Error Analysis and CFL Learning in Northern Ireland: Error Processing by Beginners

北爱尔兰汉语初学者偏误辨析及其对策

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Abstract: Error Analysis (EA) is a cognitive process that complements language learning. While EA research literature has drawn mostly from English as a Foreign Language (EFL) contexts for its data, Chinese as a Foreign Language (CFL) learner errors also prove a rich resource which, understood and turned to the learner's advantage, offer a means to create informed personalised cognitive approaches to learning and 'honing' one's Chinese. This paper explores the strengths and limitations of an EA approach among beginner-level learners of Chinese in an English-medium university in Northern Ireland. Learners are found to have much to gain by activating cognitive learning processes as early and as effectively as possible, allowing momentum and motivation to be maintained despite the potentially daunting prospect of acquiring an unfamiliar 'new' linguistics of tones and characters. The paper briefly reviews EA in theory and reports on authentic practice. Errors from class, coursework and test sources are categorised, analysed for likely cause and then strategized for future treatment. The study establishes a 'live' taxonomy of its small population's error processing, including details of teacher interventions. EA experienced as an ongoing learning process appears to offer scaffolding and assurance, as well as a potentially enjoyable and 'thinking' journey towards accuracy, an educational strategy this group of beginner CFL learners in a Northern Ireland university responded to very positively.

Keywords: Teaching Chinese as a foreign language (TCFL), error analysis (EA), error treatment strategies, cognitive linguistic error processing.

1. Introduction

Not only is CFL relatively younger than EFL as a research field, the language of its concern is not the predominant international medium of academic discourse. CFL draws upon established theoretical expertise that remains relevant to all second language learning. In recent years, CFL's relationship with Chinese linguistics has begun to attract the attention of experimental and theoretical linguists (eg. Jiang, 2009; Morbiato, 2014) as the pace and scope of research into specifically Chinese language learning and teaching grows. A train of academic thought is cohering around the centrality of word order not just to the cognition of Chinese but also to its acquisition. Chinese syntax principles and their interplay with acquisition processes are increasingly attracting the attention of CFL researchers and practitioners.

The two most spoken languages in the world today are gigantic in different ways, one internationally, the other domestically. And yet, as the number of human beings studying Chinese as an additional language rapidly rises, the 21st century is witnessing Chinese language and culture internationalise as never before. In the wake of this massive wave of Chinese learning, more theoretically integrated research and specialisation is likely to be seen. In obvious contrast with EFL, Chinese tones and characters present a different set of learning challenges across the four skills than those presented by the phonology and alphabet of English; it is widely acknowledged that a great deal remains unknown about the acquisition of Chinese characters (Chen, Wang, and Cai, 2010).

Few in the field of second language (L2) learning research would doubt that the practical application of error analysis (EA) is of genuine interest to L2 teachers everywhere, whereas an unresolved theoretical debate about the potential contribution of cognitive linguistic error processing to second language acquisition perhaps less so. In this paper, the error processing of 68 learners at beginner level is analysed and tabulated into a pragmatic 'live' taxonomy of the processes and strategies individuals undertook in the course of their early acquisition of Chinese. Practical tools and helpful strategies are sought rather than ideological progress in Second Language Acquisition Theory (SLA). In short, it is versions of EA that individual learners will actually find personally effective that interests this research. The aim of this work was to gain deeper insights into the benefits and limitations of individualised, personalised language error processing. The cognitive functional aspects of developing skill in an additional language suggest strategies such as heightened awareness and conscious noticing of one's own errors, using self - analysis and self - correction strategies, are not only effective but also, interestingly, can be supported and facilitated by another's intervention, or 'teaching'. The

personalised taxonomic approach adopted in this action-based study is offered as one tool from the many available in TCFL, not as a fixed ideology of learning.

2. Study data

This paper reports on the errors made by CFL beginners at the School of Modern Languages, Ulster University (SML of UU) in Northern Ireland. The data was gathered from notes, recordings and samples of class activities, regular language assignments, quizzes, class tests, and both oral and written examinations. Errors that exemplify type and cause are tabulated, showing what the error was and how it was processed. The table presents a human being - sourced taxonomy that attempts to succinctly capture the EA process individual learners engaged in. It includes their actual errors, with analysis of type, cause, nature and treatment strategies, which may include teacher interventions and scaffolding to assist the learning process, especially at beginner levels. The data was collected in the academic years 2013/2014 to 2014/2015. The total number of learners was 68, of whom only 5 did not come from Northern Ireland's culturally complex society. They were working with a core textbook, *Discover China, Book One* (Ding, 2010). In addition to the common and predicted errors such as omission, addition, misuse, or misordering caused by MT negative transfer or different learning strategies (eg Li, 2012, Xu, 2011, Xing, 2007), a range of errors appeared whose nature and cause could not necessarily be fully described within predicted frameworks, and yet of course, as individual errors, were absolutely predictable in the sense that 'to err is human'.

3. Error processing among 68 beginner-level undergraduate learners in Northern Ireland

Taxonomy of error processing 2013/14 to 2014/15 School of Modern Languages Ulster University			
Speaking			
Error / correct form	Identification/type	Nature and cause	Processing strategies / teacher's scaffolding in students' MT (italics)
菜：zài/cài 餐：zān/cān	Initial error	Mispronunciation of consonant 'c' as 'z' Mismatch between pinyin phonology and MT. Misreading of pinyin a form of interlanguage	Sound discrimination practice for both reception and production of target item as required. For early beginners, continuous familiarization with pinyin system, teacher using learners' MT to discuss and present correct phonology: examples in italics below *Try thinking of the pinyin 'c' sounding like the 'ts' in 'meets' and the 'z' like the 'ds' in 'beds',…*
师：sì/shī	Initial error	Mispronunciation of 'sh' as 's' Explicable only really at individual level as possible conflation of Chinese as an additional language with other additional modern language(s)	*… the 'sh' like the 'sh' in 'shirt, wish' and 's' like the 's' in 'sir',…* Sound discrimination practice for both production and reception of the target item; confirmation that individual learner recognises close resemblance with MT system
人：yín /rén	Initial and final errors	Mispronunciation of 'r' as 'y', and 'en' as 'in', for 'r' MT phonological interference: tip of the tongue is not curled up	*… 'r' in English this is like the 'r' in 'ray', 'y' like 'y' in 'yell', 'en' like; 'un' in under, 'in' like 'in' in 'pink'; …* Sound discrimination practice
厨：chú/qú	Initial error	Mispronunciation of 'ch' as 'q'; MT phonological interference	*…this is the Chinese 'ch' which in English is like the 'ch' in 'church',…* Sound discrimination practice
买 mǎi：ài or měi/ǎi	Final and tone error	Mispronunciation of 'ai' as 'ei', the 3rd tone as 4th Misreading of pinyin a form of interlanguage	*…the Chinese 'ai' in English like the sound of 'y' in 'sky', 'ei' like 'ay' in 'play',…* Sound and Tone discrimination practice

西安：Xian/Xi'an 天 安 门：Tiananmen / Tian'anmen	Two separate syllables liaison error	Syllable-dividing marks ' had been ignored Misreading of pinyin a form of interlanguage	*Notice something: Chinese characters are monosyllabic… that punctuation indicates a division, not a merging together…*
不是：bù shì/**bú** shì	Tone sandhi of '不'	Misled/confused by the textbook: pinyin gives the character's original tone 不 bù unchanged	Teacher imparts knowledge of Tone sandhi '不'; in discussion students are encouraged to identify the wrong tone mark and correct it
一 双：yī shuāng/**yì** shuāng 一条：yī tiáo/**yì** tiáo 一起：yī qǐ/**yì** qǐ 一件：yī jiàn/**yí** jiàn	Tone sandhi of '一'	Misled/confused by the textbook: pinyin unchanged, showing the character's original tone 一 yī	Teacher imparts knowledge of Tone sandhi '一'; in discussion students are encouraged to identify the wrong tone mark and correct it
Word order: speech errors / correct forms			
您好，老师李！/您好，李老师！	Word misorder	MT negative transfer Unfamiliarity with Chinese word order principles	Knowledge of 'surname + title' in Chinese, and self-correction
进，请！/请进！	Word misorder	MT negative transfer Unfamiliarity with Chinese word order principles	Knowledge of 请 being always placed at the beginning of an expression to make a polite request, and self-correction
我有二弟弟。/我有两个弟弟。	Misuse of 二 and 两，and a missing measure word	MT negative transfer Unfamiliarity with Chinese principles	Knowledge of different usage of 二 and 两 (followed by a MW and representing a single digit); self-correction
Character writing			
木 / 不	Similar-looking but different sound and meaning	Wrongly written characters	Knowledge, familiarity and engagement with the two different characters, elicit self-correction
有 / 友	Same pronunciation, different meaning and appearance	Wrongly written characters	Knowledge, familiarity and engagement with the two different characters, elicit self-correction Knowledge of the two difference characters, self-correction
名 / 明	Same pronunciation, different meaning and appearance	Wrongly written characters	Knowledge, familiarity and engagement with the two different characters, elicit self-correction Knowledge of the two difference characters, self-correction

		Wrongly written characters	Knowledge, familiarity and engagement with the two different characters, elicit self-correction Knowledge of the two difference characters, self – correction
问 / 间	Similar-looking but different sound and meaning		
欢（又－欠）明（日－月）饭（饣－反）	Separation of characters by hyphenating the right component to the next line	MT interference: English language punctuation conventions transferred to Chinese	…Chinese characters should not be separated by using a hyphen… Elicit self - correction
人 / 人	人（KaiTi），人（SimSun）	Minor details of different textbook fonts perceived as integral to writing when in fact merely font style	Impart knowledge, discuss individual's understanding, elicit self - correction
为 / 为	Omission of a single stroke (a dot)	Level of cognitive engagement	Impart knowledge, discuss individual's understanding, elicit self - correction
因 / 因	Addition of un-necessary stroke	Level of cognitive engagement	Impart knowledge, discuss individual's understanding, elicit self - correction
熊 / 熊	Drawing rather than writing '灬'	Pictographic rather than orthographic perception of Chinese characters	Impart knowledge of the character ' 灬 ', discuss individual's understanding, elicit self - correction
的 / 的；我 / 我	Misdirection of downward left stroke	Possible left hand/ right hand issues for some individuals; Level of cognitive engagement	Impart knowledge of stroke direction and elicit written self-correction
衣 / 衣	Misdirection (to the left instead of the right) of vertical upward stroke	Possible left hand/ right hand issues for some individuals; level of cognitive engagement with the details	Impart knowledge of vertical upward stroke writing, discuss individual's understanding, elicit self - correction

很/很	(亻) wrong radical	Level of cognitive engagement with the details	Impart and discuss knowledge of the radical ' 彳 the double-standing person side', elicit self – correction
往/休	(彳) wrong radical	Level of cognitive engagement with the details	Impart and discuss knowledge of the radical ' 亻 single-standing person', elicit self - correction
住/住	Miscollocation: (inappropriate right component)	Intralingual overgeneralisation of component writing principles; level of cognitive engagement with the details	Impart knowledge of appropriate two component relationships in writing, discuss to confirm individual's correct understanding, elicit self - correction

Punctuation

学校附近有一个公园 . /学校附近有一个公园。 他买了一条裤子，一件 T 恤，两双鞋和一件大衣。/他买了一条裤子、一件 T 恤、两双鞋和一件大衣。 我有很多要做的事…	Improper use of the full stop ' 。' Improper use of the dun-comma ' 、', the slight - pause mark Improper use of the Ellipsis '……' 6 dots	MT negative transfer Unfamiliarity with Chinese principles	…a Chinese full-stop is a hollow dot, not a solid one as in English; and the ' 、' dun-comma is peculiar to Chinese punctuation …it is used for listing items in a series: 他 买 了一条裤子、一件 T 恤、两双鞋和一件大衣。Ellipsis in Chinese language with 6 dots, not 3. Students mindfully observe and correct themselves.

Sentences

我是学生，我是不老师。/ 我是学生，我不是老师。	Misordering of 是不，不是	MT negative transfer 'I am not…' Unfamiliarity with Chinese principles	Knowledge of Grammar structures and word order principles, practice in using sentence patterns
他不有姐姐。/ 他没有姐姐。	Misuse of negator 不	Confusion of the two negators 不 and 有 Unfamiliarity with Chinese principles	Knowledge: the negative form of 有 is 没有 , not 不有
今天是很冷。/ 今天很冷。	Improper use of 是	MT negative transfer 'be' Unfamiliarity with Chinese principles	Knowledge of a distinctive feature of Chinese: Adjectives used as predicates (or stative verb) without being preceded by the verb 是 (to be), and are normally modified by a degree adverb

谁是他？／他是谁？	Misordering	MT negative transfer	Knowledge of word order in questions with an interrogative pronoun
他去了中国和朋友。／他和朋友去了中国。	Misordering	MT negative transfer	Knowledge of coverb or preposition 和，the usage of coverbal phrases
我做运动在学校。／我在学校做运动。	Misordering the location expression	MT negative transfer of word order in a sentence Unfamiliarity with Chinese word order principles	Knowledge of a particular feature in Chinese: location expressions are placed before the verb in conjunction of a coverb, not at the end of a sentence
我现在去家。／我现在回家。	Misuse of 去 in the word 'to go home' (to return home)	MT negative transfer 'go' Unfamiliarity with Chinese	Knowledge of the expression 回家
我早上七点起床，八点出家。／我早上七点起床，八点离开家。	Inaccurate use of 出	出 translated into English as 'go/come out' Unfamiliarity with Chinese principles	Knowledge of the expression 离开家 leave home
我 叫 Daniel Brown。／我叫 Brown Daniel。	Misordering of the expression: Family name + given name	Cultural unfamiliarity with Chinese	Notice cross-culturally influenced expressions; self - correction
我喜欢打篮球和我也喜欢打网球。／我喜欢打篮球，也喜欢打网球。	Misuse of conjunction 和	MT negative transfer 'and'	Knowledge of conjunction 和 'and' is used to link words and phrases, but never linked to clauses…
你喝茶或者喝咖啡？／你喝茶还是喝咖啡？	Misuse of conjunctions 或者 and 还是	The word 'or' in English has multiple uses	Knowledge of 还 是 'or' in a question, 或 者 'or' in a statement Ding, A., Jing, L., Chen, X. (2010). In alternative-question 'or' rendered as 还是，and never as 或 or 或 者 (Yip and Rimmington, 1999)
我最喜欢动物是熊猫。／我最喜欢的动物是熊猫。	Missing the attributive marker 的	Use of attributive ' 的 ' particular to Chinese	Knowledge of structural particle or syntactic marker 的，forming Attributive./modifying phrases

4. Literature-informed discussion

4.1 Chinese teaching traditions

Chinese civilisation has a long history of pragmatism, wisdom, and categorisation. Responsible, caring Chinese teachers of an additional language can be proud of an immemorial cultural tendency among Chinese pedagogues to insist on being well - equipped with a range of teaching strategies at their disposal rather than just one or two. This expertise arose from long experience of learners' struggles, successes, and failures. Teachers everywhere are often well - disposed towards taking a completely un-ideological approach to their teaching, seeking simply to apply what works well. There is wisdom in old Chinese sayings about teachers, and this wisdom is worth sharing, because it profoundly respects the individual, whose learning lies at the heart of his or her teacher's concern:

'An ineffective teacher uses 1 strategy with 50 students, whereas
an effective teacher uses 50 good strategies with one student.'

4.2 Error analysis and pedagogy

The collection, classification and analysis of errors found in the written and spoken production of learners in L2 pedagogy offers the clear benefits of a systematic approach, and a rich pedigree has developed for many different language systems. Error analysis, or "determining the incidence, nature, causes and consequences of unsuccessful language" (James, 1998, p.62) can be seen as a stage in the processing of errors in which someone thoughtfully attempts to understand how and why a certain error was made, often referring to a taxonomy which may help that someone understand and explain better how the target language works, or how it differs from another language, in particular the first language or mother tongue (MT) of the learner. Should that error be systematic in some way, the benefit of analysis is that the learner can cognitively extrapolate upon it to predict, or rather consciously avoid, further errors of that type in future (Corder, 1967). The 'someone' is often the teacher, whose error explaining and correcting role is the norm in many contexts. In many teaching contexts around the world, learners expect correction from their L2 tutors, and place stronger trust in their corrections when their experienced, qualified human resource's MT is their TL , actively requesting such

knowledge (of the target language's system and any mismatch of their own individual performance with that system). The teacher's knowledge is a resource many learners like to engage with, especially as beginners. Learner-centred CFL teaching warmly welcomes being a useful resource the learner can interact with, whatever level of Chinese already attained; EA need not be construed as negative in philosophy, nor need it take anything but a deeply respectful attitude to all students, at all stages of their learning. Young adult learners at the School of Modern Languages (SOM) of Ulster University (UU) often possessed already well-formed autonomous learning styles, and knew how to discuss their learning in an intelligent way with their teacher using their MT (English).

4.3 Characters and alphabets

Pinyin (literally 'spell sound') is a Romanised alphabetical system used to indicate the pronunciation of Chinese characters. Pinyin was created and introduced in 1958 as a method of Chinese phonetic instruction. Chinese people use characters rather than pinyin in their daily lives; its main domestic use is in helping children learn the sounds of Chinese characters. Whilst felt to be important and interesting, 'Chinese is often perceived as a difficult language in Europe, especially Chinese characters, but its difficulty lies primarily in the fact that it is so different from European languages' (Zhang, 2005, p.3). When the teacher intervenes in error processing, it may involve an explanation of characters or other Chinese conventions, delivered in a way that communicates simply and unprescriptively. Pattern drills and memorising key linking words, if performed knowingly and mindfully, are very useful and effective cognitive approaches that may not immediately appear thus on the surface. For example, students may be encouraged to imagine the character '弟' shows a younger brother like a naughty rabbit (Li, 2013); fundamentally, methods for teaching Chinese characters seem to benefit from enjoyment aims over complicated, dull explanations (ibid.)

4.4 Taxonomies

Taxonomic classification is an ancient cognitive tradition which continues to serve human civilisation well. The fact that ancient China was a cradle of sophisticated categorisation will surprise few readers of this publication; the polymath Zou Yan devised a 5 –point taxonomy of animals during the Han Dynasty (Needham, 1978). Meanwhile in the western world, two thousand years before Linnaeus' famous taxonomy of living things was published as *Systema Naturae* in 1735, Aristotle had created a taxonomy of animals (what was later known as *de Historia Animalum*) . Taxonomies and the thinking behind them are a feature of human civilisation itself. Globalised digital smart technology would not

be possible without them and, interestingly, to computer science theorists, "to cognize is to categorize: cognition is categorization⋯cognition and categorisation are one and the same" (Harnad, 2009, p.1). The error-strewn interlanguage (Selinker, 1972) our learners produced conforms generally to predicted beginner errors but can also be highly individual in character. Krashen's (1982, 1989, 2003) distinction regarding a second language between natural acquisition (where there is little if any error correction) and conscious learning (embracing error correction) seems a pragmatically reasonable (if theoretically debatable) perspective on the difference between learning that is teacher-planned and involves guided instruction, and learning that is the result of natural and spontaneous processes. So, although experienced CFL practitioners will confirm that a degree of predictability pertains regarding the types of errors typically produced at various stages in the process of learning Chinese, as teachers they may instinctively reject the potentially depersonalising effects of applying a 'one size fits all' taxonomy. To be able to provide a clear and systematic category or code for every incorrect L2 learner utterance is ultimately unnecessary. Predestined taxonomic labelling of what are surely always individual errors as merely the exposition of group behaviour risks missing the underlying pedagogic purpose of the taxonomic approach. A 'live' taxonomy would be more individualised and personal, containing errors that are in the process of being eliminated, together with raised cognitive awareness of the possible sources and remedies for such errors. As a learner progresses in Chinese, the types of errors change as do the specifics of the system and the cognitive processing required to make progress through such barriers or potential areas of fossilisation (whereby errors become permanent), which Selinker (1972) pointed out is the major danger of unattended errors.

4.5 Historical development of EA theory

The bulk of the international literature relating theory to practice in second (or 'additional') language teaching has been seeded in English language learning/acquisition contexts. In terms of historical development, the academic mainstream has followed some clear lines of thought about the role of errors in teaching and learning an additional language. In brief, these lines of late twentieth century thought began with a contrastive analysis (CA) perspective (Lado, 1957) that predicts areas of learning difficulty will arise when the learner's mother tongue (MT) is very different with respect to the particular language point at hand in the target language (TL). Correspondingly, CA also predicts that it will be relatively easy for a learner to acquire aspects of the TL which systematically resemble the MT. As a common sense theory (with a small 't') CA reflects that truth of the second language teacher's experience , that the MT is a significant source of errors and that learners inevitably compare, contrast and translate between what they know and what they are trying to learn. It is reasonable to

set down as a matter of commonly observed human behaviour that the MT is important in Chinese language teaching (CLT) just as it is in English language teaching (ELT). But this is not to imply that teachers tend to be structuralist theorists for whom all learners are essentially the same animal. The same types of errors do indeed reoccur, especially at beginner level, but a key point to emphasise is that these familiar errors occur at the individual level. Prediction, in its efforts to apply generalised patterns that repeat at group level, can be insensitive to individual differences in this context, and may fail to capture the diverse range of particular preferred learning strategies and cognitive processing that an individual may employ to learn more effectively. CA focused on predicted areas of difficulty and saw interference from the mother tongue as the principal cause of errors. From this basic starting point of comparison flowed the later realisation that errors could also be caused by the learner overgeneralising or mis-extrapolating in their production of new language – these are the intralingual errors of Corder (1967). In L2 or FL learning, making errors is considered inevitable and how they are processed has significant value for learners; there are extensive studies on learners' errors in ESL/EFL (Corder, 1967, 1981). By the late 1990s, cognitive research and theory had appreciated the role of noticing and being facilitated to notice (Van Patten, 1996; Skehan, 1998) in learning. A teacher might draw an individual's attention to a particular meaning and form relationship in the target language successfully. By cognitively engaging with the individual about her interlanguage, the teacher can help a learner develop powerful personal analytical and processing abilities that can then become part of the learner's psycholinguistic 'armory', that is, their own personal error processing strategies.

The world of ELT engaged in an extended theoretical debate about Krashen's hypotheses and model of SLA. He does not advise teachers to engage in EA: "Improvement comes from supplying communicative and comprehensible input, and not from forcing and correcting production" (Krashen, 1982, p.7). Long and Larsen-Freeman (1991) pointed out the essential improvability of Krashen's theory that acquisition depends on comprehensible input. Theorist critics of Krashen have offered alternatives such as the Incomprehensible Input Hypothesis (White, 1987) and The Product Hypothesis (Swain, 2005) that serve to remind how multi-faceted and empirically mysterious the common act of learning a second language has been found to be . Most teachers would agree in a common sense way that input is essential to learning and that motivated learners naturally try to comprehend the input they receive: it would therefore seem reasonable to most L2 teachers that input that contains both comprehensible and incomprehensible elements presents learners with a gap they may be conscious of and able to process in some way. Knowing an error has been made is also a gap that the learner may wish to fill with cognitive understanding. Focusing consciously on a specific language point at the individual level may involve the teacher supporting the individual's mindful return to an incorrect form s/he produced by imparting knowledge of the TL and discussing what the individual thinks is

causing the error from his or her perspective.

4.6 Chinese cognitive models: word order and acquisition

Chinese applied linguistics has been developing principles of word order and language acquisition, and the potential for applied research into such principles is huge. And yet, few studies have been made either to define the 'error' in a pedagogically insightful way or to empirically investigate the occurrence of errors either in linguistic or pedagogical terms (Wu, 2015). A clear relationship between Jiang's (2009) cognitive word order principles of Chinese can be seen with the ways that many CFL errors do not marry with these very principles. Jiang claims that both inter-linguistic (sourced in the MT) and intralingual (sourced in ideas about the TL) errors can be explained by the breaking of syntactical principles, which are rooted in psychological hierarchies that are specifically Chinese. Jiang's word order principles are briefly listed here: 1. The Greenberg Pattern Principle; 2. The Principle of the Modifier before Head; 3. The Principle of Temporal Sequence; 4. The Principle of Whole before Part; 5. The Principle of Container before Contained; 6. The Principle of Trajector landmark 7. The Principle of Communicative Dynamism 8. The Principle of Focus and 9. The Empathetic Principle. Morbiato (2014) traces the development of this line of thought and research back to 1960's Chinese linguistics, and sees Jiang's principles as part of the cognitive functional perspective on second language acquisition. She (ibid) confirms that acquiring accurate Chinese appears to involve the acquisition of word order patterns rooted in cognitive functionalism rather than behaviourist structuralism. Such theorising and the evidence in support of it is extremely interesting and informative to the CFL teacher. Should it be irrefutably established that Chinese word order follows a natural order of second language acquisition, then it may be expected that language courses and textbooks will be at least partly designed around such principles (Jiang, 2009).

4.7 Practice, cognition, and recognition

Through our error identification and analysis, it was clear that extra support for character recognition and writing would be beneficial. First, an assessed character writing element was built into modules in order to empower individuals to produce accurate characters without relying on pinyin. In addition, pinyin-free reading practice (Li, 2013) was integrated into every session. The Chinese word *beishu*, "memorisation", literally means "to recite the book from memory", and literal recitation is very common practice in Chinese learning styles, where it still holds regard because it is considered one of the most effective ways of reviewing; it is an active learning activity, neither mindless nor

behaviourist in its processing. By reciting what has just been 'learnt', there emerges a consolidation of knowledge and deepening of understanding. As the old Chinese adage goes: "When a person memorises 300 Tang poems, s/he is sure to be able to compose poems of her/his own even though s/he is not a poet". Students, like most individuals, respond well to recognition and respect for their talents and efforts. Ulster CFL students participated in the UK National Chinese Calligraphy Competition and all won prizes (out of total 685 competitors). The effect of public recognition on the confidence, motivation and courage of many individuals was tangibly positive, reflected in high levels of personal engagement with their learning.

5. Conclusions

This action research-based study, drawing on interlanguage produced by current beginner – level learners of CFL at the School of Modern Languages, Ulster University, confirmed the predictability of many of their errors in Chinese as commonly found in other studies of beginners. The taxonomy which was established in this study records the incidence of individual errors, their causes and nature, and details of treatment strategies involving both teacher intervention and also individual cognitive processing. Not all the errors were of a predictable nature, however. The study found unique errors that can only really be explained on the individual level or through other perspectives on their natures and causes. Encouragingly, the positive attitudes and learning outcomes that resulted from the approach taken suggest that personalised, individual EA offers students a useful scaffold. It is found that EA, although it focuses on mistakes, is not necessarily a negative process. Rather than discouraging or disappointing our learners, EA that respects the individual can be inspiring and uplifting, generating confidence and faith in the learner's own capabilities.

6. Limitations and implications

This action research-based study drew on a small, quite un-generalizable sample. While the focus of the current study was limited to beginners, as individuals progress, there should be opportunities to investigate error processing at higher levels. Chinese linguistics may provide insights into word order acquisition that will influence course design and pedagogy in the future, but at the beginner level, with many errors comprising isolated words or characters, syntax is unlikely to be the only source of mismatches with target forms. There is an enormous amount of work to be done to fully appreciate

personalised, cognitive error processing.

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