

# Development of EFL Reading Concepts of Taiwanese Junior High Students

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## Abstract

The present study assessed the concepts toward EFL reading acquired by Taiwanese junior high school students, aiming to capture any developmental change of their reading concepts. 1002 students in grades seven, eight and nine were asked to complete a forty-two item questionnaire which investigated students' perceptions of EFL reading under four categories, namely, repair strategies, effective strategies, effective readers, and their general viewpoints toward EFL reading. The results showed that although ninth graders held more holistic perceptions of the reading process than younger readers, "retrogressions" of eighth graders' holistic perceptions were identified in comparison with seven graders'. On the other hand, students' preference to analytical approaches remained constant throughout school years. Furthermore, some misconceptions even grew with grade levels. School's method of reading instruction and the EFL learning environments as a whole might have exerted certain effects on the retrogressions and misconceptions. The findings suggested several implications for EFL teachers and researchers.

Metacognition in reading has received much attention in recent decades, and the most global strand of research in this field is probably the one that deals with student's concepts of the nature and functions of reading (Johns, 1986). The exploration of students' concepts of reading has provided further stimuli for subsequent investigations in readers' metacognitive awareness and their strategic uses. Dated back to 1970's, numerous studies on the first language literacy were devoted to discovering reading concepts acquired by readers at different ages ranging from first graders to college adults (Johns & Ellis, 1976; Tovey, 1976; Huffman, Edwards & Green, 1982; Norman & Malicky, 1987; Lesensne, 1991). Their findings indicated that students' perceptions of reading involve a development process including qualitatively distinct phases.

Although there is no agreement among investigators as to how they distinguished stages, most have agreed that young children usually show very vague ideas about reading, and tend to define it as physical behaviors, such as "reading is looking at the books" and school activities "do worksheet in class". As their metacognitive awareness progresses, they connect reading with more meaningful tasks which, however, usually emphasize on decoding activities such as "sound out words" and "recognize words". Their reading concepts evolving one step further,

they recognize that people read to learn what the author meant. Furthermore, they then gradually understand that readers assume a wide variety of roles in interacting with the text using their own background of experience. Consequently, they adopt more holistic approaches with their background knowledge to acquire information conveyed in the reading passages.

The findings of these studies have been further echoed by investigations about notions of reading held by good and poor L1 comprehenders (Foley, 1984; Lesensne, 1991; O'Sullivan, 1992) and those by low-literate adults (Fangan, 1988; Malicky and Norman, 1989). These studies have identified that good readers often depicted reading as a process involving thinking and understanding, a notion spotted at a relatively advanced stage in the development of reading perceptions. Conversely, poor readers and low-literate adults usually possess a very vague and restricted view of literacy, viewing reading mainly as graphophonic decoding and memorizing words, showing their developmental lagging in their metacognitive awareness.

In more recent years, research on the effects of different instructional settings and reading experiences in school on students' perception of reading have illustrated that certain learning experiences are related to particular reading concepts (Fasinski, & DeFord, 1988; Freppon, 1991, 1995; Reutzel and Sabey, 1996). These explorations have added significant pedagogical values to reading development

research. Although reading perceptions develop in a hierarchical progression, appropriate instructions seem to facilitate the transition from one stage to the next. The contributions of the studies on reading concept development to teaching come not only from the findings that older students know better about reading, but, more importantly, from the discoveries about what students at each stage have already known (Chall, 1996). Only with the understanding can a teacher design the most optimal learning conditions for students and bring them a step forward along the developmental trend.

As for ESL/EFL reader's concepts toward reading, some studies have discovered that meaning- and decoding-oriented concepts correlate with high and low reading proficiency levels (Carrell, 1989; Devine, 1984), findings consistent with L1 research. However, these studies have been limited to students' conceptualization of strategy use, and have not investigated other aspects of the reading process such as their notions of the purpose and function toward reading which often provide enlightening insights into students' reading acts. Kang (1999) further found that young L2 learners' reading conceptions were influenced by, in addition to language proficiency, home literacy environment and school instruction. Furthermore, readers' reading perceptions strongly influenced their criteria about readability; readers focusing on words rated the readabilities of three stories according to number

of words on a page and difficulty of the vocabulary. Chia & Chia (2000a, 2000b) discovered that college level poor EFL readers, besides their analytical and decoding approaches, often viewed reading as language practices in school, and such perception usually traced at a relatively early stage of reading development in L1 might be responsible for their little interest in English reading and low reading proficiency. Findings of cyclical relationships between learners' perceptions toward, or their beliefs about, ESL/EFL learning in general and their strategy uses offer further supports. Many researchers have suggested that misconceptions about language learning lead to the deployment of less effective learning strategies (Wenden, 1987; Cotterall, 1995; Yang, 1999). Yang (1999), for example, found that students endorsing the importance of grammar, vocabulary and translation were unlikely to seek or create opportunities to use or practice English functionally by trying to write, read or speak in English.

While a vast body of research in L1 reading has found that reader's metacognitive awareness evolves and contributes to the reading development, unfortunately, no exploration has ever been made regarding readers' concepts about ESL/EFL reading across different age groups. The lack of relevant information calls for an emergent need for research in the field. This initial empirical study was undertaken (1) to explore EFL reading concepts acquired by Taiwanese junior high

students of different ages usually corresponding to their grade levels in school, that is, seventh, eighth and ninth graders respectively, and (2) to capture any developmental change of their reading concepts. Junior high students were chosen as the target population in the present study because junior high schools are where students first receive formal instruction in English reading in Taiwan.

## Method

### Instrument

A tentative questionnaire was first produced in which items were generated from questionnaires adopted in Carrell (1989) and Chia & Chia (2000b). They were written in Chinese, and grouped under four categories, namely, repair strategies, effective strategies, effective readers, and their general viewpoints toward EFL reading. One of the researchers administered the questionnaire to 79 seventh, eighth and ninth graders. The subjects were asked to brainstorm any other item that they perceived relevant to the three categories but were not included in the questionnaire. The purpose of this pilot study was to generate as many potentially relevant items as possible that had been overlooked.

According to students' suggestions, additional items were added to the original questionnaire. Furthermore, a 1-5 Likert Scale (1=strongly disagree, 5=strongly agree) was adopted for subjects to judge each statement. Then the modified version

was administered to 245 seventh, eighth and ninth graders at three different schools.

Their responses were run through factor analysis in order to discern the underlying factors that constitute subjects' perceptions toward English reading within each category and to select valid items to be included in the final version of the questionnaire.

The results of the factor analysis identified two major underlying factors in all categories, except for Category 2<sup>1</sup>, that is, holistic approaches (i.e. those having to do with context orientation and text gist) and analytical approaches (i.e. statements related to sound-letter, word-meaning, text details and translation). In addition, there was skipping/quitting in Category 1, metacognitive strategies, which “involve exercising executive control over ones' language learning through planning, monitoring, and evaluating” (Yang, 1999, p. 527) (i.e. taking notes and reviewing after class) in Category 2 and 3, non-strategic features (i.e. interest in EFL reading , English grades and reading pace ) in Category 3, and viewpoints of EFL reading as language practices and motivation in Category 4. Under each factor, only items with factor loading above 0.50 and greater were considered statistically significant as Stevens (1986) suggested researchers focus on items whose loading is 0.43 and above

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<sup>1</sup> When inquired about their perceived effective strategies, the subjects made no distinguish between holistic and analytical approaches in Category 2, where these two approaches were considered as one single factor, reading strategies. However, to be consistent with results of other categories and convenient for further analysis, items of this factor were still divided into holistic and analytical factors according to results of other categories and categorizations made in Carrell (1989).



when interpreting factor analysis. Consequently, items which had factor loading of less than 0.50 were not included, and 43 items were selected in the final version of the questionnaire (see Appendix A). Table 1 shows the structure of the questionnaire. The questionnaire had a Cronbach alpha of 0.91, and internal consistency reliability values for each factor rang from 0.51 to 0.84, indicating that the questionnaire was highly reliable.

Place Table 1 here.

### Subjects

The final version was administered to 1,002 students (527 male and 475 female) from grades seven to nine at 11 junior high schools located at 11 different cities and towns in Taiwan. The survey was conducted during April to May of the school year 1999-2000 when students in seven, eight and nine grades had received English instructions four to five hours per week at school for almost one, two and three years respectively. The subjects represented the expected ranges in intelligence, reading achievements and the wide varieties in socio-economic status and learning experiences.

### Data Analysis

The mean scores of subjects' judgements on questionnaire items of each factor within the four different categories of metacognition (Repair Strategies, Effective

Strategies, Model Readers and General Viewpoints) were computed. Since many previous studies have discovered that the difference between analytic approaches and holistic approaches often distinguish younger/poor readers from older/good ones, paired  $t$ -test was conducted to examine the significance of the difference of these two approaches in the four categories for each grade level. In addition, analysis of ANOVA was performed to determine the significance of the difference of the three graders' metacognitive awareness of each factor in the four categories.

Furthermore, for Question 21, investigating students' model readers by asking them to circle the answer from the list (classmate, English teacher, parents, relatives, friends and others), each option was computed to calculate its percentage of being selected by each grade level.

## Results

For Category 1, students' perceived repair strategies to tackle reading difficulties, the results (see table 2) indicated students in grades seven, eight and nine all least favored skipping/quitting. Furthermore, the results of paired  $t$ -test showed that they all tended to be more holistic in solving reading problems since the difference between holistic and analytical approaches was significant. Results of ANOVA on the differences among the three groups revealed that there was a significant difference in the preference of holistic approach between the ninth graders and the others,

indicating that students in grade nine were more holistically oriented than the younger graders. However, there was no significant difference in the preference of all three graders to other approaches.

Place Table 2 here.

As to Category 2 exploring students' viewpoints about effective strategies, the results (see Table 3) showed that seventh and ninth graders preferred to holistic strategies rather than analytical approaches for the paired *t*-test indicated that the differences in the mean scores of these two strategies were significant for both groups. Eighth graders, however, showed no significant difference in their choice of both strategies. Pertaining to the differences in the adoption of various approaches among the three graders, the ANOVA results illustrated that the mean scores of holistic strategies for each grade level was significant different from each other, the nine graders' being the highest, followed by the seven graders', and the eights' the lowest. On the other hand, there was no significant difference in the mean scores of analytic approaches among the three graders. Furthermore, the ninth graders were significantly different from the other groups in their favor of metacognitive strategies to aid reading comprehension.

Place Table 3 here.

For Question 21, exploring who was students' perceived best reader, the

percentage counts (see Table 4) exhibited that the highest percentage was distributed to English teacher (43.96%) by all three groups, then to their classmates and to friends, that is, their peers, which, in total, constituted even higher percentage (44.38%) than English teacher.

Place Table 4 here.

With regard to the subjects' perceptions of the characteristics their model reader possessed, the results are illustrated in Table 5. Students of three grade levels seemed to consider each attribute vital for a successful reader as the mean score for each item is quite high ( $M > 3.80$ ). Students in grade eight tended to define a good reader in terms of analytical approaches rather than holistic orientation as indicated by the paired  $t$ -test results, showing that there was a significant difference in the mean scores of these two perceptions. Students in grades seven and nine, in contrast, showed no significant difference in their selection of these two approaches. Moreover, the ANOVA results indicated that seventh and ninth graders were significantly different from the eighth in their preference to holistic approaches. The eighth and ninth graders' mean scores of non-strategic features including interest in English, English grades and reading paces, furthermore, were significantly higher than the sevenths', implying the older groups perceived these attributes important for effective reading more than the youngest one. Finally, no significant difference

existed in the mean scores of analytical approaches and metacognitive strategy across the three grade levels.

Place Table 5 here.

Next comes to students' general viewpoints about EFL reading. When defining EFL reading, students of all three groups mainly associated it with language practices as the mean scores were the highest among all factors. As for the holistic and analytic contrast for each grader, ninth graders yielded higher mean score for holistic approaches than for analytic ones, and the difference was significant. On the contrary, the younger graders showed no significant differences in their preference to these two approaches. The ANOVA results further displayed that ninth graders were significantly different from the seventh and eighth in their higher mean scores of holistic approaches and language practices. Moreover, there was a significant difference in the mean scores of motivation between the ninth and the eights, who were the least motivated in EFL reading. Finally, there was no significant difference in the mean score of analytic approaches among all groups.

Place Table 6 here.

Finally, to depict an overall picture of the metacognitive awareness of students of three grade levels, the mean score for three factors were computed, namely, holistic approaches, analytical approaches, and metacognitive strategies, which comprised

items **across** four categories of metacognition (Repair, Effective, Model Readers and General Viewpoints). Furthermore, paired *t*-test and ANOVA were performed to determine the significance of difference between holistic and analytical contrast for each grade level and the significance of those among each grade level's metacognitive awareness of each factor. The results (see Table 7) indicated students in grades seven and eight showed equally analytical and holistic awareness. Eighth graders, in contrast, demonstrated holistic preferences in general. As for the difference across grade levels, the ANOVA results illustrated that ninth graders were significantly different from the seventh and eighth in their higher mean scores of holistic approaches and metacognitive strategies. However, no significant difference in analytical perceptions was found for three grade levels.

## Discussion

Earlier research, mostly on L1, has investigated the effect of grade level, or readers' age, on students' concepts of reading, and suggested that how students think about reading is important to the development of a reader (Beers, 1990; Lesesne, 1991). However, none of the past studies has examined the concepts toward English reading of ESL/EFL readers and the role played by variable such as grade level in EFL reading development. The present study explored such virgin territory

beyond the **frontiers of** ESL/EFL reading research.

This study has identified significant differences among students of grades seven, eight and nine in some of their concepts of EFL reading with regard to the factors constructing their perceptions. The oldest group, ninth graders, particularly showed differences from the younger groups in most of the factored perceptions. The results further demonstrate that the most prominent perception that Taiwanese high school students held appeared to be the viewpoint that English reading denotes language practices.

What do these findings indicate to development of reading concepts of Taiwanese junior high students? To address this issue, Table data on each factor is further converted into a figure to illustrate growth and decay of each of students' perceptual construct, and demonstrate relative dominance of each factor over the others (see Figure 1<sup>2</sup>). **This section discusses the findings in light of previous studies on reading concept development, starting with the most prominent factor and proceeding mainly according to the hierarchy of factor predominance illustrated in Figure 1. Furthermore, this section proposes pedagogical implications suggested by the findings.**

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<sup>2</sup> The underlying factor "ignoring" is excluded from the figure because of its restricted nature. **Unlike the other factors which refer to students' reading concepts with regard to more general aspects, such as general viewpoints or their perceptions of effective reading, *ignoring* concerns only a particular facet of students' reading concepts, that is, their perceived repair strategy to solve reading difficulties. It seems absurd to present the factor in this broad context where the specific condition to which it applies is not mentioned.**

Place Figure 1 here.

Let's first look at the factor which has been identified as the most noticeable feature of EFL reading concepts acquired by Taiwanese junior high students, that is, the viewpoint of reading as language practices. The subjects of the present study representing introductory EFL readers seemed to perceive EFL reading as various language practices to advance their English proficiency more than as any other. This finding is consistent with previous research which discovered similar concepts among young L1 readers whose concepts toward reading were still at an early stage of development (Denny & Weintraub, 1963; Filby & Barnett, 1982; John & Ellis, 1976; Reutzel & Sabey, 1996). However, contrarily to the expectation, the present study indicated that this perception did not decline but grew with students' years of schooling. Students of the oldest group held this perception more strongly than younger readers for the results showed that ninth graders' mean score on this factor was the highest and significantly different from the sevenths' and eights'. These EFL high school learners seemed to develop this perception in reverse, compared with L1 readers.

The growth of this restricted view of English reading might stem from English instructions at school in EFL learning environments. English is a foreign language in Taiwan, and high school students seldom need to read it outside of the classroom



for communication. English instructions which overemphasize linguistic components such as vocabulary and grammar and provide students few opportunities to apply their linguistic knowledge for communicative purposes may further strengthen this limited belief among students. Unfortunately, instructions of this kind are prevalent in Taiwan as Arden-Close (1999) reported, “Reading lessons (at high schools in Taiwan) had been used as a means to an end—the end of being the learning of grammar or vocabulary, not learning how to read in a foreign language.” (p. 343).

In a long run, this misconception of EFL reading may be detrimental to EFL reading acquisition as its connection with low reading proficiency has been discovered among Taiwanese college students by Chia & Chia (2000a, 2000b). The researchers claimed that this limited viewpoint might be, in part, responsible for strong analytical, decoding approaches of students of low reading proficiency in their investigations. That is, it might strengthen readers’ belief that when reading in English, they should concentrate on the linguistic features of passages, mainly words and sentence structures, rather than the messages that they convey. Consequently, such decoding approaches further had negative impacts on students’ reading comprehension.

The finding suggests that the instructions would be desirable which not only

stress linguistic aspects of a reading passage but also encourage learners to read English for non-academic purposes outside of the class. Although the necessity to read English for communicative purposes outside the classroom is rare in Taiwan and other EFL countries, the opportunities are numerous here as there are many English magazines, newspapers, signs/labels and instruction manuals which accompany imported goods. Teachers can utilize these materials, which are highly related to students' daily life, for the information acquisition purposes.

Along the hierarchical ladder of factor prevalence comes non-strategic features including interest, English grades and reading pace, considered as important attributes for effective readers. This perceptual construct continued to develop as students progressed from grade seven to grade eight, but remained constant through eighth to ninth grade. It implied that that after a year of learning, students tended to perceive EFL reading as a process involving more complex components. Unfortunately, some of the perceived ingredients seemed to be invalid. While effective reading requires reasonable speed, it would be misleading for students to sacrifice reading comprehension at the expense of fast reading. Similarly, good readers may usually get higher English grades at school where students' English proficiencies are assessed particularly in terms of their reading abilities in Taiwan. However, English grades themselves do not contribute to effective reading in any means. This perception

certainly is a tag of educational value that students attached to EFL reading through schooling. The viewpoint of English grades as an attribute for effective reading might be linked to the perception of EFL reading as various language practices at school because results of language practices were usually assessed in terms of grades at a school setting in Taiwan.

The next concerns the contrast of analytic and holistic viewpoints, the most salient features distinguishing younger/poor readers from older/effective comprehenders reported by reading literature. Unlike L1 novice readers who are often dominantly oriented by analytical, decoding viewpoints, the EFL introductory readers in the present study demonstrated awareness of both analytical and holistic approaches toward English reading, as Table 7 showed. Specifically, students in grades seven and eight showed an equal favor for local and global perceptions in general, although their reading concepts seemed to swing between these two conceptual contrasts under different conditions, for example, eight graders being more decoding-oriented when defining effective readers, but more holistic in their perception of repair strategies. Distinct from the younger groups, ninth graders preferred to holistic approaches for all categories of metacognition, only except when they defined their model readers, they revealed equality in both approaches.

These findings highlight some mistakable characteristics of foreign language

readers. Since the EFL readers in the present study had quite a lot experiences in reading for meaning in their mother language, and the positive experiences might have helped them acquire the awareness of meaning-getting features of EFL reading. Furthermore, because they are older than L1 beginning readers, they have considerably more factual knowledge about the world, and their background knowledge could assist them to approach a reading task in a more global fashion (Brabe 1991). So, what do these benefits characterizing EFL learners imply for reading material and instructions? It would be facilitative to offer EFL students with familiar reading text — familiar because the subjects are familiar, the stories are familiar or the structures are familiar. Students' existing knowledge is available to make use of the familiarity to guess meaning, and, thus, reduces their burdens in confronting new vocabulary and syntax of the target language.

More interesting results were yielded by comparisons among the three graders' viewpoints of EFL reading in their perceptions of these two approaches. For students' perceived holistic approaches, ninth graders were significantly different from the younger groups in their stronger preference to them. This indicates that the holistic reading perceptions acquired by EFL learners in the present study seem to develop throughout the school years, a trend similar to L1 readers' reading concepts. However, the subjects' global reading concepts did not develop with grade levels in a

linear progression because no significant difference was identified between the seventh graders' and eights'. The finding suggests that it might take introductory EFL readers a certain amount of learning time for their reading concepts to develop holistically one step further.

This result is supported by other studies endorsing the interactive model of reading and Threshold Hypothesis. Researchers who advocate the interactive reading approach have argued that both top-down and bottom-up processing takes place during fluent reading (Haynes, 1993; Smith, 1994). According to the model, reading is a process composed of hierarchical components including “sight word recognition, phonetic decoding skills”, “background knowledge and predictions” and “comprehension skills”. Beginning L2 readers often do not have enough highly efficient sight vocabulary knowledge so that they have to spend most of their attentions on word recognition, or decoding tasks. As their proficiency advances with years, they are able to distribute more attentions to the global components involved in reading and thus are more holistic-driven (Coady, 1993; Huckin, 1986). Further supports come from studies on Threshold Hypothesis, which asserts that the transfer of reading skills from L1 to L2 is possible only after a threshold level of L2 proficiency has been attained. An abundance of research on the hypothesis has discovered that L2 learners who have not achieved a threshold level of the target

language can not employ higher level processing skills and holistic strategies which they have already acquired in their L1 reading (Bernhardt & Kamil, 1995; Brisbois, 1995;). In other words, introductory L2 learners need time to surpass the threshold so that the holistic skills which they have learned in L1 reading could be transferred to L2 reading and this results in further advances of their global approaches.

However, there was an unexpected finding concerning eighth graders' perceived holistic approaches. Students in grade eight showed slight regression in their global perception, particularly, their concepts toward effective strategies and about their perceived model readers in comparison with seven graders'; eight graders scored significantly lower on these two categories than seven graders did. This contradicts earlier research which asserted that students' global perceptions toward reading progressed through school, and poses an interesting question.

Perhaps increasing complexity of English reading material that eighth graders confronted exerted certain effect on their concepts toward EFL reading. According to Carroll (1977), reading comprehension depends on three major factors — language, cognition, and reading skills. The cognition does not present a major hurdle for eighth graders because adolescent already have cognitive abilities to handle material of familiar experiences, concrete ideas and single point of view (Steinberg, 1993), typical content contained in text passages of their English textbooks. For this group

of readers, reading comprehension correlates higher with language and reading skills. Complex sentences are first introduced to junior high students in eighth graders' English textbooks. Furthermore, the content of the reading has shifted from mainly "conversation scripts" in seven graders' textbook, most of which can be easily understood by the students once the vocabularies are gone through, to "narratives" in eight graders' where paragraph structures are more complicated, reading load is heavier, and effective comprehension requires more advanced reading skill other than just vocabulary recognition.

Moreover, Chall (1996) has claimed that learners' progress through stages is not a straight upward path. If the task is new and difficult, the readers may drop to a lower level of functioning. Based on the theoretical framework of Carroll and Chall, it is postulated that increasing difficulties of their reading material might have withdrawn them from the global perceptions. Interestingly, the present study also demonstrated that it was eighth graders who showed the most negative motivation toward themselves as English readers. The regression of seven graders' global perceptions is certainly a puzzling inconsistency, one bearing further analysis and investigation.

Regarding analytical approaches, no significant difference was found among the three grade levels for all categories of metacognition. Another finding conflicting

with previous research which declared that students' local perceptions declined with age. This discrepancy may be attributed to subjects' learning experiences in school. As mentioned previously, English instructions at high schools in Taiwan have mainly focused on vocabulary and grammar. Furthermore, English teachers often implement the translation approach in class, and, consequently, "with accuracy in translation being of first importance in Chinese EFL classes (in Taiwan), it is not surprising to see Chinese characters scribbled between the lines of students' English textbook." (Chern, 1993, p.68). Students might be reinforced by these analytical approaches in class, and thus their local perceptions toward EFL reading remained constant throughout junior high school years.

In contrast to the constancy of analytical approaches, motivation fluctuated among students of three grade levels. According to Pintrich (1989), motivation consists of three components: expectancy, value, and affect. Two of them have been explored in this study, that is, expectancy and value. The former includes learners' beliefs about the importance and interest of the task, and the latter refers to learners' perceived ability about themselves to execute a task. It was discovered that expectancy and value, such as interest, were positively connected to readers' use of strategies, including metacognitive strategies and effort management (Pintrich, 1989). In other words, learners who are more interested and confident in reading are more



likely to be cognitively engaged in the task, and this results in increased comprehension. The successful reading, in turn, creates confidence and reading interests. This cyclic relationship of motivation and reading comprehension is what Nuttal (1996) calls “the virtuous circle of reading”, which has been confirmed by other researchers (Briggs, 1987; Readence & Baldwin, 1987).

With respect to this “achievement-related variable”, motivation, it is puzzling and disturbing to discover that students in grade eight showed the least motivated among all the grade levels. Eight graders scored significantly lower on this factor than did seven graders and ninth graders. In addition to regression of holistic approaches in two categories of metacognition, decline of eight graders’ motivation posed another mystery. It is posited here that that increasing complexity of their textbooks which have been discussed previously might advance the levels of difficulties in comprehending reading text, and had a negative impact on learners’ motivation. Perhaps this “vicious circle or reading” could partially decipher this puzzle.

Regression of holistic approaches and motivation perceived by students in grade eight raises pedagogical suggestions for them. Instructions on more advanced reading skills beyond basic decoding strategies could be beneficial for this group of learners to slacken the burden of soaring difficulties of their reading text. Strategies

such as previewing, predicting and self-questioning, have been shown to help students effectively activate their existing schemata, or background knowledge, and direct their attention to global components of reading passages to improve **reading comprehension**. **Hopefully, acquisition of higher level of comprehension strategies which facilitate reading can also promote their motivation in EFL reading.**

The last comes the perceptual construct metacognitive strategies, which refer to exerting control over ones' language learning through planning, monitoring, and evaluating (Yang, 1999). Ninth graders, who tended to regard English reading as a school subject also inclined to perceive various metacognitive strategies, such as taking notes and reviewing after class, essential for enhancing their reading comprehension. These metacognitive strategies appear to reflect a personal orientation to study which is not specific to language learning but relevant to all subject matter study in school. The relationship between these perceived strategies and effective reading is not clear yet because a reader may appreciate that ESL/EFL reading is different from other kinds of study, she or he may nevertheless adopt the same general approaches to both. Although literature on language learning strategies has identified certain metacognitive strategies seem to characterize successful language learners (Green & Oxford, 1995; Gu & Johnson, 1996), its effects on reading comprehension remain unexplored. It is possible that the

perception of EFL reading as language practices further strengthened this viewpoint in a school setting. Whether there is any causal relation between these two perceptions warrants further investigation.

In addition, there were other factors which projected some interesting insights and represented remaining clues to solve the mystery of subjects' EFL reading concepts. First comes one of students' perceived repair strategies, namely, skipping/quitting. It is delight to know that Taiwanese high school students of three grade levels all showed their persistency in solving reading difficulties, a characteristic often associated with effective readers (Carrell, 1989). Next is concerned with students' perceived model readers. Question 21 showed that, in addition to English teachers, their peers, including classmates and friends, were perceived as their model readers by majority of the subjects, a finding in line with research on psychology of this particular adolescent population, who are characterized by their great emphasis on acceptance by their peer groups (Atwater, 1996), and often seek advices from their peer groups when confronting difficulties (Hwang, 1994). This finding highlights the value of peer programs in high schools such as peer tutoring and cooperative learning which have been empirically proven to improve high school students' reading ability not only in L1 (Fischer, 2000; Fuchs, Fuchs & Kazdan, 1999) but also in L2 (Tetsuro, 1999).

The present investigation clearly demonstrates that some changes occurred in EFL reading concepts acquired by students in grades seven to nine. Although older students held more holistic perceptions toward reading than younger readers, it is disturbing to note that some of the misconceptions remained constant or even grew with grade levels. School's method of reading instruction and the EFL learning environments as a whole might have exerted some effects on these misconceptions. It is important that EFL teachers and researchers need to renew their efforts to help students develop clear understanding of the reading process which is essential for learning to read, and the present study has provided some pedagogical suggestions based on the findings. Further qualitative studies and experimental research are certainly in need to confirm the findings here and to add more critical information to our limited understanding of EFL students' perceptions of English reading.

## References

- Arden-Close, C. (1999). Taiwanese university freshmen's difficulties with reading in English. *Reading in A Foreign Language, 12*, 325-354
- Atwater, E. (1996). Adolescence. Englewood cliffs, NJ: Prentice Hall.
- Bernhardt, E., & Kamil, M. (1995). Interpreting relationships between L1 and L2 reading: Consolidating the linguistic threshold and the linguistic interdependence hypotheses. *Applied Linguistics, 16* (1): 15-34.
- Briggs, L. D. (1987). A poor attitude: A deterrent to reading improvement. *Reading Horizons, 27*, 202—208.
- Brisbois, J. E. (1995). Connection between first- and second-language reading. *Journal of reading behavior, 27*: 565-584.
- Canney, G., & Winograd, P. (1979). Schemata for reading and reading comprehension performance. *Technical Report No. 120*. Champaign, IL: Center for the Study of Reading.
- Carrell, P. L. (1989). Metacognitive awareness and second language reading. The Modern Language Journal, 73, 121-134
- Carroll, J. B. (1977). Developmental parameters of reading comprehension. In Guthrie, J. T. (Ed.) *Cognition, Curriculum, and Comprehension*. Newark, DE: International Reading Association.
- Chall, J.S. (1996) *Stages of Reading Development*. Fort Worth, TX: Harcourt Brace College Publishers.
- Chern, C. L. (1993) Chinese students' word-solving strategies in reading in English. In T. Huckin, M. Haynes & J. Coady (Eds.), *Second Language Vocabulary*

- Learning* (pp. 67-81). Norwood, N J: Ablex Publishing Corporation.
- Chia H. L., & Chia, H. U. (2000a). Concepts of EFL reading among Taiwanese college students of low reading proficiency. *JALT Journal*, 22 (2), 296-314.
- Chia, H.L. & Chia, H.U. (2000b). Taiwanese Students' Concepts toward EFL Reading and Their Reading Proficiencies. Paper presented in 34<sup>th</sup> International IATEFL Conference, Dublin, Ireland.
- Coady, J. (1993). Research on ESL/EFL vocabulary acquisition: putting it in context. In T. Huckin, M. Haynes & J. Coady (Eds.), *Second language vocabulary learning* (pp. 3-23). Norwood, N J: Ablex Publishing Corporation.
- Cotterall, S. (1995). Readiness for autonomy: investigating learner beliefs. *System* 23, 195-205.
- Devine, J. (1984) ESL readers' internalized models of the reading process. In J. Handscombe, R. Orem, & B. Taylor (Eds.), (pp. 95-108). *On TESL '83*, Washington, DC: TESOL.
- Fagan, W.T. (1988). Concepts of reading and writing among low literate adults. *Reading Research and Instruction*, 27, 47-60.
- Fasinski, T. V. & DeFord, D. E. (1988). First Graders' Conceptions of Literacy: A Matter of Schooling. *Theory into Practice*, 27, 53-61.
- Foley, J.M. (1984). A study of student viewpoints and reading achievement. Unpublished master's thesis, University of Buffalo, New York.
- Freppon, P. A. (1991). Children's Concepts of the Nature and Purpose of Reading in Different Instructional Settings. *Journal of Reading Behavior*, 23 (2), 139-163.
- Freppon, P. A. (1995). Low-income children's literacy interpretations in a skill-based and a whole language classroom. *Journal of Reading Behavior*, 27, 505-533.

- Fischer, C. (2000). An effective (and affordable) intervention model for at-risk high school readers. *Journal of Adolescent & Adult Literacy*, 43 (4), 326-335.
- Fuchs, L. S., Fuchs, D. & Kazdan, S. (1999) Effects of peer-assisted learning strategies on high school students with serious reading problems. *Remedial and Special Education*, 20 (5), 309-318.
- Green, J. M. & Oxford, R. L. (1995). A closer look at learning strategies, L2 proficiency and gender. *TESOL Quarterly*, 29, 261-297.
- Gu, Y. & Johnson, R. K. (1996). Vocabulary learning strategies and language learning outcomes. *Language Learning*, 46 (4), 643-679.
- Haynes, M. (1993). Patterns and perils of guessing in second language reading. In T. Huckin, M. Haynes & J. Coady (Eds.), *Second language vocabulary learning* (pp. 3-23). Norwood, N J: Ablex Publishing Corporation.
- Huckin, T. (1986). The use of discourse patterning in foreign-language reading and vocabulary acquisition. *DELTA*, 2(1): 57-75.
- Huffman, G., Edwards, B., & Green, M. (1982) Developmental stages of metalinguistic awareness related to reading. *Reading World*, 18, 193-200.
- Hwang, D. S. (1994) *Development & Counseling of Adolescence*. Taipei, TW: Wu-Nai Publishing Company.
- Johns, J. L. & Ellis, D. W. (1976). Reading: Children Tell It Like It Is. *Reading World*, 12, 115-128.
- Johns, J. L. (1986) Students' perceptions of reading: thirty years of inquiry. In D. Yaden & S. Templeton (Eds.), *Metalinguistic Awareness and Beginning Literacy* (pp.31-40). Portsmouth, NH: Heinemann.
- Kang, Dong-Ho (1999). L2 children's reading conceptions and its relationships with intertextuality. Eric No. ED 430210

Lesesne, R.S. (1991). A survey of the reading concepts and attitudes of middle school students. Unpublished doctoral dissertation, University of Houston.

Malicky, G., & Norman, C. A., (1989). The reading concepts and strategies of adult nonreaders. *Journal of Reading, 33*, 198-202.

Norman, C. A. & Malicky, G. (1987). Stages in the reading developments of adults. *Journal of Reading, 30*, 302-307.

Nuttall, C. (1996). *Teaching Reading in a Foreign Language*. Oxford: Heinemann.

O'Sullivan, J. T. (1992) Reading beliefs and reading achievement: A developmental study of students from low income families. Unpublished report No. 6, summary reports of paths to literacy and illiteracy in Newfoundland and Labrador. Eric No. ED 354505

Pintrich, P. (1989). The dynamic interplay of student motivation and cognition in the college classroom. In Ames, C. & Maehr, M. L. (Eds), *Advances in Motivation and Achievement: Motivation-enhancing Environments, Vol. 6*. (pp. 117—160). Greenwich, CT: JAI Press.

Readence, J., & Baldwin, R. S. (1987). *Research in Literacy: Merging perspectives*. New York: National Reading Conference.

Reutzel, D. R. & Sabey, B. (1996). Teacher beliefs and children's concepts about reading: are they related? Reading Research and Instruction, 35 (4), 323-342.

Steinberg, L. (1993). *Adolescence*. New York: McGraw-Hill Inc.

Stevens, J. (1986). *Applied Multivariable Statistics for the Social Sciences*. Hillsdale, NJ: Lawrence Erlbaum Associates.



Tetsuro, I. (1999). Implementation of buzz leaning to English language education in a junior high school. Eric document # ED 437851.

Wenden, A. L. (1987). Metacognition: an expanded view on the cognitive abilities of L2 learners. *Language Learning*, 37, 573-598.

Yang, N. D. (1999) The relationship between EFL learners' beliefs and learning strategy use. *System* 27, 515-535.

## Appendix A

### English Reading Questionnaire

Please circle your grade years: 7<sup>th</sup> , 8<sup>th</sup> , 9<sup>th</sup>

Please circle your gender: Female, Male

The following statements are about silent reading in English. Please indicate the

level of your agreement or disagreement with each statement by circling the

appropriate number: 1. indicates strong disagreement, 5 indicates strong agreement.

There are no so-called correct answers because everyone may have different

approaches toward reading.

Thank you for completing the questionnaire.

| <b>When reading silently in English, if I don't understand something, I will</b> |                      |          |         |       |                   |
|--|----------------------|----------|---------|-------|-------------------|
|  | Strongly<br>Disagree | Disagree | Neutral | Agree | Strongly<br>Agree |
| 1. keep on reading and hope for clarification further on                         | 1                    | 2        | 3       | 4     | 5                 |
| 2. reread the problematic part.  | 1                    | 2        | 3       | 4     | 5                 |
| 3. go back to a point before the problematic part and reread from there.         | 1                    | 2        | 3       | 4     | 5                 |
| 4. mentally sound out words  | 1                    | 2        | 3       | 4     | 5                 |

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| 5. look up in a student's reference book <sup>3</sup>   | 1 | 2 | 3 | 4 | 5 |
| 6. consult a Chinese translation version  | 1 | 2 | 3 | 4 | 5 |
| 7. skip over and continue reading   | 1 | 2 | 3 | 4 | 5 |
| 8. ask someone else.  | 1 | 2 | 3 | 4 | 5 |
| 9. give up and stop reading.  | 1 | 2 | 3 | 4 | 5 |
| <b>When reading silently in English, the things I do to read effectively are</b>                |   |   |   |   |   |
| 10. mentally sounding out each word.  | 1 | 2 | 3 | 4 | 5 |
| 11. understanding the meaning of each word.   | 1 | 2 | 3 | 4 | 5 |
| 12. focusing on the details of the text (e.g. time, place or characters mentioned in the text). | 1 | 2 | 3 | 4 | 5 |
| 13. consulting a Chinese translation version.   | 1 | 2 | 3 | 4 | 5 |
| 14. quickly previewing the reading passage.   | 1 | 2 | 3 | 4 | 5 |
| 15. focusing on the topic sentences.  | 1 | 2 | 3 | 4 | 5 |
| 16. integrating the information in the text with what I've already known.                       | 1 | 2 | 3 | 4 | 5 |
| 17. focusing on the overall meaning of the text.  | 1 | 2 | 3 | 4 | 5 |
| 18. concentrating on studying English.  | 1 | 2 | 3 | 4 | 5 |
| 19. keeping notes or underlining important points   | 1 | 2 | 3 | 4 | 5 |

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<sup>3</sup> The student's reference books are widely used by Taiwanese high school students although the Educational Bureau has forbidden teachers to use them at school. In Taiwan, each grade level of all high schools adopts the same English textbook published by the National Institute for Compilation & Translation. The reference books, on the other hand, are published by private publishers and, therefore, have several different versions available in the market. However, they all contain detailed information about each unit of the English textbook, including vocabulary highlights, grammatical focuses, Chinese translation, answer keys to the exercise in the textbook and various language drills.

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| 20. reviewing the lesson several times afterwards.  | 1 | 2 | 3 | 4 | 5 |
| 21. The best English reader I know is my (please circle one)<br>classmate; teacher; parents; relative; friend, other _____ (please specify)<br><br><b>He/she is a good reader because he/she:</b> |   |   |   |   |   |
| 22. can sound out words correctly:  | 1 | 2 | 3 | 4 | 5 |
| 23. has large vocabulary.   | 1 | 2 | 3 | 4 | 5 |
| 24. is good at grammar.   | 1 | 2 | 3 | 4 | 5 |
| 25. can understand the details of a reading text (e.g. time, place or characters mentioned in the text).  | 1 | 2 | 3 | 4 | 5 |
| 26. understanding the overall meaning of a reading text.  | 1 | 2 | 3 | 4 | 5 |
| 27. focuses on the topic sentence of each paragraph.  | 1 | 2 | 3 | 4 | 5 |
| 28. shows strong interests in English   | 1 | 2 | 3 | 4 | 5 |
| 29. gets good grades in English courses.  | 1 | 2 | 3 | 4 | 5 |
| 30. reads fast.   | 1 | 2 | 3 | 4 | 5 |
| 31. studies English hard.   | 1 | 2 | 3 | 4 | 5 |
| <b>What is reading in English? It is</b>  |   |   |   |   |   |
| 32. sounding out individual words.  | 1 | 2 | 3 | 4 | 5 |
| 33. understanding words.  | 1 | 2 | 3 | 4 | 5 |
| 34. analyzing grammatical structures.   | 1 | 2 | 3 | 4 | 5 |

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| 35. understanding the details of a reading text (e.g. time, place or characters mentioned in the text). | 1 | 2 | 3 | 4 | 5 |
| 36. translating English to Chinese.   | 1 | 2 | 3 | 4 | 5 |
| 37. understanding the overall meaning of a reading text.  | 1 | 2 | 3 | 4 | 5 |
| 38. a mean to learn new information/knowledge.  | 1 | 2 | 3 | 4 | 5 |
| 39. a language practice through which my English ability will be improved.                              | 1 | 2 | 3 | 4 | 5 |
| 40. memorizing vocabulary, phrases and text content.  | 1 | 2 | 3 | 4 | 5 |
| 41. a practice to advance my English conversation ability.  | 1 | 2 | 3 | 4 | 5 |
| 42. interesting and fun.  | 1 | 2 | 3 | 4 | 5 |
| 43. an easy task for me (I can do it well).   | 1 | 2 | 3 | 4 | 5 |

Table 1

The structure of the questionnaire

|                     |   |
|---------------------|---|
| <p>Repair</p>       | <p>Nine statements related to repair strategies when comprehension failed.</p> <p>Items include: (A) Holistic Approaches: read-on (statement 1); reread (statement 2 and 3); (B) Analytical Approaches: sound-letter (statement 4); reference books (statement 5); translation (statement 6); asking (statement 8). (C) Skipping (statement 7) &amp; Quitting (statement 9).</p>  |
| <p>Effective</p>    | <p>Eleven statements related to effective reading strategies. Items include: (A) Reading Strategies (analytical Strategies): sound-letter (statement 10); word-meaning (statement 11); content details (statement 12); translation (statement 13); (Holistic Strategies): previewing (statement 14); topic sentences (statement 15); background knowledge (statement 16); text gist (statement 17); (B) Metacognitive strategies : concentration (statement 18); taking notes (statement 19); reviewing (statement 20).</p> |
| <p>Model reader</p> | <p>Ten statements to characteristics of effective readers. Items include: (A) Analytical Strategies: sound-letter (statement 22); word-meaning (statement 23); grammar (statement 24); content details (statement 25); (B) Holistic Strategies: text gist (statement 26); topic sentence (statement 27) (C)</p>   |

|                         |  |
|-------------------------|--|
|                         | <p>Metacognitive strategies : studying hard (statement 31); (D) Non-strategic features: interest (28 statement); English grades (statement 29); reading pace (statement 30);</p>   |
| <p>General<br/>View</p> | <p>Eleven statements related to a reader's general viewpoints toward EFL reading.</p> <p>Items include: (A) Analytical Approaches: sound-letter (statement 32); word-meaning (statement 33); grammar (statement 34); content details (statement 35) translation (statement 36); (B) Holistic Approaches: text gist (statement 37); (C) Language Practices: knowledge learning (statement 38); language exercises (statement 39); memorizing new words, phrases and story (statement 40); conversation practice (statement 41); (D) Motivation: interest (statement 42); expectancy (statement 43).</p> |

TABLE 2  
Judgments of Perceived Repair Strategies

| Grade levels    | N   | Holistic approaches | Analytical approaches | Skipping/Quitting<br>(Mean±SD) |
|-----------------|-----|---------------------|-----------------------|--------------------------------|
| 7 <sup>th</sup> | 332 | 3.36±0.84a          | 3.19±0.97a            | 2.01±0.87a                     |
|                 |     | (t= -3.54 **)       |                       |                                |
| 8 <sup>th</sup> | 355 | 3.32±0.83a          | 3.09±0.93a            | 2.07±0.81a                     |
|                 |     | (t= -4.73***)       |                       |                                |
| 9 <sup>th</sup> | 315 | 3.58±0.84b          | 3.08±0.89a            | 2.13±0.85a                     |
|                 |     | (t= -9.01***)       |                       |                                |

*Note.* Judgments were made on 5-point scales (1= strongly disagreement, 5=strongly agreement). Means in the same column that do not share subscripts differed at  $p < .05$  by Duncan's multiple range test (comparisons across groups). \*\* indicates  $p < .01$  and \*\*\*  $p < .001$  for means in the same row differing at  $p < .05$  by paired  $t$ -test (comparisons between Holistic and Analytic within groups).



TABLE 3  
Judgments of Perceived Effective Strategies

| Grade levels    | N   | Holistic approaches | Analytical approaches | Metacognitive strategies |
|-----------------|-----|---------------------|-----------------------|--------------------------|
| (Mean±SD)       |     |                     |                       |                          |
| 7 <sup>th</sup> | 332 | 3.30±0.91a          | 3.17±0.89a            | 3.14±0.92a               |
| ( t= -3.34 **)  |     |                     |                       |                          |
| 8 <sup>th</sup> | 355 | 3.14±0.93b          | 3.14±0.86a            | 3.06±0.91a               |
| (t= 0.11 )      |     |                     |                       |                          |
| 9 <sup>th</sup> | 315 | 3.46±0.87c          | 3.25±0.73a            | 3.35±0.88b               |
| (t= -4.69 ***)  |     |                     |                       |                          |

*Note.* Judgments were made on 5-point scales (1= strongly disagreement, 5=strongly agreement). Means in the same column that do not share subscripts differed at  $p < .05$  by Duncan's multiple range test (comparisons across groups). \*\* indicates  $p < .01$  and \*\*\*  $p < .001$  for means in the same row differing at  $p < .05$  by paired  $t$ -test (comparisons between Holistic and Analytic within groups).



TABLE 4

The Percentage Counts of Students' Choice of Their Perceived Model Reader

| Grade levels    | N    | Classmates | Friends | Teachers (%) | Parents | Relatives |
|-----------------|------|------------|---------|--------------|---------|-----------|
| 7 <sup>th</sup> | 332  | 23.92      | 23.26   | 39.20        | 6.98    | 6.64      |
| 8 <sup>th</sup> | 355  | 20.24      | 20.24   | 48.81        | 5.06    | 5.65      |
| 9 <sup>th</sup> | 315  | 25.50      | 20.47   | 43.29        | 4.70    | 6.04      |
| total           | 1002 | 23.10      | 21.28   | 43.96        | 5.56    | 6.16      |

TABLE 5  
Judgments of Perceived Characteristics of Model Readers

| Grade levels    | N   | Holistic approaches | Analytical approaches | Metacognitive strategies | Non-strategy features |
|-----------------|-----|---------------------|-----------------------|--------------------------|-----------------------|
| (Mean±SD)       |     |                     |                       |                          |                       |
| 7 <sup>th</sup> | 332 | 4.19±0.90a          | 4.23±0.74a            | 3.80±1.03a               | 3.80±0.85b            |
| (t= 1.15)       |     |                     |                       |                          |                       |
| 8 <sup>th</sup> | 355 | 3.96±0.96b          | 4.21±0.75a            | 3.85±1.37a               | 3.99± 0.85a           |
| (t= 4.01* **)   |     |                     |                       |                          |                       |
| 9 <sup>th</sup> | 315 | 4.25±0.88a          | 4.27±0.68a            | 3.98±0.99a               | 4.03± 0.78a           |
| (t= 0.86)       |     |                     |                       |                          |                       |

*Note.* Judgments were made on 5-point scales (1= strongly disagreement, 5=strongly agreement). Means in the same column that do not share subscripts differed at  $p < .05$  by Duncan's multiple range test (comparisons across groups). \*\*\* indicates  $p < .001$  for means in the same row differing at  $p < .05$  by paired  $t$ -test (comparisons between Holistic and Analytic within groups).

TABLE 6  
Judgments of General Viewpoints toward EFL Reading

| Grade levels    | N   | Holistic approaches | Analytical approaches        | Language practices | Motivation  |
|-----------------|-----|---------------------|------------------------------|--------------------|-------------|
| (Mean±SD)       |     |                     |                              |                    |             |
| 7 <sup>th</sup> | 332 | 3.96±0.99a          | 3.93±0.73a<br>(t= -0.79)     | 4.12±0.77a         | 3.61±1.12ab |
| 8 <sup>th</sup> | 355 | 4.02±0.93a          | 3.97±0.73a<br>(t= -2.50)     | 4.13±0.77a         | 3.49±1.15b  |
| 9 <sup>th</sup> | 315 | 4.23±0.83b          | 3.95±0.70a<br>(t= -7.09 ***) | 4.27±0.70b         | 3.76±1.19a  |

*Note.* Judgments were made on 5-point scales (1= strongly disagreement, 5=strongly agreement). Means in the same column that do not share subscripts differed at  $p < .05$  by Duncan's multiple range test (comparisons across groups). \*\*\* indicates  $p < .001$  for means in the same row differing at  $p < .05$  by paired  $t$ -test (comparisons between Holistic and Analytic within groups).

TABLE 7  
Judgments of the Underlying Factors across Categories of Metacognition

| Grade levels    | N   | Holistic approaches | Analytical approaches        | Metacognitive strategies |
|-----------------|-----|---------------------|------------------------------|--------------------------|
| (Mean±SD)       |     |                     |                              |                          |
| 7 <sup>th</sup> | 332 | 3.64±0.64a          | 3.60±0.63a<br>(t= -2.05)     | 3.46±0.76a               |
| 8 <sup>th</sup> | 355 | 3.65±0.62a          | 3.62±0.62a<br>(t= -2.04)     | 3.45±0.75a               |
| 9 <sup>th</sup> | 315 | 3.81±0.60b          | 3.66±0.55a<br>(t= - 8.61***) | 3.66±0.69b               |

*Note.* Judgments were made on 5-point scales (1= strongly disagreement, 5=strongly agreement).

Means in the same column that do not share subscripts differed at  $p < .05$  by Duncan's multiple range test (comparisons across groups). \*\*\* indicates  $p < .001$  for means in the same row differing at  $p < .05$  by paired  $t$ -test (comparisons between Holistic and Analytic within groups).

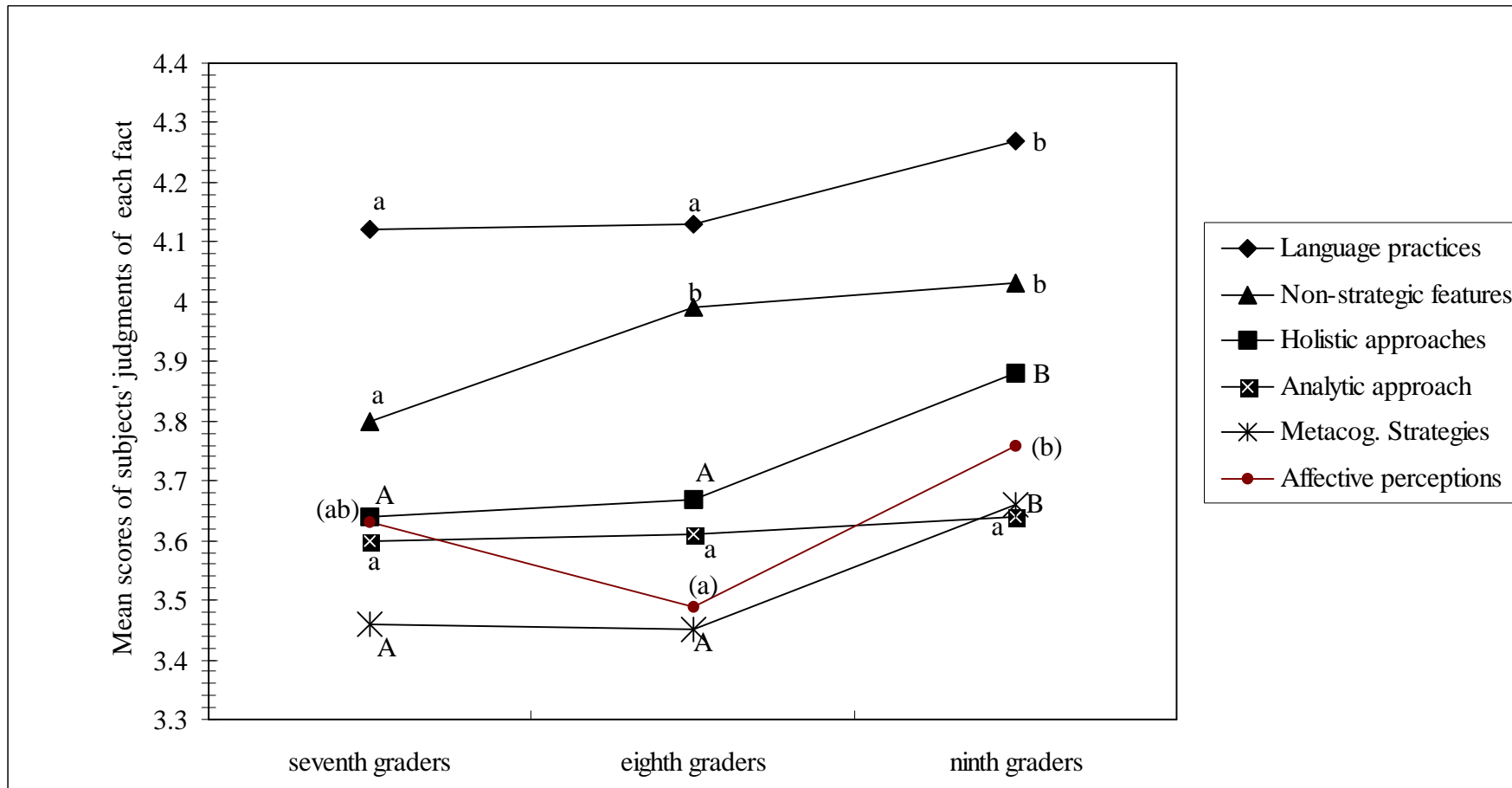


Figure 1. Development of Taiwanese junior high school students' perceived factors constructing their concepts of EFL reading. Judgments were made on 5-point scales (1= strongly disagreement, 5= strongly agreement). Dots of the same line that do not share subscripts differed at  $p < .05$  by Duncan's multiple range test.