Chapter 5

Discussion

The present study sought to validate the method of repeated reading in cross-cultural students and to explore the method in the extent of self-directed behavior. To the aims of the study, three critical problems needed to be clarified (a) "Do repeated reading and self-directed behavior improve the students' reading skills?", (b) Is there a change in each reading of the practiced stories?, and (c) Do reading skills generalize to new stories? The dependent variables were three types of reading skills, namely, reading time, error detection, and comprehension.

It was first hypothesized that repeated reading would improve reading skills more than non-repeated reading. The data analysis revealed repeated reading was more improved on reading time and error detection than non-repeated reading, but not on comprehension. That meant the students in repeated groups read a story more quickly and more thoroughly than non-repeated groups (see Tables 7 and 8); the students in the two groups were not different in comprehension skill. The most reasonable explanation for the superiority in the repeated reading can be attributed to students having developed automaticity in word recognition (LaBerge & Samuels, 1974). Samuels (1979) has described that, through repeated reading a student can move to an automatic stage of word recognition. That is, a student is able to recognize the printed words without attention. In this stage, the oral reading is fluent and with expression. The students in the non-repeated group, in contrast, were given a new story every time they were asked to read. Therefore, they might not have

detection was one of the measures of word recognition accuracy in the present study.

Even though repeated reading showed slightly better comprehension than non-repeated reading (see Table 9), the difference was not significant enough to consider. The lack of significant difference may be explained in this way. Because repeated reading is primarily designed to build fluency in which a student overcome text decoding, as the text decoding become automatic, comprehension can be enhanced (Singer & Donlan, 1989; Samuels, 1993). This study showed that, with a number of repetitions (rereading 4 times) the students' decoding was sufficient to build fluency but insufficient to create meanings of the texts. As the automaticity theory, text decoding for comprehension still required much attention. However, it can be seen in Table 10 that comprehension tended to improve during the period of repetitions. The significance of comprehension might be found in the repeated reading if the number of repetitions is increased.

In repeated literature, some studies were consistent to this study in which repeated reading did not improved comprehension (Dowhower, 1987; Selvey, 1990; Suter, 1992; Layton, 1994). However, some studies have reported this method supported comprehension (Yaden, 1988; Morrow, 1988; Levy et al., 1993). Thus, comprehension is still unclear in the method of repeated reading. For reading speed and word recognition, many studies were congruent with the present study in that they are enhanced by repeated reading (Rasinski, 1990; Wilson, 1992; Sindelar et al., 1990; Levy et al., 1993).

To the second hypothesis, it was hypothesized that self-directed behavior was better than teacher-directed behavior in reading skills. The data showed no significant differences between the two behavioral techniques either in reading time, error detection, or comprehension. A reasonable explanation for these findings might be

detection, or comprehension. A reasonable explanation for these findings might be that, in general, the students in primary levels follow their teacher' instructions. As the results, the students in teacher-directed group were also put much of their efforts in reading performances as those students in self-directed group. However, these findings had a critical implication in that, on the average, the students who involved reading with self-direction could achieve goals of reading as well as the students who followed teacher-direction.

It should be noted that in the analysis of self-directed and teacher-directed behavior, there were cross effects between reading methods and directed behavior factors. Thus, to control the confounding variables and to focus on the research interests, the investigations were confined to a specific reading method (the repeated reading).

This section is devoted to the discussion of the core findings with tracing by repeated measure procedure. The comparison between repeated reading with self- and teacher-directed behavior reviewed an interesting finding. The repeated reading with self-directed behavior (RR+SDB) was superior to repeated reading with teacher-directed behavior (RR+TDB) only in reading time. This finding, therefore, partly supported the hypothesis III for it predicted that all reading skills would be somewhat affected. The results were not clear for error detection and comprehension. The significant difference found probably reflected the fact that the students in the RR+SDB group had more intentional or motivated actions toward speed because they were able to set goals of reading for themselves. Bandura (1989) points out that high valuing toward a goal and the expectancy for success seem to increase the students' willingness to accept the goal as their own. He also states that personal control of standards and rewards greatly increase the personal interest in performances. From

Deci et al. (1991) point of view, motivated actions are self-determined to the extent that they are engaged wholly through the students' own volition. In the speed measure, the students had completely performed goal-directed actions (see Locke & Latham, 1990). A student preset himself or herself an appropriate goal of reading speed (in WPM) before he or she started reading, timed the speed with a stopwatch, made an immediate self-feedback whether the goal was achieved, and finally delivered self-reward for the speed progression. The wholly volitional actions on speed were likely to maximize the students' motivation to accomplish this skill (Sompoch Iamsupasit, 1993). The students in the RR+SDB group, in contrast, could not preset their own goals of speed or make any self-determination because they had to follow the teacher's directions. Thus, the students' motivation to accomplish goals of reading might be low in the teacher-directed groups. It was important to note that, even in the RR+SDB group, the students waited at least a period of time for the teacher feed back on the comprehension and errors detection measures which they had accomplished. The time delay on the feed back might lessen the students' motivation to act on these measures.

To the fourth hypothesis, it was predicted that the subsequent rereading will be more improved than the previous one. The examination of subsequent readings pertains only to the repeated reading with self-directed group (RR+SDB) as the purpose of the study. It appeared that the most significant gain was clearly found at the fourth reading for reading time, and at the third reading for error detection. However the data showed incremental improvements on these variables across the course of repetitions (see Figures 12 and 13, for reading time and detection, respectively). Some of the rationale for the improvements in reading time and error detection have been discussed earlier in this chapter. Even both reading time and

error detection increased as the number of reading increased, but there seemed to appear the event in which Dahl and Samuels (1979) have called a "trade off" between reading speed and error detection . This appearance might be explained in this way. First, the students obtained a very high speed (small reading time) at the first reading (283 sec) (see Table 11, for the RR+SDB group) as compared to the baseline (398 sec) (see Table 5, for baseline scores). But they had slight gains in errors detected at the first reading (8 words) as compared to the baseline (7 words). The students intended to detect more errors at the second reading. However, they were not successful in this reading (9 words). Thus the students paid more attention to the detection at the third reading. As we could see, the reading time at the second and the third reading were a little bit decreased (282 sec and 273 sec, at the second and the third reading, respectively) . After the third reading, the students concentrated on speed again at the fourth reading (253 sec), so the detection seemed stable at this reading (11 words at the fourth reading compared to the same amount of errors detected at the third reading). Dahl and Samuels (1979) found that when a reader is too concerned with accuracy, the reader's speed is lower. And in turn when speed is overly emphasized, the accuracy is lower. However, it must be noted that reading time was moderately positive related to error detection ($r = .36$) in the repeated reading with self-directed group indicating that, as the students increased in reading time, error detection tended to increase. One resonable for this positive correlation might be explained in the way that the students relized to and followed the experimenter's instruction which was given to the students before they start each session. In essence, to read as fast as possible, to detect the misspelled words and to select the corrected answers as much as possible.

Comprehension was still unclear in the RR+SDB group. One reason for poor comprehension may be caused by the insufficiency of repetition as has been described earlier. Another reason for the lack of significance in comprehension measured may be caused by the students' oral proficiency (Ludo, 1990). Ludo pointed out that with students who are learning a second language, both word recognition and reading comprehension appear to be most strongly influenced by a student's oral proficiency. The hilltribe students were not orally proficient in the Thai language. Further more, they are inaccurate in reading Thai which could be the cause of poor understanding in reading the text (Prasong Rainasuk, 1989). It was also important to noted that comprehension was strong related negatively to error detection and reading time in the repeated reading with self-directed behavior. This study revealed that while reading time and error detection were reliable improved across the repetitions in the repeated reading with self-directed behavior, but comprehension was stable across the repetitions in this group.

Generalization was also an important factor which this study tended to explore. Generalization of reading skills were determined by graphically comparing the new stories and the first versions reading. The last hypothesis (Hypothesis V) stated that the students' reading skills in repeated reading will be more generalized than non-repeated reading. It was found that the two reading methods produced similar pattern in generalized effects in reading times (Figures 9). The students in both reading methods read faster in the new stories than the first versions reading. In addition, no generalized effect was found in detection and comprehension skills in both reading methods (see Figures 10, 11). The students in both reading methods detected less errors and chose fewer right answers in the new stories than the first versions of the repeated stories. In sum, the schemes of skills generalization seemed

to appear the same patterns in both repeated and non-repeated reading. Thus, some graphically comparisons need to be examined to clarify the results.

To further investigation, generalized effects were also examined in the repeated reading with self-directed group. Similarly to the above findings, the plotted mean of reading skills showed the generalization of reading time but not error detection and comprehension (see also Figures 13 and 14).

There were some reasonable explanations for the occurance of reading skills generalization in this group. First, as Samuels (1979) indicated, with practice, there appears to be a general improvement of reading fluency. In other words, there is a carry-over effect of reading fluency to the new material after a student rereadings the repeated text. Second, error detection showed a story-specific improvement in this group. That indicated the students'error detection was generalized only in the practiced stories but not in the new stories. This finding was consistent to the study of Levy and others (1993). Levy and others found that detection in the new story was not different from that on the first reading of the stories, but it was worse than those for the repeated stories on the fourth reading. It must to noted that the participants in Levy and others' studies were the poor third-grade readers as in the present study.

In conclusion, this experiment implied some positive changes on the third-grade hilltribe students' reading skills. Repeated reading was proved to be an efficient method to improve the students' reading time and error detection. The results indicated that repeated reading with self-directed behavior was equal or better than repeated reading with teacher-directed behavior. There were incremental improvements of reading time and error detection across the four repetitions in the repeated reading with self-directed group. Finally, generalization of reading time was found in this study.

Implications

The present study has several implications for future research in the area of repeated reading especially when used with self-directed behavior.

1. Comprehension is accepted to be the most important skill in the development of reading skills. The present study did not show clearly that repeated reading or repeated with self-directed behavior effected the students' comprehension. Thus, future research should be emphasized on a number of rereading of repeated stories that instantial enhance hilltribe students' comprehension.

2. The present study proposed to examine changes in the poor hilltribe students' reading skills in the field of repeated reading and self-directed behavior. We did not know in the study whether reading ability levels of hilltribe students were effected by repeated reading. Thus, further investigation should include the students' reading levels in the research design.

3. The future study should also examine a number of rereadings that optimise the reading skills (e.g. comprehension). This study indicated that the best result of the repetitions occurred at the fourth rereading for reading time, and the third rereading for error detection (see Figures 11 and 12). As the Figures 11 and 12, reading time and error detection showed a curvilinear tendency. That was, the last reading seemed to approach a stable point. O'Shea et al. (1985) found that 83% of the reading speed took place by the fourth reading. Spring, Blunden, and Gatheral (1981) found that students reached optimal fluency skill between three and five repetitions. Thus, an optimal number of rereadings which most enhance students' reading skills should be emphasized in the future investigation.

4. The present study revealed no differences between self-directed and teacher-directed behavior. However, the study did not provide us the knowledge about the students' personality that might associate with the repeated and non-repeated reading. Future study should examine this area.

4. Finally, the study showed that self-directed behavior had some impact on students' reading time. The self-directed behavior involved with a number of powerful techniques. The future research needs to determine which technique has the most effect on reading skill changes in certain groups of students, especially when used with the repeated method.

The study has a number of implications that can be applied practically to special classrooms.

1. Self-directed behavior is simple and easy to incorporate in repeated reading. Young children can be taught to administer, for example, self-recording of their reading time (speed), self-reinforcement, or self-setting the goals of reading. To achieve the most profit from reading practice, the teacher should teach students to make simple plans for increasing reading skills. Reading speed should be focused first, then speed and miscue detection, and finally speed, miscue detection and comprehension. The plans should be simple, contain the appropriate goals for each student's reading ability, consist of clear-cut self-evaluation and self-reinforcement.

2. It has the implications from the results of the study that students' self-management in rereading the practiced stories increases students' reading skills higher than or at least equal to teacher management in the same reading performance. Therefore, the teacher can provide students more opportunity to study individually the selected material themselves. Hence, the teacher can save much time for group

teaching and have more time to prepare lessons for group study or the remedial reading with individual students.

3. A reading center can be set in school either in the regular class room, dormitory or in the library where the students can go to practice reading materials. The center should provide short stories, books, tape recorder, stop watch, reading record charts, and reading evaluation sheets. The teacher should ensure that the students can operate these devices, for example, the students can keep record of their reading speed, and write their records on reading charts.