The Acquisition of English Spatial Prepositions
by ESL Learners

By

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Declaration

I declare that this thesis represents my own work, except where due acknowledgement is made, and that it has not been previously included in a thesis, dissertation or report submitted to this University or to any other institution for a degree, diploma or other qualification.

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Abstract

This study attempts to explain the acquisition of English spatial expressions by ESL learners. Previous studies suggested that differences in conceptualization induce differences across languages. This study tries to examine the grammatical similarities and differences between the English and Chinese language systems in the aspects of space.

The first section of this paper studies across the similarities and differences in the expression of the spatial relationship for these two language systems. The spatial relationship is largely expressed through prepositions like *in*, *on* and *at* in English. Contrast to English, the spatial relationship can be expressed through a number of ways in Chinese. These expressions such as positional words, verbs and pronouns will be discussed. The second section tries to examine the acquisition and use of the English prepositions by Chinese ESL learners through two experiments. Experiment I examines the usage patterns of prepositions across different levels of students. Among the three most basic prepositions, *in*, *on* and *at* regard to the aspect of location and space, this experiment indicates that the preposition *at* is the most difficult one to acquire. The reasons are discussed. Experiment II investigates the problems like the misinterpretation of the function of the spatial prepositions that the learners encounter while learning the English prepositional system. The final section of the paper tries to suggest ways to overcome the problems that the Chinese learners encountered for this aspect.
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1. Introduction

1.1. Rationale for the present scope of study

Spatial cognition has been central to new development in linguistic theory in the past few decades (Clark, 1973; Tanaka & Abe, 1985; Sinha, 1999). The prepositions like at, on and in in English; zai (在) “in, at, on”, daw (到) “to” and shang (上) “up” in Mandarin and sur in French are one of the most basic knowledge that are needed to learn at school. However, the cognitive processes involved in acquiring these prepositions are by no means simple.

When we try to express the spatial relation, we must first construct a model of spatial situation in our mind. The models of spatial situations (S), according to Morrow and Clark (1988), consist of the following properties: 1) S has a three-dimensional frame of reference; 2) S is represented from the viewpoint of an observer O at the origin of S; 3) S contains physical entities; 4) these entities are located with respect to the frame of reference; 5) O attends to some entities (called figures), which he or she sees with respect to other entities (called landmarks); 6) O experiences S as unfolding in time and 7) when entities are agents, O assumes that they may act on the basis of their intentions.

The spatial relationship between the figure and the landmark (Langacker, 1979) is largely described by the spatial prepositions in English. However, the spatial relationship is not largely described by the prepositional system in Chinese. With positional words like shang (上) “up” and li (里) “inside” which are classified as a sub-group of noun-system, verbs such as lai (來) “come” and qu (去) “go” and even
pronouns like zheli (這裏) “here”, the spatial relationship can be expressed through a number of ways in the Chinese language system. The first section of the paper tries to compare and contrast these two language systems with regard to the spatial expression.

Clark (1973) suggested that owing to the complexity hypothesis and the properties of L-space, at should be the one that is the easiest to acquire since its point of reference is the least complex among all the others even compared to in or on. Others, like Sinha (1999) suggested that the spatial preposition at is the one that is the last to be acquired among these three and the preposition in would be the one that is the easiest to acquire. On the other hand, according to the prototype theory (Tanaka & Abe, 1985; Ijaz, 1986), on supposed to be the unmarked one when we compared to the usage between the locatives in and on meaning that on will be the one that is easier to acquire. The second section of the paper tries to study the acquisition pattern of the ESL learners and tries to give account for this pattern through conducting two experiments.

With the superset-subset relation between English and Chinese in prepositions, it is expected that the L2 learners, will fail to incorporate the L2 properties that do not exit in L1 (Inagaki, 1983) and will therefore encounter problems of acquisitions. For the last section of the paper, the problems of the spatial acquisition by the ESL learners are studied and measures are then suggested to remedy for these problems.
1.2. Research Questions

There are two research questions for my paper:

1. Among the three most basic spatial prepositions, *in*, *on* and *at*, which one will be the most difficult to acquire and why?

2. What are the difficulties that Chinese learners may encounter when learning English spatial locatives?
2. Contrastive Analysis

2.1. Spatial expressions in English and Chinese

Prepositions in both Chinese and English language systems are free morphemes i.e. they are not bound inflectional affixes. They are also considered as function words. The prepositions in English have the name that they do is that they precede nouns, i.e. they are pre-positions. The prepositions in English are used for different purposes in English such as expressing the spatial relationship between the figure and the landmark, for giving reasons and showing the temporal aspect, manner, circumstance and state. The prepositions in Chinese, according to Chao (1968), however, can be classified as a group of coverbs. According to Chao, there are a numbers of verbs that occur as first verbs with the same order of frequency as in other positions and are thus called coverbs or prepositions. For example, the Mandarin preposition zai (在) is considered as the verb is in the sentence 王先生不在。Wang xian sheng bu zai。 “Mr. Wong is not here”. While it can also be considered as a spatial preposition at in the sentence 王先生不在家吃饭。Wang xian sheng bu zai jia chi fan。 “Mr. Wong doesn’t eat at home.” Because of its transitional nature, the Chinese prepositions cannot have rigorous definitions as the prepositions of English.

For both the Chinese and English prepositions, a number of features can be identified. First, they do not carry any aspect of time. Second, they do not normally serve as centers of predicates thus they do not occur as the main verbs of a sentence and they do not form one-word sentences, even in supplementary answers to questions. For example, the question 你跟不跟我去？Nii gen bug en woo chiuuh? “Are you going with me?” One cannot answer with only one word *跟,* gen, “with”. Third, prepositions do not usually omit their objects.
According to Chao (1968), the functions of the Mandarin prepositions include showing 1) the time order; 2) action on action; 3) time when (at or from); 4) place where (at or from); 5) interest and benefit; 6) purpose, cause, and reason; 7) manner, instrument; 8) comparison; 9) association, and under a separate section, pretransitives.

Among all of the above cases, I have only chosen the function of spatial locatives to study and examine in my paper. According to Chao, the spatial prepositions in Mandarin include the following: 1) zai (在) “at, on, in”: 在劍橋上學 zai Jiannchyau shanq-shyue “go to school at (-in) Cambridge”. 2) daw (到) “to, toward”: 你到我們家來，還是我到你們家去？ Nii daw women jia lai, hairshh woo daw nii men jia chiuh? “Will you come to our house, or shall I go to yours?” 3) shanq (上) “to, toward”: 請你上我這兒來。 Ching nii shanq woo jell lai. “Please come to my place.” 4) chaur(j) (朝 (著)) “toward, facing”: 朝南走 chaur Nan tzoou “go toward the South, go southward”. 5) shianq(向) “toward” 向右看! Shianq yow kann! : look toward the right!” 6) duey (j) (對著) : facing, toward, to: 我對著南方走。 Woo duey Nan fong tzoou “I am going to the South.” 7) yu(於) “in, for, with regard to”: 這裏吃飯 yu jel lii chi fan “eat in there” 8) tsorng(從) “from”: 這兒到那儿有多遠？Tsorng jell daw nall yeou dwo yeuan? “How far is it from here to there?” 9) li (對) (離 (著)) “(static) from, (static) to,” 這兒離鏡頭不夠遠。 Jell li jinqtour bu gow yeuan. “This is not far enough from the camera lens.” 10) yan (j) (沿著) “along”: 沿岸 yan-ann “along the bank”. 11) shuenn (j) (順著 (著)) “following along, in the direction of “: 順著這兒走! Shuenn jell tzoou! “Go along this side!”

From the above prepositions, we can easily notice that the prepositions like zai (在) “at, on, in” daw (到) “to, toward” and shanq (上) “to, toward” have already shown the transitivity aspect of being verbs in Chinese. For the sentence such as 我不在你家 woo bu zai nii jia “I am not at your home”, the preposition zai (在) becomes
the verb *am* in this sentence. And again for the sentence "Xiao Ming arrived first". The preposition *daw* (到) becomes the verb *arrive*. Besides, the preposition *shanq* is also classified as one of the position words which are kinds of sub-group under the category of nouns. For the phrase *zai shan shanq* “at the mountain top”, the preposition *shanq* becomes the noun *top*. The above conditions are definitely not allowed for English prepositions.

Moreover, as suggested by Yiu (2003), the Prepositional Phrases (PPs) can sometimes be an *adjunct position* for the sentence like *Wo dui shu gan xigqu* “I am interested toward books”. The PP *dui shu* “toward book” is an obligatory adjunct of the predicate *gan xingqu* “feel interested”. Again, the adjunct position for the PPs is not allowed for the English prepositions that are regarded as complements of the verb phrases.

As the case for the English locative particles, Chinese locative particles also have a variety of non-spatial (temporal, instrumental etc.) uses. However, the number of locative particles in Chinese is very limited compared with that in English. Landau & Jackendoff (1993) list 66 spatial prepositions in English such as in, on, at, onto, into, up, up to, in the middle and behind etc., whereas Chao only stated 11 spatial prepositions in Chinese. It does not mean that Chinese does not express such distinctions as those expressed by *in* and *on* in English, it does so, however, by means of other form classes than spatial prepositions, in particular sub-classes of nouns such as *shanq* (上) and *li* (裏), verbs such as *lai* (來) and *qu* (去) and even pronouns like *zheli* (這裏).
2.2. The spatial expression of Cantonese

Beside the written Chinese, or the Mandarin, we can compare the differences between the Cantonese prepositions with the English prepositions in order to see a more comprehensive picture of what the problems of the ESL may face while acquiring English spatial prepositions. According to Matthews and Yip (1994), the Cantonese prepositions of spatial location including the following: 

- **hai (喺)** “at, on, in”, which can further be extended into **haidouh (喺道)** “is here”, **haisyu (喺旅)** “is here”; **heung (嚟)** “at”; **yahpbihn (入便)** “inside”; **leuihmihn (裏面)** “inside”; **cheutbihn (出便)** “outside”; **ngoihmihn (嗰面)** “outside”; **chinmihn (前面)** “in front of”; **hauhbihn (後面)** “behind”; **seuhng (上)** “on (top of)” or **seuhngmihn/bihn (上面)** “on (top of)”; **hah (下)** “below” or **hahmihn/bihn (下面)** “below”; **deuimihn (對面)** “opposite”; **jung (中)** “middle” or **junggaan (中間)** “in the middle”; **jigaan (之間)** “between” which is usually used with **tuhng (同)** “and”; **kahn (近)** “near”; **leih (離)** “away from”; **hai ...laih/heui (喺...去)** “from X to Y”; **yauh (由)** “from”; and **ging (gwo) (經過)** “via”. Again the prepositions like **hai (喺)** “at, on, in” can sometimes be used as a verb when a noun phrase is followed by a localizer. Consider the following example,

Your CL cat be-at CL table behind

你隻猫喺張枱後面。

Leih jek mao hai jeung toi hauhbihn

“Your cat is behind the table.”

From the above example, the preposition **hai (喺)** is actually used as the verb is.
3. L1 acquisition

3.1. Reviews of the L1 spatial acquisition

In this section, I will review research on the acquisition of the most three basic locatives in, on and at.

Clark (1973) suggested that the inborn biological structure of the children let them construct and develop a perceptual space, which is the P-space. Later, the children have to learn how to apply the spatial terms to this perceptual space. The children cannot apply some term correctly if they do not already have the appropriate concepts in their P-space. The term L-space, which is the linguistic spatial terms, should coincide with the P-space meaning that any properties found in L-space should also be found in P-space. The perceptual features in the child’s early cognitive development (his P-space) are reflected directly in the semantics of his language (his L-space). As a result, two hypotheses of language and language acquisition were postulated, which are the correlation hypothesis and the complexity hypothesis. The correlation hypothesis claimed that the structure of P-space would be preserved in L-space, which meant that there would be a very close correlation between the P-space and the L-space. On the other hand, the complexity hypothesis suggested that the order of English spatial terms is constrained by their rules of application. A rule of application is a condition that must be met before a word can be applied to a perceptual event. Further it also suggested that whenever two terms are given, say A and B, where B required all the rules of application of A plus one or more in addition, A will be normally acquired before B.

Clark indicated that man has a bilaterally symmetrical perceptual apparatus. The apparatus makes perception itself bilaterally symmetrical. Another property all the
human’s senses is that they are most sensitive to stimulation in front of the body and least sensitive to stimulation in back of the body. The perceptual apparatus thus defines a clear plane of asymmetry, the vertical plane running through the body separating front from back. On the same token, there is another plane of asymmetry at the base of the feet: objects above ground level are characteristically visible, audible, tasteable, and touchable, whereas objects below ground level are not. He then concluded that man’s perceptual apparatus naturally defines three reference planes: one plane of perceptual symmetry (the vertical plane separating left and right) and two planes perpendicular to this plane and to each other about which perception is asymmetrical (the vertical plane separating front from back, and the horizontal plane at ground level). Because of these conditions, values can be given and assigned. Positive values can be assigned to everything that is in front of the vertical plane which is easily noticed while negative values will be given to everything that is behind us. On the same token, positive values can be given to everything that is above the ground level while negative values will be assigned to everything that is below the ground level.

Because of the above man’s canonical values, the most fundamental property of the English spatial terms can be generated, which is the point of reference. He thus suggested that prepositions contain certain presuppositions about their point of reference- whether it is one-, two-, or three-dimensional, what types of inherent properties and so on. Further, he suggested that three rules for the acquisitions of the spatial locatives. First, the three positional terms –at, on, and in are unmarked (neutral) with respect to positive directionals, since adding to to the former such as onto and into generally forms the latter. Second, the one-dimensional prepositions are unmarked with respect to the two- and three-dimensional prepositions, since the
latter are often formed from the former plus an additional morpheme. Third, positive directionals are unmarked with respect to negative directionals. As a result, Clark suggested that *at* appears to be the least complex prepositions as its points of reference are the least among all the spatial locatives and therefore *at* apparently should be the one that is the easiest to acquire.

Shirai (1990) suggested that the prototype formation of spatial prepositions/verbs is constrained by cognitive factors such as perceptual/visual saliency. And in their early L1 acquisition stages, children may be exposed to (and use) the prototype, and once the prototype is established, it may not undergo any major change. In other words, what is learned first remains most basic through the later stages of learning. He stated that the high frequency of elicited “ON X” might be due to its 2-dimensional nature, which is perceptually simpler and more salient than “IN X” which is 3-dimensional and thus more general and less salient.

Turton (1966) on the contrary suggested that the preposition *in* would be acquired earlier than the other two among the three basic positional terms. He collected natural production data and test data from 3- and 4-year-old children. He found that the youngest children used *there* and *right there* to locate items. The 3-year olds also used *in*. By age 5, they had added *on, under* and *by*. After the age of 5, they added some of the meanings of *over*. These older children still used *by* instead of *between, behind, and in front of*. Their nonverbal comprehension tests showed that they understood these terms even though they did not produce them.

Recent studies (Atkinson, 1993 and Sinha et al., 1999), argues that the preposition *at* is the most difficult to acquire from the point of cognitive development.

Atkinson (1993) reviewed different studies for the development of the spatial representation by infants. He suggested that the younger children were unable to show integration between information pertaining to perceptual discrimination and
information necessary for planning and initiating motor-appropriate actions. He also stated that the construction of “next-to” relations would be more difficult than the spatially well-defined construction involving either on or in relations as “next-to” relations are not defined within a single locus- new items can be placed in any positions around them.

Sinha et al. (1999)’s data are based upon the recorded speech of 2 English, 2 Danish and 1 Japanese acquiring child. The English data are based upon transcripts in the CHILDES database (MacWhinney, 1991). The speech production of two girls was recorded every three months between the ages of 18 and 40 months. One additional session was recorded when the children were almost 5 years of age. All instances of spatial usage of locative particles by the children were identified from transcripts. Eight particles, in, on, at, to, up, down, off and out (of), were produced with the highest combined frequency by the two children during the period of study. The number of tokens of in is 66; the number of tokens of on is 56 while the number of tokens of at is only 23. Apart from the limited number of using the preposition at that shown, another result for their studies is that at is a relatively late acquisition compared with in and on. One of the girls produced both the prepositions in and on at 27 months while she produced the preposition at at 42 months. The other girl produced the preposition on at 26 months; in at 30 months and at at 30 months as well. Both the range of types and the number of tokens increase from 27 months onwards. The data suggest that there are two phrases for the acquisition of locatives. During the first phrase, the children are employing the radial learning strategy. They start from the spatial use of a limited subset of the most cognitively and semantically simple locative particles, and gradually extend their repertoire to induce cognitively and semantically more complex ones. This learning strategy manifests itself both in order of acquisition and in relative frequencies of production of spatial locatives.
In the second phrase of acquisition, the radial learning strategy exemplifies a more general class of *conservative learning strategies*, in which the children build upon and conserve what has already been mastered, using it as a stepping-stone for further acquisition.

Sinha et al. also suggested that during the process of locatives’ acquisition, children start to acquire terms with impetus meanings corresponding to simple canonical relational and directional concepts. The polysemous terms such as *at* in English, which cannot be easily characterized in terms of a cognitively simple impetus meaning, will therefore be acquired later. Sinha et al. also concluded that the earliest spatial uses of prepositions are to locate a Figure in terms of Coincidence with a Landmark (at, in, on), to refer to Directed Motion of a Figure (up, down) and to refer to the Path of motion of a Figure with respect to a Landmark (in, on, to, out, off). These spatial uses schematize spatial relations in an intuitively cognitively simpler way than the use of locative particles, which schematize deictic and intrinsic Orientational relations (like behind, beside, in front of), or non-coincidental Relative Distance (near to, far away).

### 3.2. Research hypothesis1:

According to the findings of Sinha (1999), the preposition “at” is the most difficult to acquire among the three basic locatives in, on and at.
4. **L2 acquisition**

4.1. **Reviews of the L2 spatial acquisition**

Tanaka and Abe (1987) suggested that the interlingual semantic mapping (ISM) is operative in L2 lexico-semantic development; the students map what he knows about objects, events and relations in L1 onto L2 lexico- semantics. The ISM has two components: (i) the search-translation-equivalent (STE) strategy and (ii) the search-collocation-equivalent (SCE) strategy. With the STE strategy, the learner attaches meaning to a newly perceived L2 item by searching for an L1-translation equivalent, while with the SCE strategy the learner transfers the range of the L1-word usage to the use of the L2 word. The unconstrained form of the SCE can be stated as follows: given the “W1=W2”, which is formulated through the STE strategy, the learner tends to transfer whatever possible in W1 (i.e., the L1 word perceived by the student as the translation equivalent of an L2 word, W2) to the use of W2. In other words, the STE constrains the initial hypothesis the student makes about a new L2 word while the SCE constrains the restructuring process of the initial hypothesis.

Second-language acquisition as stated by Ijaz (1987) involves the mapping of two lexical and conceptual systems onto each other. Across two languages many words may roughly correspond in meaning, but few words pairs completely overlap in all their lexical functions. Corresponding words in a language learner’s native language and the target language may differ in their semantic boundaries. The two languages may differ in the number and nature of distinctions made within a common, shared concept or in the linguistic distinctions made between semantics categories. In many cases, a lexical item in the L2 cannot be directly mapped onto a concept existing in the L1, and the L2 learner has to restructure existing L1 concepts or
develops a new concept that corresponds to a lexical item in the L2. Restructuring L1 concepts and defining new semantic boundaries for them involves permeating and breaking down native language conceptual structures.

Moreover, as stated earlier, English allows a wider range of spatial locatives than Chinese, thus there is a *superset-subset relation* between English and Chinese. Inagaki (1991) has tried to study the Japanese’ acquisition of the English manner-of-motion verbs with locational or directional prepositions. He suggested that there is a superset-subset relation between English and Japanese. He has tried to compare the usage of the English manner-of-motion verbs with locational or directional prepositions between 35 Japanese universities students with 23 native English speakers. He then concluded that the Japanese learners of English had difficulty recognizing the directional reading of English manner-of-motion verbs with locational/directional PPs and pointed out that if the L2 forms a superset of L1 structure, there would be two possibilities. First, the partial fit between the L1 and the L2 may mislead L2 learners to assume that the L1 and the L2 are identical, thus failing to incorporate the L2 properties that do not exit in the L1. Second, since the L2 properties not allowed in the L1 exist in the input, L2 learners may not be able to notice them and arrive at the L2 grammar on the basis of positive evidence. As a result, Japanese is more restricted than English in allowing only directed motion verbs (go) to appear with a phrase expressing a goal and therefore consistently failed to recognize a directional reading. Inagaki suggested that positive evidence needed to be not only available but also be frequent and clear in order to be used by L2 learners to broaden their interlanguage grammar.

Apart from the differences between the Chinese and English prepositional systems as stated earlier, consider the following sentences which are selected from a geography textbook in Hong Kong:
1. *in* the deep sea, water particles move in a circular orbit forming a complete wave (Lai, 1996)p.94

   > 在深海，水點隨圓形軌跡移動，成完整海浪 (Lai, 1996)p.94

   *at* deep sea, water particles follow circular orbit move, form complete sea wave

2. usually formed *in* a bay or a river mouth (delta) (Lai, 1996)p.109

   > 常在海灣或河口（三角洲）形成 (Lai, 1996)p.109

   *usually* *at* sea bay or river mouth (delta) form

3. the isolated rock left *in* the sea is called a stack (Lai, 1996) p.105

   > 在海中留下的分離岩塊名為海蝕柱 (Lai, 1996) p.105

   *at* sea middle leave’s apart rock is called sea stack

4. ice crystals form *on* cool surfaces, *e.g.* leaves or ground surface (Lai, 1996) p. 163

   > 在清涼表面，如葉面或地面，凝結的冰晶 (Lai, 1996) p. 163

   *at* clear cool surface, like leaf or ground surface, condensed ice crystal

5. I am working *at* school.

   > 我在學校工作。

   *I at* school work
6. He is not *at* home.

- 他不在家。
  
  ta bu *zai* jia
  
  He not *at* home

From the examples 1 to 4, the prepositions *in* and *on* will be exactly as the Mandarin or written Chinese preposition *zai* (在). However, when we study the examples 5 and 6, the preposition *at* becomes *zai* (在) as well. The meanings of *in*, *on* and *at* are instilled to be very similar or even the same in many textbooks in Hong Kong. In fact, the concept of the preposition *zai* (在) as stated earlier is always interpreted as “*in*” and “*on*” rather than “*at*” in Mandarin. This may give a reason why the learners may encounter problems in acquiring the preposition *at* and give the wrong sentences like *I was reading in home* or *he is waiting for you in the cinema.

Because of the hierarchy of difficulty suggested by Tanaka & Abe, as *zai* (在) in Chinese and *hai* (喺) in Cantonese are split into *in*, *on* and *at* when transferring from L1 into L2. The learners might encounter problems during the acquisition process of these prepositions.

Zhou (1992) tried to investigate the role of formal instruction in Second Language Acquisition (SLA) by comparing the effects of two methods, explicit formal instruction and implicit formal instruction on Chinese adolescent learners of English. Formal instruction means the kind of instruction that draws learners’ attention to the formal characteristics of the grammatical features. Explicit formal instruction (EFI) is defined as the method in which learners are required to work out and articulate the grammatical properties and rules if they can while implicit formal instruction (IFI) refers to the method whereby the learners are guided to make
generalizations on their own. No explanations of the properties and rules are given. Zhou concluded that the EFI group did significantly better than the IFI group in carrying out various learning tasks especially for the aspect of using present perfect in English, which is difficult for the Chinese learners to derive the core meaning of the present relevance by implicit instruction alone.

4.2. Research Hypothesis 2:

2. With the superset-subset relation between English and Chinese in prepositions, it is expected that the L2 learners will be fail to incorporate the L2 properties that do not exit in L1 and will therefore encounter problems of acquisitions.
5. Discussion

5.1. Methodology

Two experiments are conducted for the paper.

Experiment I:

There are altogether 95 subjects for this experiment. The subjects are divided into three different levels including beginner (twenty-one secondary one students); intermediate (seventy secondary five students) and advanced (four English teachers of a secondary school). The total number of subjects is ninety-five.

The purpose for conducting this experiment is to describe and explain the usage pattern of the three most basic spatial prepositions in, on and at by Chinese learners. Experiment I is a test of accuracy in the usage of prepositions including the three basic spatial prepositions in, on and at. The subjects are required to write five sentences describing the locations of the figures in a picture (appendix I). The frequencies of different prepositions are counted. The subjects are asked to write these five sentences subject to only three choices of in, on and at in order to see the usage pattern of these three prepositions. Four secondary school English teachers formed the advanced level of subjects. Their results are compared with the other two levels to see how the level of proficiency would affect the usage including the choices and the frequencies of three basic spatial prepositions, in, on and at.

Experiment II:

Experiment II (appendix II) is conducted through the following tasks: i) filling in the blanks; ii) contextual writing, iii) sentence correction and iv) sentence writing. The subjects of this experiment are twenty-one secondary one students. The
The experiment was different from experiment I, which was conducted before the lessons of prepositions. Instead it was conducted after the usage and meaning of all the prepositions were taught.

The choices for the different tasks are based on the study of Zhou (1992) in which Zhou tried to give an account on the effects of explicit instruction on the acquisition by ESL learners and also the reasons for choosing different tasks for the ESL learners. The purpose of this experiment is to examine the problems that the students might encounter during the spatial acquisition process.

For the first task, the students are required to do an exercise of filling in the blanks. Below are some of the questions:

1. Mary is waiting _____________ the bus stop. (at)
2. The cat is sitting _____________ the sofa. (on)
2. Betty lives _____________ the third floor. (on)
3. I felt sick and stayed _____________ bed last Sunday. (in)
4. The hotel is _____________ Nathan Road. (on)
5. Are you _____________ the ball team this summer? (on)
6. She sewed the button _____________ the sleeve. (on)
7. Amy is knocking _____________ the door. (at)

There is no picture for the subjects to base on. The reason for conducting this task is to find out the degree of difficulty in learning idioms of prepositions which were shown by Tanaka and Abe (1987) to be more difficult to acquire. The sixth and the seventh sentence are the ones used in the experiment done by Ijaz (1986), in which the percentage of using the correct preposition on was the lowest among all the sentences chosen by the ESL learners. The underlying reason for the poor performances suggested by Ijaz was the acquiring difficulty of idioms of the ESL learners. It was also the reason why they are chosen in this task. Besides, the
reason for conducting both task 1 and 3 for experiment II is to provide an obligatory
text context for the students. No bias could be made for obligatory context.

For the second task, the students are required to write three sentences based on a picture with the three prepositions: *in, on* and *at*.

For the third task, the students are required to decide whether the sentences are correct or not and they have to correct the wrong sentences by rewriting them. Below is one of the sentences.

- John is *on* school. (at)

For the last task, the subjects are required to describe a picture again. The picture had been used in my pilot experiment. This task was conducted after all the prepositions were taught. Again, the subjects are required to write five sentences to describe the locations of the figures. Because I did not limit the subjects’ usage to the spatial prepositions, many other prepositions such as *into, through* and *off* that are considered as kinds of manner prepositions came out in my pilot study. Thus I have rearranged the sequences of the tasks and decided to put it as the last one. The subjects then could freely choose any among all.

5.2. The pilot experiment

A pilot experiment (experiment II) had been conducted first in order to know the feasibility of the experiment. The problems are found and the experiment has been modified after conducting this pilot experiment. Five intermediate level students were asked to write five sentences about the location of figures (A to H) reference to the landmark in a picture (appendix III). The usage pattern of spatial expressions was obtained. The reason for choosing this level of students is that they have already acquired the spatial expressions. If I choose the other levels students, they may not be able to produce so many different prepositions and it may be more
difficult to get the usage pattern.

Table 1 below shows the frequency of the different prepositions that the ESL learners used for this experiment.

<table>
<thead>
<tr>
<th>Prepositions used</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>On</td>
<td>10</td>
<td>38.5</td>
</tr>
<tr>
<td>Into</td>
<td>4</td>
<td>15.4</td>
</tr>
<tr>
<td>off</td>
<td>3</td>
<td>11.5</td>
</tr>
<tr>
<td>Behind</td>
<td>2</td>
<td>7.6</td>
</tr>
<tr>
<td>Outside</td>
<td>2</td>
<td>7.6</td>
</tr>
<tr>
<td>At</td>
<td>1</td>
<td>3.8</td>
</tr>
<tr>
<td>Across</td>
<td>1</td>
<td>3.8</td>
</tr>
<tr>
<td>in front of</td>
<td>1</td>
<td>3.8</td>
</tr>
<tr>
<td>Near</td>
<td>1</td>
<td>3.8</td>
</tr>
<tr>
<td>Up</td>
<td>1</td>
<td>3.8</td>
</tr>
<tr>
<td>In</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>26</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 1 The frequency of prepositions for the pilot experiment

Altogether, the number of types of prepositions that they chose is ten; they are *at, across, behind, into, in front of, near, on, outside* and *up*. Among these, the one with the highest frequencies used is *on* (38.5%). One surprising outcome is the zero frequency of the preposition *in* as opposed to the findings of Sinha (1999), that *in* is the simplest to learn among the English prepositions. One possible explanation is the content of the picture that I chose for this experiment. I have chosen a scene of a road. The figures of the picture all are on the road and it might explain the reason
why they choose “on” for describing the location of the figures so frequently. Although the usage of the preposition in is none, I can still argue that at will be more difficult to acquire among the three basic locatives, as the frequency of it is still very low. There is only one student put down the sentence of “a man is waiting for the bus at the bus-stop”. It may be due to the VP “waiting at the bus-stop” has already been instilled to the students in their earlier stage. More data are collected in the second experiment and a clearer pattern can be shown for this.

Another interesting result for this pilot experiment is the comparison of the preposition into and off; the frequencies of the usage of the preposition into (15.4%) is greater than the usage of the preposition off (11.5%), as suggested by Clark (1973), the preposition of into is a kind of positive direction terms as to and onto. On the other hand, the preposition off is regarded as one of the negative direction terms as from and out of. As stated earlier, the negative directions can be shown to be the negatives of their positive counterparts and in this sense; positive directionals are unmarked with respect to negative directionals. It can help to explain the reason of the slightly higher frequency of the positive directional into than its negative counterpart off as it is suggested to be the more difficult one to acquire and learn.

On the same token, the path terms such as via, across and through would be even more difficult to learn and it also explain the reason for the limited usage (only once) through the experiment.
5.3. Experiment I

5.3.1. Results of experiment I

Table 2 below shows the result of the subjects of intermediate (I) and the beginner (B) levels:

<table>
<thead>
<tr>
<th></th>
<th>Frequency used</th>
<th>Total token</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I 89 (22.3%)</td>
<td>106</td>
</tr>
<tr>
<td></td>
<td>B 17 (4.3%)</td>
<td></td>
</tr>
<tr>
<td>IN</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I 193 (48.4%)</td>
<td>237</td>
</tr>
<tr>
<td></td>
<td>B 44 (11%)</td>
<td></td>
</tr>
<tr>
<td>ON</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I 26 (6.5%)</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>B 15 (3.8%)</td>
<td></td>
</tr>
<tr>
<td>At</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I 15 (3.8%)</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>B 0 (0%)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2: The result of the intermediates and beginners for experiment I

The total number of sentences that collected from the intermediate level of subjects is 321 while the number of sentences that collected from the beginner level is 76 making a total number of 399. The percentage of using the preposition at is the lowest among all three. The percentage is only slightly higher than ten. The result further suggested that the basic spatial prepositions at is the most difficult to acquire even its points of reference is the least among three as suggested by Sinha. However, the result shown above is quite contradictory to the prediction of mine. Following the result of Sinha, at first I predicted that the spatial preposition in should be the one that is the easiest to acquire and as a result, the frequency of choosing this should be the highest, even though the results of my pilot experiment had already shown the outcome that on was actually the highest frequency in usage. After conducting my pilot study, I even explained that result with the scene of the picture (appendix III) that I had chosen. Nonetheless, after I had conducted this experiment, the results further assured that the preposition on is actually the easiest to acquire for the ESL. The percentage of using on is 59.7 while the figure is only 26.7% for the preposition...
Another result that the experiment shows is the subjects’ usage of prepositions other than *in*, *on* and *at*. The intermediate level of subjects also used other prepositions *on the top of*, *inside*, *in the middle of*, *next to* and *under*. The frequencies and the examples used are shown in table 3.

<table>
<thead>
<tr>
<th>Preposition</th>
<th>Frequency</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>on the top of</td>
<td>4</td>
<td>(e.g. the ashtray is on the top of the coffee table)</td>
</tr>
<tr>
<td>inside</td>
<td>1</td>
<td>(the clock is inside the wall unit)</td>
</tr>
<tr>
<td>in the middle of</td>
<td>1</td>
<td>(* the light is in the middle of the ceiling)</td>
</tr>
<tr>
<td>next to</td>
<td>3</td>
<td>(e.g. the coffee table is next to the sofa)</td>
</tr>
<tr>
<td>under</td>
<td>4</td>
<td>(e.g. the rug is under the coffee table)</td>
</tr>
<tr>
<td>above</td>
<td>1</td>
<td>(the light is above the television)</td>
</tr>
<tr>
<td>near</td>
<td>1</td>
<td>(*the sofa near the rug)</td>
</tr>
</tbody>
</table>

Table 3  The usage of prepositions *other than in, at and on*

The beginners however did not choose other prepositions; the reason may be due to the incapability of using the other prepositions.

The second interesting feature about the results is the functions of the prepositions acquired by the ESL learners. The ungrammatical sentences like “*the sofa near the rug*”, indicate that the ESL learners sometimes convert the functions of prepositions into a verb. The number of the ungrammatical sentences like “*the sofa near the rug*”, is lower for the intermediate than the beginner level. Among the seventy-six sentences collected from the beginner level of subjects, surprisingly, forty-four sentences are ungrammatical in this way. The percentage is 57.8%. The beginners treated the prepositions as a function of verb. The following are some of the examples:

* The table lamp on bookcase.
* The sofa on the carpet.
5.3.2. Discussion of experiment I

As stated earlier the Mandarin zai (在) or the Cantonese hai (喺) or heung (响) are sometimes used as verbs in Chinese, for example, zai (在) in the sentence 他正在家 ta zheng zai jia “He is at home.” is functioning as a verb and it also gets its progressive aspect marker zheng (正) as well. Besides the written Chinese, in Cantonese, the preposition hai (喺), which actually corresponds to Mandarin zai (在) as the general-purpose marker of location and it might be translated as “on”, ‘in” or “at” according to the context, also function as a verb rather than a preposition in Cantonese.

The reason for the wrong usage of the prepositions as being a verb may be due to the fact that the subjects attach the meanings of these three prepositions directly into the Chinese prepositions under the STE strategy, and further directly transfer their usage as being a verb sometimes in Chinese and Cantonese under the SCE strategy as suggested by Tanaka & Abe (1985).

The striking feature of the results that the lowest percentage of the usage at is owing to the wrong mapping involved in the language acquisition processes by the ESL learners. The Mandarin spatial preposition zai (在) and the Cantonese spatial preposition hai (喺) and heung (响) are clearly perceived as corresponding to the spatial preposition in and on rather than the preposition at by the ESL learners shown from the results of this experiment.
Table 5a below shows the result of the subjects of the advanced level.

<table>
<thead>
<tr>
<th></th>
<th>Frequency used</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>ON</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>At</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>10</td>
</tr>
</tbody>
</table>

Table 5a The result of the advanced level subjects for experiment 1

The total number of the sentences that collected from the advanced level is twenty. Similar to the result of the other two groups that the frequency of using the preposition *on* is the highest among all, the percentage of using the preposition *on* is 40%. Even though there are two prepositions used other than these three, the prepositions used are actually the prepositional phrases *on top of* and *on the right of* which can be regarded as the extension of the preposition *on*. Although the percentage of the usage of the preposition *at* is very low for the other two levels, the
percentage is not actually too low for the advanced level. The percentage is twenty for the usage of the preposition *at*. This figure is almost as high as the percentage of the usage of the preposition *in*. The result may indicate that the preposition *at* is acquired at the later stage of the acquisition process for Cantonese speakers.

The findings are quite contradictory to the findings of Sinha that the preposition *in* should be appeared in the highest frequency. The high frequency of elicited “ON X” may be due to its 2-dimensional nature, which is perceptually simpler and more salient than “IN X” which is 3-dimensional and thus more general and less salient as suggested by Shirai (1990).

### 5.4. Experiment II

Experiment II was a thirty-minute test consisted of four tasks. It was conducted after the lessons of prepositions had been finished. Task 1 consisted of fourteen questions in the form of the blank filling. The subjected are required to fill in the blanks with three spatial prepositions: *in, on* and *at*.

#### 5.4.1. Result of task 1 of experiment II

Result of the first task:

The chart below shows the frequency of choice that the subjects made for the fourteen fill-in-the-blank questions in task 1.
Table 6 below shows the percentage of accuracy and the correct answers for task 1.

Table 6 The ranked result of task 1.

<table>
<thead>
<tr>
<th>No. of question</th>
<th>The percentage of accuracy</th>
<th>The correct answer for each question</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>70</td>
<td>in</td>
</tr>
<tr>
<td>14</td>
<td>70</td>
<td>at</td>
</tr>
<tr>
<td>12</td>
<td>65</td>
<td>in</td>
</tr>
<tr>
<td>2</td>
<td>60</td>
<td>on</td>
</tr>
<tr>
<td>1</td>
<td>45</td>
<td>at</td>
</tr>
<tr>
<td>3</td>
<td>45</td>
<td>on</td>
</tr>
<tr>
<td>5</td>
<td>45</td>
<td>on</td>
</tr>
<tr>
<td>7</td>
<td>35</td>
<td>on</td>
</tr>
<tr>
<td>8</td>
<td>35</td>
<td>at</td>
</tr>
<tr>
<td>4</td>
<td>30</td>
<td>in</td>
</tr>
<tr>
<td>9</td>
<td>30</td>
<td>in</td>
</tr>
<tr>
<td>10</td>
<td>25</td>
<td>at</td>
</tr>
<tr>
<td>11</td>
<td>25</td>
<td>at</td>
</tr>
<tr>
<td>6</td>
<td>15</td>
<td>on</td>
</tr>
</tbody>
</table>

The total number of subjects for this experiment was reduced into twenty as one subject was absent from school on the day of conducting this experiment and even though the exercises were given to that subject later, his result was not counted as bias.
might be resulted after the answers of the exercises had been given.

The numbers of token for the prepositions *in*, *on* and *at* for this task are 114, 89 and 75 respectively.

Apart from questions number 6 and 7, which are considered to be more difficult because of the difficulty of learning idioms, it is assumed that the level of difficulty is the same for all the questions. Among these fourteen questions, they are divided into three levels according to the percentage of accuracy. The questions are divided into three groups, number 13, 14, 12 and 2 are grouped as the first category as the percentage of accuracy is the highest for this group. Among these four questions, the preposition *in* was the correct answer for two. Number 1, 3, 5, 7 and 8 are grouped as the second category as the percentage of accuracy is the mediocre while number 4, 9, 10, 11 and 6 are grouped as the third category as the percentage of accuracy is the lowest. For the second group, only two prepositions are found, they are *at* and *on*. For the third group, *on* is found for only one question.

If we sum up the total percentage of accuracy and divide it by the total number of the questions of a preposition, the result is clearer. The average percentages of accuracy for *in*, *on* and *at* are 48, 40 and 40 respectively.

### 5.4.2. Discussion of experiment the result 5.4.1

The findings conclude that the preposition *in* is the easiest to acquire for the obligatory context, which is reflected by its highest frequency of usage and its highest average percentage of accuracy. Though the average percentage of accuracy is the same for both the prepositions *on* and *at* for this task, when we take a look at the frequency of usage for these two, we can find that the frequency of usage of the preposition *on* is much higher than that of the preposition *at*.

If we try to analyze the content of the questions, we can conclude that the
questions context for the third group would be the most abstract for the subjects. The metaphorical meanings of the landmarks for both question number 4 and 9, which are “bed” and “hands” respectively, can be considered as two-dimensional, and this may help to explain the highest frequency of the usage of the preposition on for these two questions. On the same token, for the question number 11, “Miss Ho is at home today because she is sick.” 12 out of 20 have chosen the preposition in. The landmark “home” may be considered as a three-dimensional environment and it may explain the reason of the highest usage of the preposition in. The result of question number 6 is the worst among these fourteen questions that again shows that the acquisition of idiom is more difficult.

5.4.3. Result of task 4 of experiment II

The last part of the test was task 4. Task 4 was a sentence-writing task, in which the subjects are required to write five sentences to describe the locations of five figures in the picture. The task was done once earlier as the pilot experiment.

Seventy-three sentences were collected from 20 subjects. Table 7 below shows the result of the sentences.

Table 7 The results of task 4

<table>
<thead>
<tr>
<th>Preposition</th>
<th>Frequency of the preposition</th>
<th>Percentage of the preposition (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>in</td>
<td>16</td>
<td>21.9</td>
</tr>
<tr>
<td>out of</td>
<td>12</td>
<td>16.5</td>
</tr>
<tr>
<td>into</td>
<td>10</td>
<td>13.7</td>
</tr>
<tr>
<td>at</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>on</td>
<td>7</td>
<td>9.6</td>
</tr>
</tbody>
</table>
There are altogether eleven prepositions being chosen in this task. They are in, out of, into, at, on, round, along, to, through, between, across, in front of, past, above, opposite, next to, near and up. Among the eighteen prepositions employed by the subjects, we can classify them into four categories according to Clark (1973), they are location, directional, path and relational. The three location prepositions are in, on and at; the four directional prepositions are out of, into, to and up; the five path prepositions are round, along, through, across and past and the five relational prepositions are in front of, above, opposite, next to and near.
5.4.4. Discussion of experiment the result 5.4.3

Great differences are found when comparing its result with that of the pilot experiment. First, the number of the prepositions being used is higher than the number of the prepositions in the pilot study. There are altogether eleven prepositions in the pilot study. For this task, the number of the prepositions used is increased to eighteen. The variety is greater but it may also due to the larger number of the sentences collected this task. Another possible reason for the greater variety may be due to the fact that the test was conducted immediately after the lessons of prepositions. The subjects are therefore more familiar with the use of the prepositions.

The frequency of the preposition *in* is the highest this task. The percentage of its usage is 21.9 compared to 0 in the pilot study. On the other hand, the percentage of the usage of preposition *on* is considerably lower this task. During the pilot experiment, the percentage is 38.5 but it dropped down dramatically into only 9.6 this task even lower than the figure of the preposition *at*. One possible explanation for the greater percentage of the usage of the preposition at may be due to the context of the picture. There is a bus stop in the picture. As a result, five out of eight tokens were “H is at the bus stop.” As suggested earlier, this sentence is one of the most frequent examples of the usage *at* at school. It may be a reason for the higher frequency of the preposition *at* this task.

Among the eighteen prepositions employed by the subjects, we can classify them into four categories according to Clark (1973), they are *location, directional, path* and *relational*. The three location prepositions are *in, on* and *at*; the four directional prepositions are *out of, into, to* and *up*; the five path prepositions are *round, along, through, across* and *past* and the five relational prepositions are *in front of, above,*
opposite, next to and near. From the data, we can notice that the percentage of usage is the highest for the location prepositions, followed by the group of directional and path and the percentage of usage is the lowest for the relational prepositions. The data can further confirm the results of Sinha and Clark that the more complex prepositions would be acquired later in a gradual strategy.

As suggested by Clark (1973), the usage of the negative direction terms such as from and out of should be lower than the positive direction terms such as into. However, the data shows that the percentage of the preposition out of is slightly higher than the percentage into. Of course, we can still argue that when we classify both the preposition into and to as the same category under the positive direction terms and compare the figure of the summation of the usage frequency with that figure of the preposition out of, we can still get a higher figure for the positive directional terms.
6. Suggesting solutions for the problems

From the above data, three problems of ESL learners in the spatial acquisition can be noticed. The three major problems that the ESL learners encountered including: 1) the misinterpretation of the function of the spatial prepositions; 2) the overlook of the preposition at and 3) the difficulties in the learning of the idiom.

The ESL learners tend to misinterpret the function of the English spatial preposition with the function of verb because of the transitivity aspect of being verbs for the Chinese spatial preposition. In order to tackle the problem, the differences between the English and Chinese prepositions must be stated and explained first, like the function of the English spatial prepositions that they are only classified as the function words. These differences are now usually neglected in the lessons for the ESL learners. The usage of the explicit formal instruction as suggested by Zhou (1992) should be more for this aspect.

The second problem of the ESL learners for this aspect is related to the overlook of the preposition at. The ESL learners in this study tend to use fewer times of preposition at than they otherwise should though the fact that at is more difficult to be acquired for both the L1 and L2 learners have to be admitted. The concept of the preposition at is more abstract than the other two when we compared the three basic locatives. On the other hand, the wrong mapping between the Chinese and English spatial prepositions also impedes the correct usage of this preposition by the ESL learners. More examples for the usage of the preposition at should be given and again the explicit formal instruction should be adapted for this abstract aspect.

The last but not the least one is the difficulties in learning of the idioms by the ESL learners. The data showing that the results for the ESL learners for acquiring
the idioms are the worst compared to the others. Metaphorical explanations of the idioms should be given during the lessons, as the learning of idioms may be too abstract for the ESL learners.
7. Conclusion

The acquisition of the spatial prepositions by ESL learners is governed by a number of factors. Because of the differences in the conceptualization through different languages, and the grammatical differences between the Chinese and English prepositional systems, the acquisition of the spatial expressions by ESL learners are by no means simple. Further studies for more data and information are needed to produce a more comprehensive pattern of the usage of prepositions by the ESL learners. At present, we can tentatively conclude that the preposition at is the most difficult to acquire for the ESL and when comparing the result, the findings tell us that the preposition on is used more accurately and the frequency of usage is more than those of the preposition in under the form of picture-based task. However, when the context is obligatory, both the percentage of accuracy and the frequency of usage will be much higher for the preposition in. The measures for overcoming the problems that the ESL learners encounter also at this stage cannot be suggested unless a more comprehensive picture is provided and further investigations are carried out for this issue.
8. References:


趙元任。1982。《中國話的文法》。香港：中文大學出版社。

陳安定。1985。《英漢比較與翻譯》。香港：商務印書館。

胡裕樹（編）。1992。《現代漢語》。香港：三聯書店（香港）有限公司。

卉君（編）。1995。《漢語基本知識》。香港：商務印書館。
9. Appendix
9.1. Appendix I

Where are they?

This is a living room. There are many furniture and electrical appliances. Can you describe the locations of these things? Make five sentences with the correct usage of prepositions: in, on and at to tell the location of five different things in this living room.

For example, the T.V. set is at the window.

(Source: Longman Active Study English-Chinese Dictionary, pp.513)
9.2. Appendix II

Exercise 1
Fill in the following blanks with in, on and at.

1. Mary is waiting ___________ the bus stop.
2. The cat is sitting ___________ the sofa.
3. Betty lives ___________ the third floor.
4. I felt sick and stayed ___________ bed last Sunday.
5. The hotel is ___________ Nathan Road.
6. Are you ___________ the ball team this summer?
7. She sewed the button ___________ the sleeve.
8. Amy is knocking ___________ the door.
9. What do you have ___________ your hands?
10. He was standing ___________ the gate.
11. Miss Ho is ___________ home today because she is sick.
12. I was born ___________ Hong Kong.
13. Peter is ___________ the kitchen.
14. Can you look ___________ the board?
Exercise 2

Based on the following picture, describe the locations of three things with the prepositions in, on or at.

1.___________________________________________________________________
2.___________________________________________________________________
3.___________________________________________________________________
Exercise 3

Correct the following mistakes. Some words are missing while some are wrong.

Underline the mistakes and add “^” for the missing words.

1. The table lamp on bookcase. _________________
2. The sofa on the carpet. _________________
3. The dolphins live on water. _________________
4. The light is on the living room. _________________
5. John is on school. _________________
6. The pandas live in land. _________________
7. Annie is living in the third floor. _________________
8. My school is on the New Territories. _________________
9. The cat sat in the table. _________________
10. The money is at the bank. _________________
Exercise 4

Describe the locations of five things (A-I) in the picture.

1. ____________________________________________________________

2. ____________________________________________________________

3. ____________________________________________________________

4. ____________________________________________________________

5. ____________________________________________________________
9.3. Appendix III

Describe the locations of five things in the picture.

(Source: Longman Active Study English-Chinese Dictionary, pp.670)