house owners than other countries in the EU <u>countries</u> {n + r G}. There is an increase in political {n - power G}. The increasing use of the car causes many more traffic <u>accident</u> {n # ag G}. Those <u>unemployment</u> {n   aj G} people will need to find... There are many arguments against <u>clone</u> {n   gr G} The British <u>governments</u> {n   si G} took actions. Genetic engineering can be used to deal with human health <u>problem</u> {n   pl G}. People would like to <u>choice</u> {n   v G} French wine.  Note: Redundant words are marked as "r".
Pronoun {pn}		
Pronoun-personal {pnpe}	I/you/he/she/it/we /you/they/me/him/ her/us/them	Britain`s own identity seems more important than anything. As <u>it</u> {pnpe + it G} mentioned before, the other side of the coin is losing identity. It is designed to stabilize the exchange rates of the national currencies and counter inflation. {pnpe - It G} Also aims to consolidate unity. Scientists want to modify a human foetus to make <u>them</u> {pnpe # ag G} immune to diseases. Many unemployed people will go to another country to find a job and <u>it</u> {pnpe   this G} will lead to negative mobility in the labour market.
Pronoun-reflexive {pnrf}	himself/herself/ myself/themselves yourself/ yourselves/ ourselves	He always goes to school by <u>herself</u> {pnrf # ag G}.
Pronoun-indefinite {pnid}	anybody/anyone/ anything/ everybody/ everyone/ everything/ somebody/ someone/ something	If the government cannot support teenage mums, they will not be able to keep their children. It is possible for <u>someone</u> {pnid # ag G} to give <u>their</u> children away.
Pronoun-demonstrative	this/that/these/ those	<u>This</u> {pnpe # ag G} are the things I need for the picnic. Why can terrorists make it happen? <u>That</u> {pnpe   it G} is because we are not



{pnde}		getting together to fight against them.
Pronoun-quantitative {pnqu}	some/any/no/few/many/much/one/twenty/all...	During the time of transport and distribution, <u>many</u> {pnqu   much G} of the food, especially fruit and vegetables, becomes less fresh.
Pronoun-distributive {pndi}	each/either/neither/other/another	Social scientists have used the term welfare state as a synonym for the social services provided by the government. <u>The other</u> {pndi   others G} have used it broadly to describe the full range of powers exercised by the government.
Pronoun-Wh-word interrogative {pnwh}	which/what/whose	
Pronoun-possessive {pnpo}	mine/yours/his/hers/ours/theirs	Science can either help or destroy <u>ours</u> {pnpo   our G} world.
Pronoun-relative {pnrl}	who/which/whose that, serving to introduce relative clauses	If all these rules are put in place, people {pnrl - who G} want to travel along the main roads will have to choose public transport. The eleven countries {pnrl - that G} have joined the EMU have different economic situations The answer, <u>which</u> {pnrl + which G} I suppose, is very simple. All western laws were regarded as superior and good regulations {pnrl - which G} deserved introduction. This is the book <u>who</u> {pnrl # ag G} he likes best.
Adjective {aj}		Each individual country cannot stand <u>lonely</u> {aj   alone Lmc} on the world stage. We can find <u>genetic</u> {aj   av G} engineered food. Genetic engineering is a very <u>board</u> {aj # broad Lms} term that covers many ways of manipulating genes.
Adjective-classifying {aj}	A classifying adjective, e.g. a big red <i>woollen</i> scarf.	
Adjective-colour {aj}	A colour adjective, e.g. red or blue	
Adjective-qualitative {aj}	Adjectives which can have more or less of the quality they describe, e.g. funny, terrible, etc	There would be no <u>difficult</u> {aj   n G} in providing food.
Adjective-possessive {ajpo}		It might alter other <u>genes'</u> {ajpo   of_other_genes G} function. It is good for <u>human's</u> {ajpo   human Lcl} health.
Adjective-comparative {ajco}	An adjective in its comparative form	It is <u>more</u> better {ajco + more G} to go to school than stay home. The manufacturing sector makes the German Mark much more stable and <u>stronger</u> {ajco   strong G}.  Note: "more better" is not tagged as {avde + more G}. It is regarded as a comparative adjective error instead.
Adjective-superlative {ajsu}	An adjective in its superlative form	He is {ajsu - the G} tallest boy in the class.  Note: "He is tallest." is not tagged as {dtar - the G}. It is regarded as a superlative adjective error instead.
Adverb {av}		{av} is used when the adverbial error does not belong to any of the adverbial subtypes. For example,  Cloning will provide people with a <u>widely</u> {av   aj G} help It will <u>be also some day</u> {av [] also_some_day_be G} used on the human body. The most amazing event that has ever happened <u>before</u> {av + before G}. Unemployed people will <u>be all</u> {av [] all_be G} given a better chance.

		Note: Misordering errors involving adverbs and auxiliaries/modals are tagged as misordering adverbs
Adverb-broad negative {avbn}	Broad negative adverbs, e.g. hardly, scarcely, barely, seldom	
Adverb-sentence {avse}	An adverb or an expression with an adverbial function applies to a clause or a sentence as a whole. E.g. however, anyway of course, etc.	<u>Further more</u> {avse # Furthermore Lms}, the use of ES cells may lead to another argument. Otherwise, we will suffer <u>at last</u> {avse   in_the_end Lmc}.
Adverb +adj/adv {avde}	Adverb of degree, intensifiers. E.g. very, relatively, Wonderfully, etc.	Most clones have a <u>very</u> {avde   much G} shorter life than the normal...
Adverb after vb {avav}	An adverb which can only be used after a verb, e.g. He looked <i>down</i> /He hurried <i>indoors</i> .	The depression in the airline industry, tourism industry and insurance industry caused their stocks to fall <u>down</u> {avav + r G}.
Adverb with vb {avwv}	The adverb comments on a verb and is not used before an adjective or another adverb. It may come before or after the verb, e.g. She was <i>busily</i> engaged in building a hut/He typed <i>busily</i> .	
Adverb-Wh-word interrogative {avwh}	When? Where? Why? E.g. <i>When</i> is he coming?	Many people in the member states may think about {avwh - how G} they will benefit from joining the EU.
Preposition {pr}	A word which usually has a noun group as its object, e.g. by, for, into with, etc.	More and more {pr - of G} the same animals will be created. This is a question <u>with</u> {pr   of G} norms. People can create an animal just {pr - by G} getting the gene from the original animal.
Verb {v}	A word which is concerned with what people and things do and what happens to them	We might {v - be G} able to modify genes. This is an unexpected problem which <u>are</u> {v + be G} people do not want to see. It <u>enable</u> {v # ag G} families and businesses to buy... I <u>putted</u> {v # pa G} on my coat.  Note: tags used to describe different forms of a verb include: vb: the base form of a verb prp: the present participle pp: the past participle vs: the inflected third person singular present verb vp: the past tense form of a verb
Verb – base form	This is used to pinpoint wrong	After <u>look</u> {vb   gr G} at those examples above,... ES cells can replace <u>damage</u> {vb   pp G} cells....

{vb}	choice between the base form and inflected form of a verb.	The government has <u>try</u> {vb   pp G} to restrict the use of cars.
Verb – past participle {vpp}	Vpp is used to refer to the word class of a past participle error	Studying all day is <u>bored</u> {vpp   prp G}.
Verb – present participle {vprp}	Vprp is used to refer to the word class of a present participle error.	People are <u>concerning</u> {vprp   pp G} to discover that Making more and more unemployed people <u>being</u> {vprp + r G} employed is important.
Infinitive {if}	The infinitive form of a verb. It is the form without inflections.	The new technology <u>enables us communicate</u> more easily. {if – to Xvs}, not {if – to G} He wants {if – to G} go shopping.  Note: Verbs which do not take “to” as part of their following infinitives will be marked as lexical-grammatical error. E.g. The teacher had to make the boy to {if + to Xvs} listen.
Gerund {gr}	A noun formed from a verb (v-ing) and expressing an action or state	Apart from the <u>worrying</u> {gr   n G} of losing identity, another <u>concerning</u> {gr   n G} is... It helps to improve the understanding of human disease and <u>developing</u> {gr   if G} improved therapies by novel uses of genetics in animals and plants. The euro will not only <u>reducing</u> {gr   vb G} transaction costs, but also <u>eliminating</u> {gr   vb G} foreign exchange rates.
Auxiliary {au}	A small class of verbs that are used before a main verb to show tense, voice, mood, etc.	
Auxiliary-be {aube}	The auxiliary <i>be</i>	If the EU {aube – is G} managed by twelve different brains,... I {aube – was G} forced to do that. If modified food <u>are</u> {aube # ag G} sold without clear labelling,... All these questions <u>are</u> {aube   have G} not yet been well answered.
Auxiliary-do {audio}	The auxiliary <i>do</i>	We still {audio – do G} not totally understand genes.
Auxiliary-have {auha}	The auxiliary <i>have</i>	The principles of law and its effects <u>has</u> {auha # ag G} engaged philosophers from the Time of the Greece.
Modal {md}	can, could, may, might, must, ought to, shall, should, will and would. <i>Need, dare, going to</i> and <i>used to</i> are included in this category.	If they <u>will</u> {md + will G} get more benefit, they will spend more time searching for jobs. We will find that the development of genetic engineering <u>would</u> {md   will G} bring us a great future.
Tense {tn}	The form of a verb which shows whether you are referring to the present or the past.	Because tense and aspect are marked separately, we need to use two tags to mark an error if it involves wrong choices of both tenses and aspects. In the following example, the correct form is the present perfect, but the learner used the past tense. We thus need to mark both tense and aspect errors. e.g. *The most important event that ever <u>happened</u> . {apsi   pe G} {tnpa   pr G}
Tense-present {tnpr}		They suffered a downturn in the global economy in recent years; however there <u>is</u> {tnpr   pa G} a return of growth after they joined EMU.
Tense-past {tnpa}		We have to achieve this target because everybody knows the economic base <u>decided</u> {tnpa   pr G} the superstructure.
Aspect {ap}	The way a verb shows whether an	



	activity is continuing, repeated or completed.	
Aspect-simple {apsi}		The EMU used to have a home in London, but now <u>moves</u> {apsi   pe G} to Frankfurt. Cooperation in important policy areas is increasing and Europe <u>becomes</u> {apsi   co G} more competitive as a political actor.
Aspect-perfect {appe}		People know what's <u>happened</u> {appe   si G} {tnpr   pa G} on 11 September, 2001.
Aspect-continuous {apco}		The whole society <u>is becoming</u> {apco   pe G} unstable in recent years. As soon as the process <u>is getting</u> {apco   si G} easier than before, there will be a boost to trading.
Voice {ce}	Voice refers to the relation between a verb and its subject.	
Voice-active {ceac}		The advantages <u>consider</u> {ceac   pa G} greater than the disadvantages.
Voice-passive {cepa}		The UK will <u>be gained</u> {cepa   ac G} a lot of benefits by joining the EU.
Voice-verb {cev}	Passive voice error because of wrong verb form. The sentence has a passive voice structure but does not have a correct past participle.	If one member state gets <u>bog</u> {cev   pp G} down into hard situations...  Note: The learner started with "gets" (seems to be in the passive voice) but failed to use the past participle. In this case, the error is tagged as voice related verb errors (i.e. wrong choice between the verb base form and its past participle).
Conjunction {cj}		
Conjunction-coordinate {cjco}	A coordinating conjunction, e.g. and, but, yet, or, nor, etc.	The loss of sterling would be a loss of their heritage, their independence <u>and</u> {cjco + and G} as well as their freedom. Joining the EMU may be regarded as worthwhile in supporters' eyes, {cjco - but G} may be seen as a betrayal of the country by others.
Conjunction-subordinate {cjsu}	A subordinating conjunction which joins a subordinate clause to a main clause, e.g. though, unless, because, etc.	As Tony Blair said <u>that</u> {cjsu + that G} ignoring the euro will not be in Britain's national interest. The opinion polls indicate {cjsu - that G} the prior opinion is changing. Even {cjsu - though G} there are still some costs for the UK to join in the EU, the UK will...
Existential There/it {ex}	There + be It + be	But if <u>there were</u> {ex + r G} no one tries to experiment... There {ex - be G} still <u>have</u> {v + have G} three onlookers.  The missing copula associated with "there" will be tagged as existential errors. In other words, "there" and the copula will be regarded as a single unit. "Be" will be used to represent all the different forms of copula.
Ordinal {od}	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> ...	Scientists concentrated on three concepts in genetic engineering: first GM Food, second Cloning and {od - third G} medical research.
Negative {ng}	not	There would be <u>not</u> {ng   no G} question about the number of CE cells.
Punctuation {pu}	co: comma fs: full stop cs: comma splice cl: colon sc: semi colon	Another example, {pu + co G} of cloning is... The benefit for the UK is to strengthen its political place in Europe {pu - co G} otherwise, {pu + co G} the UK will lose its place as a political leader. We can see price differences between companies across borders, {pu   cs G} it is assumed that... Joining the EU doesn't mean the country can gain whatever they want ? {pu   fs G}.
Some other		



tags		
Redundancy {+ r}	Redundant words	One is using stem cells from cord blood which are <u>using</u> {vprp + r G} stem cells in the blood collected from a baby's umbilical cord <u>To the time</u> {sp + r G} if there are ever clones of people, there will have...
Sentence fragment {- sf}	The sentence fragment error is often associated with subordinating conjunctions	<u>Although</u> {cjsu – sf G} he was ill. He still went to school. This would be good for the UK workers. <u>Because</u> {cjsu - sf G} the UK has a successful flexible labour market.
Relative clause {rcl}	A relative clause error	While on the other hand, to those <u>joined countries</u> {sp   rlc G}, the sheer scale of the euro operation also has great effect on their traditions.
Sentential Part {sp}	When the error involves more than one word class, it will be marked as “sp”.	The answer, I suppose, is very simple; {sp - it_is G} because they believe they can get benefits rather than the harm. <u>To the time</u> {sp + r G} if there are some clones of people there will be a great change in human society.
The following features are tagged in the corpus but will not be included in the analysis of errors		
{Q}	The sentence has no clear meaning or has so many errors that the only way to correct it is to rewrite it.  Another kind will be tagged as “Q” when meaning is clear but there is no obvious correct alternative.	Euro though naturally appears glitches, benefits bring to either the individual European country or the entire euro-zone is significant. {Q} In particular in London, some lost power of the Europe financial capital position. {Q} (multiple sentence structure problems – no single clear alternative) It has the similar step as {Q} (meaning clear but no obvious correct alternative) the unemployment benefits.  Note: {Q} means that the sentence will be excluded from the analysis and I will not attempt to mark any errors in the sentence.
Stylistic Wordiness {Sw}		It consists of 11 countries <u>at the initial time</u> {Sw} One of the most important <u>things has been concerned</u> {sp # concerns G} {sw} is ...

Table 3.7: The validated grammatical error categories

### 3.4.1.2 My lexical-grammatical error categories

#### Lexical-grammatical error categories

Lexical-grammatical errors refer to the cases where the morpho-syntactic properties of words have been violated.

These properties include:

- The countable/uncountable opposition for nouns (i.e. countability)
- The transitivity pattern of verbs
- The attributive/predicative function of adjectives
- Special syntactic patterns of a word (a verb, a noun, an adjective, an adverb, etc.)
- Association of a preposition with a verb, a noun or an adjective

Each of them is elaborated as follows:

#### The countable/uncountable opposition for nouns (i.e. countability)

According to the COBUILD dictionary (Sinclair et al., 1994), this countability error type includes four subtypes. The definitions of the subtypes are taken from the COBUILD dictionary.

Error type & Tag	Definition (Main source: the Collins COBUILD Dictionary)	Example
Noun-plural {Xnp}	The noun is used with a plural verb when it is the subject of the verb, e.g. clothes, police, contents, jeans, etc. (ibid: 983)	He wore a pair of <u>jean</u> {n # pl Xnp}; Every <u>people</u> {n   everybody Xnp} knows the event.
Noun-singular {Xng}	A singular noun that is always used with a determiner, e.g. business, jumble, brink, etc. (ibid: 983-4)	His <u>businesses</u> {n # pl Xng} is doing very well. We should use public transport such as trains, buses and the <u>undergrounds</u> {n # pl Xng}.
Noun-uncount {Xnu}	A noncount noun, e.g. happiness/furniture	We bought two pieces of <u>furnitures</u> . {n # pl Xnu} The policy is to facilitate future European economic <u>integrations</u> {n # pl Xnu}.  Note: The redundant determiner "a/an" associated with an uncount noun will be tagged as {n # si Xnu} instead of {dtar + an Xnu}. e.g. This may lead to <u>an</u> increased <u>competition</u> {n # si Xnu}.
Noun-mass {Xnm}	A mass noun. It normally behaves like a noncount noun. However, unlike an noncount noun, it can also treat the things that it refers to as countable, e.g. tea, sugar, cheese. (ibid: 972)	There are three different <u>tea</u> {n # ag Xnm}. We are not sure if those modified <u>food</u> {n # ag Xnm} are safe.

#### The transitivity pattern of verbs {Xvt}, {Xve}

<b>Error type &amp; Tag</b>	<b>Definition</b>	<b>Example</b>
Verb-transitive {Xvt}	A verb which has an object	A transitive verb with a redundant preposition, e.g. Our government controls <u>over</u> {pr + over Xvt} our money. He did not consider <u>about</u> {pr + about Xvt} your plan.
Verb-ergative {Xve}	Verbs which are both transitive and intransitive in the same meaning. They are described as v-erg because there is a restriction on the type of subject which can be used with the intransitive verb. With v-ergs, the object of the transitive verb can be used as the subject of the intransitive verb. E.g. We could open the door. The door opened easily. (ibid: 1620-1)	The war <u>was happened</u> {cepa   ac Xve} easily. Different countries <u>are suffered</u> {cepa   ac Xve} in different ways.
Verb-intransitive	There is no error subtype called intransitive verb. Errors of missing prepositions associated with intransitive verbs are not tagged as intransitive verb errors (Xvi). They are tagged as verb-related preposition errors (Xvpr).	He objects {pr – to Xvi} this decision. (×) He objects {pr – to Xvpr} this decision.(√)
The attributive/predicative function of adjectives		
<b>Error type &amp; Tag</b>	<b>Definition</b>	<b>Example</b>
Adjective-attributive {Xaa}	An attributive adjective comes before a noun.	This <u>afraid</u> {aj   frightened Xaa} man was trembling.
Adjective-predicative {Xap}	An predicative adjective comes after the verb <i>be</i> or some other verbs such as <i>become, feel and seem</i> .	
Wrong syntactic pattern of a word (a noun, a verb, an adjective or an adverb), exclusive of lexical-grammatical preposition errors		
<b>Error type &amp; Tag</b>	<b>Definition</b>	<b>Example</b>
Syntactic errors of nouns {Xns}		The wine <u>has a great quality</u> {sp   is_of_good_quality Xns}, but is in very short supply.
Syntactic errors of verbs {Xvs}		<u>It is accused that</u> {sp   S_is_accused_of Xvs} the United States interfered the world's economies <u>There assumed to have</u> {sp   this_is_assumed_to_be Xvs} a convenient way for businessmen to...
Syntactic errors of conjunctions {Xcjs}		After they join together, <u>not only they will</u> {md [] Xcjs} feel more confident to act as a whole, but also their gains will be brought together to be much more efficient.

Syntactic errors of adjectives {Xas}		<u>He is convenient</u> {aj – it_is_convient_for_him Xas} to see you now. <u>Consumers can be easier</u> {aj – it_is_easier_for_consumers Xas} to compare relative prices of similar products.
Lexical-grammatical preposition errors		
A preposition which is wrongly associated with a verb, a noun or an adjective is tagged as a lexical-grammatical preposition error (Xvpr, Xnpr and Xapr).		
Error type & Tag	Definition	Example
Noun with wrong preposition  Xnpr}		The <u>application</u> of genetic engineering <u>on</u> {pr   to Xnpr} food... There would be no <u>difficulty</u> <u>to</u> {pr   in Xnpr} provide enough farm animals for eating or other commercial use. He came home <u>in</u> {pr   on Xnpr} the <i>eve</i> of New Year Day. <u>In</u> {pr   from Xnpr} my own point of view, I would like to...
Verb with wrong preposition Xvpr}		Leaders cannot agree <u>with</u> {pr   on Xvpr} the capital of Europe.  GM food could provide us {pr - with Xvpr} an extra method to produce food.
Adjective with wrong preposition Xapr}		He is very good <u>on</u> {pr   at Xapr} football. The single currency would ask for <u>the same</u> tax rate {pr – <i>as</i> Xapr} in the euro-zone countries.

Table 3.8: The validated lexical-grammatical error categories

### 3.4.1.3 My lexical error categories

Lexical Error Categories		
Lexical errors include four error categories: misspelling, non-existent L2 word, lexical misconception and collocational error. They are elaborated as follows:		
Error type & Tag	Definition	Example
Misspelling Lms}	Misspelt words	We can buy from wider and cheaper <u>arranges</u> {n # a_range Lms} of suppliers. Why would you like to see Britain free from refugees? {n # refugees Lms}
Non-existent L2 words Lne}	The instances of lexical strategies such as word coinage and borrowing (Granger et al., 1994: 108)	Look <u>mistrustingly</u> {av # mistrustfully Lne} at Europe The EMU has to set <u>satisfiable</u> {aj # satisfactory Lne} interest rates for all EMU members.



<p>Misconception Lmc}</p>	<p>Insufficient knowledge of the denotative or referential meaning of words (ibid, 108)</p>	<p>The number of unemployed people will be <u>shortened</u> {v   reduced Lmc}</p> <p>Cultural changes and <u>mind</u> {n   attitude Lmc} changes are important.</p> <p><u>In the aspect of medicine</u> {sp   as_far_as_medicine_is_concerned Lmc}, it helps to improve the understanding of human disease.</p> <p>The car is the best form of transport, which meets their need <u>mostly</u> {av   best Lmc}.</p> <p><u>As far as</u> {cjsu   if Lmc} we can really understand the <u>inside</u> {aj   inner Lmc} secret of our genes, we can ...</p>
<p>Collocation error Lcl}</p>	<p>It covers a wide spectrum from restricted collocations to idioms (ibid, 108)</p> <p>One way to identify items that belong to this category is by referring to the COBUILD dictionary. Those items which are printed in bold as phrases or collocational items in the dictionary will be marked as collocations.</p> <p>In order to facilitate the development of remedial materials, collocational errors are tagged at the phrasal or clausal level.</p>	<p>The euro also <u>brings</u> great <u>effect to</u> {sp   has_effect_on Lcl} their traditions.</p> <p>The government will <u>do action</u> {vph   take Lcl} to stop the strike.</p> <p>He <u>cares</u> {vph - for Lcl} me very much.</p> <p><u>On the other side</u> {avseph   hand Lcl}, we will form a new nation. (“avseph” stands for phrasal adverbs)</p> <p>The single currency would <u>ask</u> {vph - for Lcl} <u>the same</u> tax rate {pr - as Xapr} in the euro-zone countries. (Note: “ask for” is regarded as a phrasal verb (vph) in the COBUILD dictionary, so it is tagged as “Lcl” instead of “Xvpr”. However, “the same...as” is not treated as a phrase or an idiom in the dictionary, so it is tagged as “Xapr” – adjective with missing preposition)</p>

Table 3.9: The validated lexical error categories

### 3.4.2 My surface strategy taxonomy

Error type & Tag	Definition	Example
<p>Omission {-}</p>	<p>An omission error is a missing item (e.g. a word or a group of words) which should appear in a well-formed sentence.</p> <p>Note: the missing item must be a whole word. Missing inflected morphemes (e.g. -s, -ed) are not tagged as omission errors.</p>	<p>The world might never {v - be G} free from racism.</p> <p>It has been argued that {dtar - the G} government should restrict the use of cars.</p>
<p>Overinclusion {+}</p>	<p>An overinclusion error is a redundant item (e.g. a word or a group of words) which should not appear in a well-formed sentence.</p> <p>Note: the overincluded item must be a whole word. Redundant inflected morphemes (e.g. +s, +ed) are not tagged as overinclusion errors.</p>	<p>The only <u>one</u> {dtnu + r G} goal is to increase the demand for planes and hotels.</p> <p>Some people argued that, {pu + co G} the original idea of most welfare provision was to help people through difficult periods.</p> <p>In the {dtar + the G} Europe, ...</p>

<p>Misformation {#}</p>	<p>A misformation error is an item which involves the use of the wrong form of morphemes (e.g. inflection errors).</p> <p>Note: Some errors, though involving the misformation of morphemes, also involve complicated conceptual judgement (e.g. tense and aspect errors). They are not included in the misformation category.</p> <p>Subtypes of misformation errors are:</p> <ul style="list-style-type: none"> <li>• Agreement errors Agreement in number (determiner-noun) (subject-verb) (antecedent noun-pronoun)</li> <li>• Agreement in form Auxiliary do + verb base form (However, “auxiliary have + pp” and “auxiliary be + pp or prp” are not included in this category. They are classified as misselection errors.)</li> <li>• Wrong irregular verbs: verb errors derived from the application of the rules used to produce regular forms to those that are irregular.</li> <li>• Wrong form of plural noun</li> <li>• Wrong form of singular noun</li> <li>• Misspelling</li> <li>• Non-existent words</li> </ul>	<p>The policy on road tax and petrol tax <u>need</u> {v # ag G} to be modified He would waste 500 franc {n # ag G} exchanging money. <u>This</u> {dtde # ag G} books are very interesting.</p> <p>He <u>putted</u> {v # pa G} on his coat.</p> <p>There are many <u>sheeps</u> {n # pl Xnm}</p> <p>This may lead to <u>an</u> increased competition. {n # si Xnu}</p> <p>He saved <u>there</u> {av # their Lms} lives.</p> <p>Look <u>mistrustingly</u> {av   mistrustfully Lne} at Europe (Granger et al.: 1994: 108)</p>
<p>Misselection {}</p>	<p>Misselection errors are the selection of wrong items, which involve complicated conceptual judgements. E.g.</p> <ul style="list-style-type: none"> <li>• Wrong choice of tense/aspect</li> <li>• Wrong choice between word classes: gerund/noun, verb/noun, adjective/noun, adjective/adverb singular noun/plural noun verb base/pp/prp/verb past active/passive voice</li> <li>• Lexical misconception</li> </ul>	<p>ES cells can replace <u>damage</u> {vb   pp G} cells without any difficulty. Different countries <u>are suffered</u> {cepa   ac Xve} in different ways. The demand for substitutes will increase such as <u>bicycle</u> {n   pl G} and <u>motorcycle</u> {n   pl G}.</p> <p>This will eliminate the main resource {n   source Lmc} of air pollution.</p>
<p>Misordering {[]}</p>	<p>A misordering error is the incorrect placement of an item (e.g. a word or a group of words) in a sentence.</p>	<p>He <u>yesterday</u> {av [] G} went to school.</p>

Table 3.10: The validated surface strategy taxonomy

### 3.4.3 My tagging principles

- Errors are tagged mainly at the word level. Collocations and some syntactic units are tagged at the phrasal or clausal level. Rhetorical errors are not investigated. However, inter-sentential and word-order problems are indicated if necessary. Some errors can only be properly tagged at the semantic, syntactical or discoursal level (e.g. redundancy, inappropriate words in context, sentence fragments, missing relative clauses/clauses and wrong word order).
- The error coding procedure is to allow retrieval and facilitate further study of the errors, rather than to attempt complete error descriptions by means of the codes. There are no completely prescribed error categories. The tagset will grow out of the patterns that emerge as the researcher proceeds through the corpus.
- In terms of linguistic categories, the tag indicates the language level of the error, its word class and its subtype. The structure reflects a constituent-structure hierarchy.
- There should be spaces between the different components of the tag. It would be easier for me to specify the keyword if I left space between the components of a tag. For example, if I want to retrieve the instances of redundancy error, I can specify the search keyword as “\* r \*”. If there is no space between each part of the code, a “\*r\*” keyword search will generate an incorrect retrieval because all the strings with “r” (e.g. pre) will be retrieved. To eliminate this possibility, I will leave a space between different parts of a tag.

- The first part of the tag is to mark the word class of the error, not the correction. The second part is to indicate the surface deviance of the error. The final part is to mark its language level. For example,

\* All cars will need to pay tax when in using {gr | n G}.

- Surface strategy errors are marked in the following ways:
  - the missing item, + the redundant item, # the intended rule/item, | the correct form/rule
- Only the main error is marked; the error resulting from the correction of the antecedent error is not marked.

e.g. The speeds {n # pl Xnu} **are {not marked}** very low.

- In order to facilitate the retrieval and generalization of errors, a general term is used to represent errors of the same kind. For example, instead of using {v | joining G} or {v | going G}, I will use the tag “{v | gr G}” to mark these two instances. I will also use the base form of the copula to represent all of its inflected forms. However, with auxiliary errors, we can use inflected forms (e.g. is/are/was/were, has/have/had, do/does/did) after the surface strategy sign because the error word class (i.e. aube/audo/auha) can facilitate the retrieval and generalization of errors.

e.g.

The men do {v | be G} not keen on...

If the EU {aube – is G} managed by more members...

Why {audo – did G} the government stop the strike yesterday?



### **3.5 Conclusion**

This chapter reports on the three developmental stages of my tentative tagging system. The first stage was to test the feasibility of the tagging scheme (e.g. error categorisation, tag structure); the second stage was to check inter-rater agreement and solve some main ambiguities of error categorisation; the third stage was to further test the revised system for inter-rater agreement. Throughout the three stages, the tagset grew based on the patterns that emerged as I proceeded through the corpus, and an exemplified system was gradually compiled. It is found that this way of developing a system, though time-consuming, is useful in two respects: 1) the tagset can cater for most errors identified in the corpus, and 2) the exemplified system can reduce tagging ambiguities to the minimum and ensure consistent categorisation. The validated system was employed to tag 50 essays written by the Chinese foundation students. The EA processes and results will be detailed in the next chapter.

## CHAPTER 4

### THE EA RESULTS OF THE CHINESE HEFP CORPUS

The validated tagging system described in the previous chapter was employed in the analysis of 50 essays written by Chinese foundation students. This chapter reports on the EA procedure and findings. It starts with a description of the Chinese learner corpus, followed by a report of the EA procedure. The EA results are then presented and discussed, with article errors scrutinized in detail. In the final section of this chapter, a small-scale survey of foundation tutors is analysed to investigate the perceived gravity of frequent errors identified in the corpus.

#### 4.1 The Chinese HEFP Corpus

The Chinese foundation corpus I had compiled consisted of 50 essays written by Chinese students enrolled on the Business Studies strand of the Warwick Higher Education Foundation Programme in the academic year 2001/2002. All the contributors to the corpus were from Mainland China, with Mandarin Chinese as their L1. Most of them had completed their middle school education in China and had intermediate or upper intermediate English language proficiency (6.0 in IELTS or equivalent). The essays attempted to follow the conventions of undergraduate academic writing, and dealt with serious topics in the Social Sciences, such as racism, the ethics of genetic engineering, the European Monetary Union, methods of restricting car use, and the advantages and disadvantages of identity cards. Each

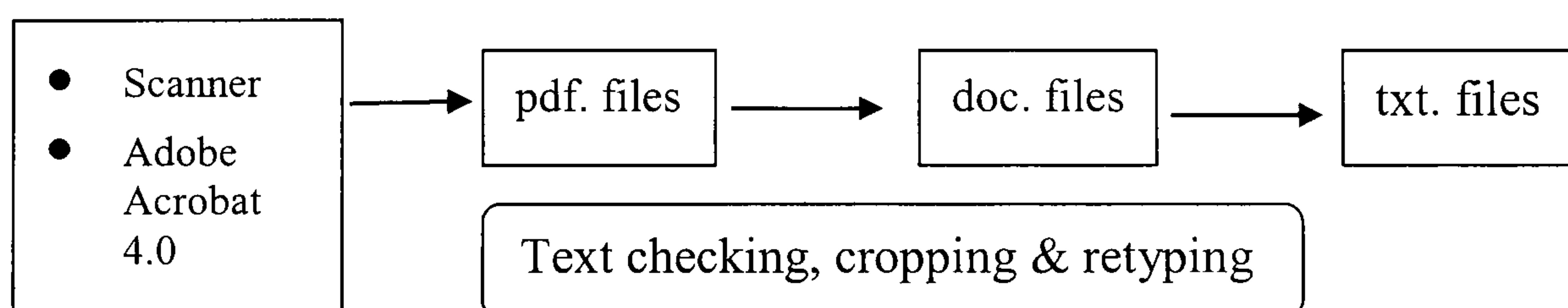
essay was 1500 – 2000 words, and the total corpus consisted of about 88,000 running words.

## 4.2 The EA procedures

To analyse the learner corpus, I conducted a seven-step error analysis. Each step is described in this section.

### 1. Data collection

I received the essays on 05/05/02. They were type-written hard copies so I had to convert them into electronic form. I used an “HP psc 700 series” scanner and one of its accompanying applications, Adobe Acrobat 4.0, to perform the conversion. The essays were first scanned and saved as pdf files, were then converted to doc. files and finally to txt. files. The process is illustrated as follows:



Most of the original pages contained teacher feedback (corrections and comments), which reduced the quality of scanning and text capture and caused many incorrect conversions (e.g. missing or wrong letters). It was thus necessary to check the converted texts with the original texts in order to amend discrepancies between them. Some files contained many conversion errors which prolonged the checking process. In these cases, I decided to delete the converted texts and type in the whole text instead.

## 2. Identification of errors

EA research (Dagneaux et al., 1998; Milton & Chowdhury, 1994) and my pilot study have indicated that native intuition is essential for EA studies. My supervisor agreed to assist me to identify and correct errors in the 50 student essays. The process started in May 2003 and ended in December 2003.

## 3. Classification of errors

I tagged the identified errors, following the validated tagging system especially developed for this study. Errors do not always fall neatly into predesignated categories, but fortunately most of the errors in my data could be satisfactorily classified following the tagging system. In the rare cases where errors could not be described using existing tags, a new tag and its definition were created for the errors.

## 4. Quantification of errors

WordSmith Tools version 3.0 (Scott, 1999) was employed and the Concord program in the suite was used to calculate the errors and retrieve instances for further study.

## 5. Prioritisation of errors

Errors were prioritised for treatment based on the EA results and findings from a small-scale survey of college tutors' perceptions.

## 6. Explanation of errors

The prioritised errors were systematically scrutinized and described, and causes were discussed.

## 7. Development of remedial materials

Remedial materials were developed, following the derived EA results.

### **4.3 The EA Results**

The design of the tagging system is intended to help me to examine errors from different analytical perspectives. In this section, errors are first analysed from the perspective of linguistic categories in three levels of language (i.e. grammatical,



lexical-grammatical and lexical). They are then analysed according to their surface structural deviances.

### 4.3.1 Analysis of linguistic error categories

#### 4.3.1.1 Breakdown of three targeted language levels

Table 4.1 shows the breakdown of the errors of the three major categories (three language levels). The results indicate that the relative frequency for grammatical, lexical-grammatical and lexical errors is 85.9%, 5.0% and 9.1% respectively. The total number of errors is 5232 and the total number of essays is 50, which suggests that each essay has an average of 100 errors.

Language level	Number of occurrences
Grammatical	4493 (85.9%)
Lexical-grammatical	262 (5.0%)
Lexical	477 (9.1%)
Total	5232

Table 4.1: The relative frequency of errors for each language level

After the breakdown of the errors into three language levels, errors in each level were further broken down and examined. Tables 4.2, 4.3 and 4.4 show the breakdown of grammatical, lexical-grammatical and lexical errors respectively. Each table lists the error categories and their salient errors, together with some statistics and erroneous instances. The error in each example is underlined, followed by its correction marked

in brackets. The term ‘*Sic.*’ is used to mark another type of error which is not the focus of the current designated category.

#### 4.3.1.2 Breakdown of grammatical errors

Table 4.2 shows the breakdown of grammatical errors. The results show that the top ten problematic broad categories (word classes or linguistic features) are determiner (27.6%), noun (17.8%), verb (8.9%), preposition (8.1%), punctuation (5.9%), sentence part (4.7%), tense/aspect (4.4%), modal (4.1%), conjunction (3.9%) and pronoun (3.9%).

Grammatical Category/ No. of errors (Frequency %)	Salient errors/ No. of errors	Erroneous instances (source)
Determiner 1242 (27.6%)	Missing definite article (529)	From then on, racism has gone deep into <u>human mind</u> . [the human mind] (S50)
	Redundant definite article (446)	In <u>the free</u> [free] societies, people freely choose how to travel. (S49)
	Missing ‘a’/’an’ (104)	Although restricting the use of the car is [a] <u>very complicated issue</u> and is related to many problems,...(S46)
	Misselection between ‘the’ and ‘a/an’ (64)	Dr. Arpad Pusztai, a world renowned geneticist working at a [the] government-funded Rowett Institute in Aberdeen, Scotland, showed that... (S40)
Noun 800 (17.8%)	Bare singular noun for plural (458)	They provide parking <u>area</u> [areas] on the outskirts of cities. (S47)
	Noun for adjective (83)	Pollen can pass herbicide <u>resistance</u> [resistant] genes from genetically engineered crops to cultivated and wild relatives over a mile away. (S22)
	Quantifier/determiner-noun non-agreement in number (81)	There are seven different <u>value</u> [values] of the euro banknote: c5, c10, c20,c50, c100, c200 and c500. (S32)
Verb 399 (8.9%)	S-V non-agreement (125)	Genetic engineering also increases genetic diversity, and <u>produce</u> [produces] more variant alleles. (S33)
	Misselection between verb form, past participle and present participle (74)	Up to now, there is not any team <u>claimed</u> [claiming] that they have managed to clone a human being, (S25)

	Missing or redundant copula (58)	The European Communities Act 1972 enacted that relevant common law should [be] <u>applied</u> in the UK and should override English law. (S06) A single currency will be an important complement to the single European Market, which will make the EU <u>be</u> a more powerful factor... (S04)
	Verb for gerund (35)	( <i>Sic.</i> ) Government may promote this by <u>increase</u> [increasing] the quality of the service. (S18)
Preposition 363 (8.1%)	Misselection between prepositions (226)	The policy <u>of</u> [on] road tax and petrol tax needs to be modified. (S18)
	Missing preposition (73)	[By] <u>Simply manipulating</u> the genes inside the food, scientists produce various kinds of GM food. (S21)
	Redundant preposition (63)	The new specie of plant could resist pest ( <i>Sic.</i> ) by itself without <u>using of</u> [using] artificial pesticide. (S31)
Punctuation 266 (5.9%)	Comma splice (103)	British taxpayers has ( <i>Sic.</i> ) properly funded private pensions, <u>the</u> [. The] euro will end up this funding. (S05)
	Redundant comma (87)	Some have argued that, people who are keen on identity cards see them as a way of getting at groups of people they dislike (S44)
Sentence part 212 (4.7%)	Wrong use of groups of words (79)	Germany cannot use its own fiscal and monetary policy to rescue the economy from the recession <u>as suffering</u> [because of] the EMU's fixed exchange and interest rates. (S07)
	Redundant groups of words (62)	The Serbs say that Kosovo lay at the heart of its medieval kingdoms <u>and that</u> during the middle Ages, so they will not leave here whatever happens to them. (S27)
	Missing out necessary groups of words (38)	GE can be used to increase the crop yield so that [we can solve] <u>solving</u> some of the world hunger problems. (S09)
Tense + aspect 198 (4.4%)	Misselection between present and past tenses (83)	Over the centuries and particularly during the decades of the past century, plant breeding <u>is</u> [was] used more precisely. (S28)
	Misselection between simple past and present perfect (59)	Last year, several of the largest airline companies <u>have laid off</u> [laid off] 127,000 employees. (S37)
	Misselection between simple and perfect aspects (46)	Since the successful research on crops and animals, more and more scientists <u>change</u> [have changed] their study ( <i>Sic.</i> ) to the research of human genetic engineering. (S01)
Modal 185 (4.1%)	Missing 'will' (67)	Joining the euro will enable businesses to sell more products and gain greater economies of scale. Also, it [will] enable families and businesses to buy... (S02)
	Misselection between 'will' and 'would' (42)	...we will find that the developing ( <i>Sic.</i> ) of genetic engineering <u>would</u> [will] bring us a great future. (S40) There are various reasons you might want to clone a human. It would allow an infertile couple to have a child... To replicate the talents of exceptional human beings seems to be a controversial issue. It <u>will</u> [would] be an ( <i>Sic.</i> ) amazing to listen to Einstein explain his "principle of relativity" personally. (S25)
	Missing 'would' (28)	David Blunkett, the Home Secretary, suggested that national compulsory identity cards, which <u>is</u> [would be] called "citizen entitlement cards", could be introduced as part of the anti-terrorism measures. (S43)



Conjunction 175 (3.9%)	Missing 'and' (55)	Some serious diseases like asthmas ( <i>Sic.</i> ), cancer [and] even AIDS could be possibly cured before we are even born. (S33)
	Sentence fragment (27)	<u>Because it seems illogical to allow the creation of a cloned human embryo and produce a cloned baby.</u> They think cloning will create a new human being to destroy our society. (S40)
Pronoun 174 (3.9%)	Relative pronoun error (36)	, but poor people's diets often lack fat and other key nutrients and so the GE rice [that/which] contains pro-Vitamin A will not benefit them. (S28)
	Misselection of 'it' for 'this' (35)	Some people argue that the welfare state has become the supporter of new family relationship ( <i>Sic.</i> ). I intend to discuss <u>it</u> [this] by presenting ( <i>Sic.</i> ) evolution of Britain. (S42)
	Non-agreement between Pronoun and referred noun (26)	They think people here need to carry no papers and do not have to inform the authorities of what <u>you</u> [they] are doing or get permission for anything. (S44)
Adjective 108 (2.4%)	Adjective for adverb (36)	'Golden Rice" is one of these <u>genetic</u> [genetically] engineering products. (S28)
	Adjective for noun (29)	Unlike any chemical treatment, it is harmless to ( <i>Sic.</i> ) <u>environmental</u> [environment] and people's health. (S25)
Gerund 104 (2.4%)	Gerund for noun (45)	The last one is the wild <u>using</u> [use] of insecticides and chemical fertilizer, (S22)
	Gerund for infinitive (33)	The police felt that there was an urgent need <u>of introducing</u> [to introduce] ( <i>Sic.</i> ) identity card system in respect of immigration control. (S43)
Auxiliary 77 (1.7%)	Missing auxiliary 'be' (34)	The euro currency will incorporate specific characteristics that allow blind people or the visually impaired to distinguish between the different euro note ( <i>Sic.</i> ) and coins. These will [be] <u>designed</u> to help disabled persons to adjust to the single currency. (S32)
	S-AUX Verb non-agreement (18)	They think that this technology <u>have</u> {auha # ag G} been released without adequate knowledge about their ( <i>Sic.</i> ) effects... (S41)
Adverb 77 (1.7%)	Misordering of adverb (25)	...some of them <u>even do not</u> [do not even] know how much information the government has. (S44)
	Adverb for adjective (12)	Her concern is that the question "should we have ID cards" is deceptively <u>simply</u> [simple]. (S44)
Infinitive 42 (0.9%)	Missing 'to' (24)	The UK Company does not <u>need [to] worry</u> about the devaluing ( <i>Sic.</i> ) of the other trading country. (S05)
Voice 36 (0.8%)	Active voice for passive voice (27)	In the 1970s new forms of communication mediated by computers began to <u>use</u> [be used] as well. (S23)
Extential 27 (0.6%)	Redundant 'there+be' (18)	But if <u>there were</u> no one tries to experiment there would ( <i>Sic.</i> ) be no development of this science. (S03)
Negative 7 (0.2%)		It is therefore <u>no</u> [not] possible for them to change the real exchange rate by changing the nominal rate. (S15)
Order 1 (0.0%)		...three concepts of ( <i>Sic.</i> ) genetic engineering: first GM Food, second Clone ( <i>Sic.</i> ) and [third] Medical research. (S11)
Total 4493 (100%)		

Table 4.2: The analysis of the grammatical errors identified in the HEFP corpus



### 4.3.1.3 Breakdown of lexical-grammatical errors

Table 4.3 shows the breakdown of lexical-grammatical errors, together with the salient error features and erroneous instances in each category. The results show that the wrong association of a preposition with a verb, a noun, and an adjective is the most frequent cause of error (52.3%). The second frequent error involves the countability of the noun (19.8%), the third error involves the wrong syntactic pattern of a word (14.9%), and the fourth error involves the transitive verb (13.0%).

Linguistic feature No of errors (Frequency %)	Salient errors/ (No. of errors)	Erroneous instances (source)
Wrong association of a preposition with a noun, a verb or an adjective 137 (52.3%)	Noun-related preposition error (66)	It seems that xenotransplantation is the best solution <u>of</u> [to] this problem,... (S21)
	Verb-related preposition error (59)	Different government ( <i>Sic.</i> ) has to <u>think</u> [think of] different solution ( <i>Sic.</i> ). (S47)
	Adjective-related preposition error (12)	... that would make Europe itself more compatible <u>to</u> [with] the world's two powers- the U.S.A and Japan. (S16)
Countability of the noun 52 (19.8%)	Wrong form of noncount noun (adding -s or 'a/an') (48)	People have to waste ( <i>Sic.</i> ) enormous amount of <u>times</u> [time] on congestion. (S48)
Wrong syntactic pattern of a word (a noun, a verb, an adjective, etc.) 39 (14.9%)	Verb-related syntactic pattern (25)	...human cloning would <u>rob people's</u> [people_of_their] individuality,...(S20)
Transitivity pattern of the verb 34 (13.0%)	Redundant preposition (29)	We have <u>considered about</u> [consider] the second situation. (S10)
Total 262 (100%)		

Table 4.3: The analysis of the lexical-grammatical errors identified in the HEFP corpus

### 4.3.1.4 Breakdown of lexical errors

Table 4.4 shows the breakdown of lexical errors, together with the salient error features and erroneous instances in each category. The results indicate that lexical

misconception is the most frequent error type (63.1%), followed by collocational errors (23.1%), misspelling (13.4%) and non-existent words (0.4%).

Linguistic category/ No. of errors (Frequency %)	Salient errors/ No. of errors	Erroneous instances (Source)
Lexical misconception 301 (63.1%)	Misuse of a lexical item for another (301)	If we use GM animal ( <i>Sic.</i> ) to produce human <u>apparatus</u> [organs] and blood, ... (S40) By the early 1960s, most British colonies had acquired independence, but the ( <i>Sic.</i> ) racism has not <u>decayed</u> [decreased]. (S29)
Collocation 110 (23.1%)	Wrong word in a collocational unit (66)	Because the operation for nuclear transfer is extremely hard, so ( <i>Sic.</i> ) it could <u>become wrong</u> [go wrong] for several reasons. (S25) ...people have more money to spend on goods and services, ( <i>Sic.</i> ) as a <u>return</u> [result] there will be a high standard of living. (S12)
	Missing word in a collocational unit (32)	[A] Large number of modified animals are suffering as laboratory tools etc. (S28) On [the] one hand, doctors and scientists warn that these foods are not safe in the human diet. (S41)
Misspelling 64 (13.4%)	Words with similar sounds or shapes (e.g. alone/along, serious/series, there/their) (54)	They do not make ( <i>Sic.</i> ) contribution to the state and even <u>course</u> [cause] the lack of labor resource. (S14) People argue cloning human ( <i>Sic.</i> ) would bring ( <i>Sic.</i> ) <u>ethnical</u> [ethical] problem ( <i>Sic.</i> ). (S40)
Non-existent words 2 (0.4%)		... in the mid-1990s the government of Britain <u>devaluated</u> [devalued] the pound successfully... (S05)
Total 477 (100%)		

Table 4.4: The analysis of the lexical errors identified in the HEFP corpus

#### 4.3.1.5 Discussion

An examination of all the three levels of errors shows that the foundation students' formal errors fall into broad categories. These are, in order of frequency, determiners (23.7%), nouns (15.3%), verbs (7.6%), grammatical prepositions (6.9%), lexical misconceptions (5.8%), punctuation (5.1%), sentence parts (4.1%), tenses and aspects

(3.8%), modals (3.5%) and syntactic complementation of a word (3.3%). The top ten most frequent error features are:

Error type	No. of errors	% out of all errors
1) Missing definite article	529	10.1%
2) Bare count noun for plural	458	8.8%
3) Redundant definite article	446	8.5%
4) Misselection of preposition	321	6.1%
5) Lexical misconception	301	5.8%
6) Wrong tense and aspect	198	3.8%
7) S-V non-agreement	125	2.4%
8) Wrong collocation	110	2.1%
9) Missing 'a'/'an'	104	2.0%
10) Comma splice	103	2.0%

This data reveal some salient and systematic features of the foundation students' interlanguage grammar. This supports Corder's (1967) claim that L2 errors are evidence of the learner's interlanguage grammar and are themselves systematic. I will discuss my findings in this section.

### 1. Grammatical errors are the most frequent errors

The results indicate that Chinese foundation students make more grammatical errors than lexical and lexical-grammatical errors. This means that the students have more problems with morpho-syntactic features than with lexis. Lexical-grammatical and lexical errors together, however, make up 14.1% of the total number of errors, which suggests that, apart from syntactic grammar, lexis and the morpho-syntactic properties of lexical items should also be addressed to ensure high levels of written accuracy.

The data also show that 27.6% of grammatical errors involve the mismanagement of the article system, 52.3% of lexical-grammatical errors involve the wrong association of a preposition with a noun, a verb or an adjective, and 63.1% of lexical errors involve the wrong choice of a lexical item (lexical misconception).

2. Mismanagement of the article system is the most frequent cause of grammatical error

The analysis shows that the top three most frequent errors are ‘missing definite article’, ‘bare singular noun for plural’ and ‘redundant definite article’. Two of these involve the definite article, whilst the remaining one, ‘bare count noun for plural’, involves the omission of the plural morpheme and is therefore related to the  $\emptyset$  article. As Palmer (1939, cited in Master, 1997: 221) suggested, there may be two forms of the zero article, one that occurs with non-count and plural nouns and the other that occurs with certain singular count and proper nouns. This would mean that the top three errors, together with the ninth most common error (missing ‘a/an’), all concern the English article system. Similar findings have been reported in other studies. For example, Milton (2001) examined Hong Kong university students’ interlanguage and found four kinds of article errors among the top ten most frequent errors in his corpus. They are ‘singular noun for plural,  $\emptyset$  for indefinite article’ (1st), ‘indefinite article for  $\emptyset$ ’ (3rd), ‘definite article for  $\emptyset$ ’ (6th) and ‘definite article for indefinite article’ (8th). Papp (2004) analysed a 200,000-word corpus of Chinese ESL university students’ written production



and found the article system and ‘number marking on nouns’ very problematic for the students.

A few factors may contribute to the high frequency of article errors in Chinese students’ writing. First, the articles (*a*, *an* and *the*) are used extremely frequently in writing. The COBUILD (Collins Birmingham University International Language Database) frequency count (Sinclair, 1991) indicates that *the* is the most common word in English and that *a* is the fifth most common. Since *the* and *a/an* make up 8.5% of all text (Sinclair, 1993), any difficulties with the article system are bound to make themselves apparent in learners’ language production. Second, the Chinese language does not have an article system, which suggests that the concepts associated with the article are new for Chinese learners. Third, the use of the article is closely related to the features of nouns (countability, number and genericness/specificity), and the determination of the countability of the noun is difficult for Chinese learners of English. Milton (2001) has reported that Hong Kong students find it very difficult to determine the countability of the noun and decide whether to assign the plural –s. In my study, article errors and article-related noun errors (bare singular noun for plural) account for more than a third of the total number of grammatical errors identified in the foundation students’ essays (36.4%). Their high frequency strongly supports the need for further investigation into these two error categories so that problematic features can be described in detail and possible causes can be identified. I will carry out this investigation in Section 4.4.

3. Preposition errors are frequent in both grammatical and lexical-grammatical categories

The EA results show that the preposition is the fourth most frequent grammatical error category and the most problematic lexical-grammatical feature in the Chinese HEFP corpus. This indicates that the students have difficulty in using prepositions correctly. Milton (2001) also found that wrong preposition and redundant preposition were the 2<sup>nd</sup> and the 5<sup>th</sup> most frequent error types in his corpus. The preposition is certainly one of the difficult areas for Chinese learners of English.

In terms of grammatical preposition errors, the errors identified in the HEFP corpus mainly involve wrong prepositions, missing prepositions and redundant prepositions at syntactic level. For example,

- \*Since a member of a stronger economic union, individuals could have more benefits. [as]
- People could create an animal just \*getting the gene from the original animal...[by getting]
- People want to get a better quality \* life. [a better quality of life]
- The United Kingdom still remain outside \*of the European Union. [redundant *of*]

As for lexical-grammatical prepositional errors, those identified in the corpus mainly involve the wrong association of a preposition with a noun, a verb or an adjective. For example,

- The car is different \*with public transport. [different from]
- People are \*suffering poverty. [suffering from]
- People lost confidence \*towards the euro. [lost confidence in]

Grammatical preposition errors suggest that learners have problems with the roles/functions of prepositions in sentences while lexical-grammatical preposition errors imply that they do not know the proper association of a preposition with a lexical item. The preposition is difficult because both global (syntactic) and local (lexical) features need to be taken into account when choosing a preposition in a particular context. In some cases, more than one preposition is acceptable.

Moreover, Chinese learners' L1 backgrounds are unlikely to help them deal with English prepositions. The Chinese preposition system is not as rigid and complicated as the English preposition system. For example, the Chinese language only uses one preposition, “ ” (Tsai), in association with various time references (year, month, week, day, time) while the English preposition system uses different prepositions (in, on and at) with different time references. Also L2 learners tend to resort to the strategy of L1-L2 word-by-word translation when producing an unfamiliar L2 item, and the discrepancies between their L1s and the target language are likely to cause errors. This may well explain the following errors found in the students' writing:

- There is a huge increase \*of part-time workers... [in]
- There is a radical reduction \*of car use. [in]
- There is also a decline \*of social integration,... [in]

In view of Chinese foundation students' preposition problems, the conclusion is that apart from introducing the students to syntactic rules and lexical features, we need to provide them with more L2 exposure so that they can override their strategy of L1-L2 translation when using prepositions.

#### 4. Tense and aspect errors are less frequent

Tenses and aspects are usually regarded as very problematic linguistic features for learners of English. However, although HEFP tutors reportedly believe that tense and aspect errors are persistent in students' writing (Wei, 2003), they were found to occur less frequently than many other types of errors in the corpus. It is possible that tense and aspect errors are regarded as being communicatively important, and are therefore particularly salient to tutors. Another reason to account for fewer than expected cases of tense/aspect errors is that students may have had more extensive tuition in the use of this linguistic feature because tutors perceived it to be a more serious and frequent cause of errors.

#### **4.3.2 Analysis of surface structural deviances**

Having analysed the Chinese foundation students' formal errors in terms of linguistic categories, I will analyse them in terms of their surface structural deviances in the following section.



### 4.3.2.1 Breakdown of surface strategy categories

Table 4.5 shows the distribution of the surface strategy error categories, together with salient error features and statistics. Erroneous instances are not included because they have been provided in Table 4.2, 4.3 and 4.4.

Surface deviance/ No. of errors/ Frequency (%)	Salient errors
Misselection ( ) 2514 (48.1%)	<ul style="list-style-type: none"> <li>• Bare singular noun for plural (458)</li> <li>• Misselection between prepositions (321)</li> <li>• Lexical misconception (301)</li> <li>• Comma splice (103)</li> <li>• Misselection between tenses (83)</li> <li>• Noun for adjective (83)</li> <li>• Wrong choice of groups of words (76)</li> <li>• Misselection between verb base form, past participle and present participle (74)</li> <li>• Wrong word in a collocational unit (66)</li> <li>• Misselection between modals (64)</li> <li>• Misselection between 'the' and 'a/an' (64)</li> <li>• Misselection between simple past and present perfect (59)</li> <li>• Misselection between aspects (46)</li> <li>• Gerund for noun (45)</li> <li>• Misselection between 'will' and 'would' (42)</li> <li>• Adjective for adverb (36)</li> <li>• Misselection of 'it' for 'this' (35)</li> <li>• Verb for gerund (35)</li> <li>• Gerund for infinitive (33)</li> <li>• Adjective for noun (29)</li> <li>• Active voice for passive voice (27)</li> </ul>
Omission (-) 1294 (24.7%)	<ul style="list-style-type: none"> <li>• Missing definite article (529)</li> <li>• Missing preposition (115)</li> <li>• Missing 'a/'an'(104)</li> <li>• Missing modal (101)</li> <li>• Missing conjunction (86)</li> <li>• Missing auxiliary 'be' (34)</li> <li>• Missing necessary groups of words (34)</li> <li>• Missing word in collocational unit (32)</li> <li>• Missing copula (31)</li> <li>• Sentence fragment (27)</li> <li>• Missing 'to' (24)</li> </ul>
Overinclusion (+) 931 (17.8%)	<ul style="list-style-type: none"> <li>• Redundant definite article (446)</li> <li>• Redundant comma (87)</li> <li>• Redundant preposition (63)</li> <li>• Redundant groups of words (62)</li> <li>• Redundant preposition in transitive verb (29)</li> <li>• Redundant copula (27)</li> </ul>
Misformation (#) 431 (8.2%)	<ul style="list-style-type: none"> <li>• S-V non-agreement (125)</li> <li>• Quantifier/Determiner-noun non-agreement in number (81)</li> </ul>

	<ul style="list-style-type: none"> <li>• Misspelling (64)</li> <li>• Wrong form of noncount noun (e.g. adding –s or ‘a/an’) (48)</li> <li>• Pronoun-referred noun non-agreement (26)</li> </ul>
Misordering [] 62 (1.2%)	<ul style="list-style-type: none"> <li>• Misordering of adverb (25)</li> </ul>
Total 5232 (100%)	

Table 4.5: The analysis of the surface structural deviances identified in the HEFP corpus

#### 4.3.2.2 Discussion

Table 4.5 shows that misselection is the most frequent error type (48.1%), followed by omission (24.7%), overinclusion (17.8%) and misformation (8.2%). Misordering errors (1.2%) are much less frequent than the other errors. The data reveal two salient features of the surface structural deviances. First, misselection errors outnumber misformation errors. Second, the definite article is the most frequently omitted or overincluded word in the corpus. They are elaborated as follows:

##### 1. Misselection errors outnumber misformation errors

According to the results, the students made far more misselection errors (48.1%) than misformation errors (8.2%). In this study, misformation errors refer to errors which involve wrong forms of morphemes in cases such as S-V agreement errors, wrongly formed irregular verbs, wrongly formed noncount nouns, and misspelt or non-existent words, while misselection errors involve the selection of wrong items and entail conceptual misjudgements in cases such as tense/aspect errors, wrong word classes, wrong voice or lexical misconceptions (for a complete list of subtypes, see Section 3.4.2). These two categories were designed to test whether the students have more problems with conceptual or mechanical features. The results suggest that conceptual

errors are more frequent than mechanical errors, and that the students have more problems with conceptual judgement than with the mechanical application of rules. They confirm my initial assumption that the Chinese foundation students, being intermediate or upper intermediate learners, would be able to correct many of their mechanical errors when editing their own writing. However, the high frequency of S-V non-agreement errors (31.3% of verb errors) indicates that the students are not always capable of avoiding mechanical errors when they have to deal with the organisation of ideas and linguistic features at the same time. This lends support to VanPatten's (1990, 1996) input processing theory, according to which the L2 learner tends to prioritise meaning processing at the expense of formal accuracy when required to simultaneously attend to both meaning and form.

A closer look at misselection errors reveals that Chinese foundation students tend to use wrong noun forms, wrong prepositions, wrong lexical items and wrong tenses and aspects in their writing. In terms of wrong noun forms, they often use singular nouns instead of plural forms in generic sentences (e.g. GE tomatoes are widely sold in \*supermarket). I decided to use the term "bare count noun" to describe this kind of error. A bare count noun, in my definition, is a singular noun without a determiner, or a plural noun without a plural marker. This kind of error may be L1-induced because bare singular noun forms are often used in generic noun phrases in Chinese. As indicated in Section 4.3.1.5, according to Palmer, the  $\emptyset$  article is associated with plural nouns, therefore bare count noun errors are also associated with the  $\emptyset$  article and will be investigated further in Section 4.4 due to the high frequencies of



article errors and bare count noun errors. In terms of wrong prepositions, it is speculated that the students make this kind of error partly due to the intrinsic complexity of the preposition and partly due to L1 interference (as discussed in Section 4.3.1.5). As for wrong lexical items, the students tend to use lexical items whose meanings are not acceptable in context. They also have problems with choices between past and present tenses, and simple and perfect aspects.

The above problems are all difficult areas for Chinese foundation students. Formal instruction and exposure to authentic L2 texts are both necessary when treating these errors. One point to note is that most of the students had received systematic grammar teaching during their previous learning experiences in China and had also had more authentic L2 exposure on the foundation programme, but they still had difficulty using the above features correctly. This suggests that systematic examinations of these salient errors are needed so that more effective remedial materials can be developed, planned and rendered. This study is intended to demonstrate how a problematic feature can be systematically examined and how the results can inform the development of remedial materials. A full investigation of all the errors identified in the corpus, however, is beyond the scope of this study.

2. The definite article is the most frequently omitted or overincluded word

The results show that missing definite articles make up 40.9 % of the omission errors, and redundant definite articles account for 47.9% of the overinclusion errors. This means that the definite article is the most frequently omitted or overincluded word in the Chinese students' writing. The students apparently



have great difficulties when using the definite article. As far as written accuracy is concerned, article errors, especially those related to the definite article, need to be properly examined and treated.

#### **4.4 Chinese HEFP students' article errors**

Since article errors appear to be most frequent in the students' writing, I will examine them in this section, with a view to describing them in detail, attempting to identify the causes and proposing some suggestions for remedial materials.

##### **4.4.1 Analysis of article errors**

The article errors found in the 50 essays are grouped into five categories:

overinclusion of the definite article, omission of the definite article, omission of the indefinite article, misselection between *a/an* and *the*, and misformation of *a* for *an*.

Two article-related noun errors (bare count noun errors and noncount nouns with redundant *a/an*) are also included in the analysis. Table 4.6 shows the distribution of the seven categories and their error features, together with statistics and erroneous instances in each category. The error in each example is underlined, followed by its correction marked in brackets. The term '*Sic.*' is used to mark another type of error which is not the focus of the current designated category.

Category No. of errors (%)	Sub-category/ Frequency	Erroneous instances (Source)
Omission of the definite article 529 (32.6%)	Proper nouns without “the” (162)	The last time people in [the] <u>UK</u> were obliged to carry identity cards was during the Second World War. (S44)
	The unique thing without “the” (141)	These effects will damage [the] <u>entire economy</u> and reduce the national income,... (S18)
	Qualified nouns (nouns with postqualifiers) without “the” (100)	So the government should carry out proper policy to improve [the] <u>safety</u> of public transport,...(S09)
	Generic or non-specific bare singular count nouns without “the” (57)	There are approximately 7000 to 10000 kinds of genes of differing sizes and properties in [the] <u>human body</u> . (S07)
	Rank adjectives without “the” (28)	It will be extended over [the] <u>next</u> few years, providing a network of routes which afford priority to buses. (S47)
	Special words/structures/idioms without “the” (26)	Finally I will draw conclusion ( <i>Sic.</i> ) on the problems of race in [the] <u>21<sup>st</sup> century</u> . (S19) In this case, racism has never been reflected in [the] <u>media</u> . (S17) Genetic engineering ... which was invented in [the] <u>1970s</u> ...(S22)
	Generic reference “the + nominalized adjective” without “the” (15)	This lack of control causes people to be afraid of [the] <u>unknown</u> . (S19) Moreover, for [the] <u>public</u> , one of the most important things has been... (S12)
Bare singular noun form for plural 458 (28.2%)	Bare singular noun form for generic/non-specific plural form (437)	Moreover, it was the first time <u>scientist</u> [scientists] applied the ( <i>Sic.</i> ) artificial insemination to produce life. (S01)
Overinclusion of the definite article 446 (27.4%)	Generic or non-specific noncount nouns with a redundant “the” (231)	It had greatly boosted <u>the</u> communication and made <u>the</u> everyday life more convenient. (S01)
	Generic or non-specific plural count nouns with a redundant “the” (156)	In the past, <u>the</u> small companies did not have the same access as larger companies to financial instruments ... (S24)
	Proper nouns with a redundant “the” (40)	There is no doubt that this element can affect <u>the</u> Britain. (S10)
	Special words or idioms with a redundant “the” (12)	The family occupied a really complex position in <u>the</u> relation to state welfare. (S14) Should human beings take <u>the</u> control of a new life? (S07)
	Superlative adjectives with a redundant “the” (7)	Genetically modified food is the application of genetic engineering which is <u>the</u> most closely related concern with ( <i>Sic.</i> ) our daily life. (S07)
Omission of the indefinite article “a/an” 104 (6.4%)	Generic or non-specific singular nouns without “a/an” (26)	An identity card would be easily ( <i>Sic.</i> ) for [a] <u>patrolman</u> to check an individual's identity. (S43)
	Other bare singular nouns without a/an (72)	...in Los Angles, [a] <u>40 percent</u> of the ( <i>Sic.</i> ) commuter increase occurred when ... (S49)
	Non-agreement without “a/an” (3)	The stem cell is <u>precursor cells</u> [a precursor cell] which can...(S11)

	Collocations (e.g. idioms) without "a/an" (2)	There is also [a] <u>growing number of</u> lone-parent families today. (S14)
	Profession without "a/an" (1)	...everyone would ( <i>Sic.</i> ) become [a] <u>lawyer, doctor, scientist, politician, etc.</u> (S07)
Misselection between <i>a/an</i> and <i>the</i> 64 (3.9%)	Wrongly replacing <i>the</i> with <i>a/an</i> (17)	Influenced by <u>a</u> [the] legacy of a colonial society in which colonized people were regarded as inferior,... (S29) A common currency build ( <i>Sic.</i> ) by the European Monetary Union is <u>a</u> [the] next major step. (S04)
	Wrongly replacing <i>a/an</i> with <i>the</i> (47)	This will bring <u>the</u> [a] third benefit for the UK, which is the elimination of pollution. (S05)
Overinclusion of indefinite article 20 (1.2%)	Noncount nouns with redundant <i>a/an</i> (11)	Moreover, <u>a research</u> [research] on transport choices of car users in rural and urban areas showed that... (S09)
	Other errors (9)	...these effect ( <i>Sic</i> ) will cause <u>a</u> serious social and economic problems. (S18)
Misformation of <i>a</i> for <i>an</i> 4 (0.3%)		Most people are still not willing to carry <u>a</u> [an] identify card with them... (S44)
Total: 1625 (100%)		

Table 4.6: The analysis of the article errors identified in the HEFP corpus

#### 4.4.2 Discussion of article errors

In terms of the seven broad categories, the results show that omission of the definite article is the most frequent error category, followed by generic or non-specific bare count nouns for plural forms, overinclusion of the definite article, omission of the indefinite article, misselection between *a/an* and *the*, overinclusion of the indefinite article and the misformation of *a* for *an*. The top ten article and article-related error features, together with their frequencies are:

Error type	Frequency
(1) Generic or non-specific bare count nouns	458, 28.2%
(2) Generic or non-specific noncount nouns with a redundant “the”	231, 14.2%
(3) Proper nouns with a missing “the”	162, 10.0%
(4) Generic or non-specific plural count nouns with a redundant “the”	156, 9.6%
(5) The only thing without “the”	141, 8.7%
(6) Qualified nouns (nouns with postqualifiers) without “the”	100, 6.2%
(7) Bare singular count nouns without “a/an”	98, 6.0%
(8) Misselection between “a/an” and “the”	64, 3.9%
(9) Generic bare singular count nouns without “the”	57, 3.5%
(10) Proper nouns with a redundant “the”	40, 2.5%

The data reveal some salient features of the students’ article errors. I will discuss them as follows:

1. The definite article is the most problematic area for the students, but the indefinite article is not as problematic.

Out of the seven broad categories, the overinclusion and omission of the definite article make up the largest proportion of article errors (60%) while the omission and overinclusion of the indefinite article and misformation of *a* for *an* make up a small proportion of the errors (7.9%). This implies that the definite article is the most problematic area for Chinese HEFP students, but the indefinite article is not as problematic for them. The reasons why the definite article is most problematic may be due to the fact that “*the*” is the



commonest word in English (Sinclair, 1993) and any problems with it will make themselves apparent. Also the Chinese language does not have an article system, and so the functions of the definite article are intrinsically difficult for Chinese learners. The uses of the definite article in generic or non-specific noun phrases, proper nouns, unique noun phrases and qualified nouns (nouns with postqualifiers) appear to be problematic for the Chinese foundation students.

2. Generic or non-specific noun phrases are the most problematic for the students.

Four of the top ten (the 1<sup>st</sup>, 2<sup>nd</sup>, 5<sup>th</sup> and 9<sup>th</sup>) article errors found in the essays are related to the forms of generic or non-specific noun phrases. Two of them (the 2<sup>nd</sup> and 5<sup>th</sup>) involve the overinclusion of the definite article in noncount nouns or plural nouns for generic or non-specific reference. This indicates that:

- The students may not know they should use the  $\emptyset$  article with noncount nouns or plural nouns for generic or non-specific reference, i.e. they may not know the different patterns for generic or non-specific noun phrases.
- They may not know if the noun is count or noncount.
- They may not fully understand the notion of “definiteness” that the definite article denotes.

The other two errors (the 1<sup>st</sup> and 9<sup>th</sup>) involve generic or non-specific bare count nouns, which not only indicates that the students may be unaware of the

patterns for generic or non-specific count nouns, but also suggests that some other concepts are problematic for them. These concepts include countability (i.e. count vs noncount), number (singular vs plural) and the unacceptability of bare count nouns in English.

The students' L1 is Mandarin Chinese. The Chinese language does not have: 1) the concept of count and noncount nouns (countability), 2) a rigid formal distinction between singular and plural nouns (plural markers are not required in Chinese), and 3) an article system. In other words, countability, plural inflection and the notion of definiteness the definite article denotes are new for Chinese learners. To make things worse, bare singular nouns are the normal form used to refer to something in general in the Chinese language. The data show a very high frequency of bare count noun errors, which seems to be a clear sign of L1 interference. This suggests that when treating bare count noun errors, L1 transfer should be taken into account. Chinese learners need to be reminded that a count noun needs a determiner when it is singular and a plural marker when it is plural. Also they need to learn to distinguish if a noun is countable or uncountable in different contexts, which I presume, is likely to pose a great challenge for both learners and L2 teachers, in view of the complexity of the English noun.

3. The use of the article with proper nouns or special groups of words (e.g. idioms) is problematic for the students

One of the reasons why articles are difficult for learners of English is that the use of articles with proper nouns or special groups of words is often arbitrary,

even though general guidelines are available. Grammar books often provide lists of rules about article with certain words, but they are likely to overwhelm learners because of their complexity. To further complicate things, many exceptions do occur. My EA results show that there were 240 errors related to article use with proper nouns and special groups of words (162 proper nouns with a missing *the*, 40 proper nouns with a redundant *the*, 38 special words or idioms with a missing or redundant *the*). For example, “The Britain” occurs twice, “UK” occurs eight times, and “the Europe” occurs fifteen times. Since the learners were studying in the UK, they should have been familiar with these three names, but they still made mistakes when referring to them. In all likelihood they would have even more problems when using unfamiliar proper nouns.

4. The concept of “uniqueness” is problematic for Chinese foundation students

The data show that Chinese students are likely to omit the definite article when referring to unique things. This does not mean that they tend to miss out *the* when they are referring to a thing that is physically unique (e.g. the sun, the earth). Rather they tend to fail to recognize whether a thing is conceptually unique. In other words, it is difficult for them to recognise “uniqueness” in a broader or more abstract sense. For example,

\*The policy can enhance the country’s competitiveness in international market. [the international market]

\*It will boost entire economy. [the entire economy]

“International market” and “entire economy” can be regarded as unique in the context and should take the definite article. The learners should be made

aware that things can be conceptually unique when the speaker/writer and the listener/reader share knowledge about them in immediate situations or other wider surroundings.

5. The data also show 100 errors involving qualified nouns (nouns with postqualifiers) without *the*. This is one of the main errors when *the* is used for specifying or identifying things (i.e. not generic). To treat this kind of error, the students need to be reminded that “qualified nouns require the definite article”. However, some cases may be regarded as “half-generic” and do not require the definite article because although they are qualified nouns, their meanings are still very general. For example,

\*As a response to *the* changes in the world, the euro was launched.

\*They passed *the* recession in the early period of the nineteenth century...

\*Racism has deep historical roots in *the* European colonialism that started more than 400 years ago...

This half-generic category is likely to be particularly confusing for learners.

Although it is easy for them to learn the rule, it is difficult for them to judge if a qualified noun is half-generic, considering that they may not share the same terms of reference as native speakers. For example,

\*Racism has historical roots in *the* European colonialism that started about 400 years ago.

The noun phrase “European colonialism” is modified by a *that*-clause, and so learners tend to think it needs to take the definite article. It is difficult for them to recognize that “European colonialism” is still a very general idea and should be a half-generic expression although it is modified by a clause.



6. It seems necessary to re-teach the students the basic differences between the definite and indefinite article

The data shows that there are only 64 errors involving misselections between “a/an” and “the”. This seems to indicate that most learners have adequate understanding of the definite and indefinite articles in terms of their basic functions (e.g. definite vs indefinite, known vs unknown). A closer examination of the data further reveals the distribution of the 64 errors: 31 essays contain one or more than one error of this kind, and the other 19 do not. This indicates that the concept may still need to be re-taught because more than 60% of the students still have problem with the selection between the definite and indefinite article.

7. The differences between GEN *a/an*, GEN *the* and GEN  $\emptyset$  should be elaborated.

The data reveals that Chinese foundation students have problems with different patterns of generic count nouns. This suggests that they are unaware of not only the different forms but also their different uses and meanings. For example, the following two sentences both contain generic count noun errors.

\*The technology should be used on human body. [The human body]

\*Car has become the major transport tool. [The car has/Cars have]

However, in the first instance, only GEN *the* is acceptable. In the second instance, both GEN *the* (The car has ...) and GEN  $\emptyset$  (Cars have...) are

acceptable. The different uses of different generic count noun patterns are sometimes very subtle and can create a high degree of difficulty for learners.

#### **4.4.3 Suggestions for remedial materials**

In the light of the analysis of Chinese foundation students' article errors, my suggestions for remedial materials in terms of concepts to be treated and sequence of treatment are as follows:

- **Concepts to be treated**

According to the results, some concepts and structures relating to the article system that are difficult for Chinese HEFP learners are countability, number, bare singular nouns, patterns for generic nouns, “uniqueness” in a broader and more abstract sense, qualified nouns in a half-generic term and the use of articles with proper nouns or special groups of words. These concepts and structures need to be reintroduced to the students.

- **Sequence of treatment**

The order of the areas to be treated will basically follow the order of the top ten most frequent errors described above, with some rearrangement so that related concepts can be treated together. My proposed remedial materials will take the following form.

First, I will focus on re-establishing in the students the main concepts and structures which are present in English but absent in Chinese. They are:

Count vs noncount nouns

Singular vs plural nouns

Bare count nouns (not normally allowed in English)

Second, I will focus on the basic differences between the definite and indefinite article. This means that I will reintroduce to the students the concepts of definiteness/indefiniteness, specificity/non-specificity, and shared knowledge between writers/speakers and readers/listeners.

Third, the students will need to practise the structure for generic or non-specific noncount nouns.

Fourth, I will focus on re-establishing in the students knowledge of different patterns of generic or non-specific count nouns. The subtle difference between their usage will be introduced.

Fifth, I will re-establish the rule that “unique items” and “qualified nouns” require the definite article, while qualified nouns in a half-general term generally do not take the definite article. Students need to know how to define “unique” and “half-general”.

Finally, the students will be required to recognize and produce idioms and noun phrases containing proper nouns.

## **4.5 Prioritising article errors for treatment**

### **4.5.1 The most frequent errors**

Studies of L2 error correction indicate that it is necessary to correct salient and serious errors promptly and systematically, probably a few at a time. Hendrickson (1978: 392) identifies a consensus among language educators that three types of errors are worth treatment: “errors that impair communication significantly; errors that have highly stigmatising effects on the listener or reader; and errors that occur frequently in students’ speech and writing”. Ferris (2002) also echoes this view in her procedure for deciding which errors to correct in L2 student writing. She advises teachers to first focus on global errors (errors affecting a reader’s comprehension of the whole text) and then on local errors (errors which do not affect a reader’s comprehension). They should also focus on high-frequency errors and on particular structures elicited by the assignment or in-class discussions. Hendrickson’s and Ferris’ advice suggests that frequent errors are amongst those which deserve priority treatment.

As researchers and language educators indicate, the English article system is complex and problematic for learners of English (Whitman, 1974; Master, 1990, 1997, 2002; Berry, 1993, Swan, 1995). Learners whose L1s have no articles are particularly likely to have problems (Swan, 1995); it takes about “one interlanguage level’ for them to “become aware that such a thing as an article system exists” (Master, 1997: 218). A number of studies have already indicated that article errors are very common in the written work of Chinese learners of English (Milton, 2001; Papp, 2004). The present



study reveals that 36.4% of grammatical errors identified in the Chinese HEFP corpus are article or article-related errors. All these suggest that the article is one of the problematic linguistic features that should be properly treated.

#### **4.5.2 The HEFP tutors' perceptions**

In the process of identifying which errors to prioritise for treatment, the researcher conducted a small-scale survey of seven Warwick HEFP language tutors, in which they were asked to indicate formal errors which occurred very frequently in the Chinese students' writing and formal errors serious enough to be given special attention in the learning programme (see Questions 3 and 4 in the questionnaire in Appendix A).

Tutors were asked to select from a list of error types: redundant definite article, bare singular count noun without determiner (including definite article errors), singular noun form instead of plural, non-agreement between S-V or NP-V, wrong preposition, wrong tense and aspect, wrong relative clause and lexical misconception. These had all been identified in the Chinese HEFP corpus with one exception – relative clause. Although relative clause errors are very infrequent in our EA results (there are only 36 occurrences), some studies indicate that the use of relative clause is a difficult area which L2 learners are likely to avoid (Schachter, 1974). Foundation tutors have also mentioned that Chinese students tend to have problems with relative clauses (Wei, 2003). It was thus decided to include this error type in the list. The survey results are shown in Table 4.7 and 4.8.

#### 4.5.2.1 Perceived error frequency

To calculate the perceived frequency of each error type, I assigned scores to the three options in the question. ‘Very frequently’ was assigned a score of 3, ‘quite frequently’ was assigned 2 and ‘not frequently’ was assigned 1. This means that the higher the score, the more frequent the error is. Table 4.7 shows the tutors’ perceptions of the relative frequencies of the 8 error types (from most frequent to least frequent). On a scale from 1 to 3, the error types “tense and aspect” and “singular noun form instead of plural” both score 2.8; “lexical misconception” scores 2.4; “subject-verb agreement” and “bare singular noun without determiner” both score 2.3; “redundant definite article” and “wrong preposition” both score 2.1; “relative clause” scores 1.9.

Error type	Score
Tense and aspect/ Singular noun form instead of plural	2.8
Lexical misconception	2.4
Non-agreement between S-V or NP-V/ Bare singular count noun without determiner	2.3
Redundant definite article/ Wrong preposition	2.1
Relative clause	1.9

Table 4.7: Tutors’ perceptions of error frequency

The results indicate that the foundation tutors generally feel that errors of “tense and aspect” and “singular noun form for plural” are most frequent in Chinese students’ writing; lexical misconception errors are also frequent, followed by errors of S-V non-agreement and errors of bare singular noun without determiner. Redundant definite article errors or wrong prepositions are thought to be less frequent. Relative clause errors are not thought to be frequent (the least frequent error in the list).

#### 4.5.2.2 Perceived error gravity

To calculate the perceived gravity of each error type, I also assigned scores to the three options in the question. ‘Very serious’ was assigned a score of 3; ‘quite serious’ was assigned 2; ‘not serious’ was assigned 1. This means that the higher the score, the more serious the error is. Table 4.8 shows the tutors’ perceptions of the gravity of the 8 error types (from most serious to least serious). On a scale from 1 to 3, the error types “tense and aspect”, “singular noun form instead of plural” and “lexical misconception” all score 2.7; “subject-verb non-agreement” scores 2.4; “bare singular count noun without determiner” and “wrong preposition” both score 2.3; “redundant definite article” and “relative clause” both score 1.9.

Error type	Score
Tense and aspect/Singular noun form instead of plural/Lexical misconception	2.7
Non-agreement between S-V or NP-V	2.4
Bare singular count noun without determiner/ Wrong preposition	2.3
Redundant definite article/ Relative clause	1.9

Table 4.8: Tutors’ perceptions of error gravity

The results show that the tutors generally feel that errors of tense and aspect, singular noun form for plural or lexical misconception are all very serious in Chinese students’ writing; S-V non-agreement errors are also serious, followed by errors of bare singular noun without determiner and wrong preposition. Redundant definite article errors and relative clause errors are both regarded as the least serious in the list.

### 4.5.2.3 Discrepancies between EA results and tutor perceptions

I noticed a striking difference between actual and perceived error frequencies when comparing my EA results and the results from the survey of tutors concerning their perceptions of error frequency, as illustrated in Table 4.9.

Error analysis results	Tutor Perceptions
1. Missing definite article	1. Tense and aspect/Bare count noun for plural
2. Bare count noun for plural	2. Lexical misconception
3. Redundant definite article	3. S-V Non-agreement /Bare singular count noun
4. Misselection of preposition	without determiner
5. Lexical misconception	4. Redundant definite article/ Wrong preposition
6. Wrong tense and aspect	5. Relative clause
7. S-V non-agreement	

Table 4.9: A comparison of actual and perceived error frequencies

The error analysis results show that ‘missing definite article’, ‘bare count noun for plural’ and ‘redundant definite article’ are the most frequent error types, while ‘tense and aspect’ errors are much less frequent. The tutors, however, believed that article errors (redundant definite articles and missing articles) are less frequent than tense and aspect errors. This suggests that the tutors may have failed to notice their students’ problems with the definite and indefinite articles although they have observed the error type ‘bare count noun for plural’, which involves the zero article. One possible reason for this is that tutors do not think that article errors greatly affect communication, and so they tend to ignore them. Another possibility is that tutors misunderstand their students, and assume that their use of articles reflects their intended meaning.



The survey also shows that tutors think tense/aspect is the most serious error in the students' writing while 'bare singular count noun without determiner' (e.g. a missing definite article) is less serious. Redundant definite article errors were considered the least serious errors. This suggests that the tutors may systematically neglect the teaching of the article system in favour of other grammar areas which they perceive to be more communicatively important (e.g. tense and aspect).

The discrepancies between the two sets of findings indicate that the misuse of articles is a neglected problem. Without proper pedagogical intervention, article errors may become increasingly fossilised and difficult to eradicate. Unfortunately, English language teachers tend to dislike dealing with article use. Master (2002) points out that the article system involves multiple concepts (for example countability, number, definiteness and genericness) and its complexity makes teaching the system a daunting task. Direct teaching can produce positive results, however. Master (1994) reports on an experiment involving an experimental group who received systematic article instruction and a control group who only received simple error correction. The experimental group outperformed the control group in subsequent tests of article use, and Master suggests that the article system is likely to be successfully learned as long as sufficient time is spent on practising different features, one at a time. He further argues that ignoring the article is irresponsible; teachers should provide ESL/EFL learners with some means of using the articles properly, "especially when it comes to academic writing that is to be graded in part for grammatical accuracy" (Master, 2002: 335).

The discrepancies between my EA results and foundation tutors' perceptions imply that the misuse of articles is a neglected problem, and is unlikely to be given priority treatment during the foundation course. I thus decide to prioritise article errors for treatment and develop self-study materials for the students to use outside class. considering that they may have been neglected for some time and that they may continue to occur in the writing of the Chinese HEFP students.

#### **4.6 Conclusion**

My analysis of the Chinese HEFP corpus indicates that mismanagement of the article system is the most frequent cause of the grammatical errors Chinese foundation students make. If the students want to improve their written accuracy, the high-frequency article errors should be properly dealt with. A closer examination of the article errors reveals that they mainly involve structures and concepts such as countability, number, bare count nouns, proper nouns, genericness, uniqueness, definiteness and specificity. These problematic areas need to be properly reintroduced. A tentative outline for my remedial materials is proposed (see Section 4.4.3). Insights from article pedagogy are needed in order to improve this preliminary plan for reteaching the English article system to the Chinese foundation students.

## CHAPTER 5

### ARTICLE PEDAGOGY

The EA results of the HEFP corpus show that the article is the most problematic area for Chinese foundation students, with generic or non-specific noun phrases (i.e. generic or non-specific articles) the most salient problems in the students' writing. To revise my proposal for article remedial materials, it is first necessary to investigate article pedagogy, with a particular focus on generic articles. This chapter reports on my investigations into article pedagogy with a view to understanding the English article system, article pedagogical systems and treatments provided in textbooks and grammar reference materials.

#### 5.1. The English article system

##### 5.1.1 Whitman's schema

The English article system is difficult for learners of English. Whitman (1974) claims that the article is difficult not only because of its complexity, but also because of the misconceptions that linguists and language teachers share and communicate to learners. These misconceptions include what he has labelled as traditional concepts: 1) "specified" means "definite" and "unspecified" means "indefinite", and 2) *a/an* and *the* are essentially the same thing, differing only along a dimension of "definiteness/indefiniteness" or "specificity/non-specificity" (ibid: 254). Whitman proposes the following schema to describe the article:

ARTICLE = (QUANTITY) + (DETERMINER)

QUANTITY = {a/an, one; two, three, some, many....}

DETERMINER = NP + 's

The, this, ... (ibid: 254)

The schema indicates that the article consists of two optional components, quantity and determiner. The former serves to count the noun and indicate if it is singular or plural; when this option is unrealised, the noun is generally quantified (e.g. *I like reading books*. “Books” refers to any and all books). The latter is to establish that the speaker refers to a known group; if there is no determiner, the noun is “indefinite”. *The* does not carry any meaning and is purely used to mark the noun as involving a known group which may be identified by various modifiers.

Whitman points out that the limitation of his schema is that the combinations do not cover the generic usage of *a/an* and *the*, and so he further discusses the differences between the two generic articles using the following examples:

1. A mouse is smaller than a rat.
2. The mouse is smaller than the rat.

According to Whitman, “...Generic *a/an* refers to a representative of all mice....Generic *the*, on the other hand, calls forth an abstract median, the midpoint of the entire class. The mouse in (2) is the abstract average mouse. That generic *the* is abstract, while *a/an* is not...” (ibid: 258).



Whitman's two-component schema is capable of describing concepts such as definiteness/indefiniteness, the generic  $\emptyset$  article and a known group. The concept of "a known group" he mentions is the vital quality of definiteness. His doubt about the traditional notions that "specified" means "definite" and "unspecified" means "indefinite" is plausible, but he does not explain why "specified" does not mean "definite".

### 5.1.2 Burton-Roberts' interpretations of generic articles

Burton-Roberts (1976) investigated the generic indefinite article and claimed that generic sentences are generally thought to express a relation between concepts. He proposed four kinds of indefinite article. They are:

- Gen *a* (the generic indefinite article): e.g. "A whale is a mammal".  
The indefinite article *a* in "A whale" stands not for an individual, but for the concept constituted by the attributes represented by the word "whale".
- COP *a* (the attributive indefinite article): e.g. "John is *a* scientist".  
The COP *a* is the article that determines singular indefinite NP's which have their function in sentences not as specific individuals, but as the class to which some referend is being assigned. They are concepts, not objects. Burton-Roberts suggests that GEN *a* and COP *a* are essentially identical.
- [+Spec] *a* (the specific indefinite article): e.g. "A whale struck the ship".  
The indefinite article is referential and has a specificity that can be regarded as a kind of definiteness.

- [-SPEC] *a* (the non-specific indefinite article): e.g. “I’m going to buy *a* loaf of bread”. “A rabbit lives in *a* hole”.

A hole is not a concept, but an object. So it is not generic, but non-specific.

(ibid: 427)

The different categories of indefinite article Burton-Roberts proposed are useful because they can help us to understand Whitman’s argument that “specified” does not mean “definite”. The two kinds of indefinite article, [+Spec] *a* and [-Spec] *a*, clearly show that “indefinite” does not necessarily mean “unspecified” because an indefinite thing can be specific or non-specific depending on whether the speaker/writer refers to a particular thing.

Burton-Roberts also examined the differences between generic articles (i.e. GEN *a*, GEN *the* and GEN  $\emptyset$ ). He used the following examples to explain that the “definite vs. indefinite” distinction is merely a surface representation of a deeper semantic difference (i.e. they have different meanings).

“A whale is a mammal”. This predicates “mammalness” of “whaleness”.

“The whale is a mammal”. This predicates “mammalness” of the class “whale”.

(ibid: 432)

He claimed that GEN *the* refers to “the class X” and designates objects, not concepts while GEN *a* refers to concepts, not objects. As for GEN  $\emptyset$  (i.e. the generic  $\emptyset$  article), he made two points:

- N's determined by GEN  $\emptyset$  are not the plural of N's determined by GEN *a*.
- There is no inherent difference between GEN  $\emptyset$  and the plural non-specific *O* article.

Burton-Roberts' interpretations of GEN *a* and GEN *the* are different from Whitman's. His GEN *a* refers to concepts, not objects while according to Whitman, generic *the* is abstract, and generic *a/an* is not. These contrary views suggest that although the forms of generic articles are well established, a consensus has not yet been reached in terms of their semantic differences.

### 5.1.3 Bickerton's system

Bickerton (1981) proposed a system which assigns two binary features to articles, namely, [+Specific Reference] and [+Hearer Knowledge]. His system is shown in Figure 5.1.

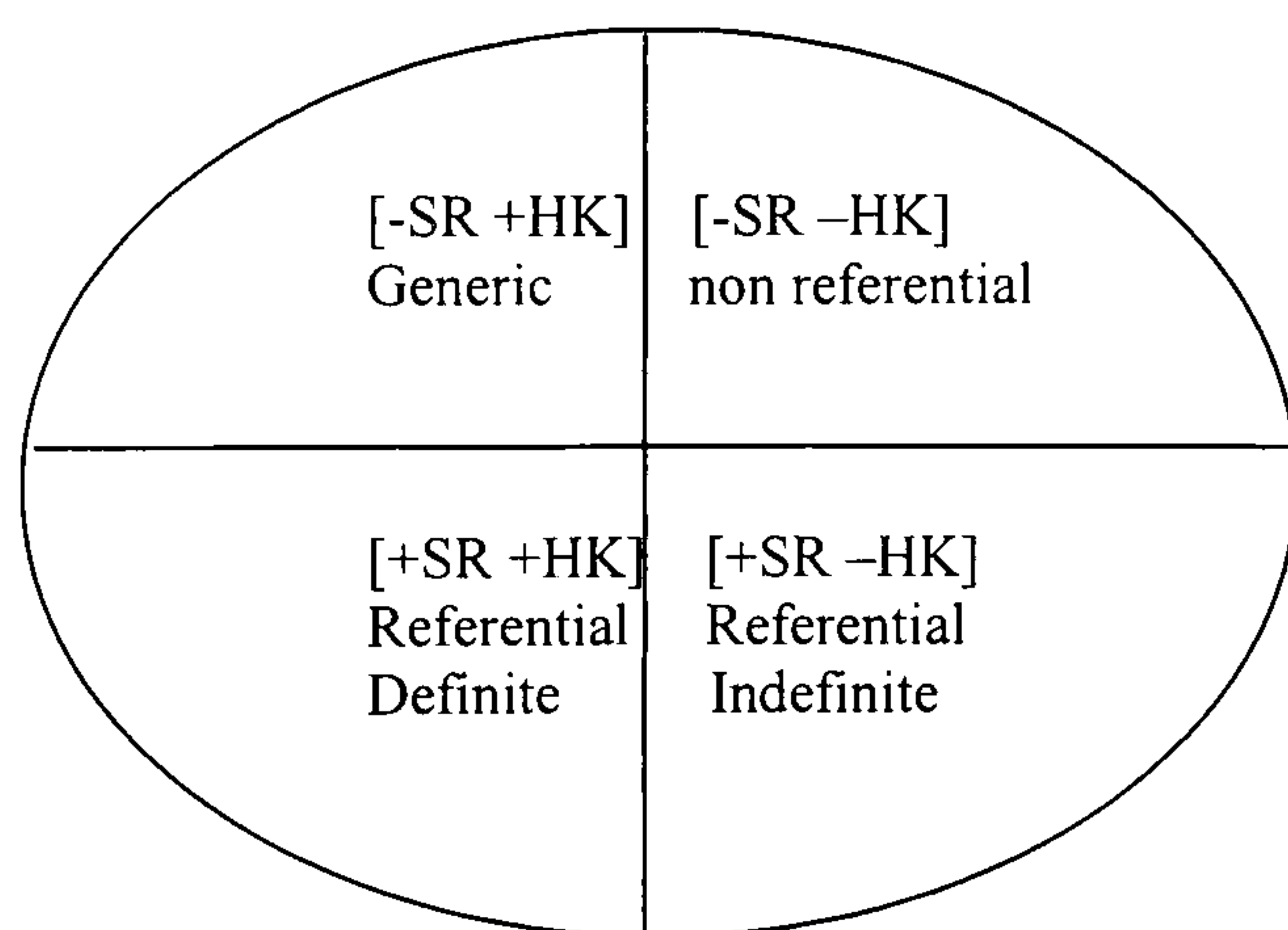


Figure 5.1: Bickerton's (1981) semantic wheel for noun phrase reference (cited in Huebner, 1985: 146)

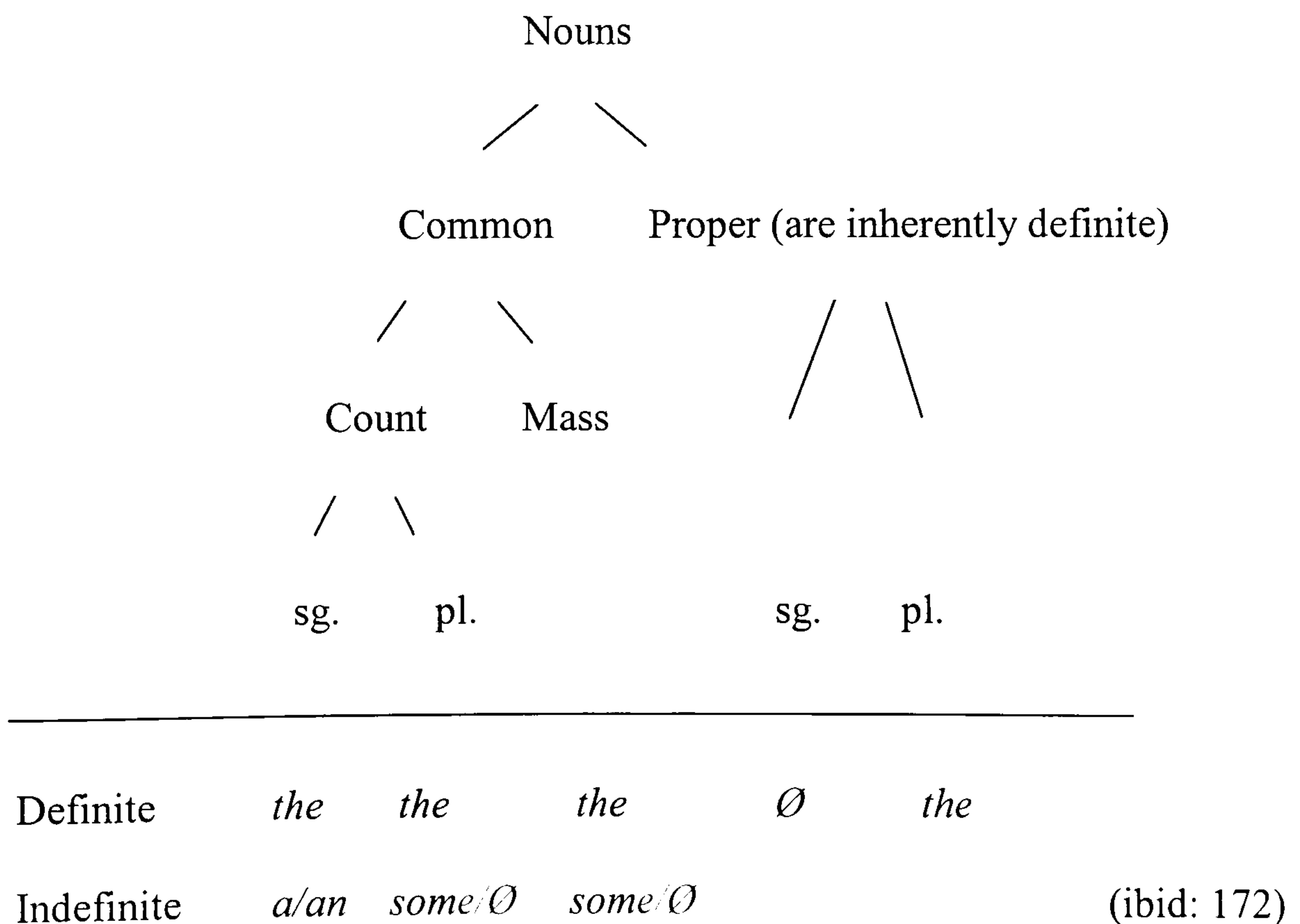
According to this system, if the speaker/writer does not refer to a particular thing, it is unspecified; otherwise, it is specified. An unspecified thing is generically referenced

if the hearer knows about it; otherwise, it is non referential. A specified thing is definite if the hearer knows about it (i.e. the thing can be identified by the hearer); otherwise, it is indefinite (i.e. the thing cannot be identified by the hearer).

Bickerton's system is useful because it points out two key factors: "specific reference" and "hearer knowledge". It is these two factors that can help us to decide if a noun phrase is generic or specific and if it is definite or indefinite.

#### 5.1.4 Celce-Murcia and Larsen-Freeman's investigation

Celce-Murcia and Larsen-Freeman (1983) investigated two aspects of the article: structure and usage. They pointed out the close relationship between the article and the noun and emphasized the importance of the "mass noun vs count noun" distinction. Different types of nouns affect the choice of articles, which they summarize as follows.





Celce-Murcia and Larsen-Freeman also highlighted the importance of discourse contexts (i.e. how familiar the speaker/writer is and thinks the listener/reader is with the noun(s) being mentioned). They approved of Brown's (1973) matrix (Figure 5.2) which illustrates the use of articles with nongeneric common nouns, and pointed out that the matrix shows that the indefinite article is used to perform the following discourse functions:

1. To introduce a noun to the listener that is specific for the speaker but not the listener, e.g. *I saw a funny-looking dog today.*
2. To show that the noun does not have a specific referent for either the speaker or the listener, e.g. *I need a new belt.*
3. To refer to a noun that is non-specific for the speaker but which is assumed to be specific for the listener, i.e. the speaker guesses, or pretends to guess, e.g. *FBI man to homeowner: Don't be coy. We know there's a spy hiding in your cellar.*

(Celce-Murcia & Larsen-Freeman, 1983: 178)

	Speaker (writer) <span style="float: right;">→</span>	
Listener (reader)  ↓	Specific	Non-specific
Specific	Definite: <i>the</i> Examples: <i>Can I have the car?</i> <i>Let's move the desk.</i>	Indefinite: <i>a</i> Examples: <i>There's a spy hiding in your cellar.</i> <i>You once wrote an article on superstition.</i>
Non-specific	Indefinite: <i>a</i> Examples: <i>I saw a funny-looking dog today.</i> <i>John tried to lift a piano yesterday.</i>	Indefinite: <i>a</i> Examples: <i>I don't have a car.</i> <i>I need a new belt.</i> <i>I want to catch a fish.</i> <i>I am looking for a book.</i>

Figure 5.2: Brown's matrix: the relation between definite and indefinite forms and specific and non-specific reference in speaker and listener (1973: 342).

In terms of the definite article, Celce-Murcia and Larsen-Freeman (1983) documented Brown's proposed eight circumstances under which a noun may have specific reference for both the speaker and the hearer. They are:

1. Unique for all: the moon, the earth, the sun
2. Unique for a given setting: the blackboard, the ceiling, the floor
3. Unique for a given social group: the car, the dog, the baby, the President
4. Unique by pointing, nodding, etc: the book, the chair
5. Unique because of characteristics that get attention: the explosion
6. Unique by entailment: e.g. in talking about a house: the windows, the garden, the kitchen
7. Unique by definition: the house with a view, the girl who speaks Basque
8. Unique by prior utterance: I saw a funny-looking dog today. The dog...

To the above eight circumstances, they added two more points:

9. Unique by a specified order or rank in a set: the last sentence on the page; the fastest runner in the heat
10. Unique by anticipation: We found the hubcap of a car that must be very expensive.

(ibid: 177)

Apart from nongeneric common nouns, Celce-Murcia and Larsen-Freeman also examined generic nouns and documented the following five patterns of generic nouns:

Pattern 1, “The + noun (sg.)”, represents formal usage. It can be used to generically describe classes of humans, animals, organs of the body, plants, and complex inventions/devices; however, it is not appropriate as a generic pattern for simple inanimate objects, e.g.

*\*The book fills leisure time for many people.*

This pattern predominates in informative or technical writing on animals, plants, musical instruments and complex inventions or devices.

Pattern 2, “noun (pl.)”, is a slightly less formal counterpart to the above pattern. It can be used in all the semantic environments where pattern 1 occurs, and it can be used to make generic statements about simple inanimate objects, e.g.

*Books fill leisure time for many people.*

This pattern is more concrete and frequent than pattern 1, i.e. it generalizes via pluralization rather than abstraction. It can be used in all contexts and ranges from semiformal to informal in register.

Pattern 3, “a/an +noun (sg.)”, is the most concrete and colloquial way of expressing a generality. It is used most appropriately when the context is specific, e.g.

Background: *Joe gave Alice a puppy.*

Alice (on the phone with a veterinarian): *Does a puppy need a rabies shot?*

This pattern can be used to express informal generalities for all semantic contexts; however, it cannot be used when collectivity or group cohesiveness is expressed.

Pattern 4, “the + noun (pl.)”, is the most limited pattern. It is usually used to express generic facts about a human group that is of a religious, political, national, social, or occupational/professional nature. Group affiliation is critical. Thus the following are not acceptable generic statements:

*\*The tigers are ferocious beasts.*

*\*The roses need water.*

Pattern 5, “ $\emptyset$  + mass noun”, is used to refer to mass nouns generically.

(ibid: 180-181)

Celce-Murcia and Larsen-Freeman’s investigation into the article was very systematic. Their interpretations of Brown’s matrix clearly highlight two important factors, speaker/writer knowledge and listener/reader knowledge, which are similar to Bickerton’s two binary features (i.e. [+specific Reference] and [+Hearer Knowledge]). Their emphasis on the role the article plays in discourse contexts reflects Rutherford’s (1987) view that article use is a discourse phenomenon and the use of the article follows its own binary constraints: “given” and “theme” require *the* while “new “ and “rheme” require *a/∅*. Their report on the respective discourse functions of the definite and indefinite article is comprehensive, and their examination



of generic articles is a good attempt to differentiate between the functions and semantics of different generic articles.

### **5.1.5 Halliday's description of the definite article**

From a macro perspective, Halliday (1994) discusses the function of the determiner in the nominal group. He points out that the determiner typically performs the function of the element "Deictic" in a nominal phrase. "The Deictic element indicates whether or not some specific subset of the Thing is intended; and if so, which. It is either (1) specific or (2) non-specific" (ibid: 181). The definite article *the* functions as a specific Deictic which has the function of identifying a particular subset of the "thing" that is being referred to. Halliday explicitly describes the definite article:

"The word *the* is a specific, determinative Deictic of a peculiar kind: it means "the subset in question is identifiable; but this will not tell you how to identify it – the information is somewhere around, where you can recover it"... Hence *the* is usually accompanied by some other element which supplies the information required... If there is no such information supplied, the subset in question will either be obvious from the situation, or else will have been referred to already in the discourse..." (ibid: 181-182).

### **5.1.6 Implications of the review**

The above review has some important implications regarding the English article system. They are:

1. The English article system includes the indefinite article *a/an*, the definite article *the* and the  $\emptyset$  article. Its basic concepts include definiteness/indefiniteness, specificity/non-specificity and genericness. Speaker/writer knowledge and listener/reader knowledge are the two main factors involved in these concepts. Specificity and non-specificity are related to speaker/writer knowledge while definiteness and indefiniteness are related to both speaker/writer knowledge and listener/reader knowledge. To clarify the difference between definiteness and specificity, we should probably ask two questions. The first question is “What makes a noun phrase specific?”. The answer is that a noun phrase is specific if the writer/speaker refers to a particular thing regardless of the reader’s/listener’s knowledge about it. If he/she does not refer to a particular thing, it is non-specific. The other question is “What makes a noun phrase definite (i.e. identified)?”. The answer is that a noun phrase is definite if the reader/listener shares some knowledge with the writer/speaker about the referred thing (i.e. the thing should be identifiable by the reader/listener). This knowledge can be gained either from the information accompanying the definite article or through the discourse context. If the reader/listener has no knowledge about the thing, it is indefinite. Based on these principles, a thing which is definite must be specific, but a specific thing can be definite or indefinite depending on the reader’s/listener’s knowledge. I illustrate the relationship between these two concepts in Figure 5.3.

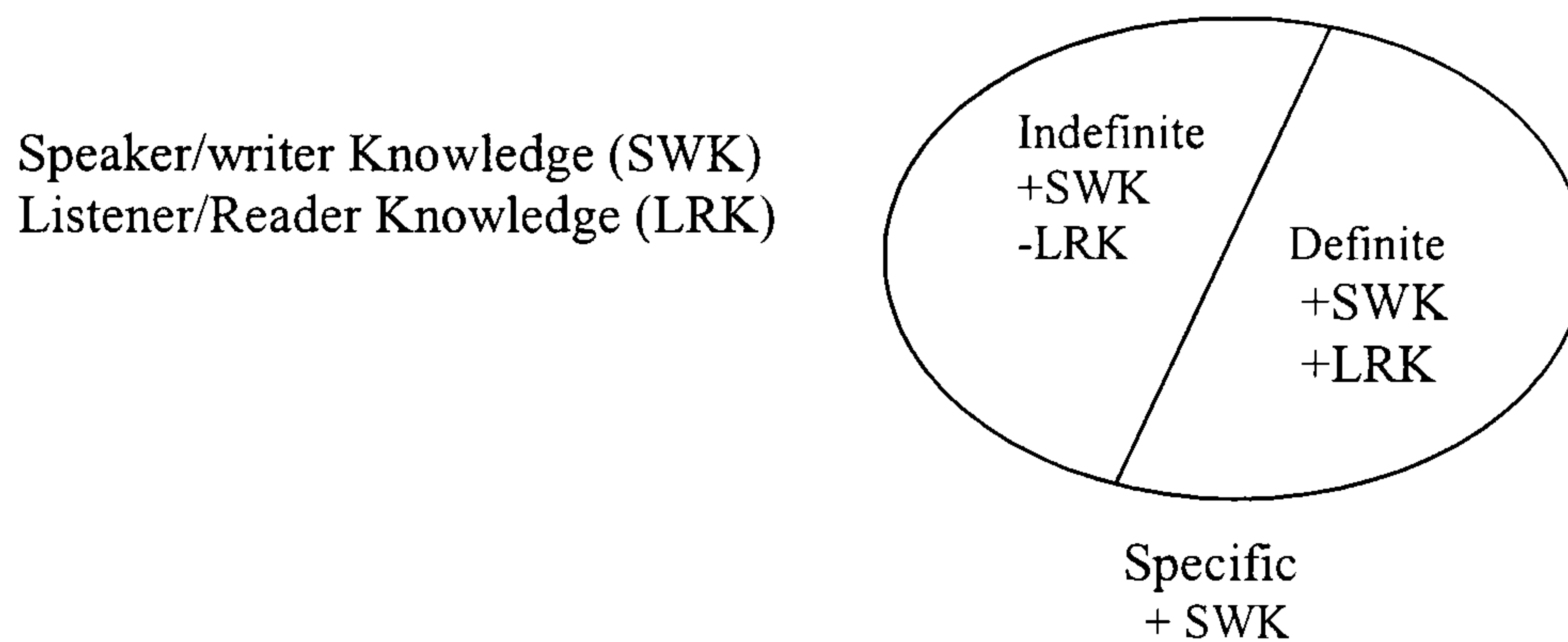


Figure 5.3: The relationship between “definiteness” and “specificity”

2. The choice of articles often depends on discourse contexts (i.e. how familiar the speaker/writer is and thinks the listener/reader is with the noun(s) being mentioned). This supports Berry’s claim (1993) that the use of articles is meaning dependent and their misuse will cause misunderstanding.
3. The usage of different patterns of generic articles may have been established, but the semantic differences between them are difficult to define. There has not been much discussion about them, and a consensus is unavailable. L2 teachers will find it difficult to explain different patterns of generic articles to learners, and learners are unlikely to fully grasp the subtle differences between them.
4. Apart from the above concepts (e.g. definiteness/indefiniteness, specificity/non-specificity and genericness), the article system is closely related to the features of the noun (e.g. common vs proper, count vs noncount, singular vs plural). Countability and number directly affect the choice of articles. The English noun is very complicated itself (for example, there are complex issues concerning the countability of a noun, and the conversion of count nouns and noncount nouns), and this certainly contributes to learners’ article problems.

## 5.2 Pedagogical systems for teaching the article

Because the article system involves many concepts (countability, number, genericness/specificity, definiteness/indefiniteness), teaching the article to non-native speakers is not straightforward. Researchers have tried to tackle this problem and proposed various sets of pedagogical systems for teaching the article.

### 5.2.1 Whitman's system

Whitman (1974: 253) assumes that the English article structure is “a sequence of quantification and determination rather than a choice between specified and unspecified”. He proposes a six-step pedagogical sequence for teaching the article.

The steps are:

#### 1. Quantity

Whitman argues that the concept of “counting” is easier to talk about than the concept of “a known group”, and so we should begin by introducing English quantifiers. Step 1 should only focus on count nouns and the syntactic lesson will concentrate on the singular/plural distinction, in which the singular quantifiers *a/an* and *one* are contrasted with plural quantifiers.

#### 2. Generic plural

In step 2, the quantifier *all* is singled out to contrast with the generic plural as they essentially mean the same thing.

e.g. All apples are red vs Apples are red.

#### 3. Noncount nouns



In step 3, the teacher can start to introduce the learner to the noncount noun vs. count noun contrast. He/She should use *a lot* instead of *much* and *many* to simplify the learning task.

4. Determiners (which-NP questions and first/subsequent mention)

In step 4, new concepts need to be introduced. Whitman points out that learners whose L1s lack the article will have difficulty in acquiring the notion of a known group and the meaning and function of *the*. For the notion of a known group, he suggests that learners should first be introduced to “which-NP questions” because a determiner can then be introduced as something that specifies answers to the questions. As for the concept of *the*, learners should first be introduced to demonstrative determiners (e.g. *this/that/these/those*), which are fairly universal and should be familiar to learners.

5. Quantity and determiner

In step 5, the learner is introduced to noun phrases that contain both a quantifier and a determiner. E.g. *One of the books is green.*

6. Generic articles

Whitman suggests that the introduction of generic *a/an* and *the* should be delayed considerably because these structures are less commonly used.

(ibid: 261)

Whitman’s teaching sequence starts with the introduction and consolidation of concepts such as number and countability, as he argues that articles should consist of quantifiers and determiners, and quantifiers are easier for learners. It then moves to the introduction of determiners focusing on the notion of “a known group” and finally

to generic articles. This sequence seems logical in terms of learners' knowledge (i.e. known vs new) about the different concepts.

### 5.2.2 McEldowney's four stages of learning

McEldowney (1977: 110, cited in Master, 1990: 463-464) presents four stages of learning the English article system. They are:

#### 1. Classification

*A+N* (any one) vs *the+N* (the special one)

e.g. Choose a bag. vs Take the red bag.

*N+s* (plural classification)

e.g. These are bags.

#### 2. Plurality

*Some+N+s* (any ones)

e.g. Choose some bags from the collection.

*The+N+s* (the special ones)

e.g. Take the red bags.

#### 3. Mass or substance

*N* (the substance in general)

e.g. Mud is found at the bottom of rivers.

*Some + N* (any substance)

e.g. Some mud is grey; some mud is black.

*The + N* (the special substance)

e.g. Point to the black mud.

#### 4. Numbered specific; generic

Numeral  $N + s$  (any numbered ones).

e.g. Choose six pens from the collection.

$A + N/the + N$  (ones in general) /  $the + N + s$

e.g. An elephant never forgets.

The elephant never forgets.

The elephants never forget.

McEldowney's proposal starts from the contrastive concept "specificity vs classification" and proceeds to "plural count nouns", "noncount nouns" and finally numbered specific nouns and different generic articles. It covers most of the basic concepts regarding the article. However, her starting point that  $A+N$  (any one) contrasts with  $the+N$  (the special one) is an oversimplified concept which implies that any noun taking the indefinite article is not specific. This notion does not consider the two variables "speaker/writer knowledge" and "listener/reader knowledge" associated with articles, and will confuse learners when they encounter sentences such as "I'm going to buy a loaf of bread" (non-specific) and "I'm reading a book" (specific).

#### 5.2.3 Master's binary system

Master (1983) presented a schema for teaching the article and subsequently refined it. The refined schema includes a hierarchical sequence of six questions which must be asked about each noun in a piece of discourse: Is the noun (1) countable (singular/plural) or uncountable? (2) definite or indefinite? (3) postmodified or not? (4) generic or specific? (5) common or proper? and (6) nonidiomatic or idiomatic?

(Master, 1986: 204). In the light of this schema, he contemplated four concepts, definiteness, specificity, countability and number, and proposed a simplified system which he claims can account for article usage in the greatest number of cases (Master, 1990). The system is a binary schema consisting of two categories, namely, classification and identification. *A* and  $\emptyset$  are typically used to classify things while *the* is used to identify things. Table 5.1 presents the system, together with examples Master used.

According to the system, when teaching the article system, we should first present the concepts of classification and identification to students. After that, the details of article usage can be interpreted in a binary manner. For example, the function of *the* is to denote “identification” which is realised due to subsequent mention, ranking adjectives, shared knowledge, limited postmodification or descriptive –of phrases. However, Master points out that the classification/identification dichotomy cannot simplify or explain the use of *the* and  $\emptyset$  with proper nouns and the use of the article in idiomatic phrases.

Classification ( <i>a</i> , $\emptyset$ )	Identification ( <i>the</i> )
Count/noncount First mention	
	Subsequent mention Ranking adjectives (superlative/sequential/unique) Shared knowledge (universal and regional/local knowledge)
Defining postmodification (e.g. Houdini was a man who could open any lock.)	Limiting postmodification (e.g. Houdini was the man who could open any lock.)
Partitive of-phrase (a portion, part or measure of the object of the preposition of, e.g. a cup of coffee, a height of eight feet)	Descriptive of-phrase (e.g. the diameter of a circle, the length of a room)
Intentional vagueness (One special use of descriptive of-phrases with $\emptyset$ rather than <i>the</i> occurs frequently in scientific prose, e.g. replication of cells) General characteristics (e.g. A zebra has [O] stripes.) Existential there and it (e.g. There is a book on the table. It's [O] sugar.)	
	Generic <i>the</i> (the identification of a class)



Classified proper nouns (There's a Mr. Smith to see you, sir.)	Proper nouns ( $\emptyset$ and <i>the</i> ) (e.g. This was not the London I knew.)
Idiomatic phrases	Idiomatic phrases

Table 5.1: Master's binary system (Master, 1990: 470)

Master's binary system summarizes aspects of classification and identification and presents a generalised *a*/ $\emptyset$  and a generalised *the* for pedagogical purposes, which is plausible and useful. However, simplified concepts can sometimes cause misunderstanding. For example, his system indicates that *a* and  $\emptyset$  are used with things which are first mentioned. This implies that a thing always takes *a* or  $\emptyset$  when it is first mentioned, but that is not always true. If we want to adopt this schema to teach the article, we need to remember that after learners have mastered the simplified rules, exceptions have to be introduced.

Another strength of the system is that it contrasts different functions of similar structures (defining postmodification vs limiting postmodification and partitive of-phrase vs descriptive of-phrase) and includes most of the difficult article uses (intentional vagueness, generic nouns, proper nouns). It also suggests that the use of the article with proper nouns and idiomatic phrases should be dealt with at the end. This is reasonable as these two areas are very problematic for L2 learners. For example, learners are constantly confused by the choice of articles with special groups of words such as those related to media and communications, means of transport, forms of entertainment, institutions in society, shops and other businesses, musical instruments, geographical oppositions, directions, periods of time, meals, parts of the body, special roles, grammatical terms and illnesses (e.g. the flu/a cold/influenza) (Berry, 1993). They are not sure when to use *the* with a name (e.g. the BBC) and when not to (e.g. SONY). The schema, however, cannot simplify or explain the different uses of *the* and *a*/ $\emptyset$  with proper nouns and idiomatic phrases.

#### **5.2.4 Master's canonical information structure**

Master (2002) has recently proposed a way of teaching the article system using canonical information structure as an overarching framework. The main concepts involved in the structure are that noun phrases occurring to the left of the verb are given information and marked with the definite article, whereas those occurring to the right of the verb are new information and are marked with the indefinite article (*a or the Ø article*). He encourages NNS students to use canonical information structure as a preliminary guess in choosing the correct article. After the initial guessing, they can apply other rules (e.g. his binary system) to check the answers and correct them if necessary. He conducted a pilot study in which three groups of ESL university students received three different treatments for articles: the first group was taught to use information structure as an overarching guiding principle in choosing the articles, the second group was given a traditional explanation of the article system, and the third group did not receive any instruction. The first two groups each received 3 hours of instruction on articles for 3 weeks. The results showed that the group who received article instruction with the information structure principle outperformed the other two groups. Master suggests that the canonical information structure may provide a useful principle for learners of English in choosing the correct article.

#### **5.2.5 Implications of the review**

The four pedagogical systems investigated above generally include the introduction of features such as countability, number, specificity, definiteness and genericness. This means that Whitman, McEldowney and Master all believe that the use of the article is closely related to the features of the noun (countability and number), and so



countability and number should be introduced when articles are taught. Their systems also show a consensus that generic articles should be tackled at a later stage. Master further highlights two problematic areas, proper nouns and idiomatic phrases, which, he suggests, should be treated even later due to their complexity.

One point to note is that the target features/concepts and sequence of treatment suggested by Master (1986, 1990) generally accord with those outlined in my tentative plan for remedial materials (see Section 4.4.3) although differences still exist. For example, my proposed materials closely follow the students' error profiles, and so some features are specific to my subjects (e.g. the bare count noun error) and some features are given priority for urgent pedagogical intervention (e.g. generic articles). Master's canonical information structure does not seem to be suitable for guiding the choice of articles with generic nouns which are the most frequent errors in my subjects' writing.

### 5.3 Treatment in textbooks

In order to know how articles are introduced in textbooks, nine recent textbooks from five international publishers were selected for analysis (see Table 5.2) and the treatments of the article provided in the books were examined. The results are presented and discussed in the following section.

Grammar book	Author(s)	Year	Publisher
New Generation 3	Granger & Beaumont	1988	Heinemann
Snapshot (Intermediate students' book)	Abbs, Freebairn, & Barker	2000	Pearson Education Limited
True to Life (upper intermediate)	Gairns & Redman	1998	Cambridge University Press



New Headway English course (intermediate student's book)	Soars & Soars	1996	Oxford University Press
Opportunities (intermediate)	Mugglestone	2000	Longman
Inside Out (upper intermediate)	Kay & Jones	2001	Macmillan Publishers Limited
Matters (Upper Intermediate)	Bell & Gower	1992	Longman
Cutting Edge (intermediate)	Cunningham & Moor	1998	Longman
Clockwise (Pre-intermediate)	McGowen & Richardson	2000	Oxford University Press

Table 5.2: The nine textbooks selected for analysis

An examination of the above nine books show that five books (*New Generation 3*, *Snapshot*, *True to Life*, *Inside Out*, *Matters*) include a small section about article use and the other four do not deal with the article at all. In the five books which provide treatment, the treatments are generally very brief. Two books (*Inside Out* and *Matters*) provide a list of rules. They are:

### Language reference: articles

Articles can be difficult to use correctly: the rules are many and complex. Here are some of the most important rules.

#### No article

You don't use articles with proper nouns such as places, people and companies.

*There was a young lady from Niger.*

*John Smith had a job with Microsoft but now he's moved to IBM.*

Exceptions are when the article is part of a name (*The United States*, *The BBC*, *The Beatles*).

The indefinite article means 'one', so you don't use it with plurals or uncountable nouns.

*There are plenty of ideas. The love of money is the root of all evil.*

Note: In English, most abstract concepts are uncountable: *After a few years of hard work ...*

(You will find a list of common uncountable nouns on page 142.)

#### Indefinite article: introducing/categorising

When you first mention new people, places or objects etc., the most normal thing to do is to introduce them by saying what category they belong to. You use the indefinite article to show that this is what you are doing.

*There was a young lady from Niger*

*Who smiled as she rode on a tiger.*

#### Definite article: referring/identifying

When you identify something or refer to a specific thing, you use the definite article. This often happens for one of these two reasons.

##### 1 Back reference:

*They came back from the ride*

*With the lady inside*

*And the smile on the face of the tiger.*

The last three lines of the poem refer to things introduced in the first two. We now know which specific lady, tiger, ride and smile the poet is referring to.

##### 2 Shared knowledge:

*You could be calmly sitting on the beach, dozing in the sun and looking at the ocean.*

It's obvious which beach, sun and ocean the tourist is talking about.

Back reference and shared knowledge can combine.

*He took a photograph. The click of the camera woke the man up.*

We know that to take a photograph you need a camera, and that most cameras go click when you take a picture.

Note: In general statements in English you don't usually use the definite article with plural or uncountable nouns.

*Men are a mystery to women. Time is money.*

Taken from  
*Inside Out*, p. 28



#### 4 The definite article (*the*)

The definite article is used:

- a) Before singular and plural nouns when talking about things that both speakers know about:  
*Come and sit by **the** fire.* (It is clear which fire – there is only one.)  
*These are **the** books I bought yesterday.* (You have just told me which books you are talking about.)
- b) When referring to some public places (especially when talking about them in general, or as buildings rather than institutions):  
*I'm meeting him at **the** hospital / **the** cinema / **the** bank.*
- c) With some geographical locations:
  - collections of states and islands:  
***the** United States, **the** Bahamas*
  - seas, rivers, mountain ranges:  
***the** Atlantic, **the** Thames, **the** Alps* (but *Mount Fuji*)
- d) Sometimes, to talk about nationalities, groups of people, animals, musical instruments, etc. in general:  
***the** Germans, **the** Italians*  
*We're having a raffle to help **the** poor.*  
***The** tiger is threatened with extinction.*
- e) To talk about unique things (i.e. there is only one):  
***the** New York Times, **the** French Revolution, **the** army*

The definite article is NOT used:

- a) Before plural and uncountable nouns when talking about people and things in general, and abstract ideas:  
*Do **women** drive more carefully than **men**?*  
***Poverty** is becoming worse.*
- b) For prepositional phrases of place – usually when we are talking about public places as institutions rather than buildings:  
*Is Julia still **at** school?*  
*My husband is **in** hospital.*
- c) When talking about some geographical locations:
  - countries (*China, Britain*)
  - continents (*Asia, Africa*)
  - towns, cities, counties (*London, Essex*)
- d) When referring to parts of the body, transport, meals, games, some expressions of time, seasons, months, etc.:  
*Mandy's got **big** ears. / I'm going **by** car.*  
*Have you had **breakfast**? / The park closes **at** night.*

Taken from  
*Matters*, p. 17

*New Generation 3* and *Snapshot* provide a few exercises. They are:

#### J Articles

Complete the sentences using *a(n)* or *the* where necessary.

Example

After studying \_\_\_\_\_ history for three years, he got a job as a teacher.

- 1 Is that \_\_\_\_\_ man who we saw last night at \_\_\_\_\_ cinema?
- 2 Are you interested in \_\_\_\_\_ geography?
- 3 \_\_\_\_\_ Newcastle is \_\_\_\_\_ industrial and commercial city in \_\_\_\_\_ north-east of \_\_\_\_\_ England, on \_\_\_\_\_ River Tyne.
- 4 What does your sister do for \_\_\_\_\_ living? ~ She's \_\_\_\_\_ teacher in \_\_\_\_\_ secondary school.
- 5 \_\_\_\_\_ India is one of \_\_\_\_\_ biggest producers of \_\_\_\_\_ tea in \_\_\_\_\_ world.
- 6 Who discovered \_\_\_\_\_ penicillin?
- 7 She can play \_\_\_\_\_ guitar but she can't play \_\_\_\_\_ piano.

Taken from  
*New Generation 3*,  
p. 21





## Grammar snapshot

### The definite article and zero article

#### The definite article

- 1 She's on a trek. **The** trek takes sixteen days.
- 2 They went to **the** Netherlands and **the** USA.
- 3 We saw **the** Himalayas/**the** Pacific (Ocean)/**the** Mississippi (River).
- 4 We stayed at **the** Shangri-La Hotel.
- 5 She arrived in **the** morning/evening.
- 6 It's one of **the** coldest places I've ever been to.
- 7 **The** sun has just come out.
- 8 He plays **the** violin very well.

#### Zero article

- 1 They went by **bus**.
- 2 I'm starting **school/university** next week.
- 3 We had **chips** for **lunch**.
- 4 She's studying **Geography/French**.
- 5 He plays **tennis/cards** every day.
- 6 She lives in **Saxon Street** in **Winchester**.
- 7 **Knowledge** of **languages** is important.
- 8 Do you take **sugar**?
- 9 I prefer teaching **children**.

#### Discuss the rules with your teacher.

- 1 When do we use the definite article?
- 2 When do we use no (zero) article?

For notes on usage see page 136.

## 10 > Practice

Complete each sentence with *the* when necessary.

- 1 *She hopes to get a job in the USA.*
- 1 She hopes to get a job in ... USA.
- 2 How old were you when you started ... school?
- 3 It's a travel book about a trip up ... Amazon.
- 4 My cousin spent the weekend watching ... videos.
- 5 He never has ... breakfast in ... morning.
- 6 They're staying at ... Plaza Hotel in New York.
- 7 It's hard for ... young people to find ... work.
- 8 I'd love to travel round ... world one day.
- 9 It was ... best holiday I've ever had.
- 10 Manila is the capital of ... Philippines.
- 11 They arrived by ... train this morning.
- 12 She learnt to play ... piano when she was four.
- 13 My worst subject at school is ... Chemistry.
- 14 Let's play ... cards this evening.

Taken from  
*Snapshot*, p. 17



*True to Life* does not directly treat articles, but provides some exercises related to them in Unit 5 “Noun groups” (pp. 35-36). They are:

## SO YOU THINK YOU KNOW YOUR NOUNS

### COUNTABLE AND UNCOUNTABLE NOUNS

Correct any errors in these sentences. (Not every sentence has an error.)

- 1 We have many forms of transports in our city.
- 2 The traffic are very bad in most big cities.
- 3 I had a lot of troubles getting from the airport.
- 4 The council is making good progress with the school development project.
- 5 The atmosphere in the village was great, especially the nightlife, and the accommodations we were given were excellent.

### COMPOUND NOUNS

Complete the sentences with the correct compound noun.

**Example:** Our factory is situated on an industrial *estate* .....

- 1 Many young people prefer to stay in a *youth* ..... because it's very cheap.
- 2 You aren't allowed to drive in a *pedestrian* .....
- 3 I need to go to the toilet – is there a *public* ..... near here?
- 4 I left my umbrella on the bus and had to collect it from the ..... office.
- 5 You can buy or rent a flat through an *estate* .....
- 6 There is a *taxi* ..... outside the railway station.
- 7 We met outside the *law* .....
- 8 We always go to the indoor *shopping* ..... when it's raining.

### PLACES AND ARTICLES

What's the difference between ...?

- 1 He's gone to prison./He's gone to the prison.
- 2 She went to church./She went to the church.
- 3 She's going into hospital./She's going into the hospital.

### COLLECTIVE NOUNS

These nouns describe a group of people. They can take a singular or plural verb.

What do you call ...

a group of people who control a country and make its laws?

*the government* .....

- 1 all the people who work in one organisation?
- 2 a group of people who decide in a court if someone is guilty or innocent?
- 3 all the people who attend a concert or play?
- 4 a group which makes plans or decisions for a larger group or organisation?
- 5 the group who are elected to govern a local area?
- 6 all the ordinary people in a country who are not in the government or acting in an official role?

4 He's gone to university./He's gone to the university.

5 I met him at school./I met him at the school.

There is a limited number of these expressions

### ADJECTIVES AS NOUNS

Certain adjectives can be used with a definite article to describe groups of people, often in a similar social or physical condition (e.g. *the rich, the poor, etc.*).

**Example** The government should do more for *people without much money*.  
The government should do more for *the poor* .....

Do the same with the sentences below, using a suitable adjective as a noun. Don't forget the definite article *the*.

- 1 The theatre has good access for *people in wheelchairs*.
- 2 We need more resources to help *people without jobs*.
- 3 *The people who were hurt in the accident* were taken to the casualty department.
- 4 *People with a lot of money* do not suffer so much in times of recession.
- 5 *People over 65* automatically get free public transport in my town.
- 6 Pavements in bad condition are very dangerous for *people who can't see*.

The data clearly show that the article is not an intensively treated grammar area in the textbooks. When treatment is provided, it is brief, shallow and unsystematic. Due to limited space, rules tend to be very simple and possibly confusing or even misleading. For example, the following rule in *Matters* is misleading because *the* can be used in parts of the body, transport and meals in some cases.

The definite article is NOT used:

a)...

b)...

c)...

d) When referring to parts of the body, transport, meals, games, some expressions of time, seasons, months, etc.:

Mandy's got **big ears**. / I'm going **by car**.

Have you had **breakfast**? / The park closes **at night**.

*Matters*, p. 17

Moreover, only *Inside Out* briefly introduces the different functions of the definite and indefinite article; the instructions the other four books provide are mostly related to article use with proper nouns and special groups of words; introduction to concepts such as definiteness, specificity and genericness is scanty. Although *Inside out* and *Matters* mention the patterns of generic noncount nouns and generic plural nouns, the usage of different generic articles is not mentioned in any of the books, which confirms Celce-Murcia and Larsen-Freeman's (1983) claim that the use of generic articles is a matter that is not very well treated in ESL/EFL textbooks. Since generic articles (generic nouns), as the EA results have revealed, are used very frequently in EAP writing (e.g. the foundation students' essays), the failure to include them in textbooks suggests that the treatment in the textbooks is unlikely to adequately cater for EAP students' needs in terms of the use of the article. Therefore, supplementary grammar instruction is certainly necessary as far as article use is concerned.



## 5.4 Treatment in pedagogical grammar books

Pedagogical grammar books generally provide much more detailed grammar instruction than textbooks. To understand how the English article system is presented in pedagogical grammars, seven grammar books from four international publishers were selected for analysis (see Table 5.3). The treatments of the article provided in the books were first scrutinized in terms of focused features and treatment sequences, and were then examined in terms of presentation, language and exercise types. The results are presented and discussed in the following section.

<b>Grammar book</b>	<b>Author(s)</b>	<b>Year</b>	<b>Publisher</b>
A Practical English Grammar	Thomson & Martinet	1986	Oxford University Press
Active Grammar	Bald, Cobb & Schwarz	1986	Longman Group Limited
Collins Cobuild English Guides (3): Articles	Berry	1993	HarperCollins Publishers
English Grammar in Use	Murphy	1994	Cambridge University Press
Practical English usage	Swan	1995	Oxford University Press
Oxford Practice Grammar	Eastwood	1999	Oxford University Press
Advanced Grammar in Use	Hewings	1999	Cambridge University Press

Table 5.3: The seven grammar books selected for analysis

### 5.4.1 Analysis of focused features and treatment sequences

The investigation into the English article system (see Section 5.1) reveals that the basic concepts associated with articles are definiteness/indefiniteness, specificity/non-specificity and genericness, with the two main factors, speaker/writer knowledge and listener/reader knowledge acting as determinants. Countability and number are also



vital features that affect the choice of the article. The examination of article pedagogical systems (see Section 5.2) suggests that the teaching of the article should include the introduction of the features of the noun, the functions of the definite and indefinite article, the different patterns of generic articles and the use of the article with proper nouns and idiomatic phrases. I therefore examined the seven grammar books to see if they introduced the concepts and features listed above and in what sequence the focused features were introduced. The result show that not all the books cover all the features, that the concept of ‘half-general’ is mentioned in two of the books, and that each book introduces the features in different degrees of detail and in slightly different sequences as shown in Table 5.4 (Note: the tick indicates that the particular feature is introduced in the book, and the number beside each tick indicates the order in which the feature is introduced):

Focused feature	Definite vs Indefinite/ Listener/reader knowledge	Generic vs Specific (Generic articles)	Specific <i>a</i> Speaker/writer knowledge	Half-general	Count vs Noncount Singular vs plural	Count vs noncount conversion (with different meanings)	Proper vs Common noun	Article use with special groups of words
Thomson & Martinet	√ 2	√ 3			√ 1		√ 4	√ 5
Swan	√ 4/5 √ 4	√ 6	√ 5 √ 5	√ 6	√ 1 √ 2	√ 3	√ 7	√ 7
Eastwood	√ 3	√ 4		√ 5	√ 1 √ 1	√ 2	√ 7	√ 6
Murphy	√ 4	√ 5			√ 1 √ 1/3	√ 2	√ 7	√ 5/6
Hewings	√ 2 √ 4	√ 5	√ 3		√ 1 √ 1	√ 1	√ 6	√ 7
Bald, Cobb & Schwarz	√ 1	√ 2					√ 3	
Berry	√ 3 √ 4	√ 5	√ 4 √ 4		√ 1 √ 1	√ 2	√ 7	√ 6

Table 5.4: Features/concepts introduced in the seven grammar books



## 5.4.2 Discussion

Table 5.4 reveals a few salient traits in terms of the focused features and treatment sequence. They are:

1. Six of the seven books, in sequence of treatment, introduce: 1) the features of the noun, 2) the functions of the definite and indefinite article, 3) the different patterns of generic articles, and 4) the use of the article with proper nouns and special groups of words. These features and sequence are similar to that proposed by Master (1986, 1990) and accords with my outlined materials drawn from the analysis of Chinese foundation students' article errors. This suggests a consensus that when treating article problems, countability and number should be introduced at the beginning, followed by the distinction between the definite and indefinite articles (specificity vs nonspecificity, definiteness vs indefiniteness). Afterwards the concepts of genericness and specificity, and different patterns of generic nouns can be introduced. The use of the article with proper nouns and special groups of words is usually presented at the final stage.
2. Six of the seven books (*Thomson and Martinet, Swan, Eastwood, Murphy, Hewings and Berry*) include the discussions of countability and number in the article section. Five of them (*Swan, Eastwood, Murphy, Hewings and Berry*) also introduce the conversion of count nouns and noncount nouns. This suggests that the authors believe that the use of the article is closely related to the noun, and so some basic features of the noun should be introduced when

the article is treated. Although countability and number are treated in most grammar books, the problem of bare count nouns is not clearly highlighted. This L1-induced error is the most frequent error the Chinese foundation students make and needs explicit pedagogical intervention.

3. Many researchers have pinpointed two factors, speaker/writer knowledge and listener/reader knowledge and emphasized the notion that specificity does not equal definiteness (Brown, 1973; Whitman, 1974; Bickerton, 1981; Celce-Murcia and Larsen-Freeman, 1983). However, out of the seven books, only *Berry*, *Swan* and *Hewings* highlight the factor of listener knowledge, and *Berry* and *Swan* emphasize the other factor, speaker knowledge, in association with the notions of definiteness and specificity. For example:

You can use the definite or the indefinite article (or another determiner) when you are referring to a particular thing using a singular count noun.

Has the reporter for the Post left yet?  
I'm taking you to a hotel.

...Basically, you use *the* when you think your listener will be able to identify the thing you are referring to, whether or not it has been explicitly referred to before. Otherwise you use *a* or *an* (if you are referring to one thing using a count noun)

Berry, 1993: 23

**The = 'you know which one(s)'**

*The* usually means something like 'you know which one(s) I mean'. We use *the* before a noun when our listener/reader knows (or can work out) which particular person(s), thing(s) etc we are talking about. Compare:

*Did you lock **the car**?* (The listener knows very well which car is meant.)  
*We hired **a car** to go to Scotland.* (The listener does not know which one.)

Swan, 1995: 57

The other five books do not consider these factors and thus fail to make clear the distinction between specificity and definiteness. Some rules are so



oversimplified that they imply that specificity means definiteness. For example,

We use "the" when we are thinking of one particular thing. Compare a/an and the:  
Tom sat down on a chair. (perhaps one of many chairs in the room)  
Tom sat down on the chair nearest the door. (a particular chair)

Murphy, 1994: 142

Since the Chinese language does not have an article system, the basic notions associated with the definite article (specificity and definiteness) need to be elaborated. However, most of the seven books do not clearly differentiate between these two notions.

4. Generic articles are treated in all the seven books, but most of them only introduce the different patterns of generic nouns, and few compare their uses, functions and semantic differences although *Berry* provides a detailed account of generic articles. This supports Celce-Murcia and Larsen-Freeman's (1983) observation that generic articles are not well treated in ESL/EFL teaching materials.
5. Most books create lists of rules regarding the use of the article with proper nouns and special groups of words. This is inevitable because the use of the article with proper nouns and special groups of words is very complicated. However, lists of rules can be difficult for learners to master. It is thus necessary to find a way to help learners to comprehend them effectively.

6. Two special terms, namely, “general + known” and “half-general” are proposed by *Swan*. *Swan* defines them and indicates that they are difficult cases for learners:

“general” + “known”: we use no article to generalise with uncountable and plural words, but we use the to show that the listener/reader knows which people or things we are talking about. Sometimes both these meanings come together, and it is difficult to know whether or not to use the (p. 68).

Some expressions are “half-general” - “in the middle between general and particular. If we talk about eighteenth-century history, sixties music or poverty in Britain, we are not talking about all history, music or poverty, but these are still rather general ideas... In these “half-general” expressions, we usually use no article. However, the is often used when a noun is followed by a limiting, defining phrase, especially one with of.

Swan, 1995: 68

*Eastwood* also mentions the ‘half-general’ concept:

A phrase or clause after the noun often shows that it is specific.

Look at the oil on your sweater.

The apples you gave me were nice.

But the nouns in these sentences have a general meaning.

I hate people who never say hello.

Life in the old days was hard.

A phrase with “of” usually takes “the”. Compare these two structures.

A book on Irish history      a book on the history of Ireland.

Eastwood, 1999: 202

The concept of half-genericness is difficult for learners (see the discussion in Section 4.4.2). *Swan* and *Eastwood* deserve credit for exemplifying the notion although it is doubtful whether these treatments are sufficient to really help learners improve their accuracy.

### 5.4.3 Analysis of presentation, language and exercise types

To understand the methodological options adopted by the authors of the seven grammar books, the materials were further examined in terms of presentation,

language and exercise types. 'Presentation' concerns how grammar instruction is presented to learners. It can be a deductive presentation in which grammar explanations or explicit rules are presented first, followed by examples (usually in the form of discrete sentences), or an inductive presentation in which learners are required to develop their own explanations or discover rules by examining structured data, and then grammar explanations or rules are provided. 'Language' concerns whether the texts used in the exercises are academic related topics or everyday language. Exercise types refer to the operation learners are required to perform to complete an exercise. Ellis (2002) proposes three operations: production, reception or judgement. According to Ellis, a production exercise requires learners to produce sentences containing the target L2 item; this can be controlled or free. A controlled production activity provides students with a text (usually discrete sentences) and requires them to operate on it; the operations can be substitution, gap-filling, sentence completion, transformation, insertion and the rearrangement of jumbled sentences (ibid: 159). A free production activity requires the students to produce their own sentences using the target structure. A reception activity requires students to "perform some activity to demonstrate they have understood sentences containing the target structure" (ibid: 159). A judgement activity requires students to decide if sentences containing the target structure are grammatical or ungrammatical; it can be "judgement only" (simply judging if a sentence is grammatical) or "judgement plus correction" (correcting the sentences judged to be ungrammatical) (ibid: 160). Ellis' scheme of three operations was adopted to classify the exercises provided in the seven books. The results are shown in Table 5.5.



	Thomson & Martinet	Swan	Eastwood	Murphy	Hewings	Bald, Cobb & Schwarz	Berry
<b>Presentation</b>							
Deductive	√	√	√	√	√	√	√
Inductive			√	√			
<b>Language and topics</b>							
Academic					√		
Non-academic	√	√	√	√	√	√	√
<b>Exercise type</b>							
Production		No exercises provided					
Controlled	√		√	√	√	√	√
Free			√	√	√		
Reception			√		√		√
Judgements							
Judge only	√			√	√		√
Correct	√		√	√	√		√

Table 5.5: Analysis of the seven grammar books in terms of presentation, language and exercise types.

Table 5.5 shows that all the seven books adopt a deductive approach to present the article. *Eastwood* and *Murphy*, however, also employ an inductive approach in some sections. In terms of exercise types, all the six books which provide practice materials employ controlled production exercises (e.g. gap filling). *Eastwood*, *Murphy* and *Hewings* also provide free production activities. Five books employ “judgement plus correction” activities while four provide “judgement only” activities. Reception activities are not used a lot, and only *Eastwood*, *Hewings* and *Berry* provide this kind of activity. For example, the following exercise from *Berry* asks learners to identify if the underlined noun phrase refers to something generic or something particular.



A stream is a small river. generic  
An undertaker was arrested for drunken driving. \_\_\_\_\_  
The best pet for a child is a dog. \_\_\_\_\_

Berry, 1993: 88

Learners are not required to produce the target form. Instead, they are asked to identify the function of the form. This kind of exercise can raise learners' awareness of the different functions of a particular form in different contexts.

#### 5.4.4 Discussion

The above examination seems to confirm Fortune's (1992, 1998) observations that two features are common to nearly all the self-study grammar practice books. Firstly, a deductive approach to learning is employed. Secondly, the range of exercise types is quite narrow: mostly decontextualized sentences and gap-filling. It also accords with Ellis' (2002: 161) findings from his examination of six grammar books that the predominant theory underpinning grammar teaching materials is: "grammar is a content that can be transmitted to students via explicit descriptions and a skill that is developed through controlled practice". My examination, however, reveals that more recent grammar books seem to include a wider range of presentation styles and exercise types, and that more form-focused activities are designed in such a way that learners can practise the target form in a meaning-focused context. These correspond to Ellis' (2002: 161) comments that some authors appear to have considered "the need to encourage learners to discover grammar rules for themselves, to provide them with data where they can "notice" how grammatical features are used, and to teach grammar through input-processing rather than through production practice".

Another feature of the pedagogical grammar materials is that they tend to offer advice on article use by using decontextualised exemplars, employing simple language and referring to everyday topics associated with concrete objects and ideas. This may help learners to focus better on grammatical forms, but it may cause two problems. First, although decontextualised examples enable learners to concentrate more on form and not to worry about the context, they are likely to discourage learners from equating form and meaning. Since the article system is often influenced by meanings expressed at levels beyond the sentence, the learner who is required to practise with isolated sentences and produce single sentence answers for a grammar exercise does not learn what is needed to make rhetorical choices at the level of discourse. Secondly, academic writing usually involves difficult language (e.g. complex grammar and long sentences) and serious and abstract topics. Example topics in the materials are usually not ones the students themselves will be required to write about in an academic context, and are unlikely to encourage them to consider the role of articles in the expression of complex meaning.

To design materials for the treatment of Chinese students' article problems in their academic essays, I believe it is important to use the right type of text – an EAP text. The language and topics should reflect an academic context, so that foundation students will perceive them to be relevant to their academic writing needs, and so that they will be encouraged to consider the function of the article in the expression of complex meaning.

## 5.5 Conclusion

Findings from my investigation into article pedagogy generally accord with my tentative plan for reteaching the article to Chinese foundation students. However, the examination of existing published grammar materials shows that although pedagogical grammars have the potential to provide self-access support for L2 writers, they are inadequate for treating Chinese learners' problem with article use in academic contexts. Specially written remedial materials are required, as no suitable materials seem to be commercially available. More insights need to be drawn from second language acquisition theory, grammar teaching approaches and computer assisted language learning methodologies so that materials design principles can be properly formulated. These three areas of study will be investigated in the next chapter.



## CHAPTER 6

### THE DEVELOPMENT OF REMEDIAL MATERIALS (1)

In view of the inappropriateness of existing grammar materials, I decided to develop remedial materials for the Chinese foundation students. This chapter reports on the formation of my materials design principles. It starts with a review of studies of three research areas: second language acquisition theory, grammar teaching approaches and computer assisted language learning methodologies. Suggestions from foundation tutors are then elicited. Insights drawn from the investigations lead to the formulation of design principles. The first draft of materials is briefly described in the final section of this chapter.

#### 6.1 Second language acquisition (SLA) theory

Researchers have recognized that second language acquisition theory can inform the design of CALL applications (Chapelle, 1998; Hegelheimer & Chapelle, 2000; Gonzalez-Lloret, 2003). Among the various SLA theories, the interactionist accounts of SLA (Pica, 1994; Long, 1996; Gass, 1997) seem particularly able to shed light on materials development, as Hegelheimer and Chapelle (2000: 42) claim that “interactionist theory has been articulated primarily through a research program on the role of linguistic input and interaction in SLA in instructional settings”, and so “it makes hypotheses which are relevant to the design and study of CALL”. Important components in interactionist theory include L2 input, L2 output and their interaction

with the learner's cognitive system. Their relationships are illustrated in Gass' model (1997).

### **6.1.1 Gass' model of SLA**

Gass (1997) proposes a model of SLA which consists of five progressive stages: input, apperceived input, comprehended input, intake, integration and output (see Figure 6.1). She claims that L2 acquisition begins with input apperception and culminates with the integration of new linguistic information into the learner's existing linguistic system, and L2 output is the manifestation of newly integrated or acquired knowledge. According to Gass, apperception involves the learner noticing a gap between what they already know and what there is to know. It is "an internal cognitive act in which a linguistic form is related to some bit of existing knowledge" (ibid:4). Apperceived input is that bit of language which is noticed by the learner because of some salient and recognizable features. Not all apperceived input is comprehended by learners, however. Gass emphasizes that her comprehended input is different from Krashen's (1982, 1985) comprehensible input because it focuses on the hearer (the learner) and the extent to which he/she understands, while "comprehensible input" highlights the role of the speaker and the comprehensibility of the input. Again, not all comprehended input becomes intake. Gass regards intake as "the process of assimilating linguistic material" and "the mental activity that mediates input and grammars" and involves "selective processing" (ibid: 5). Intake may lead to integration. Gass points out two forms of integration: one is the development of the learner's L2 grammar due to successful integration of the new linguistic item, and the



other is the storage of the L2 item without integration taking place. The model also elaborates the factors that mediate one level and another.

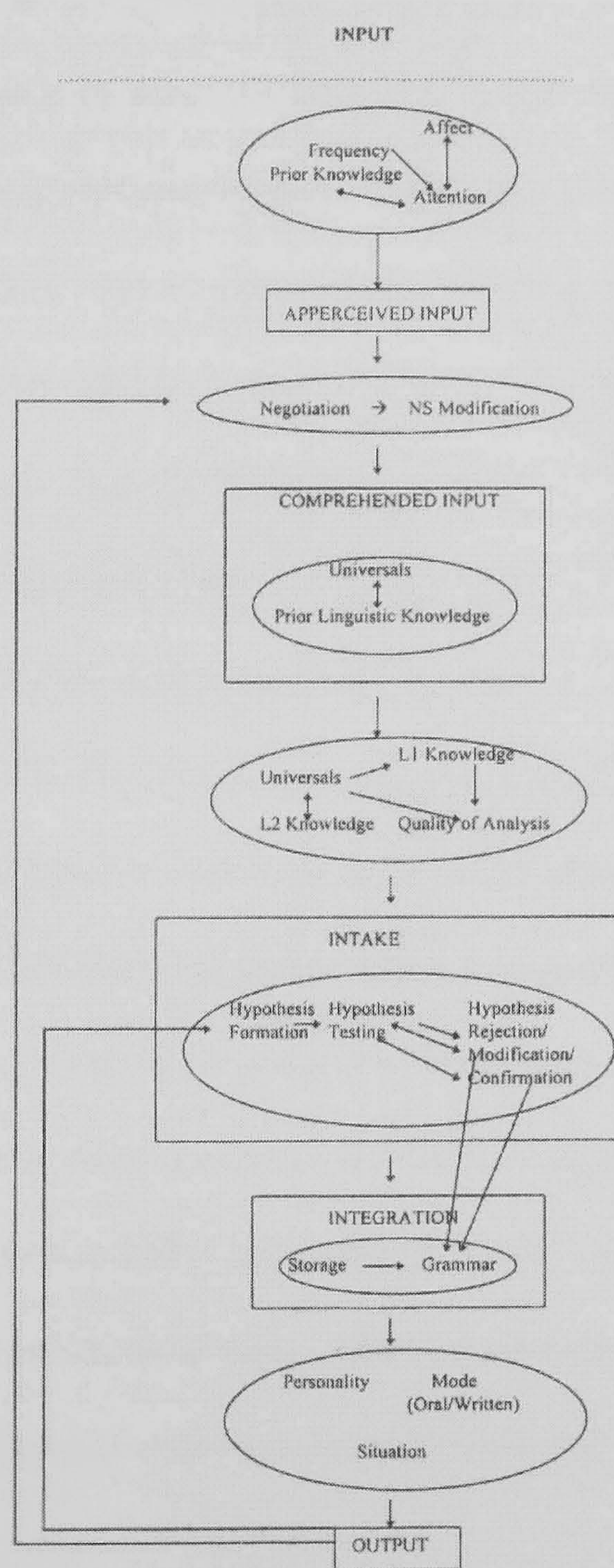


Figure 6.1: Gass' model of second language acquisition (Gass, 1997: 3)

### 6.1.2 The role of consciousness

Gass' model is useful because it pinpoints the components in L2 acquisition in interactionist research. It highlights the point that the learner's apperception and



comprehension of L2 input are vital between L2 input and intake, i.e. L2 input cannot become intake if the learner does not notice and understand it. The view accords with Schmidt's (1990, 1993, 1994) observations that subliminal language learning is impossible, that the learner's noticing of L2 input is crucial for converting input to intake, and that conscious attention to input is a necessary condition for noticing and explicit learning to take place. He emphasizes the role of consciousness in L2 learning and points out three different senses it may denote (Schmidt, 1990). First, consciousness is awareness. Three levels of awareness are distinguished: 1) *perception* is the mental representations of external events; it can be conscious or subliminal, 2) *noticing* is a conscious process in which attentional resources are allocated to some stimuli and the perceived events are subjectively experienced, and 3) *understanding* involves conscious analysis and comparison to prior knowledge. Second, consciousness is intention (intentional behaviour); intentions may be conscious or unconscious. Third, consciousness is knowledge. According to Schmidt, the key concept of consciousness is *noticing* which is similar to a few other terms such as *focal awareness* (Atkinson & Shiffrin, 1968), *episodic awareness* (Allport, 1979) and *apperceived input* (Gass, 1988) because they all "identify the level at which stimuli are subjectively experienced" (Schmidt, 1990: 132).

Schmidt and Frota (1986), after examining the case of an adult learner of Portuguese, suggest that for noticed input to be acquired, learners have to carry out a comparison between the target forms that they have observed in the input and what they themselves typically produce (known as noticing the gap), and this, they maintain, is a conscious process as well. The process they describe seems to correspond to Gass' intake stage when learners are actively forming hypotheses about the TL and testing

them, which can lead to the rejection, modification or confirmation of their hypotheses, and the formation of their explicit L2 knowledge. Gass (1997: 5) describes intake as “where information is matched against prior knowledge” and “where generalizations are likely to occur”, which suggests that the learner’s conscious attention certainly has a role to play in the process.

The views of Schmidt, of Gass, and of Schmidt and Frota highlight the importance of the learner’s consciousness for L2 acquisition in general, and input processing and hypothesis testing in particular. Their views are convincing, as attentional resources are important for effective information analysis and assimilation. Research evidence suggests that different learners tend to perceive and assimilate pedagogical rules in different ways; their reformulations of the rules are often inadequate or even anomalous, different from those taught in the classroom (Seliger, 1979; Sorace, 1985; Green and Hecht, 1992). Corder (1973) clearly points out that pedagogical descriptions are used “to help the learner learn whatever it is he learns, but are not necessarily what he learns”. This suggests that it is vital to engage learners’ focal attention not only in rule-formation but also in rule-refining as far as target-like explicit knowledge is concerned.

### **6.1.3 Explicit knowledge and implicit knowledge**

Another useful point made by Gass’ model is that L2 intake does not necessarily result in acquired implicit L2 knowledge because, although some L2 input is noticed and comprehended, the newly formed hypothesis is only stored, not tested and integrated into the learner’s existing linguistic system. This reflects the recognition of

the difference between “learned knowledge” and “acquired competence”. Ellis (1994) acknowledges Gass’ viewpoint and claims that the “storage” component at the intake stage takes the form of explicit representations of L2 rules (explicit knowledge). He contrasts explicit knowledge with implicit knowledge that is thought to govern spontaneous L2 production, and indicates that the former refers to the learner’s oral or written interpretations of grammatical rules, while the latter is revealed through the examination of his/her actual use of the same linguistic features (ibid: 359).

Researchers have generally recognized the coexistence of the two types of knowledge, but still have no consensus as to whether explicit knowledge can be converted into implicit knowledge in L2 acquisition. Krashen’s Monitor theory (1981, 1982, 1985) maintains that the two separate processes, *acquisition* and *learning*, coexist in the L2 adult learner; acquisition is a subconscious process which occurs when learners are using the L2 for communication, while learning is the process of paying conscious attention to L2 features and rules. Krashen maintains that consciously learned knowledge only acts as a monitor to modify the learner’s L2 production that is initiated by his/her unconscious acquired system. He takes the non-interface position and insists that learned knowledge cannot be converted into acquired knowledge.

Bialystok (1978) proposes a model of L2 learning which also indicates the coexistence of *Explicit Linguistic Knowledge* and *Implicit Linguistic Knowledge*. The former “contains all the conscious facts the learner has about the L2”, and acts to buffer new linguistic information, store explicit knowledge, and generate linguistic descriptions of L2 features when required. The latter holds the intuitive information upon which the learner operates in order to initiate “spontaneous comprehension and production” (ibid: 72-73). In contrast to Krashen’s theory, Bialystok allows an



interface between them and asserts that formal practising can automatize explicit knowledge and transfer it to implicit knowledge, while inferencing enables explicit knowledge to be derived from implicit knowledge. Sharwood Smith (1981) supports the interface position and claims that both types of knowledge can initiate L2 output, and most spontaneous performance is attained by means of practice.

Ellis (1994: 656), however, takes a reserved position, the “selective attention hypothesis”, and suggests that explicit knowledge only facilitates the acquisition of implicit knowledge as practice cannot guarantee the conversion of the former into the latter. Explicit knowledge enables learners to pay selective attention to form and form-meaning mapping in L2 input and helps them to recognize the gaps between their interlanguages and the target forms. He identifies two tools for facilitating selective attention: pedagogical rules and interpretation tasks. Pedagogical rules are conscious grammar rules learners develop through learning. Interpretation tasks are activities which enable learners to notice and understand the target features in the input. Ellis speculates that the explicit rules learners formulate are sufficient, “even at an early stage, to act as ‘acquisition facilitators’ by focusing learners’ attention on critical attributes of the real language concept that must be induced” (ibid: 657). He also regards interpretation tasks as an effective tool to promote L2 intake and restructure learners’ interlanguage grammar.

The above examination indicates that there is no consensus about the relationship between explicit and implicit knowledge. Empirical studies have provided little direct support for either position. Green and Hecht (1992) examined the grammar knowledge and correction performances of 300 learners of English and 50 native

speakers and concluded that no simple relationship could be established between implicit and explicit knowledge although the learners who could state correct rules generally performed better than those who could not. Their findings are similar to those of Hulstijn and Hulstijn (1984), who found that learners with explicit knowledge generally applied rules of word-order in their speech better than those without such knowledge. Sorace (1985) also found a high degree of consistency between language knowledge and use in a group of non-beginners in Italian. All the evidence suggests that conscious knowledge can enhance production accuracy, but sheds little light on the process, i.e. how this is brought about. Do conscious rules act as monitors to control the quality of production, or have they been converted into subconscious competence that subsequently initiates correct performances? Due to the difficulty in testing this cognitive process empirically, we are unlikely to have a definite answer. Although no conclusion can be reached, one point to note is that explicit L2 knowledge, be it a monitor or a facilitator, transferable or untransferable, is useful for improving production accuracy.

#### **6.1.4 Implications for materials development**

The above investigation leads to the conclusions that L2 learning requires conscious attention and that consciously learned grammar knowledge can enhance production accuracy. They have important implications for grammar materials development. Materials writers should recognize that grammar instruction should help learners to formulate satisfactorily correct rules. Effective materials, therefore, should be designed in a way to ensure that learners formulate their own rules by attending to the target features and understanding them, and embark on the initial process of

hypothesis testing to refine the rules. Equipped with the satisfactorily correct rules, learners can perfect and internalise them through communicative use of the target items or extensive exposure to L2 input containing them.

Chapelle's (1998) and Ferris' (2002) materials proposals seem to reflect the above criteria about effective materials. Chapelle considers all the components in Gass' model and proposes seven criteria for the development of effective multimedia language learning materials. They are:

1. Key linguistic characteristics should be made salient.
2. Modifications of linguistic input should be provided.
3. There should be opportunities for comprehensible output.
4. There should be opportunities for learners to notice their errors.
5. There should be opportunities for learners to correct their linguistic output.
6. There should be supported modified interaction between the learner and the computer.
7. Learners should be able to act as a participant in L2 tasks.

(Chapelle, 1998: 27-28)

The first two criteria indicate that L2 input should be highlighted and modified so that learners can notice and understand it. This is useful in terms of rule formation. The next four criteria deal with learner output and the interaction process and suggest that learners need to be made aware of their own production errors through program feedback. This corrective feedback can facilitate rule refinement.



Ferris (2002: 97) also proposes a few activities that can be usefully adopted in rule formation and refinement. For example, her “discovery exercises” can be used to help learners to formulate rules because they emphasize text analysis designed for students to examine how a linguistic feature is used in authentic discourse. Her “editing exercises” (proof-reading) and “application activities” (self-correction or peer-correction) can provide opportunities for learners to apply rules and test and modify them.

## **6.2. Grammar teaching approaches**

Although the value of grammar instruction has been recognized, some practical issues are still controversial. These issues are investigated in the following sections with a view to deriving useful insights for developing grammar materials for treating Chinese foundation students’ problem with the English article system.

### **6.2.1 Practice vs consciousness-raising (C-R)**

My examination of traditional grammar self-study materials (see Section 5.4.3) reveals that the materials usually adopt a presentation-practice model in which the learner is first introduced to grammar rules and exemplars deductively, and is then expected to practise with exercises which require immediate production of the target form. The production-oriented exercises seem to assume that L2 input will definitely lead to L2 intake, and that after being presented with rules and exemplars at the presentation stage, learners will have understood the grammar point(s) and will only need to practise extensively in order to increase production fluency, or as Ur (1988: 7)

has put it, “to transfer what they know from short-term to long-term memory”.

Thornbury (2001) criticizes this design model for assuming a direct link between input and output, between teaching and learning. In my view, this design has two fatal flaws: it does not check if learners have noticed the target L2 feature and if they have understood it. It skips the two processes in Gass’ (1997) model: apperception and comprehension.

Ellis (1991: 235-7) doubts the effectiveness of traditional grammar practice activities. He argues against the belief that more practice leads to greater proficiency and claims that because of psycholinguistic constraints, practice does not guarantee the automisation of the learner’s conscious grammar knowledge. Instead, he favours consciousness-raising (C-R) tasks which he describes are characterized by five features: 1) directing learners’ focal attention to an L2 item, 2) providing learners with data or rules which illustrate or describe the item, 3) requiring learners to understand the item, 4) helping learners to clarify their misunderstanding of the item, and 5) encouraging learners to construct explicit rules. In Ellis’ view, C-R activities are concept-forming oriented, while practice activities emphasize repeated production and are mainly behaviour oriented. He insists, however, “the focus of [grammar] instruction should be *awareness* rather than *performance*” (ibid: 29). Batstone (1994) asserts that C-R activities aim to guide learners to discover the TL grammar for themselves. Thornbury (2001) also regards C-R activities as activities designed to make learners notice the target feature and construct the form-meaning mapping of the feature. He points out that the main difference between C-R tasks and production activities is one of reduced expectations – C-R tasks do not expect “immediate and consistently accurate production” (ibid: 38). This accords with Rutherford and

Sharwood Smith's (1985: 280) view that C-R can facilitate the acquisition of L2 competence, but it is not directly related to the achievement of fluency.

According to Sharwood Smith (1988: 53), "the discovery of regularities in the target language, ... will always be self-discovery. The question is to what extent that discovery is guided by the teacher". In the case of consciousness raising, the guidance, he claims, is "more or less direct and explicit". C-R is different from traditional grammar teaching, however. As Rutherford (1987: 24) puts it, it differs from traditional grammar teaching in that "C-R is a *means* to attainment of grammatical competence, whereas "grammar teaching" typically represents an attempt to instil that competence directly". This pinpoints the role the learner plays in C-R activities – an active problem-solver and rule-searcher rather than a passive information receiver.

Many studies have advocated the function of C-R tasks in grammar teaching, and different kinds of C-R tasks have been proposed (Bolitho & Tomlinson, 1980; Rutherford, 1987; Fotos & Ellis, 1991; Ellis, 1991, 1993, 1995, 1997; Fotos, 1993, 1994, 1998; Thornbury, 1997, 2001). For example, Ellis (1993) proposes three kinds of C-R tasks: grammar consciousness-raising tasks, interpretation tasks and focused communication tasks. Grammar consciousness-raising tasks engage learners in explicit discussion of a target feature in order to formulate conscious representations of the feature. Interpretation tasks provide learners with enhanced structured data (e.g. contrastive pictures) so that they can be induced to notice a target structure, identify correct form-function mapping or notice the gap between their own



production and the target form (Ellis, 1997: 152-3). Focused communication tasks are communicative activities with a focused linguistic feature.

Fotos (1998) suggests a classroom grammar consciousness-raising task in which students discuss the use of a grammatical feature in context, using the target language. Reading materials can be modified with the target feature highlighted so that it becomes salient while students are reading for meaning. Thornbury (2001: 38) considers that the best C-R tasks can help learners understand the target feature – “not through tedious explanation, or even demonstration, but in such a way that the connection is seen to matter..., unless the learner notices the effect that grammatical choices have on meaning, then the noticing is not sufficient to have any long-term effects on restructuring”. He devises a few interpretation tasks in which learners are required to match contrastive pictures with descriptions.

Consciousness-raising tasks can engage learners in a process of noticing, analysing and discovering, while practice activities aim at enhancing production accuracy. They are different mechanisms with the former aiming at the development of declarative knowledge and the latter at procedural knowledge. C-R can precede practice to help learners to develop explicit representations of the grammar feature in question.

### **6.2.2 Deductive teaching vs inductive teaching**

Another debate concerns the issue of deductive or inductive teaching, which seems to mirror the ‘practice versus C-R’ issue discussed in the previous section. Deductive teaching presents explicit rules directly to learners, while inductive teaching provides

learners with TL data and requires them to discover grammar rules for themselves. Ausubel (1974) and Carroll (1964) claim that L2 adult learners are cognitively mature and able to process abstract grammar generalizations, and so teachers should speed up their learning process by adopting deductive teaching and giving them rules directly. They also argue that an inductive approach is too difficult for weaker students and that only bright students can discover the underlying patterns based on TL data (Ausubel, 1964; Carroll, 1964). Their claim was partially supported by Seliger (1979) who examined two groups of university students learning a new structure and found that the group taught by the deductive method outperformed the group taught by the inductive method.

Lewis (1986), however, advocates the inductive approach and argues that students should be encouraged to discover grammar for themselves because discovering rather than being told a structure facilitates long-term retention. Shaffer (1989) echoed this view and examined the relative effectiveness of the two approaches on 319 high school students learning four French structures. The results showed that the differences between the two approaches were small, but the trend was consistently in favour of the inductive approach. The inductive presentation fared best when more difficult structures were learned. The correlation between student ability and approach was not significant, which means that the inductive presentation is as well suited as the deductive approach to all ability levels.

Fotos and Ellis (1991) also investigated the relative advantages of direct and indirect grammar instruction for dative alternation in two groups of college-level Japanese students. The direct instruction consisted of traditional, teacher-fronted presentation

of rules, while the indirect instruction was a grammar consciousness-raising task in which students were asked to discuss the feature using English and formulate rules. They found that both approaches effectively helped the students to understand the target feature. However, in one group, direct instruction resulted in higher scores on a grammaticality judgement test, but in the other group, both types of treatments proved equally effective. Fotos and Ellis indicated that the inferiority of the implicit instruction (the C-R task) might result from the students' "lack of familiarity with pair/group work" and "their imperfect understanding of the goals and procedures of the task" (ibid: 619). Fotos (1994) found that indirect instruction worked as well as direct instruction in teaching 160 Japanese university students three different structures (adverb placement, dative alternation, and relative clauses). Robinson (1996) investigated 104 adult students of English (mainly Japanese) learning an easy rule (subject-verb inversion as in "*Into the house ran John.*") and a complex rule (pseudoclefting as in "*Where the cheese is is in the basket not in the bag.*"). The subjects were divided into four groups and had to view sentences on a computer screen. The implicit group was required to remember the sentences; the incidental group had to answer comprehension questions about the content of the sentences; the rule-search group had to identify the rules illustrated by the sentences; the instructed group first received explanations of the rules and then tried to apply them to the sentences. The results showed that the instructed group outperformed all other learners on a grammaticality judgement test on the simple rules.

Findings from the above studies are inconclusive, which suggests that the relative effectiveness of deductive and inductive approaches may, to some extent, depend on the learner and the learning task. This accords with Eisenstein's (1987: 288) view that



“both deductive and inductive presentations can be useful depending on the cognitive style of the learner and the structure to be presented” and with the position Hammerley (1975) takes in the deduction/induction controversy – a middle ground. Eisenstein further proposes a compromise approach that combines both the inductive and deductive approach. Learners can first attempt to formulate a rule from selected language data, then compare it with the correct rule, and finally practise the structure concerned. The compromise approach has the potential to meet the needs of the greatest number of learners and learning tasks.

### **6.2.3 Contextualization and decontextualization**

Many studies advocate the importance of teaching grammar in context as effective communication involves achieving harmony between functional interpretation and formal appropriacy (Halliday, 1985). To achieve the harmony, learners should develop their understanding of the relationship between form and meaning and learn to exploit the appropriate form to convey their meanings according to the situations. Thornbury (1999: 70) observes that real language use seldom consists of isolated sentences, but of groups of sentences that form coherent texts in their contexts of use which not only refer to the context of the surrounding text (i.e. co-text) but also the context of the surrounding situation (i.e. the roles and relationships of the speakers and the mode of communication). Celce-Murcia and Olshtain (2000: 52) point out, “The vast majority of grammatical choices that a speaker/writer makes depend on certain conditions being met in terms of meaning, situational context, and/or discourse context (i.e. co-text)”. They consider that teaching grammar in context is particularly important to a few areas such as article/determiner choice, tense /aspect and modality,

choice of logical connector, etc. Nunan (1998) also emphasizes that appropriate grammatical choices can only be made with reference to the context and purpose of the communication, and so teachers should facilitate learners' L2 acquisition by giving them tasks that dramatize the relationship between grammatical items and their discursal contexts. He proposes some teaching ideas that he claims can activate the organic view of language by teaching grammar in context. For example, teachers can teach language as a set of choices by comparing the difference between what person A says and what person B says.

- e.g.     A: Looks wet outside. I'm supposed to go to Central, but I don't have an umbrella. *If I went out without one, I'd get wet.*  
          B: Yes, I went out a while ago. *If I'd gone out without an umbrella, I'd have got wet.*

(ibid: 104)

Another idea Nunan suggests is that teachers can provide opportunities for learners to explore grammatical and discursal relationships in authentic data by comparing the differences between a piece of authentic conversation and a non-authentic one. They can also design tasks in which grammatical choices are determined by considerations of contexts and purposes; a sample task can be an academic writing task which involves rearranging sentences to produce a coherent paragraph.

Petrovitz (1997: 201-202), however, argues that no single approach is suitable for teaching all grammatical rules, that rules must first be distinguished following certain linguistic criteria before pedagogical strategies can be considered, and that contextualization is more important for some rules than for others. He proposes three kinds of grammatical information, namely, lexical, syntactic and semantic, upon which the operation of a particular rule relies. A lexis-dependent rule operates on the basis of the properties of individual words and affects features such as non-productive inflectional morphology, verb complementation, and collocations. A syntax-

dependent rule operates in the presence of a particular structure such as a yes/no question formation, complementizers, and subject-verb agreement. A semantics-dependent rule is characterized by the fact that it is often impossible to decide on its applicability in a given sentence without considering meaning and context. It affects features such as verb tenses, article usage, and pronominal reference. Petrovitz suggests that the three kinds of rules should be dealt with in different ways. When teaching lexical items, an effective way is to frequently expose learners to the involved words. When teaching syntactically based rules, learners should be made aware of the syntactic structure through grammatical consciousness-raising activities, and able to spontaneously perform the operation through extensive practice. As for teaching semantically based rules, learners should be provided with illustrative contexts so that they can understand the meaning and usage of the rule in a discourse context.

Petrovitz's view that different kinds of rules should be taught differently is practical and useful. It is true that contextualization is more important for teaching semantically rather than syntactically and lexically based rules. The rule classification he proposes can serve as a guide to decide on the type of rule.

#### **6.2.4 Metalanguage and the mother tongue**

The use of grammatical terminology in formal instruction has long been a subject of debate. Chalker (1984) argues that learners at lower levels should not be exposed to terminology of any kind, but advanced learners can benefit from its use. She suggests that when using terminology, L2 teachers have to examine the labels carefully in



terms of appropriateness, familiarity and currency. Jeffries (1985) examined university L2 students' metalinguistic knowledge and found that many of them did not possess an adequate level of knowledge. She argued that using unfamiliar terminology in a rule might actually hinder students' understanding of the grammar point. Eisenstein (1987) maintains that teachers should use grammatical labels when students are familiar with them and request them. Stern (1992) suggests that teachers should use terminology carefully, taking into account learners' maturity and background. When formulating pedagogical grammar rules, the principle is to simplify the wording of rules and achieve maximal clarity. Corresponding to Stern's view, Swan (1994) maintains that rules should be simple and clear and that grammatical terms should be chosen for learners' familiarity with them rather than for their linguistic precision. Ur (1996) regards the learner's cognitive style and age as the two factors which the teacher needs to consider when deciding on the use of terminology. She suggests that analytically minded and older learners benefit more from the use of terminology. Borg (1999) investigated the use of terminology in the practices of four L2 teachers and found that they generally were not against the use of terminology in L2 instruction. However, if they wanted to use it, they would introduce it after students had understood the meaning and use of the target feature. They considered that terminology should be avoided if there was a danger that it might confuse the learner.

Another issue about grammar teaching is the use of the learner's mother tongue. Studies seem to suggest that the use of the learner's L1 in the L2 classroom is beneficial. Auerbach (1993: 20) examined research and practice and concluded that the use of the L1 with beginners can reduce learner anxiety, enhance "the affective

environment for learning” and allow “for language to be used as a meaning-making tool”. She questions monolingual ESL practice and indicates that research evidence has invalidated the claim that the use of L1 in the L2 classroom (translating) will cause learners to make more errors and distract them from thinking in English.

Auerbach reports that the mother tongue can be used for different purposes, such as classroom management, scene setting, language analysis, presentations of grammatical rules, discussion of cross-cultural issues, instructions or prompts, explanation of errors, and assessment of comprehension. Atkinson (1987: 241) also indicates that the L1 can be properly adopted in the L2 classroom to help the teacher to elicit language, check students’ comprehension, give complex instructions to students at lower levels, translate newly taught language items and test students’ L2 knowledge. He suggests that some L1-based activities can reinforce language and improve accuracy. For example, translation exercises can be devised to oblige students to focus on the problematic linguistic features caused by L1 transfer. However, he warns against excessive dependency on the mother tongue. Schweers (1999) surveyed the attitudes of L2 students and teachers on using mother tongue and found that 88.7% of the students and 100% of the teachers supported the idea. They thought that the L1 could be used when the teacher wanted to explain difficult concepts, define new vocabulary items, check for comprehension or make students feel more comfortable and confident.

The above review of metalanguage studies suggests that the effect of using metalanguage depends on the characteristics of the learners (age, proficiency level, cognitive style, linguistic knowledge, and willingness). It is sensible to assume that young children and learners without much metalinguistic knowledge are unlikely to

benefit from the use of terminology, while older non-beginner learners with a rich metalinguistic background may benefit from it. As for the issue of using the L1, studies seem to advocate the selective integration of the L1 despite the conventional wisdom that it may impede the development of thinking in the TL.

### **6.2.5 Implications for materials development**

Insights drawn from my investigation into the four grammar teaching issues can inform materials development in terms of task type, presentation, contextualization and language. I will discuss them in this section.

- **Task type**

My examination of SLA theory (see Section 6.1) leads me to conclude that the main function of grammar instruction is to help learners to formulate explicit rules and embark on the initial stage of rule-refining. Grammar materials, therefore, should effectively engage learners in these two processes. On the one hand, some activities should enable learners to attend to the target linguistic features, understand them and formulate rules for themselves. This process focuses on developing declarative knowledge and concurs with the functions of C-R tasks (awareness-raising and concept-forming), which suggests that C-R tasks can play a role in the process. On the other hand, some activities should be dedicated to hypotheses testing. This process involves producing the target L2 item and noticing the gap between the L2 form and learner production, which implies that productive and editing activities may be employed at this stage. This view seems to correspond to



Thornbury's proposal that "noticing activities can be slotted into the practice stage of the traditional presentation-practice model of instruction" (Thornbury, 2001: 79).

Moreover, my proposal to employ C-R tasks in the rule-forming process is supported by the consideration of Chinese learners' learning style. C-R tasks which engage learners in a process of noticing, analysing and discovering seem to favour the analytic learning style which, according to Oxford, Hollaway and Murillo (1992), is typical of Chinese learners. They state that Chinese learners have no trouble picking out significant detail from a welter of background items and prefer language learning strategies that involve dissecting and logically analysing the given material, searching for contrasts, and finding cause-effect relationship. In other words, Chinese learners' cognitive style meets the demands of C-R tasks. Because learners are actively involved in rule-searching and form-meaning mapping, C-R tasks are considered to be especially useful when the L2 feature is complex as in the case of the article. They have the potential to be more effective than traditional deductive presentation-practice materials as a means of treating the Chinese foundation students' article problems.

- Presentation

In terms of presentation, my investigation shows that research evidence is inconclusive and a preference for a combined approach is suggested.

Actually, both deductive and inductive presentations are employed in pedagogical grammar materials. Nitta and Gardner (2005) examined nine

contemporary ELT coursebooks and found that most of them adopted an inductive approach to present L2 features; both C-R tasks and production grammar exercises were used, with the former frequently used in the presentation stage and the latter in the practice stage. Self-study grammar materials, however, tend to use deductive presentations (Fortune 1992, 1998; see also Section 5.4.3 for my examination of seven grammar books).

Shepherd, Rossner and Taylor (1984) is an example of the rarer inductive type of grammar practice book in which structured data are used for students to discover rules for themselves before applying their derived rules to subsequent exercises. The reason why inductive presentations using C-R tasks have been favoured in coursebooks but not in self-study materials may be because inductive learning often involves rule-search, and usually needs group interaction and teacher support, which is feasible for textbooks but not for print-based self-study materials. In other words, this is more a technical issue than a pedagogical one. If the materials are computer-based, we can exploit the merits of computer technology to guide learners through the rule-search process by providing them with immediate clues and feedback.

Fortune (1992) also investigated students' preferences for the two types of exercises and found that the majority (58%) initially preferred deductive exercises although the proportion preferring inductive exercises jumped from 24 % to 42 % after students had tried both kinds of exercises. He also found that the higher the learners' language levels were, the more likely they were to prefer inductive exercises, which, he speculated, was because weaker students felt insecure without first knowing the rule. Group interviews also revealed

that many students liked inductive exercises to be reinforced by the introduction of explicit rules and then by the provision of more practice. Fortune concluded that seeing a rule was an important prop for the students, even for many of those who preferred inductive exercises. The results accord with the compromised approach Eisenstein (1987) suggests, and support my decision to adopt the combined approach to present my grammar materials.

- Contextulization

It is useful to bear in mind Petrovitz's (1997) view that contextualization is important for teaching semantically based rules. Failing to attend to this point, traditional grammar practice materials have been criticised for their use of decontextulized sentences and neglect of real language use. Nunan (1998: 102) points out that these materials give the learner isolated sentences that he/she is expected to internalise "through exercises involving repetition, manipulation and grammatical transformation"; as a result, the internalised grammar is fragmented and decontextulized because he/she is "denied the opportunity of seeing the systematic relationships that exist between form, meaning, and use". This seems to explain why exercises that provide a linguistic context (e.g. a continuous text) are found to be generally more popular than those consisting of decontextulized sentences (Fortune, 1992).

Another useful point Petrovitz proposes is that rules can be classified into three kinds: semantic, syntactical and lexical. Article usage, according to his classification, is semantically based and should be taught in context. While many cases of article usage depend on discourse contexts, some, I would



argue, rely on syntactic structure or lexical items (e.g. “He is *the* best football player in *the* UK.” “This is one of *the* benefits of using *the* euro.” “Cloning has become a popular topic throughout *the* media.”) This means that treating the article may involve all the methods Petrovitz suggests.

- Language

The research evidence suggests that the effectiveness of using metalanguage and the mother tongue depends on the characteristics of the learners. In the case of my subjects (Warwick Chinese foundation students), the use of metalanguage in remedial materials should not be problematic for them, as they have all finished their middle school education in China and have already received systematic grammar instruction and are familiar with linguistic terminology. Grammar materials tend to introduce rules and concepts and provide instructions, clues and feedback. These are already conceptually difficult, and presenting them in the L2 can make them more difficult for the learner if he or she has low levels of proficiency. The foundation students are all intermediate or upper-intermediate learners, however, and should be able to understand instructions, rules, clues and feedback without the use of their L1, Mandarin, in the materials. These assumptions will need to be attested through materials piloting.

## 6.3 CALL methodologies

### 6.3.1 The design of a larger system

Computer Assisted Language Learning (CALL) has evolved greatly in recent years due to rapid technological advances. Technology alone, however, cannot guarantee effective CALL materials. Many factors underpinning the whole design process need to be considered. Cato (2001) emphasizes the importance of taking a user's-eye-view of the system. He states that the central objective in user interface design is "to meet users' needs in the performance of their activities within their operational context" (ibid: 16). Levy (1999) introduces the concept of a design space and highlights the process of clarifying design assumptions and intentions when developing CALL applications. Watts (1997) advocates a learner-based model for language learning software design, and suggests that the model needs to include factors relating to the context of learning, the instructional goals and the specific orientations that learners bring to the learning situation. Hemard (2003: 24) also believes that developing a CALL application is "more than the software alone...and that the larger system, including the human users and the physical, organisational and social environments, must be considered in order to make appropriate decisions". He maintains that a successful CALL application is a usable system which will be "easy to learn, effective in what it claims to do and sufficiently motivating for users to work with it and accept its validity" (ibid: 25). The design process, Hemard claims, mainly consists of two iterative cycles. The first cycle is to define and refine a conceptual design model and then to manifest it on the screen, and the second cycle is to let users evaluate the physical presentation iteratively and to modify it accordingly.

The most extensive work in the area of CALL methodologies is probably that of Hubbard (1996). Hubbard proposes three modules for courseware development: Development, Evaluation and Implementation. The Development Module (Figure 6.2) is very insightful and is worth further examination in the following section.

### **6.3.2 Hubbard's Development Module**

Hubbard's Development Module (ibid: 20-25) is divided into three sections: approach, design and procedure. Each section consists of a number of interrelated elements. In terms of Approach, the two principal determining elements are linguistic assumptions and learning assumptions. Linguistic assumptions provide a set of guiding principles based on the developer's understanding of the nature of language and the relative importance of structural, social and cultural aspects. Learning assumptions provide a set of guiding principles based on the developer's understanding of the nature of the L2 learning process and the role the learning environment plays in that process. These two elements combine to determine the language teaching approach a developer assumes for a given piece of courseware. The computer delivery system brings in new considerations, which can be combined with the developer's language teaching approach to form a set of approach-based design criteria.

In terms of Design, the two fundamental components are learner profiles and the syllabus. Learner profiles are concerned with the target user, and include information about his/her proficiency level, age, L1, needs, interests and cognitive style. The syllabus is concerned with the user's learning objectives and the means by which they



are reached. Considerations in terms of these two components inform design decisions with respect to language difficulty, program difficulty and content. The overall language difficulty is determined by a number of factors such as familiarity, concreteness, length, grammatical complexity, clarity of the signal, etc. Program difficulty relates to non-linguistic aspects such as redundancy, input, the complexity of the program operation, the cognitive difficulty of the task, and the control options offered to users. Content may relate to specific syllabus goals or to perceived student needs and interests. Another element is learning style, which describes the type of learning provided by the activity (e.g. whether it is an inductive or deductive task, form-focused or meaning-focused). Program focus refers to the linguistic objective of the activity in terms of phonology, vocabulary, grammar, and discourse. Learner focus refers to the skill area covered by the courseware (e.g. reading, writing, listening or speaking). Classroom management refers to the grouping of students in relation to the computer (individual user, paired, small group, etc). Hardware and programming language considerations include questions such as the basic platform, medium, input device.

The Procedure section contains the elements to be considered in the actual layout of the program that presents the materials. The fundamental decision to be made involves “activity type” (e.g. game, quiz, text construction, simulation and problem solving). This decision can determine the “presentational scheme”, which is the specific manifestation of the activity type, a complex description of how the material is to be presented, including aspects of branching and timing as well as how the learner will interact with the program. “Screen layout” covers aspects of visual and auditory presentation (e.g. the relative positions of graphic and textural elements, the

use of colour). The issue of “control options” has been controversial in CALL. Hubbard points out that “magisterial” programs are those where the user must move through some predetermined sequence, and “pedagogical” programs are those where the user can select the sequence more freely. “Input judging” is concerned with the type of user response allowed by the program (button-driven programs or text-entry activities) and the operations the program can perform on that input. “Feedback” can take a number of different forms: 1) an indication of the correctness or incorrectness of the answer, 2) an explanation for an error, 3) a score, grade, or other cumulative evaluation, 4) tutorial information, such as a suggestion to review information internal or external to the program. “Help options” are those portions of a computer-based activity that aid the learner in achieving a successful outcome (e.g. reviews of instructions or hints).

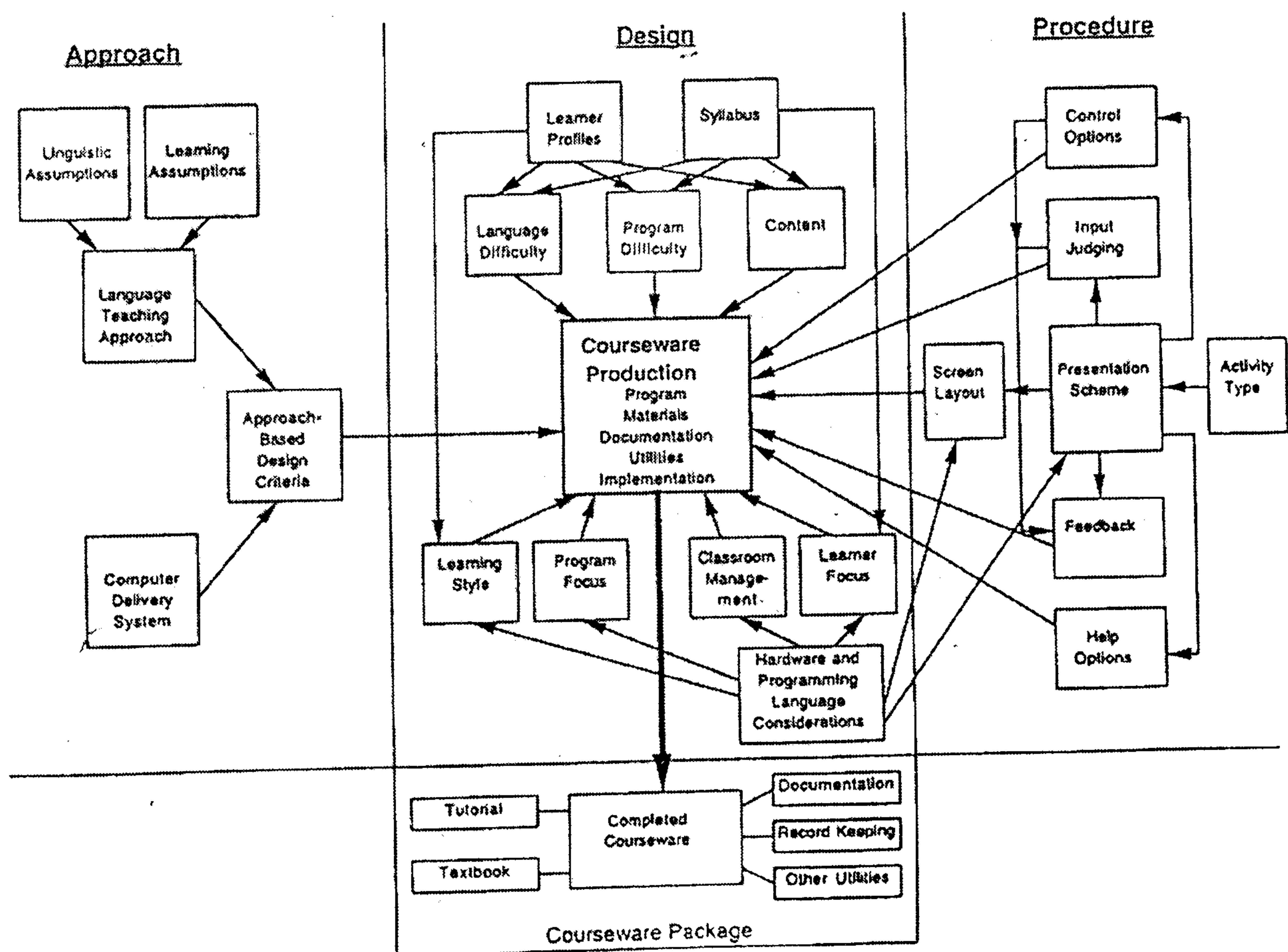


Figure 6.2: Hubbard's Development Module (Hubbard, 1996: 19)

The whole model is particularly useful in that it illustrates the developmental processes and components, indicates the relationship between different elements, and highlights the vital role of SLA hypotheses and language teaching approaches in making the whole design decision. This model will serve as a guide for the present study.

### **6.3.3 Other related issues**

Hubbard's (1996) Evaluation Module is basically the inverse of his Development Module. It consists of three sections: operational description, learner fit and teacher fit. Since it identifies the elements involved in evaluation, it can inform the design of evaluation forms and procedures. Hemard (2003: 37-38) identifies some CALL program evaluation methods: 'informal feedback', 'real-life observation', 'user walk-throughs' and 'checklists'. Informal feedback seeks reactions from learners following their use of the product, real life observation and user-walkthroughs involve observing learners trying out the product, and checklists seek input from experts in the field. Hemard advises CALL materials developers to resort to a range of different methods since "bugs, inefficiencies and user preferences will only come to light ...and be cross-checked through .... comprehensive and critical exposure" (ibid: 37).

Studies of human-computer interface (HCI) design can contribute to a successful manifestation of a conceptual learning model. Many high-level interface design principles and guidelines have been proposed. For example, Marshall, Nelson and Gardiner (1987) present guidelines in 14 areas: design of procedures and tasks,



analogy and metaphor, training and practice, task-user match, feedback, selecting terms, wording and objects, consistency, screen design, organization, multimodal and multimedia interaction, navigation, adaptation, error management and locus of control (cited in Hemard, 1997). Brown (1988) proposes guidelines under the following headings: designing display formats, effective wording, colour, graphics, dialogue design, data entry, control and display devices, error messages and on-line assistance, and implementation of human-computer interface guidelines. Clarke (1997) analyses research evidence on screen design and produces guidelines for screen design in five areas: text, colour, graphics, website, and multimedia. These practical guidelines can help me to make design decisions when presenting materials on the computer screen. Screen design is critical. As Clarke (1997) puts it:

The screen provides the critical interface between the learners and computer-based learning materials... The display must add to a learner's motivation and not reduce it. If learners find the information difficult to understand or to read because of poor contrast or an overcrowded display then computer-based learning material will fail to achieve its purpose. Screen design can therefore aid or hinder the learning process.

(ibid: 12)

CALL materials development is an iterative process. Developing a CALL application involves not only the software, but also the larger system, including the human users and the physical, organisational and social environments. Deciding on a language teaching approach is the starting point for developing a CALL application.

#### **6.4 Tutors' suggestions**

In order to more accurately address Chinese foundation students' needs, a small-scale survey (see Question 10 in Appendix A) was conducted in which seven foundation

tutors' suggestions regarding grammar materials were elicited. All the tutors indicated that they would welcome some new grammar materials especially written for Chinese students. Their suggestions were:

- The materials should include activities that encourage students to discover the patterns and rules underlining a target linguistic feature.
- The explanation of rules should not be given directly. The materials should provide sentences/texts for students to identify rules.
- Students should have lots of opportunities to write their own sentences once they have assimilated the form and use of a grammar item.
- Exercises should be done in short isolated sections that are then built upon. There should be an element of free/uncontrolled practice to improve students' writing. This should also be short.
- There should be "Quick Revision" exercises for students to use later.
- It would be excellent if these materials had an EAP focus.

The tutors' suggestions seem to reflect the following assumptions:

First, they believe that it is useful for L2 learners to formulate explicit presentations of linguistic features. This belief accords with the conclusion drawn from my examination of SLA theory that effective grammar materials aim to help learners to formulate correct rules. Second, they think that learning through discovering is more effective. This belief concurs with that of the advocates of C-R tasks and inductive teaching although no conclusive research evidence supports the superiority of the inductive approach to the deductive approach. Third, they believe that practice is

important, but traditional controlled grammar exercises are not sufficient in proceduralizing learners' declarative knowledge and developing communicative competence. This belief seems to have been reflected in the inclusion of more free/uncontrolled exercises in recent grammar books (see discussion in Section 5.4.3). Fourth, the tutors think that grammar materials designed for the general public are unlikely to meet the needs of EAP learners. This view corresponds to my doubts about the effectiveness of traditional self-study grammar materials because the language, topics and discourse they adopt fail to reflect the practice of academic writing.

## **6.5 My materials design principles**

In the light of the findings from my investigation into SLA theory, grammar-teaching approaches, CALL methodologies and tutors' suggestions, the following design principles are drawn:

- 1) The aim of the materials is to help learners to notice and comprehend the target feature with a view to helping them to formulate satisfactorily correct rules.
- 2) Consciousness-raising activities (e.g. grammar consciousness raising tasks and interpretation tasks) are employed to help learners to achieve apperception and comprehension of the target linguistic feature. They should precede production-oriented activities. Production-oriented activities serve as a means of initiating hypothesis testing and rule refining.



- 3) In terms of grammar instruction, a compromise approach is adopted, which combines both the inductive and deductive approach. The learner has to attempt to formulate the grammar rule by analysing selected language data, compare his/her rule with the correct rule, and finally practise the structure in order to start refining his/her rule.
- 4) Activities will consist of continuous texts (e.g. a paragraph or a passage) when the choice of the article depends on the discoursal context (e.g. first mention and subsequent mention). They can also consist of decontextualized sentences when the use of the article solely relies on syntactical structure or lexical items (e.g. *the* length of the table)
- 5) Metalinguage terminology is used in the materials and the students' L1 (Mandarin) is not used.
- 6) The content is mainly based on authentic learner errors, and texts are taken from the learner corpus and a proficient university student writer corpus so that the language and topics can reflect an EAP focus.
- 7) The program should be as user-friendly as possible and adopt a “pedagogical” design instead of a “magisterial” design. The user does not need to move through some predetermined sequence, and can select the sequence, or quit at will. Clues and feedback are provided wherever necessary.
- 8) The operation of the program should be simple because the adopted language (academic texts) and tasks (C-R tasks) are difficult.

## 6.6 My drafted remedial materials

In accordance with the derived principles, materials were drafted (see GrammarTalk09\_03\_04 on the attached CDROM). The content was based on the EA results of the Chinese HEFP corpus, together with insights drawn from my investigation into article pedagogy. Two kinds of C-R activities were employed to promote inductive learning of rules. They were grammar consciousness-raising tasks (GCRT) and interpretation tasks (IT). Production exercises (PE) were also devised so that students had the opportunity to use the target form and test and refine their hypotheses. The activities included in the first drafted materials are listed in Table 6.1.

<b>Noun Activities</b>	<b>Aim</b>	<b>Number of pages</b>	<b>Activity type</b>
Count or noncount? Singular or plural?	<ul style="list-style-type: none"> <li>To raise learners' awareness of the concepts of countability, singularity and plurality and their forms</li> </ul>	1	GCRT
Why is it wrong?	<ul style="list-style-type: none"> <li>To raise learners' awareness of the concepts of countability, singularity and plurality and their forms</li> <li>To introduce "bare count noun" errors</li> </ul>	2	GCRT
Can you spot the errors?	<ul style="list-style-type: none"> <li>To raise learners' awareness of bare count noun errors</li> </ul>	1	GCRT
Can you correct the errors?	<ul style="list-style-type: none"> <li>To practise learned concepts and rules</li> <li>To test L2 hypotheses and refine rules</li> </ul>	1	PE
Word use	<ul style="list-style-type: none"> <li>To induce learners to decide the countability of a noun in different contexts</li> </ul>	2	IT
<b>Determiner Activities</b>			
Specific or non-specific? Definite or indefinite?	<ul style="list-style-type: none"> <li>To induce learners to notice and understand the concepts associated with the definite article (e.g. specificity, definiteness, speaker knowledge vs listener knowledge)</li> </ul>	2	IT
Generic and non-specific (noncount nouns)	<ul style="list-style-type: none"> <li>To raise learners' awareness of the pattern of generic noncount nouns</li> </ul>	4	GCRT
Generic and non-specific (count nouns)	<ul style="list-style-type: none"> <li>To raise learners' awareness of the five patterns of generic count nouns and their different uses.</li> </ul>	2	GCRT
Uniqueness	<ul style="list-style-type: none"> <li>To improve learners' awareness of the concept of uniqueness in different contexts</li> </ul>	1	IT
Proper nouns and articles	<ul style="list-style-type: none"> <li>To practise article use with proper nouns</li> </ul>	1	PE
Some exercises	<ul style="list-style-type: none"> <li>To practise learned concepts and rules;</li> <li>To test L2 hypotheses and refine rules</li> </ul>	2	PE

Table 6.1: Activities included in the first drafted materials (GCRT: grammar consciousness-raising tasks, IT: interpretation tasks, PE: production exercises)

Each of the activities is briefly described as follows:

- Activities in the noun section

#### Activity 1: Count or noncount? Singular or plural?

This activity is a starter – easy and light. It consists of ten questions. The first nine questions all contain one sentence with an underlined noun phrase. Learners have to group the noun phrases into three groups: singular noun, plural noun or noncount noun. The last question serves to check if learners can deduce the rules for the three groups.

The activity is designed to encourage inductive learning and self-discovery.

Tables are updated spontaneously each time a correct grouping is made. The purpose of displaying tables is to enable learners to check each noun group and notice its formal feature.

#### Activity 2: Why is it wrong?

There are nine questions in the exercise. Each question contains a marked-up error and users have to decide the reason why it is wrong. After finishing the nine questions, they can view the sentences, together with the correct rules. Bare count noun errors are introduced at the end.



### Activity 3: Can you spot the errors?

Users are required to spot ten bare count noun errors in a paragraph taken from a student's assignment.

### Activity 4: Can you correct the errors?

Users are required to correct five errors in a paragraph taken from a student's assignment.

### Activity 5: Word use

Users select a word and click on the "Use" button to view concordance lines containing the word. They are expected to deduce the different uses of the word in terms of its countability.

- Activities in the determiner section

### Activity 1: Specific or non-specific? Definite or indefinite?

Users have to match three pictures with three dialogues, and then they have to answer questions to check if their interpretations are correct. Rules and concepts are then presented for them to check their understanding. Finally learner errors are presented to let them know the common errors students make in their writing.

### Activity 2: Generic and non-specific (noncount nouns)

This exercise contains eleven questions. Users are asked to decide if the underlined noun phrase in each sentence refers to something generic, something specific or something between generic and specific (half-generic). The sentences

are then put into three groups: generic, half-generic and specific. Users have to deduce the patterns for generic and half-generic noncount noun phrases. Then they are presented with learner errors, so that they know the common errors students make in their writing. A production exercise (an editing task) follows.

#### Activity 3: Generic and non-specific (count nouns)

There are nine generic sentences in the exercise and each of them has a noun phrase underlined. Users have to group the generic noun phrases into four patterns of generic nouns. Finally, a production exercise (an editing task) follows, which requires users to enter correct generic nouns.

#### Activity 4: Uniqueness

Users are presented with three groups of sentences demonstrating the concept of uniqueness in different contexts.

#### Activity 5: Proper nouns and articles

Users are presented with two texts containing ten pairs of proper nouns with or without “the”. They have to choose the correct answers.

#### Activity 6: Some exercises

There are two exercises in this section. One is for users to fill in blanks. The other is to differentiate between the essays written by native and non-native writers.

## 6.7 Conclusion

The investigation into SLA theory, grammar teaching approaches and CALL methodologies has led me to form materials design principles which, together with the EA results and insights from article pedagogy, have helped me to draft remedial materials. The materials are named *GrammarTalk* because the name is self-explanatory and can imply what the materials are designed for – to help learners to “talk” about grammar and formulate explicit rules for themselves. The drafted materials needed to be revised in a series of pilot studies and their effectiveness on the students’ use of the article needed to be evaluated. These will be detailed in the next chapter.



## CHAPTER 7

### THE DEVELOPMENT OF REMEDIAL MATERIALS (2)

Three pilot studies were carried out to refine the drafted materials, test their usability and elicit suggestions for improvements. After piloting the materials were evaluated for their effectiveness; I was particularly interested to see the effect GrammarTalk had on Chinese foundation students' use of the article. This chapter reports on the pilot studies, the revisions, and the evaluation study.

#### 7.1 An iterative process

The development of *GrammarTalk* was an iterative process which consisted of a series of pilot studies and revisions. Table 7.1 lists the three pilot studies conducted between March 2004 and August 2004, and Table 7.2 outlines the procedures involved in the evaluation carried out between November 2004 and December 2004. They are described in more detail in sections 7.2, 7.3, 7.4 and 7.5.

	Date	Participants	L 1	Duration (mins.)	Task	Version of GrammarTalk tri
Pilot 1	09/03/04	16 Chinese BA students	Mandarin	60	Commenting on materials	GrammarTalk 09_03_04.exe
Pilot 2	25/06/04	8 HK university students	Cantonese /Mandarin	90	Commenting on materials	GrammarTalk 25_06_04.exe
Pilot 3	06/08/04	6 pre-sessional postgraduate students	Mandarin/ Japanese	60	Filling in Questionnaires	GrammarTalk 06_08_04.exe

Table 7.1: The three pilot studies

Procedure	Date	Participants	Duration (mins.)	Task	Version of GrammarT used
Pretest	05/11/04	All the foundation students	15	Proofreading a text	-
Session 1	09/11/04	14	30	Treatment	GrammarTalk_session1.
Session 2	16/11/04	6	60	Treatment	GrammarTalk_session2.
Session 3	23/11/04	4	60	Treatment	GrammarTalk_session3.
Session 4	30/11/04	3	60	Treatment	GrammarTalk_session4.
Immediate posttest				Proofreading a text	
Session 5	07/12/04	3	60	Treatment Filling in Questionnaires	GrammarTalk_session4.

Table 7.2: The procedures involved in materials evaluation

## 7.2 Pilot study 1

### 7.2.1 Procedure of piloting 1

The first pilot study took place on 8<sup>th</sup> March 2004 with 16 subjects from China who were in the third and fourth year of a BA degree programme in English Language, Translation and Cultural Studies at Warwick University. The subjects were divided into two groups, with eight students examining the determiner section and the other

eight looking at the noun section. They were required to complete the exercises in their allotted section and then answer the following five questions:

- 1) What have you learned from the exercises?
- 2) Who do you think are the target users?
- 3) What do you like about the exercises?
- 4) What do you dislike about the exercises?
- 5) What are your suggestions for improvements?

The students spent an hour trialling the materials and word-processed their comments using MS “Word”. Afterwards they sent their comments as e-mail attachment to me. 14 commentaries were received. Two Year 4 students failed to send their commentaries.

### **7.2.2 Results of piloting 1**

The 14 commentaries were analysed following the five questions. The results are documented below:

Question 1: What have you learned from the exercises?

The students indicated various things that they had learned from the exercises.

The main points mentioned, together with the number of times each point was mentioned, are listed as follows.

How to distinguish count and noncount nouns, and singular and plural nouns	4
--	---



Clarify prior misconceptions about nouns and determiners	4
Learn some words which can be count or noncount in different situations	3
How to detect noun errors	2
How to tell generic, half-generic and specific noun phrases	2
How to use determiners with nouns	2

Apart from the main points listed above, two students made the following interesting comments:

*“From the determiners exercise I noticed that we usually make the mistake about determiners that we rarely find it. From this exercise I learn that we should pay more attention to the determiners when we write academic essays.”*

*“I think this exercise is useful for me although it is simple. Sometimes simple mistakes are made easily. This exercise can strengthen and improve my basic grammar knowledge.”*

Question 2: Who do you think are the target users?

Most of the students commented on the materials as a whole, and only one student commented on each individual exercise. The target users they indicated, together with the frequency of each item, are listed as follows.

Junior or middle school EFL learners	7
Beginners or intermediate/advanced learners who have problems with nouns and determiners	3
Non-native speakers	1
Noun Exercises 1 and 2: junior learners	3
Noun Exercises 3 and 4: higher levels of learners	1
Noun Exercise 5: advanced learners	1
Determiner Exercises 1, 2 and 3: beginners	1

### Question 3: What do you like about the exercises?

The students indicated different things they liked about the exercises. The main comments, together with the frequency of each item, are listed below:

The exercises are useful.	6
They are very good grammar exercises.	5
The exercises are interesting, not boring.	4
The exercises are basic and simple and can strengthen and improve my basic grammar	3
The e-learning materials are fast and convenient.	2
They help me to understand articles step by step.	1
They provide more opportunities to practise grammar in many specific features.	1

A few design features were mentioned and appreciated.

They are:

the 'recap' question in noun Exercise 1	2
the explanations of errors in noun Exercise 2	2
immediate feedback	2
beautiful page design	1

Apart from the main comments above, two students indicated that they would like to use the materials if they were available. For example,

*“These exercises are helpful for me although they are simple. They can strengthen and improve my basic grammar knowledge. Is it possible for me to have them?”*

*“Let’s have a grammar talk” is useful software. After using it, I would like to use it more.”*

#### Question 4: What do you dislike about the exercises?

When asked what they disliked about the exercises, one student pointed out that each exercise needed more questions. Specific problems with individual exercises were also mentioned. The problems and their frequencies are listed as follows:

Noun Exercise 3: Can you spot the errors?	1
- Users should be given clearer explanations about why a noun is a bare count noun.	
Noun Exercise 4: Can you correct the errors?	1
- The text is somewhat boring, and the 'Check-Answer' button is not very clear.	
Determiner Exercise 1: Specific/nonspecific, definite/indefinite	
- The connections between the pictures and the dialogues are not very clear.	1
- There is difficulty dragging the pictures into the appropriate boxes.	1
Determiner Exercise 2: Generic and non-specific noncount nouns	
- Users do not need to read for meaning when answering the questions because the forms of the underlined noun phrases already reveal the answers.	1
- Users should be given clearer explanations about why a noun is generic or specific although the examples do illustrate the differences between them.	1
Determiner Exercise 3: Generic and non-specific count nouns	
- Users do not need to read for meaning when answering the questions because the forms of the underlined noun phrases already reveal the answers.	1
Determiner Exercise 4: Uniqueness	
- It would be more useful to offer a general rule instead of just explaining why the underlined noun phrases are unique in the context.	1
Determiner Exercise 5: Proper nouns and articles	
- It would be useful to provide explanations when the user gets an answer wrong.	1
Determiner Exercise 6: More exercises	
- The text in the exercise is too long and the content is somewhat boring.	1



## Question 5: What are your suggestions for improvements?

Not every student gave his/her suggestions for improvements. The suggestions made and their frequencies are listed below:

There should be a link to review the previous page (i.e. apart from Home, add a Back button).	2
Cover more grammar points such as tense.	2
The user should be given explanations whenever he/she gets an answer wrong in all the exercises.	2
The materials will be more successful if they are made more attractive by having more pictures and interesting features.	2
There should be more different topics in the exercises.	1
The design should adopt a more relaxing style.	1

### 7.2.3 Implications of piloting 1

The results of the first pilot study showed that the participants generally liked the materials and regarded them as useful and interesting. Their success in completing the exercises also demonstrated that GrammarTalk was usable (i.e. could function properly). Some points emerging from the commentaries led to improvements to the materials. These were :

#### 1. More feedback and support required

I only added explanations/clues to a few exercises (e.g. noun Exercise 2). To fully support users, feedback (e.g. explanations, clues) needed to be gradually added to all exercises.

## 2. Improved navigation needed

Two students pointed out that there should be a “Back” button for users to click on to view the previous question or page. This is a very practical point. Bad navigation can frustrate users and reduce their enthusiasm and interest. I needed to improve navigation (e.g. add a “Back” button) so that users could navigate around the materials more easily.

## 3. More questions required

I agreed with the suggestion that there should be more questions in each exercise. GrammarTalk aims to use authentic learner errors in the exercises, however, it takes time to examine errors and compile suitable instances. Given more time, an adequate number of questions can be added to each exercise.

## 4. More elaborations needed

One student pointed out that the bare count noun error was not clearly explained. Since this type of error is the most frequent in the corpus, it certainly needs to be elaborated. I did not provide enough explanations and examples to help users to understand what a bare count noun is, and this was clearly an area where revisions to the materials needed to be made. Another student mentioned that the connections between the pictures and dialogues in determiner Exercise 1 were not very clear. His reaction was understandable, as that matching exercise is intended to raise users’ awareness of two factors involved in the choice of articles (speaker’s knowledge and listener’s knowledge) which most learners have not been explicitly taught before. These factors needed to be explained more clearly. Another problematic exercise was the grouping of different patterns of generic noun phrases. In this

exercise users should be required to read for meaning before they group noun phrases into different generic patterns.

#### 5. Some programming problems

One participant complained about the difficulty moving pictures in determiner Exercise 1 and another one pointed out the problem with the “Check-answer” button in noun Exercise 4. These two features needed to be reprogrammed to improve their functions.

#### 6. Different topics needed

The materials were based on texts taken from the Chinese HEFP corpus, and all the essays dealt with social studies issues. For this reason, the language was limited to Social Studies subjects. The materials would perhaps be more interesting for non-Social Studies students if I included texts on other topics. However, in view of limited time, the HEFP corpus had to remain the main source for the exercises. If more time and resources were available, different genres from different corpora could also be used for further study.

#### 7. More attractive materials

I agreed with the suggestion that adding pictures and interesting features would make the materials more attractive. GrammarTalk needed to be smartened up. For example, its appearance needed to be improved by professionals (e.g. a graphic designer), with the possible addition of sound and video components. Nevertheless, the most important thing for this study was to “get the content right”, i.e. to address the target users’ main grammar problems. Only after revision and further trialling might the appearance of the materials be reconsidered.



## 7.2.4 Revisions made to GrammarTalk 09\_03\_04

Following the insights drawn from the first piloting, the materials were revised accordingly. The main changes are documented in Table 7.3., and the revised version of materials is GrammarTalk25\_06\_04 (see these materials on the attached CDROM).

Activity	Revisions
Noun Ex 1	<ul style="list-style-type: none"> <li>• Add “Back” buttons to exercises.</li> </ul>
Noun Ex 2	<ul style="list-style-type: none"> <li>• Add “Back” buttons to exercises.</li> <li>• Remove the introduction of bare count nouns from noun Ex. 2.</li> </ul>
Noun Ex 3	<ul style="list-style-type: none"> <li>• Add “Back” buttons to exercises.</li> <li>• Add two pages about bare count noun errors.</li> </ul>
Noun Ex 4	<ul style="list-style-type: none"> <li>• Simplify the captions of the buttons.</li> <li>• Reprogram the “Check answer” button.</li> <li>• Improve the display of the correct passage.</li> </ul>
Noun Ex 5	<ul style="list-style-type: none"> <li>• Add concordance lines to more words.</li> <li>• Add questions and answers.</li> </ul>
Determiner Ex 1	<ul style="list-style-type: none"> <li>• Add a “Restart” button so that users can redo the drag-and-drop exercise.</li> <li>• Reprogram the drag-and-drop function.</li> <li>• Change the Q1, Q2 and Q3 button in terms of positions and images.</li> <li>• Illustrate the concepts of “speaker knowledge vs listener knowledge”, specificity and definiteness.</li> <li>• Add answers to the seven questions on the last page of the exercise.</li> </ul>
Determiner Ex 2	<ul style="list-style-type: none"> <li>• Add “Back” buttons to exercises</li> <li>• Number the questions</li> <li>• Change the screen layout (colours, positions)</li> </ul>
Determiner Ex 3	<ul style="list-style-type: none"> <li>• Add “Back” buttons to exercises</li> <li>• Add questions with noun phrases referring to specific things and change the design of the exercise: users need to first decide if a noun phrase is generic or specific. If it is generic, they need to decide which pattern of generic nouns it is.</li> <li>• Add a C-R task to help learners to review the five patterns of generic count nouns.</li> </ul>
Determiner Ex 4	<ul style="list-style-type: none"> <li>• Add a cartoon which introduces users to the concept of “uniqueness” and its linguistic form.</li> <li>• Change the questions from a magisterial design to a pedagogical design so that users can select a question more freely.</li> </ul>
Determiner Ex 5	<ul style="list-style-type: none"> <li>• Add more questions</li> <li>• Add images of currencies to the exercise.</li> <li>• Change the exercise from a magisterial design to a pedagogical design so</li> </ul>

	that users can select a question more freely.
Determiner Ex 6	<ul style="list-style-type: none"> <li>• Change the exercise from a magisterial design to a pedagogical design so that users can select a question more freely.</li> <li>• Add some more feedback.</li> </ul>

Table 7.3: The main revisions made to GrammarTalk 09\_03\_04 following pilot study 1

## 7.3 Pilot study 2

### 7.3.1 Procedure of piloting 2

The 2<sup>nd</sup> pilot study was carried out on 25<sup>th</sup> June 2004, with eight Year 2 Business students from a Hong Kong university, who were taking an 8-week summer course at CELTE, Warwick University.

The trialling process was the same as for the first pilot study. The eight participants were divided into two groups of four, with one group examining the determiner section and the other looking at the noun section. They completed the exercises and commented on them following the same five questions. This took about one and a half hours, and resulted in eight commentaries.

### 7.3.2 Results of piloting 2

Results from the 8 commentaries are documented following each question:

### Question 1: What have you learned from the exercises?

The students indicated various things that they had learned from the exercises. The main points mentioned and the number of times each point was mentioned are listed below:

The difference between singular and plural nouns, count and noncount nouns	3
The usage of different articles/determiners	3
The difference between specific and generic nouns	1
The definition of a bare count noun	1

Apart from the above points, a student also commented on the feature of the determiner exercises:

*“The exercise can help the user know not just the general matter, but more deeply about the usage of determiners.”*

### Question 2: Who do you think are the target users?

Five of the students commented on the materials as a whole, and the other three commented on each individual exercise. The target users they indicated and their frequencies are listed as follows.

University students	3
University students, especially those who were doing language studies	1
Junior secondary school students	1
Noun Exercise 1 & 2: junior or secondary school ESL learners	2
Noun Exercises 3, 4 & 5: intermediate learners	1
Determiner Exercises: intermediate learners	1



One student indicated why the exercises were suitable for university students who are doing language studies:

*“This exercise would be more suitable for those who have already had a certain level of knowledge in English Grammar, as there are quite a number of specific words related to Grammar, such as ‘generic’ and ‘specific’. Probably it would be more suitable for university students, especially those who are doing language studies.”*

Question 3: What do you like about the exercises?

The students reported different things they liked about the exercises. The main comments they made and their frequencies were:

The exercises are quite user-friendly.	2
The exercises are well designed.	2
The exercises have good ideas.	1
Students can definitely learn from this learning material.	1

They also indicated that they liked the following features:

- The clues/explanations provided in noun Exercises	4
- The ‘Recap’ quiz in noun Exercise 1	2
- The cartoon in noun Exercise 3	2
- The layout of the exercises	2
- The illustrations in determiner Exercise 1	1

Question 4: What do you dislike about the exercises?

The students reported various things they disliked about the materials. The items and their frequencies were:

The instructions are unclear.	3
There are no clear connections between the pictures and dialogues in Determiner Exercise 1.	2
There are too many words in the exercises.	2
Some questions are too long.	1
Most texts are related to Social Studies issues and may be boring for non-Social Studies students.	1
The term 'half-generic' is not clearly explained.	1
The negative examples in Noun Exercise 2 are likely to mislead users.	1

### Question 5: What are your suggestions for improvements?

In terms of the overall design, the students made the following suggestions:

The 'Home' icon is quite small and hard to locate. It should be big with sharp and bright colours.	2
Each exercise should have more questions so that users can learn more.	2
There should be a brief explanation for every question.	2
A navigation bar should be added to each page consisting of a Noun button and a Determiner button, so that the user can easily get to different sets of exercises without the need to go back to the Home page.	1
Texts should be shortened and questions should be broken down into sub-questions so that users do not get bored easily.	1
Some Social Studies texts should be replaced with more interesting texts.	1
At the beginning of the exercise, there should be a page informing the user of some grammar terms used in the exercise.	1
At the end of each exercise, there should be a short "Recap" section summarising the points introduced in the exercise.	1
More pictures should be added to the exercise if the target users are college or pre-university students.	1
The level of difficulty can be displayed so that the students can choose which exercise is suitable for them.	1

The students also made suggestions for individual exercises:

For noun Exercise 1: Count or noncount? Singular or plural?

The correct answer should be shown after the user gets an answer wrong. 1

For Exercise 2: Why is it wrong?

This exercise requires users to explain why a noun phrase is wrong. Using negative exemplars may actually mislead users (i.e. they may learn the wrong sentences). It would be better to change the exercise into a multiple choice exercise (i.e. to choose between a correct noun phrase and an incorrect one). 1

*“For exercise 2, the aim is unclear because users have to find out the wrong parts in sentences and the instructions and rules provided will mislead them that they are the correct rule of nouns. By using negative samples, users would misunderstand it.*

*For exercise 2, the positive answers or explanations would be provided. It would be better to use multiple choice answer to do this exercise....”*

For Exercise 4: Can you correct the errors?

The functions of some buttons need to be improved. For example, one student stated, 1

*“However, when I enter the button to correct the words, I can only see ‘s’ or ‘----’ and the original words disappear. I think it can be improved.”*

For Exercise 5: Word use

It would be very useful to explain the difference between count and noncount uses of the same word (e.g. culture). 1

For determiner Exercise 1: Specific or non-specific? Definite or indefinite?

- It is difficult to match the pictures with the dialogues because the differences between the pictures are not very obvious. 1
- The explanations of specificity and definiteness are insufficiently clear. 1
- The questions containing learner errors should be shortened. 1
- Some terms used in the explanations of the errors are difficult for users. E.g. “stylistic cohesion”, ‘of-phrase’, ‘relative clause’ and ‘collocational chunk’. 1

For Determiner Exercise 2: Generic and non-specific (noncount nouns)

- It is better not to repeat the same question in every page because users don’t want duplicated questions. 1
- The term ‘ half generic’ should be elaborated. 1

For Determiner Exercise 3: Generic and non-specific (count nouns)

The instructions should be made clearer. 1

For Determiner Exercise 6

It would be useful to explain the difference between the writing of native and non-native speakers of English. 1



### 7.3.3 Implications of piloting 2

The students identified quite a few problems with the materials. Some of them were similar to those raised in the first piloting. For example, the materials should have 1) easier navigation and clearer signs, 2) more explanations, and 3) more interesting features (e.g. pictures). Problems with the “Check answer” button and the “drag-and-drop” function were also mentioned. The connections between the pictures and dialogues in determiner Exercise 1 were thought “not very obvious”. The students also noticed the exclusive use of social studies texts in the exercises and suggested replacing the texts with more interesting text types. Comments that were raised in both pilot studies clearly deserve particular consideration.

The students also made a few “new” suggestions which were worth consideration.

- Shortened texts needed

The students indicated that long-text questions were likely to bore users and discourage them from finishing them; they should be shortened or broken down into sub-questions. However, although this suggestion is thoughtful, it is sometimes impossible to treat articles using short texts (e.g. isolated sentences), as the choice of articles often involves discoursal contexts, and decontextualized sentences do not provide users with contextual information and deprive them of opportunities to practise using articles in a complete discourse. However, in view of the fact that maintaining user interest is important for self-study materials, I decided to adopt a compromise solution,

adjusting text length according to the information needed to make appropriate grammatical choices. If the choice depends on syntactic structure, short texts (e.g. isolated sentences) should be used, but if it relies on discourse contexts, longer texts should be used, which, however, can be broken down into parts to form sub-questions wherever possible.

- Negative exemplars questioned

One student did not agree with the design of noun Exercise 2 in which users were asked to identify the reason why the noun phrase in the exemplar was wrong, because, as she pointed out, they might actually learn the wrong form and rule by mistake. The exercise is intended to get users to explicitly explain why a noun is wrong in the hope that they will not make the same mistakes when forming noncount nouns and singular/plural count nouns. However, in view of the concern raised by the student I decided that this “Identify the reason” task should be changed into a multiple-choice task in which users were asked to choose a correct noun form, and a C-R exercise, “Assign the correct rule” (see noun Exercise 2, GrammarTalk06\_08\_04), which would follow immediately afterwards. This design could prevent users from internalising incorrect forms and rules while providing them with the opportunity to formulate explicit correct rules for themselves.

- Use of metalanguage and jargon

One student mentioned that some terms used in the explanations of the errors were difficult for users. This raised the issue of the extent to which metalanguage should be used in the materials. In my opinion, EAP learners should have a certain amount of knowledge about English grammar and common terminology (e.g. of-phrase, relative clause). With the help of other

components (e.g. co-text and accompanying examples), they should be able to figure out what a term probably means. For example,

Q 6:

Even scarier than the direct damage to our health from car pollution is *the* fact that car emissions are contributing to an overall warming of the entire planet.

Explanation:

'The' should be used in this context because 'the fact that' seems to be a collocational chunk. It means that these words tend to occur together.

Users should be able to understand the term through the example (*the fact that*) and the co-text (*It means that these words tend to occur together*).

Another way to help users with terminology would be to provide a glossary of grammar terms used in the exercise. The glossary can be made into Chinese/English version if the target user is expected to have great difficulty in understanding the grammatical terms.

- Clearer instructions needed

Good instructions are especially important for self-study materials. They should be clear, easy to follow, not too long and written in a consistent style.

Three students, however, pointed out the problem of unclear instructions. An examination of the instructions in the materials reveals that some of them are very long and consequently difficult to process. These needed to be rewritten to make them shorter and clearer.



Another concern about instructions is that users tend to start an activity without reading them. I decided to use a “Start the activity” screen to cover up questions, but not instructions, so that users may first read the instructions and then click on the “Start the activity” button to uncover the questions. The effect of this design should be monitored.

- Half-generic cases

Half-generic cases are difficult for L2 learners (Swan, 1995). They are also difficult to define, and it is sometimes difficult to unambiguously decide if a noun phrase is generic or half-generic (as in the case of “*competition*” in the sentence ‘*British firms are faced with competition from the other euro-zone countries*’). To avoid the possibility of ambiguity and confusion, I decided to change the design of the first task regarding generic and non-specific noncount nouns by removing half-generic cases from the exercise, so that users only need to judge if a noun phrase is generic or specific. The “half-generic” case may still be introduced in other exercises.

### **7.3.4 Revisions made to GrammarTalk 25\_06\_04**

Following the insights drawn from the second piloting, the materials were revised.

The main changes are documented in Table 7.4, and the revised version is

GrammarTalk06\_08\_04 (see these materials on the attached CDROM).

Activity	Revisions
Noun Ex 1	<ul style="list-style-type: none"> <li>• Add “Sorry, try again” to wrong answers so that users know they can try again.</li> </ul>
Noun Ex 2	<ul style="list-style-type: none"> <li>• Add a “Start the activity” screen to cover up the questions.</li> <li>• Change the “Identify the reason” exercise into a “multiple-choice” exercise, followed by the “Assign the rule” C-R exercise.</li> <li>• Change the exercise from a magisterial design to a pedagogical design so that users can select a question more freely.</li> </ul>
Noun Ex 3	<ul style="list-style-type: none"> <li>• Change some words in the dialogue</li> <li>• Break down the whole paragraph into two parts and form two shorter questions.</li> <li>• Add an exercise containing 10 questions that require users to spot a bare count noun error in each of them.</li> </ul>
Noun Ex 4	<ul style="list-style-type: none"> <li>• Add concordance lines, questions and answers to more words.</li> </ul>
Noun Ex 5	<ul style="list-style-type: none"> <li>• Add a “Start the activity” screen to cover up the questions.</li> <li>• Change the design of the proofreading exercise. A text-entry design is adopted so that the problem with the “Check the answer” button can be eradicated.</li> <li>• Add explanations to corrected answers.</li> </ul>
Article Ex 1	<ul style="list-style-type: none"> <li>• Add a “Start the activity” screen to cover up the questions.</li> <li>• Change the drag-and-drop exercise to a multiple-choice exercise so that the problem with the drag-and-drop function can be eradicated.</li> <li>• Add explanations to the three pairs of pictures and dialogues to help users to understand the connections between them.</li> <li>• Add a C-R exercise to check users’ understanding of the difference between definiteness and specificity.</li> <li>• Add explanations to answers.</li> </ul>
Article Ex 2	<ul style="list-style-type: none"> <li>• Add a “Start the activity” screen to cover up the questions.</li> <li>• Add a page to illustrate the difference between generic and specific references.</li> <li>• Add “Sorry, try again” faces and explanations to questions.</li> <li>• Add an “ Assign the rule” exercise for users to review the learned rules.</li> <li>• Add a C-R exercise to check users’ understanding of the patterns of generic nouns.</li> </ul>
Article Ex 3	<ul style="list-style-type: none"> <li>• Add a “Start the activity” screen to cover up the questions.</li> <li>• Add “Sorry, try again” faces and explanations to questions.</li> <li>• Remove the half-generic button and half-generic cases.</li> </ul>
Article Ex 4	<ul style="list-style-type: none"> <li>• Add more detailed explanations to questions</li> </ul>
Article Ex 5	<ul style="list-style-type: none"> <li>• Add more questions and pictures</li> </ul>
Article Ex 6	<ul style="list-style-type: none"> <li>• Add an exercise consisting of 10 learner article errors.</li> <li>• Break down the long paragraph into three parts and form three shorter questions</li> </ul>

Table 7.4: The main revisions made to GrammarTalk25\_06\_04 following pilot study 2.

## **7.4 Pilot study 3**

### **7.4.1 Procedure of piloting 3**

The third pilot study was carried out on 6<sup>th</sup> August 2004 with six postgraduate students enrolled on the pre-session course in English and Study Skills at Warwick University. Three of them were from Taiwan, one was from China, and the other two were from Japan. The subjects they were studying included History of Art, Engineering, Process Technology & Business management, Politics & International Studies and Chemistry.

I first introduced the two sets of exercises briefly, and then asked the students to trial one of them. Four students (two Taiwanese, one Chinese and one Japanese) chose to do the article set, and the other two (one Taiwanese and one Japanese) did the noun set. I preferred more people to trial the article set because it contains more activities than the noun set. I wanted each student to do just one set of exercises because completing a set would take about one hour, and it would be too tiring to finish two sets at one sitting.

The students spent one hour doing the exercises while I observed them. After finishing the trialling, all of them filled out a questionnaire (Appendix B).



### 7.4.2. Analysis of the questionnaires

12 questions in the questionnaire were used to elicit the students' opinions about GrammarTalk. Questions 1 - 9 required participants to indicate their agreement on a statement on a 4-point scale, and questions 10-12 were open-ended questions. Results from the analysis of the first nine questions are listed in Table 7.5.

	Strongly Disagree (score = 1)	Disagree (score = 2)	Agree (score = 3)	Strongly Agree (score = 4)	Average score (on a 4-point scale)
1: The program is easy to use.		√	√ √ √	√ √	3.17
2: I like the screen layout.			√ √ √	√ √ √	3.5
3: I can easily find my way around the materials.		√ √	√ √ √ √		2.67
4: The instructions are clear.		√	√ √ √ √	√	3
5: GrammarTalk is useful to me.			√ √	√ √ √ √	3.67
6: GrammarTalk is interesting.		√ √	√	√ √ √	3.17
7: I can understand the feedback when I get an answer wrong.			√ √	√ √ √ √	3.67
8 (1): I understand more about articles now I have used <i>GrammarTalk</i> .		√	√ √	√	3
8 (2): I understand more about nouns now I have used <i>GrammarTalk</i> .			√	√	3.5

9 (1): I will make fewer article errors now I have used <i>GrammarTalk</i> .		√	√ √ √		2.75
9 (2): I will make fewer noun errors now I have used <i>GrammarTalk</i> .		√ √			2

Table 7.5: The average score for each question on a 4-point scale  
(The number of ticks indicates the number of times the item has been chosen.)

The above results showed that the students generally felt that the materials were very useful to them, that the feedback and screen layout were excellent, that the exercises were quite interesting and easy to use, and that the instructions were generally clear although improvements might still be necessary. For example, signs should be clearer to direct the user around the materials. They also felt that they understood more about articles and nouns after using *GrammarTalk*, although they were not very positive that they would make fewer article/noun errors in the future.

#### Question 10: What do you like about *GrammarTalk*?

One student indicated that the materials were generally good. The other students mentioned various things they liked about *GrammarTalk*. They points mentioned and their frequencies are listed below:

Useful feedback	3
Many examples	2
Good screen layout	2
Proper font sizes	1
Relaxing colour scheme	1

The students seemed to like GrammarTalk's feedback very much. Two students' comments were:

*"I like the examples and feedback. When I make a mistake, I can understand why my answer is wrong with the explanation."*

*"When I did the exercise, if my answer was wrong, it could give me very clear explanation."*

Question 11: What do you dislike about *GrammarTalk*?

The students pointed out a few things they disliked about GrammarTalk.

These items and their frequencies are listed below:

Difficulty in finding their way around the materials	2
Some unclear instructions	2
More links needed to link different sections together.	1

The main problems the students mentioned were instruction and navigation.

Two students' comments were:

*"The instructions about the way out or way in are not clear."*

*"The instructions were not clear. To understand the exercise was difficult."*

Question 12: Have you any suggestions for improving the materials?

The students made the following suggestions for improving GrammarTalk:

Improving navigation between exercises; clearer and bigger signs needed to direct the user around the exercises	4
Indication about the number of pages included in an exercise needed	1



The main thing they suggested for improvements was navigation. Two students' comments were:

*“The way to follow the questions should be more clear. To go back to the home page every time is a waste of time.”*

*“If there can be more clear signs (e.g. how to go back to the last page, the amount of exercises), it will be very useful for me.”*

### **7.4.3 Observation of use**

While observing the students doing the exercises, I noticed the following two salient problems:

- The students did not seem to notice the ‘Home’, ‘Previous’ and ‘Next’ buttons on the top left corner. They were unsure how to proceed after finishing a page.
- Some of them seemed unable to attend to or understand every part of the instructions. For example, I observed that some of them were stuck at the article exercise ‘Which generic form?’, which, I thought, might have resulted from their failure to notice or understand the term ‘case-sensitive’ in the instructions while entering their answers. Since the exercise is programmed to be case-sensitive, the correct answer needs to be the correct generic noun in the correct case. This means that even if the entered noun was correct, it would be judged incorrect by the program if it was in the wrong case.

#### 7.4.4 Implications of piloting 3

The analysis of the questionnaires showed that the students generally liked GrammarTalk. Their uncertainty about the effects GrammarTalk would have on their use of articles and nouns is understandable considering that they only had an hour of practice using the materials. More practice using GrammarTalk would result in greater confidence about its effect on their own language production.

The main problem highlighted by the students was navigation. This is an important issue for e-learning self-study materials. I needed to revise GrammarTalk by providing more efficient links and clearer signs to direct users around the materials.

Some possible revisions were:

- to add a navigation bar to each page
- to make the link between each page and the Home page more efficient
- to enlarge signs
- to demonstrate how to navigate at the beginning of the program.

The program should also be able to inform users of the number of pages each exercise contains. It was decided that page numbers would be used for links between pages instead of the “>” and “<” sign (which stood for the “Next” and “Previous” page respectively). This design would change the exercise from a magisterial sequence to a pedagogical sequence (Hubbard, 1996), which not only indicates the number of pages included in each exercise, but also enables users to choose the sequence of pages more freely.

My observation of the students suggested that users might be unable to fully notice and understand instructions. It might be helpful to employ the target user's L1 in instructions, but this depends to a great extent on users' English proficiency.

Different versions of GrammarTalk (e.g. English version, English-Chinese version) may be necessary if the materials are targeting at users in very different learning contexts (e.g. ESL or EFL contexts). I assume that Warwick Chinese foundation students should be able to understand English instructions considering that they are all intermediate or upper intermediate ESL learners (6.0 in IELTS or equivalent), and are living and studying in the UK with lots of exposure to English. Animation movies may be another way of helping students to understand how to do an exercise. They are more likely to attract users and can be used to replace instructions, but they require input from a professional programmer and are beyond the scope of the present study.

My observation also suggested that users needed more feedback and clues to help them to do the exercises. If every action the user performs (e.g. click on a word) generates a response from the program users can follow the feedback accordingly and are less likely to get stuck at a point and feel frustrated. Finally, my observation helped me to realise that exercises should not require too much information processing. For example, exercises should be programmed to be non-case sensitive so that users can concentrate on processing the sentence, choosing the correct pattern of generic nouns and typing it in without the need to further capitalize the first letter if it is the first word of the sentence.



### 7.4.5 Revisions made to GrammarTalk 06\_08\_04

Following the insights drawn from the third piloting, the materials were revised. The main changes in terms of the overall design were:

- 1) Replacing the “Next” and “Back” arrow in the top left corner with page numbers in the top right corner.
- 2) Replacing the old ‘Home’ image with a new one.
- 3) Checking and modifying wording in instructions, feedback, clues, questions and answers.
- 4) Reprogramming the link from each page to the Home page so that the list of noun activities or article activities is displayed when users click on the “Home” image.

Other changes in individual exercises are documented in Table 7.6. The revised version of the materials is GrammarTalk09\_11\_04 (see these materials on the attached CDROM)

Activity	Revisions
Noun Ex 1	<ul style="list-style-type: none"> <li>• Add more questions to the exercise</li> </ul>
Noun Ex 2	<ul style="list-style-type: none"> <li>• None</li> </ul>
Noun Ex 3	<ul style="list-style-type: none"> <li>• Add a diagram which shows users how to spot a bare count noun error</li> <li>• Add clues to wrong answers and explanations to correct answers</li> <li>• Add corrections to the proofreading task</li> </ul>
Noun Ex 4	<ul style="list-style-type: none"> <li>• Check the concordance lines, questions and answers for appropriateness and accuracy.</li> <li>• Replace the arrow sign in the top corner with the “Back to the word list” sign.</li> </ul>
Noun Ex 5	<ul style="list-style-type: none"> <li>• None</li> </ul>

Article Ex 1	<ul style="list-style-type: none"> <li>• None</li> </ul>
Article Ex 2	<ul style="list-style-type: none"> <li>• Add information about different patterns of generic count nouns and their different uses.</li> <li>• Add clues and “Sorry, try again” faces to wrong answers and explanations to correct answers</li> <li>• Try to reprogram the exercise “Which generic pattern” on page 5 to be non-case sensitive.</li> </ul>
Article Ex 3	<ul style="list-style-type: none"> <li>• None</li> </ul>
Article Ex 4	<ul style="list-style-type: none"> <li>• Change colours and images</li> </ul>
Article Ex 5	<ul style="list-style-type: none"> <li>• Add “Sorry. Try again” faces and clues to questions</li> </ul>
Article Ex 6	<ul style="list-style-type: none"> <li>• Add two more exercises (Inserting articles and Translations) to this section</li> </ul>

Table 7.6: The revisions made to GrammarTalk06\_08\_04 following pilot study 3.

## 7.5 A small-scale materials evaluation

After these three revisions the materials were tested for their effect on foundation students’ use of the article. The evaluation was carried out between 09/11/04 and 03/12/04. 14 students (13 Chinese and one Korean) at Stratford-Upon-Avon College volunteered to participate in the experiment, but only three attended every session, which made it impossible to generate statistically valid generalisations. The learning results of the three students, however, can serve as an early indication of the effectiveness of GrammarTalk.

### 7.5.1 Procedure

The evaluation process consisted of three stages:

1. The administration of the pretest
2. The administration of the treatment
3. The administration of the posttest

Each stage is described in detail in the following sections.

### 7.5.1.1 Pretest

The pretest was a proofreading task which was chosen because it is similar to the editing process involved in academic writing. Since the choice of articles often depends on discourse contexts, integrative tasks (e.g. proofreading tasks) seem to be better tools than discrete point tests for testing students' understanding of the English article system.

To devise the proofreading text, three principles were closely followed:

- 1) The topic and content should be easy to understand.
- 2) The text should not be too long (one side of A4 was to be the maximum).
- 3) Only article errors should be retained, and all the other types of errors should be removed from the text.

In accordance with these principles, a student essay was taken from the Chinese HEFP corpus, and three paragraphs were extracted. The paragraphs did not contain all the typical errors Chinese students make, and so I created a few errors by removing or adding articles, and removing plural markers from plural nouns (i.e. creating bare noun errors). This resulted in a total of 20 errors, which included seven bare count noun errors, four generic count noun errors, four generic noncount noun errors, four uniqueness errors and one proper noun error. This distribution of errors is similar to the salient errors identified in the Chinese HEFP corpus except for proper noun errors. Ideally, there should have been slightly more proper noun errors (about 2 or 3



proportionally), but the text happened to have just 3 proper nouns, and so it was difficult to create that kind of error.

To make the text less foreign-sounding, my supervisor helped me to reword the original text without altering much of its meaning or changing the “designed” errors. The final version of the text and the original excerpt are provided in Appendix C. The text was sent to a College tutor on 02/11/04, and she agreed to administer the proofreading task in class. 132 foundation students (including non-Chinese students) did the task and all the completed texts were returned to me.

To find a consensus about the appropriacy of the corrections students made, 8 native speaker staff members at CELTE, Warwick University, were asked to proofread the text. Apart from a few errors which some members failed to identify due to carelessness, most “intended” errors were identified. Finally an agreed correct version was made (see Appendix D).

#### **7.5.1.2 Treatments**

Treatments were rendered on five consecutive Tuesdays between 09/11/04 and 07/12/04. In the first session, I briefly introduced the students to my research project and GrammarTalk, and they then did the first three exercises in the noun section. After the first session, it was decided that students would first review the exercises they did in the previous week and then do three “new” ones in each session. In this way each exercise would have been practised twice at the end of the treatments.

Table 7.7 outlines the five sessions in terms of practised exercises, number of students and duration.

	<b>Exercises reviewed</b>	<b>New exercises</b>	<b>No. of students</b>	<b>Duration</b>
09/11/04	None	Noun Ex1, 2 and 3	14	30 mins.
16/11/04	Noun Ex1, 2 and 3	Article Ex1, 2 and 3	6	60 mins.
23/11/04	Article Ex1, 2 and 3;	Article Ex4, 5 and 6	4	60 mins.
30/11/04	Article Ex4, 5 and 6;	Noun Ex1, 2 and 3	3	60 mins.
07/12/04	Individualised exercises assigned	Word Use	3	60 mins.

Table 7.7: The five sessions of treatment

Because the materials are designed for self-study use, I did not need to teach the students. In each session, I only told them which exercises to review and which new ones to explore. At the end of each session, I rewarded them with chocolate bars.

Most exercises functioned well, and no technical problems occurred, which supported the advantages of using the basic objects Visual Basic (VB) provides and not some non-basic VB objects (e.g. sound, video). The only problem encountered was that Noun Exercise 5 (Can you correct the errors?) could not run because it employs a non-basic object, RichTextBox, and requires the installation of a RICHTX32.OCX onto the server machine, which was not allowed by the College.

### **7.5.1.3 posttest**

It was decided to administer the posttest at the end of Session 4 instead of Session 5 considering that the three students had practised all the exercises twice, and that they might be too busy to attend the last session because they were having exams the same

week. They were required to do the same proofreading task they had done a month previously (02/11/04). The task took about 15 minutes, and three edited texts were received.

### 7.5.2 Results

The results of the three students' proofreading tasks are given in Table 7.8.

	Pretest Correct corrections	Immediate posttest Correct corrections
Student A	9	13
Student B	8	12
Student C	8	8

Table 7.8: The results of the proofreading posttest

Table 7.8 shows that Student A made 4 more correct corrections (from 9 to 13), student B made 4 more correct corrections (from 8 to 12), but student C did not improve (from 8 to 8).

### 7.5.3 Discussion

The results of the post-test suggest that GrammarTalk may be effective for some learners, but not for everyone. It is interesting to note that although students B and C had the same score in the pre-test, student B outperformed student C in the post-test. It is speculated that some factors might have contributed to the different results. For



example, the two students may have different learning strategies or preferences for learning media. This point is raised because in the treatment sessions, student B seemed to be very comfortable with the use of the e-learning materials and often finished the task much faster than student C who seemed to progress from one exercise to another more slowly and sometimes failed to finish all the exercises assigned for the session. This indicated that student C processed the texts more slowly. Whether it was because on-screen text processing or she found the content difficult is not clear. It would be interesting if I could investigate why students A and B made some improvement, but student C did not.

Unfortunately the foundation students were very busy with assignments and examinations, and only three students attended all the five sessions. For this reason it was impossible to generate statistically valid generalisations about the effects of GrammarTalk on their use of the article system. Although no generalisations could be made from the evaluation, the results showed an early indication that GrammarTalk might be able to help some learners to perform better in proofreading article errors. To validate this indication, bigger-scale evaluation studies need to be conducted in the future.

## **7.6 Conclusion**

GrammarTalk had been revised iteratively and evaluated preliminarily. The results have raised a few issues which are worth further investigation. To test GrammarTalk's effect on Chinese foundation students' use of the article, it is decided that a bigger-scale evaluation study will be planned and conducted in the future.

## CHAPTER 8

### CONCLUSION

This concluding chapter aims to reflect on the whole study and draw insights from the findings reported in the previous chapters. It starts with a brief outline of the research design and targeted issues of this study, followed by the main findings in relation to my research objectives. The implications of the findings on pedagogical and research issues are also discussed. Suggestions for future research are made in the final section of this chapter.

#### **8.1 An overview of this study**

This study investigated the grammar needs of Chinese EAP Foundation students and developed customised grammar input for them, in view of the fact that they wished and needed to improve written accuracy but their courses had insufficient support in this respect. I proposed to develop this grammar input in the form of self-study electronic materials so that they could benefit the students without interfering with their classroom activities. The research process consisted of three phases. In the first phase, I adopted an approach of corpus linguistics based error analysis, and compiled and analysed a corpus of 50 essays (88000 words) produced by the students. An error tagging system was specially devised and employed in the tagging process. After the error analysis, I also surveyed foundation tutors to decide on the focus of the proposed e-learning materials. The results suggested that the article was a neglected problem and self-study materials were needed to help the students to tackle this problem. In

the second phase, I investigated article pedagogy, SLA theory, grammar teaching approaches and CALL methodologies, and the treatments provided in textbooks and pedagogical grammar books. The foundation tutors' suggestions were also elicited. The investigation led me to formulate my materials design principles and design 11 activities treating the article errors identified in the students' essays. In the final phase I refined these materials through three pilot studies and evaluated their effect on Chinese students' use of the article. The main findings in the above three phases are summarized in the following section.

## **8.2 Summary of the main findings**

The main findings in each of the three phases are summarised as follows:

### **8.2.1 The first phase - Error analysis**

#### **1. Systematic error patterns and L1 transfer**

A salient feature of the EA results is that the frequent errors identified in the corpus often show some systematic patterns. This confirms Corder's (1967) view that L2 learner errors are produced following a system and are themselves systematic. The foundation students have similar backgrounds in terms of prior English learning experience, proficiency level and the mother tongue, and their frequent errors do show some systematic patterns (see Section 4.3). A probe into the systematic errors reveals that L1 transfer may be one of the main contributing factors. For example, the students tend to use a bare singular count noun instead of a plural form in a generic sentence. This error strongly suggests negative interference from their L1 because



bare singular nouns are usually used for generic reference in the Chinese language. This study also lends support to the assumption that learners with the same L1 are likely to have similar problematic areas when learning an L2, as the frequent errors identified in my corpus are similar to those found in other studies of Chinese learners of English (e.g. Milton, 2001; Papp, 2004).

## 2. Chinese students' formal errors

The students' formal errors were analysed from two analytic perspectives (for detailed analysis, see Section 4.3). In terms of linguistic categories, the students made more grammatical errors than lexical-grammatical or lexical errors. The top ten problematic broad categories of grammatical errors were determiner, noun, verb, preposition, punctuation, sentence part, tense/aspect, modal, conjunction and pronoun. The main categories of lexical-grammatical errors involved, in order of frequency, the syntactic complementation of a word (a verb, a noun or an adjective), the countability of the noun, and the structure of the transitive verb. The main lexical errors were, in order of frequency, lexical misconceptions, collocational errors, misspelling and non-existent words. An examination of all the salient errors in the three language levels showed that the top ten most frequent error features were:

- 1) Missing definite article
- 2) Bare count noun for plural
- 3) Redundant definite article
- 4) Misselection of preposition
- 5) Lexical misconception
- 6) Wrong tense and aspect
- 7) S-V non-agreement
- 8) Wrong collocation
- 9) Missing 'a'/'an'
- 10) Comma splice

These results revealed some salient features of the students' interlanguage grammar (see the discussion in Section 4.3.1.5). For example, mismanagement of the article system was the most frequent cause of grammatical error while tense and aspect errors were less frequent.

In terms of surface structural deviances, the data showed that misselection was the most frequent error type, followed by omission, overinclusion, misformation and misordering. Conceptual misselections significantly outnumbered mechanical misformations, and the definite article was the most frequently omitted or overincluded word.

Because of their high frequency of occurrences, article errors were examined in detail and their distribution was found in seven categories (see Section 4.4.1) which, in order of frequency, are omission of the definite article, bare singular noun for plural form, overinclusion of the definite article, omission of the indefinite article, misselection between *a/an* and *the*, overinclusion of the indefinite article, and misformation of *a* for *an*. The top ten article and article-related error features were:

- 1) Generic or non-specific bare count nouns
- 2) Generic or non-specific noncount nouns with a redundant "the"
- 3) Proper nouns with a missing "the"
- 4) Generic or non-specific plural count nouns with a redundant "the"
- 5) The only thing without "the"
- 6) Qualified nouns (nouns with postqualifiers) without "the"
- 7) Bare singular count nouns without "a/an"
- 8) Misselection between "a/an" with "the"
- 9) Generic bare singular count nouns without "the"
- 10) Proper nouns with a redundant "the"

The data revealed that the definite article was more problematic for the students than the indefinite article. The main problems with the definite article involved its overinclusion in generic noncount noun phrases or generic plural noun phrases, its omission in unique nouns, qualified nouns (nouns with postqualifiers) or generic bare singular nouns, and its misuse with proper nouns and special groups of words. Errors of using bare singular nouns for plural forms appeared to be most frequent, which I suggested might result from L1 transfer (see the discussion in Session 4.4.2).

### 3. Foundation tutors' perceptions

To decide which error to be prioritised for treatment, seven foundation tutors were surveyed, and the results showed a striking difference between the tutors' perceptions and the EA results (see Section 4.5.2). The tutors generally felt that errors of tense and aspect were much more frequent than errors of 'bare singular noun without determiner' (e.g. a missing definite article) and errors of 'redundant definite article'. They also regarded tense/aspect errors to be much more serious and need to be given special attention, but not the other two error features. These perceptions led me to conclude that the misuse of articles was a neglected problem, which encouraged me to prioritise article errors for treatment.

### 4. Tagging system development

In this study, an error tagging system was specially devised through three developmental stages. I adopted Milton and Chowdhury's principle (1994) to start with a tentative taxonomy with no completely prescribed tagset and added new categories based on the patterns that emerged as I proceeded through the corpus. This has proved to be a good way of compiling a tagset. Another finding is that



exemplifying tags is a better way to distinguish different tags than providing general definitions. This supports Dagneaux, Denness and Granger's (1998) proposal to build "an error tagging manual, which defines, describes and illustrates the error tagging procedures" to facilitate a consistent tagging.

Unlike Dagneaux et al's one-dimension descriptive system, I attempted a two-dimension descriptive scheme in which an error was described in terms of linguistic categories and surface deviances. The level of language the error affects was also indicated. A tag thus consists of three parts that form a hierarchical structure. This has proved to be an effective way of describing errors and facilitating error retrievals at different language levels, word classes and their sub-types.

My tagging system was complicated because I wanted to examine learner errors in detail with the combination of a detailed tagging system and a text retrieval program. The results have proved that the detailed system is useful as it enables me to scrutinize errors efficiently. It was, however, difficult for other coders to follow. The experience from inter-rater agreement checking conducted in this study indicated that agreement could be further improved if the system was simpler (e.g. using broader categories) or if the coders were first trained to familiarize themselves with the system.

### **8.2.2 The second phase – Materials development**

#### **1. Textbooks and pedagogical grammar books**

In order to devise remedial materials for the foundation students, nine textbooks and seven pedagogical grammar books were examined for treatment. The results showed

that the article was not given priority in the textbooks. Treatments, if provided, were generally brief and shallow. Pedagogical grammar books provided more detailed treatments and introduced most of the forms and concepts associated with the article. However, their effect as a means of tackling Chinese learners' article errors in academic writing might be limited in view of some drawbacks such as the language and tasks used in those materials. They tend to use simple and non-academic language and provide decontextualised exemplars on everyday topics associated with concrete objects and ideas. Many of them adopted a design of deductive presentation and productive practice although some included a wider range of presentation styles (e.g. deductive and inductive) and exercise types (e.g. C-R tasks). It was concluded that customised remedial materials should be developed to reteach the Chinese EAP students the correct use of the article in academic writing.

## 2. The proposed materials

My proposed materials are to tackle Chinese EAP learners' article errors. The content is based on the students' article error profile and insights drawn from my investigation into article pedagogy (see Sections 5.1 and 5.2). It generally accords with Master's (1986, 1990) proposal and those provided in the pedagogical grammar books examined in terms of target features/concepts and sequence of treatment (for detailed discussions, see Sections 5.2.5 and 5.4.1). My proposed reteaching plan is as follows:

<b>Sequence</b>	<b>Target feature(s)</b>
1	Count vs noncount nouns Singular vs plural nouns Bare count noun errors
2	Definiteness/indefiniteness, Specificity/non-specificity, Shared knowledge between writer/speaker and reader/listener
3	Generic or non-specific noncount nouns
4	Generic or non-specific count nouns
5	Unique nouns and qualified nouns
6	Proper nouns, idioms

My investigation into SLA theory and grammar pedagogy shows that conscious noticing is important for ‘learning’ target L2 items, and that C-R tasks which encourage inductive learning and self-discovery can better achieve conscious noticing. The interactionist accounts of SLA have identified in the L2 acquisition process six progressive stages: input, apperceived input, comprehended input, intake, integration and output (Gass, 1997). My materials focus on the first three stages of the process and provide grammar consciousness-raising activities and interpretation activities, which I hope will be able to facilitate effective input noticing and processing and intake, and pave the way for successful output in the classroom and in naturally occurring discourse. The activities are characterized by four features: 1) pedagogically sound input to enhance noticing, 2) structured data to encourage inductive learning and correct form-function mapping, 3) discovery activities to actively engage learners in clue-searching and rule-formulating, and 4) authentic learner errors to enable learners to notice the gaps between their own interlanguage and the target L2. Some production activities have also been devised with a view to embarking learners on the process of hypothesis-testing and rule-refining. The texts used in the exercises were drawn from the Chinese foundation corpus, and also from



assignments produced by proficient student writers (the pilot corpus of British Academic Written English). I hope that the use of EAP language can encourage learners to practice the role and function of the target L2 form in the expression of complex meaning so that they can become more competent in maintaining accuracy when required to attend to both meaning and form in their writing. In terms of presentation, a compromised approach suggested by Eisenstein (1987) was adopted. Learners are first encouraged to formulate rules using the data provided, and rules are then presented to them. In terms of contextulisation, both continuous texts and isolated sentences were used in the exercises depending on whether the rules involved were semantically, syntactically or lexically based. As for metalanguage and the L1, it was decided that terminology should be used in the instructions and the students' L1 (Mandarin) should not be used considering that the target students were intermediate and upper intermediate students and had systematically learned grammar in their prior English learning experiences.

### 3. Self-study e-materials development

GrammarTalk went through three main piloting-revising processes, which demonstrated that the development of CALL materials was, as Hemard (2003) pointed out, an iterative process. Since GrammarTalk is meant for self-study use, it is found that the biggest challenge in terms of design is to provide adequate support for users. This includes the provision of clear and efficient instructions to guide users around the materials, and helpful and easy-to-understand feedback when they get stuck or get an answer right or wrong. Ideally each user action needs to be supported by program feedback, and the operation of the program should be simple because the adopted language (academic texts) and tasks (C-R tasks) are difficult.

### **8.2.3 The third phase – Materials evaluation**

A small-scale materials evaluation was conducted, in which three East Asian EAP college students (two Chinese and one Korean) volunteered to participate in the experiment and completed five one-hour sessions of *GrammarTalk* in five consecutive weeks. The learning results of the students showed that two students improved their performances in a proofreading task while the other one did not.

Although no generalisations could be made from the evaluation, the results implied an early indication that *GrammarTalk* might be able to help learners to perform better in proofreading article errors in academic texts.

### **8.3 Implications of the findings**

The above findings have some important implications on both SLA research and L2 pedagogy. Firstly, they demonstrate that L2 learner errors are systematic in nature, that learners with the same linguistic background tend to have similar problems with the L2, that EA is a useful tool, and that the results of an EA study can inform the design of remedial materials and a reteaching program. They support the hypotheses underpinning the present study that L2 errors occur in systematic patterns, and examining the errors can reveal the learner's linguistic problems and inform his/her immediate learning needs. This means that EA targeting at a particular learner group is very valuable. It can help researchers to outline the general developmental sequence a particular group of learners follow, and to understand the strategies they employ in their learning process (e.g. L1-L2 translation). In terms of L2 pedagogy, EA results can inform L2 teachers of learners' interlanguage grammars – how far they

have progressed towards the target L2. This suggests that an effective way of error correction is to conduct a systematic EA of learner production and design remedial materials to support learners, which support Hendrickson's (1978) and Ferris' (1999, 2002) proposals to conduct error correction in the light of EA results.

Secondly, theoretically speaking, EA-informed customised remedial materials should have the potential to treat learner errors. The results of the small-scale evaluation seem to partially support this theory and the hypothesis that self-access e-learning grammar materials can effectively help the L2 learner to improve accuracy. Further research evidence is needed to fully validate these claims.

Thirdly, the evaluation also implies that not everyone will benefit from GrammarTalk. This has raised the following issues which can contribute to the effectiveness of GrammarTalk and are thus worth future study:

- 1) Is the length of the treatment long enough?
- 2) Are the instructions and feedback clear and comprehensible enough to help 'all' users formulate satisfactorily correct rules? Are they too difficult for some users to process correctly?
- 3) Would the GrammarTalk materials be more effective if they were delivered in a face-to-face mode?
- 4) Do some users learn better if the materials are print-based instead of computer-based?



## 8.4 Suggestions for further research

This study has dealt with the challenge of compiling and analysing a Chinese HEFP corpus, developing electronic remedial materials and evaluating their effect on Chinese learners' use of articles in academic writing. Due to its large scale and the time constraint, some issues have remained unexplored or partially solved, and further research is urgently needed. For example, the materials evaluation in the final phase of this study was not very successful because many volunteers dropped out of the experiment. I need to rearrange a larger-scale evaluation with a foundation group in order to gain valid generalisations about the effectiveness of GrammarTalk. Another issue I would also like to investigate in the future is to probe the factors which can contribute to the effectiveness of GrammarTalk. This question has been raised from the evaluation in which students B and C benefited differently from the materials although they had the same score in the pre-test.

Apart from the two issues above, further research is called for to investigate the following issues:

1. This study only examines the students' errors, but not non-errors. EA, in this study, is not an end, but a means to an end, and it has fulfilled its function – to serve as a tool to help me uncover Chinese foundation students' immediate grammar problems. In future studies it would be interesting to examine both errors and non-errors so that the students' interlanguage grammar can be described as a whole and problematic areas can be more accurately pinpointed.

2. This EA study is cross-sectional in nature and this can seldom inform us about how the learner develops L2 competence over time. It is useful to conduct longitude EA study to probe the developmental sequence of the Chinese EAP learner.
3. The tagging system I have devised is based on 50 essays (88,000 running words), and the tagset is generally sufficient for the errors identified in them. However, it is possible that the tagset cannot cater for the needs of some errors which did not occur in my corpus. More work should be done to exhaust possible tags. This means that the system should be applied to more essays in order to uncover possible tags. A more complete tagging manual should also be compiled to illustrate any ambiguities that are likely to occur.
4. The Chinese HEFP corpus consists of 50 Social Studies essays. As a result, the texts used in GrammarTalk are mainly related to Social Studies topics, which may bore non-Social Studies students. Some participants in materials piloting have pointed out this problem and suggested the inclusion of texts of different subjects. Further work should be done to expand the Chinese foundation corpus – not only to collect more essays but also to include texts from different subjects. In this way, GrammarTalk can have more varieties of texts to attract students, and learner errors can be compared between different subject areas.
5. This study only examines Chinese students' article errors in depth and GrammarTalk only focuses on article errors. Other errors, although having been provided with some frequency data, were not scrutinized in detail. Further research is needed to investigate these frequent error types (e.g.

preposition, lexical misconception, tense and aspect) to probe their systematic error patterns and develop remedial materials to treat them.

6. The present version of GrammarTalk is targeting at intermediate or upper-intermediate Chinese foundation students, and metalanguage terminology is used and the learners' L1 is not used in the instructions. To investigate the advantage or disadvantage of this design, different versions of GrammarTalk (e.g. the English-Chinese version) may be developed and tested for their relative effectiveness.



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## APPENDIX A

Dear HEFP tutors

*I am a research student at the University of Warwick. Currently I am embarking on a project aiming to develop grammar practice materials for Chinese learners on the HEFP. Your experience and suggestions are extremely valuable in helping me make the materials more feasible. I would be very grateful if you could share with me some of your thoughts on the following questions. Thank you.*

1. Do you feel Chinese students are generally weaker than European students in their English? (Please tick  $\surd$  the answer)

Yes       No

2. If the answer is yes, please indicate in which area you feel Chinese students are weaker. (1 = much weaker, 2 = a little weaker, 3 = not weaker. Please tick  $\surd$  the answer)

1	2	3	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reading
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Speaking
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Listening
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Writing
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Grammar
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vocabulary
			Other _____

3. In terms of grammar, what kind of formal error do you feel occurs very frequently in Chinese students' writing? (1 = very frequently, 2 = quite frequently, 3 = not frequently. Please tick  $\surd$  the answer)

1	2	3	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Redundant definite article
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Bare singular count noun without determiner
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Singular noun form instead of plural
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Non-agreement between S-V or NP-V
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wrong preposition
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tense and aspect
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Relative clause
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lexical misconception
			Other _____

4. What kind of formal error do you think is serious enough to be given special attention in the learning programme?

(1 = very serious, 2 = quite serious, 3 = not serious. Please tick  $\surd$  the answer)

1	2	3	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Redundant definite article
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Bare singular count noun without determiner
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Singular noun form instead of plural
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Non-agreement between S-V or NP-V
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wrong preposition
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tense and aspect
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Relative clause
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lexical misconception
			Other _____

## APPENDIX A (Continued)

5. Do you usually correct students' grammar errors in class if you think they are serious?

Yes       No

Any additional comments .....

6. If the answer is yes, in what way do you usually correct them?  
(Please tick  $\checkmark$  all applicable answers)

- Implicitly correct the error using corrective recasting (i.e. provide the correct form)  
 Explicitly point out the error and provide the correct form  
 Explicitly point out the error and provide the correct form and rule  
 Implicitly provide the correct form and explicitly treat the error at another time (e.g. in a tutorial or optional language support session)

Other \_\_\_\_\_

7. If the answer is no, could you state why you prefer not to correct them in class?  
(Please tick  $\checkmark$  all applicable answers)

- I do not have time to correct students' grammar in class  
 I do not want to interrupt communicative activities  
 I think incidental grammar instruction in class does not help students' grammar

Other \_\_\_\_\_

8. Are students required to use grammar books in any of the English classes?

Yes       No

Please indicate which book(s) \_\_\_\_\_

9. Are students recommended any grammar books to use outside class?

Yes       No

Please indicate which book(s) \_\_\_\_\_

10. Would you welcome some remedial grammar practice materials especially written for Chinese learners?

Yes       No

Any further comments \_\_\_\_\_

If you have any suggestions regarding these remedial materials please write them here:

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Please return forms to [feiyuchuang@hotmail.com](mailto:feiyuchuang@hotmail.com) or send to Hilary Nesi in CELTE, University of Warwick ([h.nesi@warwick.ac.uk](mailto:h.nesi@warwick.ac.uk)) *Thank you very much.*

## APPENDIX B

### *GrammarTalk* Questionnaire (nouns)

Thank you for looking at *GrammarTalk*. I would be very grateful if you would complete this questionnaire to help me make the materials as useful as possible.

#### A. About you

What subject are you studying? (e.g. Engineering, History of Art)

.....

What country are you from? .....

I may want to contact you to talk a bit more about *GrammarTalk*. If you are willing, please give me your email address: .....

#### B. About *GrammarTalk*

**Please indicate if you agree or disagree with the following statements:**

(strongly disagree = 1, disagree = 2, agree = 3, strongly agree = 4)

- |  |               |
|--|---------------|
| 1. The program is easy to use                                | 1 / 2 / 3 / 4 |
| 2. I like the screen layout                                  | 1 / 2 / 3 / 4 |
| 3. I can easily find my way around the materials             | 1 / 2 / 3 / 4 |
| 4. The instructions are clear.                               | 1 / 2 / 3 / 4 |
| 5. <i>GrammarTalk</i> is useful to me.                       | 1 / 2 / 3 / 4 |
| 6. <i>GrammarTalk</i> is interesting.                        | 1 / 2 / 3 / 4 |
| 7. I can understand the feedback when I get an answer wrong. | 1 / 2 / 3 / 4 |

***GrammarTalk* helps learners understand how to use nouns correctly in English**

**Please indicate if you agree or disagree with the following statements:**

- |   |               |
|---|---------------|
| 8. I understand more about nouns now I have used <i>GrammarTalk</i> .       | 1 / 2 / 3 / 4 |
| 9. I will make fewer mistakes with nouns now I have used <i>GrammarTalk</i> | 1 / 2 / 3 / 4 |

#### 10. What do you like about *GrammarTalk*?

.....  
.....  
.....

#### 11. What do you dislike about *GrammarTalk*?

.....  
.....  
.....

#### 12. Have you any suggestions for improving the materials?

Use the other side of the sheet to add any other comments.

*Thank you very much for completing this questionnaire!*



## APPENDIX B (Continued)

### GrammarTalk Questionnaire (articles)

Thank you for looking at *GrammarTalk*. I would be very grateful if you would complete this questionnaire to help me make the materials as useful as possible.

#### A. About you

What subject are you studying? (e.g. Engineering, History of Art)

.....

What country are you from? .....

I may want to contact you to talk a bit more about *GrammarTalk*. If you are willing, please give me your email address: .....

#### B. About *GrammarTalk*

**Please indicate if you agree or disagree with the following statements:**

(strongly disagree = 1, disagree = 2, agree = 3, strongly agree = 4)

- |  |               |
|--|---------------|
| 1. The program is easy to use                                | 1 / 2 / 3 / 4 |
| 2. I like the screen layout                                  | 1 / 2 / 3 / 4 |
| 3. I can easily find my way around the materials             | 1 / 2 / 3 / 4 |
| 4. The instructions are clear.                               | 1 / 2 / 3 / 4 |
| 5. <i>GrammarTalk</i> is useful to me.                       | 1 / 2 / 3 / 4 |
| 6. <i>GrammarTalk</i> is interesting.                        | 1 / 2 / 3 / 4 |
| 7. I can understand the feedback when I get an answer wrong. | 1 / 2 / 3 / 4 |

***GrammarTalk* helps learners understand how to use *the* (the definite article) correctly in English**

**Please indicate if you agree or disagree with the following statements:**

- |  |               |
|--|---------------|
| 8. I understand more about articles now I have used <i>GrammarTalk</i> .     | 1 / 2 / 3 / 4 |
| 9. I'll make fewer mistakes with articles now I have used <i>GrammarTalk</i> | 1 / 2 / 3 / 4 |

#### 10. What do you like about *GrammarTalk*?

.....

.....

.....

#### 11. What do you dislike about *GrammarTalk*?

.....

.....

.....

#### 12. Have you any suggestions for improving the materials?

Use the other side of the sheet to add any other comments.

*Thank you very much for completing this questionnaire!*

## APPENDIX C

### The Original Excerpt for the Proofreading Test

However, if the government restricted the use of the car, a number of problems would occur. One of the major problems is, for example, there are millions of people that are working in the car industry. Those workers would lose their job if the government restricted the use of the car. The fewer cars are produced the higher the unemployment rate will be. As a result, the higher unemployment could lead to economic problems.

In the free societies, people freely choose how to travel. People will not be coerced into public transport, they have to be attracted, and the automobile is a formidable competitor for public transport. In order to reduce traffic congestion and air pollution, the government should make the public transport more attractive than the car industries.

In public transport's challenging environment, strategies must be carefully chosen to obtain the best possible results. From the more expensive to the least expensive strategies, these include development of rail systems, development of bus systems and high occupancy vehicle lanes and priority for public transport vehicles on city streets. More frequent services, lower fares in high demand areas, timed transfer systems in low-density areas, incorporation of minibus services, and demand management (such as telecommuting, the four day work week, the nine day fortnight and flexible working hours). Let us see some examples. In Los Angeles, a 40 percent of the increase in commuters occurred when passenger fares were reduced by 40 percent (1982 to 1985) (<http://www.publicpurpose.com/pp-nz91.htm>). This is a larger commuter increase than is projected for the new rail routes being developed. The next example is a 40 percent increase in commuter resulting from a 60 percent increase in public transport bus service in Fort Wayne, Indiana (1985 to 1988) (<http://www.publicpurpose.com/pp-nz91.htm>). What's more, in Edmonton, Alberta, redesigning bus services as "timed transfer" systems increased public transport use in the suburbs.





