Predictors and stages of very young child EFL learners' English development in China
Sun, He

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Chapter 4

A Multiple Case Study on the Effects of Temperamental Traits in Chinese Preschoolers Learning English\(^6\)

4.1 Introduction

Over 200 million Chinese students, about 20% of the world total number of learners of English, are learning English at school (Jiang, 2003). Their starting age of learning English has decreased from eight or seven years of age to three or four at the moment, due to the national stimulation of English education, the improvement of living standards and a parental mindset along the lines of “the earlier, the better” and “we must not lose at the starting line”. However, very little is known about these young English learners, even though this new population is increasing exponentially and private English institutes as well as bilingual kindergartens have mushroomed all over China (Zhou & McBride-Chang, 2009). Most previous studies targeted at children in formal education, mainly those in primary school between six and ten years old, but “hardly any studies are available on the private sector” with children of younger ages (Nikolov & Mihaljevic Djigunovic, 2011). However, the private sector is becoming increasingly important in China and provides service for millions of families. According to the Education and Training Industry Report released by Deloitte in 2010 (“Chinese children’s English Training Markets”, 2013), Chinese parents invested more than 14 billion RMB yuan (about 2.3 billion US dollars) in their children’s English learning at private language institutes that year and this market is growing at an annual rate of 12%. It is estimated that by 2013, the English training market for Chinese children will exceed 20 billion RMB yuan. Thus, there is an urgent need for research on these children.

The young foreign language learners' initial classroom experience should be paid special attention to, since it might affect their learning motivation and outcomes later in life (Nikolov, 2001). They should also be treated as unique individuals, not as a group in which all members are assumed to be similar to each other. However, that “the young learners are alike” is still a wide misconception in the field of early language learning (Mihaljevic Djigunovic, 2009). It is high time to acknowledge the individual diversity while still exploring patterns, and to look at the variation that young English learners show during their onset period of English development. By acknowledging the diversity, children might be able to get a better start and in turn develop a positive attitude towards learning English. The present paper focuses on the onset period of English learning of four three-year-old Chinese children in a private language institute. It explores the pattern and variation of their verbal and nonverbal behavior, and tries to relate their behavior to differences in temperamental traits.
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4.2 Background

4.2.1 Developmental Phases in Young ESL Learners

A framework for developmental patterns of young second or foreign language learners would be a useful tool for teachers to gain insight into the linguistic development of young language learners and provide them with adequate support in time. The framework might be different for English as a Second Language (ESL) setting and for English as a Foreign Language (EFL) setting. ESL refers to situations in which learners and students of English are immigrants whose first language is not English, but who live in an English-speaking country and might need to learn English to communicate in daily life. EFL refers to settings in which learners need to learn English for their studies or their career, outside of the English-speaking country. In ESL contexts, studies have shown that preschoolers’ English development includes not only the development of vocabulary and grammar but also the development of other verbal and non-verbal communicative aspects, such as initiating interactions with the peers and sustaining attention from the teacher (Clarke, 1996). Clarke (1996) and Hester (1989) propose a framework of progress of young ESL learners from age three to six, taking into account both grammatical development and language-related behaviors. They generally divide the young ESL learners’ oral English development within the first three years into four stages: new to English (stage 1), becoming familiar with English (stage 2), becoming a confident user of English (stage 3) and demonstrating competency as a speaker of English (stage 4).

The first three stages, especially the first two may emerge as early as during children’s initial period of English learning in an ESL setting. Zooming in on the first year of English development of four 4-year-old Vietnamese preschoolers in Australia, Clarke (1999) further divided the first two stages and the beginning of the third stage into three phases. Phase here means “a definite change in the interlanguage that does not necessarily reflect newly developed abilities to structure the interlanguage system” (Clarke, 1999, P9). The main characteristics of each phase are as follows:

- Phase 1: The first phase is the period of initial exposure to English. Children might go through a silent period that varies in duration. They use English mainly to try and follow the interaction rather than to participate in interaction. Repetition and use of single words are frequent phenomena and children try to establish contact with teachers and peers by calling.

- Phase 2: In this phase, children start to actively use some accompanying language, such as greetings and routines, to initiate the interaction. They also rely less on repetition and...
formulaic language and use more types of single constituent constructions, especially noun phrases. Children can also smoothly switch between their first language and English.

- Phase 3: In this phase, with more confidence in English, children start to use more complex English utterances as the crucial carrier of their communication person to person or within a group.

(Clarke, 1999, P.23-24)

4.2.2 Variation: Individual differences during the onset period of oral English development

Within the general pattern, Clarke (1999) finds a significant variation in these young ESL learners’ English development, such as the time of entry into English use, the duration of each phase, and the amount of interaction with teachers and peers in English (Clarke, 1999). Take the first few weeks of English learning as an example. Some children are very extroverted and like to take risks. They try to start speaking English at the very beginning, repeating after their teacher and other children, responding nonverbally and interacting with the peers. In contrast, some children observe the teachers and peers quietly but use nonverbal responses or single words to keep pace with the teaching; while still others tend to retreat into silence and demonstrate no obvious body language (Clarke, 1999, 2009).

4.2.3 Temperamental Traits and individual language learning

How can this variation be explained? In recent years the interpretation of individual variation in early second language (L2) learning processes and outcomes mainly focuses on the following attributes: intelligence, aptitude, age, gender, attitudes and motivation, language anxiety, learning styles, strategies and willingness to communicate (Mihaljević Djigunović, 2009). However, young language learners are generally found to start learning a L2 with positive attitudes and to encounter little anxiety during the process. Most of the instruments to measure the attributes mentioned above are not sensitive enough to capture causes for the variation in language development and related behavior of children with the same age and with similar socio-economic status. Wong Fillmore (1983) and Toohey (2000) bring in another attribute, personality (e.g. outgoingness, assertiveness). In their case studies of immigrant children learning English between the ages of 5-8 among L1-speaking peers, they associate personality with children’s differences in interactions with peers, which in turn accounts for variations in their rate of acquisition. However, how the children’s personality had been assessed was not mentioned in the two studies. The general categorization
(introverted vs. extroverted) was probably based on the classroom observation of the researchers and the impression of the teachers.

A good approach to tap into young children’s personality is to assess their temperament. Temperament refers to the different perspectives of an individual’s personality (e.g. extroversion and introversion) and is considered to be inherited and substantially stable (Kagan, 2005). “Individual differences in temperament have implications for development in infancy and childhood and they form the core of personality as it develops” (Rothbart, Ahadi & Evans, 2000, 122). In recent years, temperament has been brought into young children’s language research and a growing number of studies have revealed its relationships with children’s early L1 language development (e.g. Salley & Dixon, 2007). Researchers have linked specific temperamental dimensions such as attention span and positive emotionality to receptive and productive language skills, and they have done so repeatedly across multiple lab settings (e.g. Dixon & Smith, 2000; Karrass, 2002; Morales, Mundy, Delgado, Yale, Messinger, Neal & Schwartz, 2000). The general finding has been that children who were characterized as having temperamental easiness (i.e., positive mood, long attention span) tend to be relatively advanced in their L1. More specifically, attention span, mood, adaptability, and sensitivity are assumed to correlate with language productivity. These temperamental traits can influence language learning directly (e.g. in picking up a novel word immediately) or indirectly (e.g. by promoting or inhibiting social relationships) (Rieser-Danner, 2003).

However, research into the role of temperament focused on L1 development. So far there is little research on temperament and early foreign language development. The present study aims to elucidate the role of temperamental traits on the process of early L2 development, not at learning outcomes. Each child’s amount and timing of language production, as well as the learning style will be discussed in relation to that child’s temperamental traits.

4.2.4 Research Questions and hypotheses

Based on the studies mentioned above, the following three questions have been formulated to explore the pattern, variation and interpretation of the variation in an early FL learning environment:

1. What verbal and nonverbal behavior can be observed in Chinese preschoolers in an English-learning class?

2. What variation can be observed among the children in such a class?
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3. To what extent can the observed variation be interpreted on the basis of the children’s temperament?

For question 1, it is expected that Chinese children might go through the first two phases mentioned by Clarke (1999, 2009) during the first half year of learning English. Some characteristics of each phase might be different from what was found in Clarke’s studies, since the amount of English exposure and use are different in the two settings. In Clarke’s study, the immigrant children had instructions in English every day in the kindergarten and they might get access to English media at home as well. However in the current paper, English input in EFL settings in China is quite limited both inside and outside the language school and the possibilities to use English is more rare.

For question 2, there might be considerable variation in early English development among the young language learners. Such a finding would be in line with previous studies (e.g. Clarke, 2009; Toohey, 2000).

For question 3, similar temperamental traits as those which were found to affect children’s L1 development are expected to explain the variation of children’s early L2 English learning behavior: attention span, positive/negative emotion, adaptability and sensitivity. Some new dimensions of temperament may also be found to be associated with early English language development.

4.3 Methods

4.3.1 Participants

The participants of this study are four Chinese preschoolers from the same class of Happy English, an EFL school in Chongqing, China. Happy English is one of the largest private English initiation language institutes in the south-east part of China. It targets three to twelve year old Chinese children and uses the Total Physical Response approach in teaching (Asher, 1996). The textbooks for three to six year-old children in this school are from the Yippee series (Red, Green, Blue), published by MM publications. The Yippees are designed for very young English learners, aiming at children’s listening and speaking first, and gradually involving reading and writing tasks when they get older. This study looks at the first year of English learning where it is the aim to have children get interested in English, get acquainted with English pronunciation, and to understand and produce some simple English words and phrases.
Every week, the children were required to come to Happy English twice, about two hours in total, once for the main course taught by an American teacher and a Chinese teaching assistant together, to learn new words and songs; and the second time for an activity class taught by the Chinese teacher only, to review what they learned in the main course. The current investigation uses data from the main course only. Each main course lasted about 70 minutes per week with the same routines under the syllabus of Yippee Red. At the beginning of each main course, children usually sat in a semi-circle and watched the video of a song or a little story on an interactive whiteboard and then they would stand up to sing and dance or repeat after their teachers in English with gestures. After the warm up session, the key words and phrases of the unit were introduced by the teachers with pictures, props or body language, and were practiced in English with songs and stories and by playing games and coloring pictures. The class ended with stickers as a bonus. The topics were child-friendly, such as colors, numbers and toys. Body language, such as gestures and dance, were frequently used by the teachers for children’s better comprehension and higher motivation.

In class, children were encouraged to mimic the teachers’ body language for better engagement while singing and practicing new learnt words. However, when the video was on or the American teacher was teaching, they were expected to sit on their seats and to look to the front. Running around, playing by oneself, or continually talking to the peers were seen as violations of the discipline. Also the use of Chinese by the children was not encouraged out of the worry that they might rely on their mother tongue too much and produce less English. Since English exposure is quite limited outside the class in China, both the school and the teachers hoped to establish a “pure” English environment for children and have them get access to English as much as possible.

The two teachers for the main course were very nice and patient with the children in general. The Chinese teaching assistant has studied in Britain for eight years and has a master degree in language education. She is extroverted and cheerful, and was very popular among the children. In class, the American teacher was responsible for teaching and the Chinese teacher helped him to organize activities and to keep children looking front.

The four targeted children were observed using video recordings each week for 20 weeks from September 2012 to January 2013. Only the main courses were video-recorded because of the stable attendance of the children. The four participants, here called Linda, Adam, Lyna and Philip, two girls and two boys, had no English education before the Happy course started in September, 2012. Their English learning onset age ranged from 2;10 to 3;3 years. There were another four Chinese children in the class and like the participants, they were from a similar socio-economic background and none of them had any English education before, according to the questionnaire parents were
asked to fill out beforehand. The questionnaire was used for children’s background information, such as their English exposure experience, their parents’ education level, profession, English ability and so on.

4.3.2 Data collection procedures

Data collection began in August, 2012, one month before the English program started. Parents were introduced to the research and signed a consent form for data use for the current study. They were then asked to fill in a questionnaire about the children and their family background. All four participants were from middle class families. Then, in order to make sure that the participants knew little or no English, their English vocabulary knowledge was tested productively and receptively with 10 pictures respectively (production: banana, fish, shoe, hand, table, ice-cream, dance, listen, read, write; reception: book, pink, five, hair, cat, father, cherry, square, ice-cream, sofa). The twenty frequently used words were mainly selected from MacArthur Communicative Development Inventories (MCDI; Fenson, Marchman, Thal, Dale, & Bates, 2007). After seeing the pictures of the words, children were expected to either produce them in English or to choose the target words from 4 pictures after hearing them in English. No participant could answer correctly more than 2 words either productively or receptively.

The period of classroom recording started September 7th, 2012 and ended January 17th, 2013 due to the two-month winter holiday. During the first five months, all the main courses had been video–recorded with the exception of a few sessions in the first month due to technical problems. Two cameras were used to capture a comparatively comprehensive picture of the children’s and the teacher’s class performance. Children were also recorded with a small mp3-recorder and a tie-pin microphone, carried in special jackets (Deunk, 2009) which the four participants wore. One video clip of the first month and two main courses from each of the rest of the months were chosen for analysis, and more details are listed in Table 4-1.

Table 4-1. Video data Analysed in the Present Paper

<table>
<thead>
<tr>
<th>Month, Week</th>
<th>Total time</th>
<th>Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>M.1 (W.2)</td>
<td>11</td>
<td>All</td>
</tr>
<tr>
<td>M.2 (W.6, W.8)</td>
<td>136</td>
<td>Adam missed the second session of Week 8</td>
</tr>
<tr>
<td>M.3 (W.10, W.12)</td>
<td>146</td>
<td>All</td>
</tr>
<tr>
<td>M.4 (W.14, W.15)</td>
<td>137</td>
<td>All</td>
</tr>
<tr>
<td>M5. (W.19, W.20)</td>
<td>122</td>
<td>Adam was absent in Week 20</td>
</tr>
</tbody>
</table>
Children's temperament was informed by parents with a Chinese normed version of the New York Longitudinal Study (NYLS), a questionnaire designed by Thomas and Chess (1977). As one of the most widely used tools in the field of children's temperament studies, it is composed of 72 items, targeting 9 temperamental traits: activity, initial reaction, adaptability, intensity, regularity, mood, distractibility, attention span and threshold of responsiveness. More explanations of each trait (Firchow, 2009) are listed in Table 4-2.

Table 4-2. Explanations of Nine Temperamental Traits

<table>
<thead>
<tr>
<th>Temperamental trait</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity</td>
<td>Child's physical energy.</td>
</tr>
<tr>
<td>Initial reaction</td>
<td>Also known as Approach or Withdrawal, which refers to how the child responds (whether positively or negatively) to new people or environments.</td>
</tr>
<tr>
<td>Adaptability</td>
<td>How long it takes a child to adjust to change over time.</td>
</tr>
<tr>
<td>Intensity</td>
<td>The energy level of a positive or negative response.</td>
</tr>
<tr>
<td>Regularity</td>
<td>The level of predictability in a child’s biological functions, such as waking, becoming tired, hunger, and bowel movements.</td>
</tr>
<tr>
<td>Mood</td>
<td>The child’s general tendency towards a happy or unhappy demeanor.</td>
</tr>
<tr>
<td>Distractibility</td>
<td>The child’s tendency to be sidetracked by other things going on around her.</td>
</tr>
<tr>
<td>Persistence and attention span</td>
<td>The child’s length of time on a task and ability to stay with the task through frustrations.</td>
</tr>
<tr>
<td>Threshold of responsiveness</td>
<td>How easily a child is disturbed by changes in the environment.</td>
</tr>
</tbody>
</table>

4.3.3 Data analysis

The first author transcribed all data according to the CHAT transcription standards of the child data language exchange system (CHILDES) (MacWhinney, 2000). The data were then coded and analyzed using the CLAN software from CHILDES. Basic results from CLAN were further analyzed using SPSS software. The coding scheme was designed based on Clarke’s work (1999) and the one used in the Head Start Project, which checked American children’s response when they were taught new words at preschool (Grifenhagen, 2012). Both verbal and nonverbal behaviors in class were taken into consideration. Six categories were used to capture development: gaze, nonverbal repetition, verbal repetition in English, nonverbal response, verbal response in English,
and mixing language of English and Chinese. Babbling, calling mother or Chinese filled pauses have not been included in the last category. The details of each category are listed in Table 4-3.

**Table 4-3. Explanations and Examples of the Six Categories**

<table>
<thead>
<tr>
<th>Category</th>
<th>Explanation</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gaze</td>
<td>Pay full attention to the teacher but without doing anything. The raw number of gaze is counted based on children’s reaction to each turn of the interactive teaching. The length of one gaze is usually more than 5 seconds.</td>
<td>*TE1: jump high, whee@si. (says “jump high” while jumping) *Linda: 0. (mimics gesture)</td>
</tr>
<tr>
<td>Nonverbal repetition</td>
<td>Copy the teacher’s action or gesture</td>
<td>*ADAM: pencil. (repeats after the teacher)</td>
</tr>
<tr>
<td>Verbal repetition</td>
<td>Repeat (a part of) the teacher’s English utterance</td>
<td>*TE1: who want a pencil? *(demonstrates “pencil” with a picture)</td>
</tr>
<tr>
<td>Nonverbal response</td>
<td>Comprehend the teacher’s requirement or question and demonstrate it with action (e.g. nodding) or gesture (e.g. put hands over the head to imitate a rabbit)</td>
<td>*TE1: who wants to try? *Philip: 0. (raises up hands)</td>
</tr>
<tr>
<td>Verbal response</td>
<td>Use English to answer teacher’s questions and requests</td>
<td>*TE2: ok, what’s this?</td>
</tr>
<tr>
<td>Mixing language</td>
<td>Switch back to Chinese to ask questions or give comments (either use Chinese only in the utterance or code switch between English and Chinese)</td>
<td>*TE1: blue. *(demonstrates “blue” with a picture)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Lyna: 老师你的衣服也是 blue@s. (“Mr. Chad, your shirt is blue, too”)</td>
</tr>
</tbody>
</table>

*Note.* “*” indicates an utterance line. TE1 refers to the American teacher, TE2 refers to the Chinese teaching assistant. Contextual information and utterance translations in brackets.

The correlation between learning behaviour and time was examined both across and within the participants. First of all, the raw number of the four children’s behaviors in the six categories was
converted into frequency per minute. After confirming with Pearson Correlations that each child’s behaviors across classes were highly correlated, the averages of their behaviors as a group were calculated and used to depict the group tendency. Next, the four children’s development graphs were drawn on the basis of their individual performance in each class. Then, the summary of nonverbal behaviors (gaze, nonverbal repetition, nonverbal response) and the summary of verbal behaviors (verbal repetition, verbal response and mixing language) were calculated for each participant. The difference scores of nonverbal behaviors and verbal behaviors were correlated with weeks.

The temperament data were analyzed with the software MentalList Version 2. The software contains the normed values based on large scale studies on children’s temperament in China (e.g. Zhang & Wang, 1996). The software compared the four children’s nine temperamental traits with the normed value and put them into the categories "above average", "normal" and "below average".

4.4 Results

4.4.1 What verbal and nonverbal behavior can be observed in Chinese preschoolers in an English-learning classroom?

Generally speaking, the four Chinese children’s first 20 weeks of English development in an EFL setting (Figure 4-1) fell into the first two phases of early English development in an ESL setting as described by Clarke (1999). During the first 8 weeks, all the children, except Adam, went through silent periods of different length. They stared at the teachers cautiously at the beginning and gradually were willing to gesture after them while learning new words or singing. Body language was used frequently to participate in the classroom activities and to react to the teachers. For instance, in week 6, Adam was tested with an image of the greeting word “hello”. He kept waving his hand to the teachers but would not pronounce it.

Gradually, the average production of gazes, nonverbal repetitions and nonverbal responses decreased and was surpassed by the average production of verbal repetition in the third month. By then, children got used to the sound of English and repeated single nouns and formulaic language after the teachers tentatively. They were more willing to sing along with their teachers, to repeat their commands and the new words in class. For instance, in week 14, the children produced 247 repetitions within a 70-minute class.

The average use of verbal response and mixing language (English and Chinese) grew steadily and peaked in the fourth month. With more confidence in English, children tended to use a word or
a phrase to answer teachers’ questions, to initiate a question and to express a requirement. With increasing communication, they seemed to sense the limitation of their oral English, and used more Chinese to deliver their meaning better. In week 19, children’s verbal and nonverbal response had dropped dramatically due to the change of the Chinese teaching assistant temporarily. In the following week, their performance went back to normal. According to the picture naming games in class and the parental interview in Month 6, the four children could generally comprehend and produce simple words and phrases in the categories of color, number, shape, sensory organ and greetings, after their first five months of learning English.

![Figure 4-1. Group average of the six categories throughout the first five months](image)

Despite the similarities between the current study and Clarke’s research (1999), there are differences in the onset time for verbal repetition. In Clarke’s study, Phase 1 includes a silent period, nonverbal production and verbal repetition. Phase 2 includes verbal response and language switching between English and the children’s mother tongue. In the current study, the large amount of verbal repetition appeared significantly later than the silent period and nonverbal production, associating the last part of Clark’s Phase 1 with the beginning of Phase 2. It therefore seems that children’s development in the current study may be divided into two phases that differ slightly from those proposed by Clark: Phase 1 includes the silent period and nonverbal production (gazes, nonverbal repetitions and nonverbal responses) and Phase 2 includes verbal production (verbal repetitions, verbal responses and mixing languages).

To investigate the development of the amount of nonverbal production compared to the amount of verbal production, the number of children’s nonverbal productions was subtracted from the
number of children’s verbal productions, thereby yielding a positive score when children produced more verbal than nonverbal reactions. A one-tailed Pearson Correlation confirmed that the number of verbal productions increased significantly throughout the five months (Table 4-4). The developmental pattern is depicted in Figure 4-2. It shows that all four children’s verbal production started to surpass the nonverbal production around week 8, the end of month 2. Later, the difference fluctuated but remained positive in most cases.

Table 4-4. Correlations of verbal-nonverbal difference scores and time of each child

<table>
<thead>
<tr>
<th>Child</th>
<th>Pearson Correlation</th>
<th>Sig. (1-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>V-NV difference scores_Lyna</td>
<td>.853**</td>
<td></td>
</tr>
<tr>
<td>V-NV difference scores_Philip</td>
<td>.912**</td>
<td></td>
</tr>
<tr>
<td>V-NV difference scores_Linda</td>
<td>.669*</td>
<td></td>
</tr>
<tr>
<td>V-NV difference scores_Adam</td>
<td>.760*</td>
<td></td>
</tr>
</tbody>
</table>

Note. *p < .05. **p < .01.

Figure 4-2. Difference scores of children’s verbal and nonverbal production respectively in five months

In sum, the four Chinese children’s first five-months English development followed the route outlined by Clarke, however, the frequent use of English verbal repetition seemed to be associated with Phase 2 rather than Phase 1. In contrast to Clarke’s study, Phase 2 in the current project consisted of two parts: English verbal repetition and verbal response, either in English or in mixing
Chinese and English. A further separation of the two parts within Phase 2 was not supported by the data. The correlation between the difference scores of the two parts and time was not significant.

The delay of English verbal repetition could be due to less English input in an EFL setting, as China in this case, compared to an ESL setting, as Australia in Clarke’s case study. Children in the EFL setting might need more time to get used to the sounds of English and start to repeat after the teacher. The delay of English verbal repetition and its correlation with English verbal response and use of mixing language should be explored with further data.

4.4.2 What variation can be observed among the children in class?

Although all the children went through Phase 1 and 2 in general, their classroom behaviors were quite different from each other. As shown from Figure 4-3 to Figure 4-6, children varied in the time of entry into English use, the total amount of nonverbal and verbal production, and the time at which certain categories peaked. Linda has the longest silent period. She didn't say anything until week 10, after more than two months of English exposure. Although she kept silent most of the time, the videos show that she paid full attention to the teachers’ instructions. Gradually she started repeating after the teachers and responded to them with body language. Her English responses and the mixed use of English and Chinese were quite rare throughout the five months. In contrast, Adam was very active in class and produced the most in terms of repetition and response, both verbally and nonverbally and almost all the time. He was the first child in the class to repeat after the teacher in English and had no silent period. Lyna’s development pattern was quite similar to Adam’s, but her frequency of verbal and nonverbal English repetition and production was much lower than his. Similar to Linda, Philip’s English production was quite limited as well. However, he code-switched much more often than Linda. He used Chinese to ask questions, give comments and maintain peer communication.
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Figure 4-3. Linda’s English Development Pattern

Figure 4-4. Adam’s English Development Pattern
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Taking English verbal repetition and response as an example (Figure 4-7), it is clear that throughout the five months, Adam’s amount of production was always on the top, and Linda’s was almost always on the bottom, with Lyna and Philip somewhere in between. All children showed a peak of verbal repetition/verbal response at some point, however, the time at which this peak appeared was different for each child. For instance, verbal repetition reached a peak for Adam in Week 10, Lyna’s in Week 12, and Philip’s and Linda’s in Week 14.
4.4.3 Can we interpret the variation on basis of the children’s temperament?

With MentalList 2, the four participants’ temperament was analyzed and the results are shown in Table 4-5 (1 = “above the average”, 0 = “average”, -1= “below the average”).

Table 4-5. Temperament Traits of the Four Children

<table>
<thead>
<tr>
<th></th>
<th>Initial Reaction</th>
<th>Activity</th>
<th>Adaptability</th>
<th>Intensity</th>
<th>Mood</th>
<th>Regularity</th>
<th>Distractibility</th>
<th>Persistence</th>
<th>Responsiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linda</td>
<td>-1</td>
<td>-1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Adam</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
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<td>Lyna</td>
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<td>Philip</td>
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**Linda**

Linda’s initial reaction is below average. She tended to withdraw from the new learning environment and cautiously watched for a while before engaging in new experiences. During week 2 to week 8, she only observed the teachers and occasionally repeated after them using body language. She did not say anything in class until week 10, after three months of English learning, and her initiative made both the teachers and her mother excited. Since then, she voluntarily started to join in during classroom activities and liked answering questions in English. However, in week 19, she retreated to silence again probably due to the change of the Chinese teaching assistant. Her
compactly low level of initial reaction might make Linda more vulnerable to the change of the teacher than the other children.

The effect of her lower activity level and her higher level of regularity could be observed in two aspects. First of all, no matter whether or not Linda willingly participated, she produced the lowest amount of verbal repetition and verbal production during the entire time of testing except week 15. Her classroom behaviors were relatively predictable: sitting back and concentrating on what is being taught. She seldom interacted with the teacher and other children, which led to almost no code switching. Secondly, despite being the youngest in class, she was quite disciplined and had no difficulty sitting still all the time, thereby adhering to the teachers’ expectations. Linda’s learning behavior was in line with what has been found previously: a child with a low activity level can do well in a very structured environment. The teachers were quite patient with her during the three-month silent period and praised her for any initiative. According to the interview with the teachers at the end of the project, they highly appreciated Linda’s good discipline and predictability, and would have liked to pay more attention to her even though she didn’t say anything in class at the beginning.

**Adam**

Opposite to Linda, Adam is quite extroverted. He is above the average level in terms of activity, adaptability, intensity, mood, and initial reaction. In English class, he quickly adapted to the new environment and was the first kid to repeat after the teachers in English and verbally explored English sound regularities. He applied what he learned in class most quickly and frequently. For instance, in week 12, the two verbs ‘stop’ and ‘jump’ were taught consecutively. While being taught ‘jump’, Adam asked the teacher to stop jumping by saying ‘stop’ while gesturing it. In general, his quick adaptation and creative use of newly learnt knowledge earned him praise from the teacher. However, in many cases, the teachers could not make good use of the chance to facilitate Adam’s learning. For instance, in week 13, while being taught the word ‘yellow’, Adam suddenly said to the teacher ‘let’s go’, which also contains the English vowels /Ə/ and /Ʊ/. The teachers seemed not to understand it and had to laugh about it.

Besides, he always participated in class activities energetically and happily unless he was ill. His positive mood was contagious and other children enjoyed repeating after him in many cases. His high activity level might also have enabled him to monitor other children’s performance. For instance, in week 14, he noticed that Philip did not say ‘red’ as others did and reported this to the teacher immediately.
Although being active in class in general, Adam could easily get bored with review activities, probably due to his lower level of persistence. In order to check the children’s progress, the teacher tended to ask children to speak out the newly learned words in different games. Adam always tried to mimic the teacher and transformed pronunciation or intonation into a funny way after several rounds of review or repetition. The second half of each main class always showed a significant drop of Adam’s English verbal and nonverbal production. Transcripts of Adam’s class performance mentioned above are listed in Appendix IV.

**Lyna**

Lyna’s development pattern is quite like Adam’s. With a higher level of adaptation, she also quickly got used to the English environment and tried to answer questions creatively. She was the first child who tried to put single words into a sentence in class. In week 12, while learning the color word ‘green’, she found her jacket was the same color, so she said in mixing languages “这是 green Lyna”, which means “this is green Lyna”. The teachers seemed not to realize the attempt and only confirmed the pronunciation of ‘green’ and ‘Lyna’ separately by saying “green, yes, Lyna, yes, green”. Just like Adam, Lyna also tried to connect what she learnt with the environment. For instance, in week 15, she found the color ‘blue’ on her socks and told this to the teacher with delight. However, she often indulged herself into the “discoveries” and started to play with herself, which made the teachers frequently urge her to sit back and pay attention to the class. Lyna was not sensitive to the teachers’ commands and mainly focused on what she liked most, which was probably due to her lower level of regularity and higher level of threshold of responsiveness. Under such conditions, the teachers were often busy with disciplining her but could not notice her real interest. In fact, a quick and genuine concern of her interest would not only draw Lyna’s attention back but also increase the chance of incidental learning. For instance, in Week 6 while reviewing a word, Lyna found a pumpkin label on the Chinese assistant’s T-shirt. She happily yelled it out in Chinese and the teacher confirmed her finding by nodding and taught her how to say pumpkin in English with a clear and loud voice. After being lauded for her curiosity, Lyna directed her attention back to the class immediately. As in this case, to satisfy Lyna’s curiosity would facilitate the effect of her higher level of adaptability. Transcripts of Lyna’s class performance mentioned above are listed in Appendix V.

**Philip**

Unlike Adam, Philip is above average in terms of persistency. He enjoyed different games of reviewing the same words and participated nicely. However, he had a negative mood in general and
regularly showed frustration when he could not get the teachers’ attention. For instance, in week 15, Philip constantly said he was angry when he was not chosen by the teacher to play a game and win a picture as bonus. He slipped down from the chair slowly and looked very disappointed until the Chinese teacher came over to comfort him. His mood could not always be sensed in time, and in many cases, he gave up the endeavor and shifted his attention to other things, such as his clothes or the chair. Philip was the child who was most often reprimanded by the teachers. According to the interview with the teachers, they thought it was the short attention span that made Philip absent-minded. However, a closer look at Philip’s class performance revealed that Philip might have a higher demand of care and attention due to his negative mood. If this demand was not met, he would give up easily and refuse to speak English voluntarily. As shown in Figure 4-7, his English response was limited, just slightly more than Linda’s throughout the five months. This is in line with what has been found in early L1 studies that children with a negative mood usually show less language production (Dixon & Smith, 2000). Philip’s first four months of English learning (before the change of the Chinese teaching assistant) deserve our attention since the misinterpretation could lead to a vicious circle: the teachers misinterpreted the cause of Philip’s absentmindedness and used criticism and discipline to draw back his attention. Frustrated by the teachers’ attitude, Philip tended to withdraw into a passive mode of learning, simply repeating after the teacher but not actively using English to initiate a conversation with the teachers. His attempt of using Chinese to call the teacher’s attention was ignored by the teachers in general due to the lack of a knowledge of Chinese of the foreign teacher and the “no Chinese” classroom policy. This policy thus led to overlooking Philip’s higher desire for care which could potentially be detrimental to his motivation. Transcripts of Philip’s class performance mentioned above are listed in Appendix VI.

In sum, the pattern of English development for the four learners was similar in essence during the onset period and it fits the characteristics of Phase 1 and 2 in Clarke’s study. During the phase of nonverbal production, the children tried to adapt to the new environment with close observation and body language. Nonverbal repetitions and nonverbal responses were frequently used to maintain the interaction. After the first two months, children moved to the phase of verbal production. At the beginning, they tended to repeat after the teachers and each other with single words and chunks. The function of the repetition was not only to accompany an interaction but also to draw attention from the teachers and the peers. Gradually, children began to use English as their carrier of interaction. They relied less on repetition and started to use different types of single constituent constructions, mainly noun phrases. Once English was found to be ineffective in communication, Chinese was used immediately for a more precise meaning delivery. In many
cases, the use of Chinese was not favored by the teachers, since it confused the foreign English teacher who doesn’t know Chinese and violated the classroom policy from the Chinese teacher’s point of view.

Despite group tendencies, the four children varied with respect to moment of entry into each phase and the extent of interaction with their teachers and peers. Take English repetition as an example: Adam started to use it from the first class onwards and Lyna and Philip only from week 6 onwards. Linda did not use repetition at all until week 10. Adam always produced the most and Linda always the least. Active repetition enabled Adam not only to draw more attention and praise from the teachers, but it also attracted the peers to repeat after him.

The results of the four children’s temperament analysis is in line with what has been discovered in early L1 studies that higher levels of adaptability, positive mood and initial reaction would promote language production directly and indirectly (Rieser - Danner, 2003). A child with such aspects of temperamental easiness used more body language and repeated and produced English more often. In turn, this might enable a child to process the new knowledge quicker. A child’s active participation might also draw more attention from the teacher and peers, thus enhancing language interaction and the child’s own confidence. In contrast, a negative mood and a higher threshold of responsiveness might lead to too strict discipline and misunderstanding from teachers and indirectly inhibit the chance of incidental learning and harm the children’s motivation.

4.5 Conclusion and Implication

The current case study partly confirmed the initial two developmental phases proposed by Clarke for young English learners in an ESL setting. It also demonstrated the potential influence of temperament on preschooler’s early foreign language learning behavior. After the initial five months, the four children were able to understand and produce simple words and phrases, such as “green”, “nose” and “hello”. Both the class involvement and learning outcomes indicated that the Total Physical Response approach and the relevant activities used by the teachers were generally effective on these very young English learners. However, the observations also suggested that because of the different needs and learning styles of the children, their temperamental traits should be considered more. Moreover, the no-Chinese strategy has to be seen critically since it might hamper the children’s participation and be detrimental to their motivation.

Regarding the English development of early learners, hardly any generalization can be made due to the small sample and limited number of months of investigation, but the four Chinese
preschoolers’ English development seemed to be in line with the main characteristics outlined by Clarke. The children’s temperamental traits could be used to explain the variation of their learning behaviors. The first five months of English learning witnessed the development of the four preschoolers’ behaviors: a silent period at the very beginning, and then the engagement of more nonverbal behavior, followed by more English repetition. In the end, children used simple English words more frequently to answer a question and switched back to Chinese more often for a better meaning delivery. Despite the general confirmation, the distinction between Phase 1 and Phase 2 is different in Clarke’s study and in the current study. Significant amount of English repetition appeared together with nonverbal behaviors in Clarke’s study but appeared later in the current study. Statistical analyses suggest that it is better to include English repetition in Phase 2, together with English response and mixing use of English and Chinese. The delay of English repetition might be due to the limited input in the Chinese EFL context.

Zooming in on children’s development respectively, they varied in terms of time of entry into the second phase, in the extent of interaction with teachers and peers and in learning style. Temperamental traits appeared to explain these differences to some extent. Temperamental easiness, such as a higher level of adaptation, a higher activity level, and a positive mood were found to be related with more verbal and nonverbal repetitions and responses; while a lower level of activity and less initial reactions were found to be related to a smaller amount of verbal and nonverbal production. Moreover, a negative mood and a higher level of sensory threshold might result in misreading children’s needs from teachers and thus hampered children’s motivation and incidental learning. In the next phase of our study, the four Chinese preschoolers’ second half year class videos are being transcribed and the data will be used to further explore the relationship between temperamental traits and English learning behaviors.

Temperamental information might provide teachers with quite useful information. Young foreign language learners’ initial classroom experience was found to have a lasting effect on their motivation and language proficiency in adulthood years (Nikolov, 2001). “Students highly appreciated when teachers were genuinely concerned with them, allowed them close, and understood their problems” (Nikolov, 2001, p. 165). “The problems” or the necessary kind of interaction for language learning varies from child to child (Clarke, 1999). In order to have a better understanding and properly use different approaches with children, teachers should get to know their students first. According to a small-scale investigation on teachers of Happy English, in which 20 teachers filled in a questionnaire on their qualification and teaching approach, it took a foreign teacher about 3 months and a Chinese teacher 1.3 months to get to know his students. A
temperament questionnaire might shorten the length and demonstrate children’s characteristics to teachers in more detail.

Moreover, it has been found that only skillful teachers were generally able to provide a rich language context for young second language learners, tailored to the individual (Clarke, 1996). Such teachers usually have systematic training and years of practice with children. However, most of the teachers lack such a background in the field of early English language training in China at this moment. Many of them are young graduates with bachelor degrees across various fields. They change jobs often, resulting in an unstable learning environment, which could be detrimental to the young learners during the initial stages (Brewster, Ellis, and Girard, 2004). A temperament questionnaire could be used as training material to gain psychological knowledge of children’s development and its result can be kept as a record to facilitate the teaching handover.