

A Literature Review of Feedback Timing on Reading Comprehension in China and Abroad

Di Qia, Azizah Rajab, Nur'ain Balqis Haladin, Wenjing Wang and
Xiaoxiao Fu

Abstract--- *Since the 21st century, Chinese scholars have been engaged in the research on the teaching strategy and effectiveness of teacher feedback in the field of oral English and writing. However, in general, there are very few relevant researches related to teacher feedback on reading comprehension in China. In this study, it compares studies of feedback on reading comprehension in China and abroad, especially pay attention to the feedback timing on reading comprehension. This study shows distributing research with detailed resources. Some possible reasons are put forward in this research field; meantime, some implications in the research of feedback timing on reading comprehension are given in the conclusion.*

Keywords--- *Reading Comprehension, Feedback, Feedback Timing.*

I. THE STUDIES OF FEEDBACK ON READING CONDUCTED IN CHINA

In China, classroom teaching is the main way for most EFL learners to learn English languages, and feedback, as an important tool of English teaching, plays an important role in promoting foreign language learning. With the attention paid to the feedback on reading comprehension in China, some researchers conduct empirical experiments in English classroom to test the reliability or apply some type of feedback into reading teaching. The literature review is referred to table 1.

Liu (2012) investigated the effect of feedback mode based on computer network in the reading content expression and the language organization. The subjects are 80 second-year non-English majors. The results indicated that there are significant differences between the experimental group (use the new feedback mode based on computer network) and the control group (use the traditional feedback mode based on paper textbooks) in terms of content expression and language organization form of feedback. Additionally, the feedback mode based on computer network supplemented by metacognitive strategy training is obviously superior to the feedback mode based on paper textbooks. This study focuses on reading feedback, especially the pioneering discussion on the reading feedback mode of online reading. And it proposes that the active reading feedback mode should be adopted in English reading teaching in college, which give some enlightenment to this research. Fan and Liu (2018) demonstrated in an empirical study that there are some problems in teacher feedback in senior high school English reading classes, such as teachers' single way of asking questions, the questions are mostly demonstrative and the feedback language is relatively deficient. This study focusses on teachers' questions and feedback in reading class, including teachers' questions and feedback language.

*Di Qia, Technological University of Malaysia.
Azizah Rajab, Technological University of Malaysia.
Nur'ain Balqis Haladin, Technological University of Malaysia.
Wenjing Wang, Technological University of Malaysia.
Xiaoxiao Fu, Technological University of Malaysia.*

In addition, some studies discussed the performance and the effect of different types of feedback in reading. He (2017) investigate English teachers' negative feedback discourse between listening-speaking class and reading class. The results indicated that teachers can take advantage of various types of negative feedback in junior school. The study found that the proportion of active and passive negative feedback is roughly equal between novice group and expert group.

Table 1: The Literature Review of Reading Feedback Conducted in China

Author	Instrument	Research objectives	Respondent group	Findings	Reading Timing feedback
Fan& Liu (2018)	Audio& video recording; observation	Investigate teachers' questioning and feedback in reading class.	48 high school sophomores	There are some problems in teacher feedback in senior high school English reading classes, such as teachers' single way of asking questions, the questions are mostly demonstrative and the feedback language is relatively deficient. 1. The teacher provide seven types of CF in terms of students' errors. Grammatical errors are the errors that students make the most, and the next one is lexical errors, and the last one is phonological errors. 2. Most of the corrective feedback can induce students to uptake. 3. Students' willingness to error correction is significantly greater than that of teachers.	✓
Wang (2017)	pretest–posttest Questionnaire; observation	Explore the relationship between teachers' corrective feedback and students' response	270 students and 4 teachers in the four classes of senior high school	1. Teachers can take advantage of various types of negative feedback. 2. The proportion of active and passive negative feedback is roughly equal between novice group and expert group. 3. Lesson type has little effect on the total amount of negative feedback discourse. 4. To proficient group and expert group, the distribution of active and passive negative feedback in listening- speaking class is similar to that in reading class.	✓
He (2017)	Observation; audio-recording; questionnaire	Investigate English teachers' negative feedback discourse between listening-speaking class and reading class.	Six junior high school teachers	1. The English-reading–English-writing (EE) group, and comprehensive corrective feedback (CF) groups outperformed the control and Chinese-reading–English-writing (CE) groups on the posttest and outscored the control group on the delayed posttest with respect to language. 2. The input language of the integrated reading–writing task had a significant effect on language accuracy in the resulting essays. 3. A significant positive correlation was observed not only between content and language alignment, but also between content alignment and language alignment.	✓
Zhang (2015)	Pretest and posttest	Investigate the effect of a reading–writing integrated task and comprehensive corrective feedback (CF) on English as a foreign language learners' writing development	120 participants in four intact classes of first-year non-English majors at a college	1. There are significant differences between the experimental group and the control group in terms of content expression and language organization form of feedback. 2. The feedback mode based on computer network supplemented by metacognitive strategy training is obviously superior to the feedback mode based on paper textbooks.	✓
Li (2012)	Audio recording	Investigate the effect of feedback mode based on computer network in the reading content expression and the language organization.	80 second-year non-English majors		✓

Furthermore, lesson type has little effect on the total amount of negative feedback discourse, the distribution of active and passive negative feedback in listening- speaking class is similar to that in reading class. In the past two decades, feedback studies in the field of second language acquisition in China are mainly focused on corrective

feedback. Wang (2017) explored the relationship between teachers' corrective feedback and students' response. The study observes 270 students and 4 teachers in four classes of senior high school and then carry out questionnaire among them. It is found that the teachers provide seven types of CF in terms of students' errors. Grammatical errors are the errors that students make the most, and the next one is lexical errors, and the last one is phonological errors. For the relationship between teachers' corrective feedback and students' uptake, the study found that most of the corrective feedback can induce students to uptake. Additionally, the study found that students' willingness to error correction is significantly greater than that of teachers. Zhang (2017) combined reading and writing to investigate the effect of a reading–writing integrated task and comprehensive corrective feedback (CF) on English as a foreign language (EFL) learners' writing development. The participants are 120 first-year non-English majors at a college. The English-reading–English-writing (EE) group, and comprehensive corrective feedback (CF) groups outperformed the control and Chinese-reading–English-writing (CE) groups on the posttest and outscored the control group on the delayed posttest with respect to language. The input language of the integrated reading–writing task had a significant effect on language accuracy in the resulting essays. And there was no significant correlation between content alignment and language accuracy for the CE group, whereas for the EE group, a significant positive correlation was observed not only between content and language alignment, but also between content alignment and language alignment.

II. THE STUDIES OF FEEDBACK ON READING CONDUCTED IN ABROAD

Similar to the situation in China, most of the studies on feedback conducted in language teaching in abroad also focuses on providing effective feedback on oral English and students' writing (Bitchener & Ferris, 2012; Paulus, 1999; Leki, 1991; Kulik & Kulik, 1988; Kulhavy, 1977; More, 1969). It is still lack of good solid causally interpretable research in the area of feedback on reading comprehension (Pearson & Gallagher, 1983; Tierney & Cunningham, 1980). The literature review is referred to table2.

Andre and Thieman (1988) investigate the effects of level of adjunct question (factual, application) and type of feedback on learning concepts by reading. The quantitative study showed that feedback does not necessarily facilitate concept learning and that adjunct application questions do not always facilitate the learning of concepts through reading. Schunk and Rice (1991) investigated the effects of goals and goal progress feedback on reading comprehension self-efficacy and skill. The instructor emphasized the steps in the learning strategy at the beginning of each lesson, and the participants were asked to apply the five-step comprehension strategy in the training room to complete the related questions they read. Students' self-efficacy and reading skills were examined by pre-test and post-test. Following the last instructional session, subjects' perceived progress in learning the strategy was assessed. The result shows that providing students with progress feedback and process learning goals can promote skills and a sense of self-efficacy for readers' learning. However, subjects in the process goal and process goal plus feedback conditions did not differ in their perceptions of progress in strategy learning. This study focuses on one type of feedback that provides information about the process learning goals and its impact on self-efficacy and skills in reading. It should be noticed that the progress measure employed in the study may have been too general to detect differences because it asked subjects to judge progress in learning the entire strategy. Separate judgments for each of

the five steps might yield differences in progress perceptions. Similarly, study is discussed by Swain (1999). They also examined the effectiveness of goal setting and teacher feedback on increasing students' achievement in reading on computerized curriculum-based measurement reading assessments. Students' understanding of their reading goals and their reading self-efficacy was also examined. Students participated in pretesting, training of procedures, seven weeks of intervention, and post testing. For pre and post testing, students completed measures of reading achievement, goal knowledge, and reading self-efficacy. Results showed that both groups, goal setting and teacher feedback, made significant gains in achievement. No differences were found between the groups in reading self-efficacy. The study indicated the importance of goal specificity in improving students' achievement but the problem remains clear. As in the previous study, there was no significant difference on pre or post treatment results between the two groups on whether they could tell if they were improving by their teacher telling them how they were doing.

Bown (2004) examined the usefulness of guided feedback in a web-based reading program for Arab learners. The study was mainly concerned with, whether or not guided feedback in web-based reading materials was influential for students at Ras Alkhaimah Men's College. The results showed that the overall performance of those who received guided feedback was mostly superior to those who received correct or incorrect feedback, and suggested that guided feedback improved the learners' comprehension of the texts. Murphy (2007) tried to investigate the influence of type of feedback and manner of study, whether individual or pair work, on the performance of students on exercises follow up reading comprehension. Research was conducted into identifying the type of errors student made in response to multiple-choice comprehension questions about a reading text and how students changed their answers when receiving elaborative feedback. The results of the study showed that there is a significant interaction between the types of feedback and manner of study (individual or pair work); students performed best on a follow up comprehension exercises when worked in pairs and having been provided with elaborative feedback and scored higher than those who worked individually. Sukhram (2008) focused on the effects of corrective feedback on fluency and comprehension of oral reading. In the study, 6-7th grade struggling readers by group are examined to investigate the effects of oral repeated reading with and without corrective feedback on text type and comprehension question type. Findings from this study indicate that middle students struggling readers stand to benefit from the implementation of oral repeated reading with and without corrective feedback. However, the sample size of the study is too small that only 49 participants involved in the study. Further to generalize findings, it is also desirable to include students from different cultures, ages, reading proficiency levels and across broader geographic areas.

Tabatabaei and Banitalebi (2011) investigated the type of both positive and corrective feedback moves utilized by L2 teachers in reading comprehension classes. The results demonstrated that there was a significant difference among the frequencies of the feedback types. Repetition was the most frequently provided positive feedback by L2 teachers (53%), followed by rephrasing (27%). Moreover, regarding corrective feedback, explicit correction was the most frequent feedback technique and elicitation the second one utilized by L2 teachers.

All the studies above related to the effect of one or more kinds of feedback on reading comprehension, including corrective feedback, elaborative feedback, guided feedback, goal progress feedback and so on. Although these studies are limited, they have made an important contribution to the study of feedback on reading comprehension.

Table 2: The Literature Review of Reading Feedback Conducted in Abroad

Author	Instrument	Research objectives	Respondent group	Finding	Reading Timing feedback
Manoliet al., (2016)	Pretest & posttest	Investigate the immediate and delayed effects of a multiple strategy instruction on EFL learners' reading performance.	99 EFL learners in the sixth grade of primary schools	Under the multi-strategy explicit training, students in the experimental group improved their reading performance both in the immediate and delayed posttest measurements as compared to the students in the control group.	✓
Tabatabaei and Banitalebi (2011)	Exercises; pretest& post test; questionnaire	Investigate the type of both positive and corrective feedback moves utilized by L2 teachers in reading comprehension classes.	40 female EFL learners who study in an English language course.	1. There was a significant difference among the frequencies of the feedback types. Repetition was the most frequently provided positive feedback by L2 teachers (53%), followed by rephrasing (27%). 2. Regarding corrective feedback, explicit correction was the most frequent feedback technique and elicitation the second one utilized by L2 teachers (49% & 19%, respectively).	✓
Sukhram (2008)	Pretest& post-test; observations	Investigate the effects of repeated reading with and without corrective feedback on the fluency and comprehension.	60 students in seventh grade.	1. Statistically significant increases in fluency were found for both groups from the first to the second to the third reading across text type while no statistically significant differences were found between the two groups. 2. Participants in the corrective feedback group demonstrated significant increases in their comprehension performance on expository text. 3. While participants in both groups showed improvements in responses to the implicit and explicit comprehension questions across passages a statistically significant increase was only confirmed for the corrective feedback group on implicit comprehension questions from expository text.	✓
Murphy (2007)	multiple-choice comprehension on exercise; Video recording	Investigate the influence of type of feedback and manner of study, whether individual or pair work, on the performance of students on exercises follow up reading comprehension.	407 first-year English majors at Kanda University of International Studies in Japan	1. The interaction between type of feedback and Manner of study (individual or pair work) was statistically significant. 2. Students performed best on a follow-up comprehension exercise when in pairs and having been provided with Elaborative feedback. 3. Elaborative feedback was conducive to quality interaction.	✓
Bown (2004)	Reading Practice Exercises Posttests Questionnaire	Examine the usefulness of guided feedback in a web-based reading program for Arab learners.	30 students belonging to three Higher Diploma classes	The results were inconclusive, but the mean scores of the students who received guided feedback were generally higher than those who did not.	✓
Samuels and Wu (2003)	Pretest & posttest	Evaluate immediate vs. delayed feedback effects on reading performance measures.	Sixty-seven students in third and fifth grades	1. Students in the immediate feedback condition were significantly superior on measures of passage comprehension and composite comprehension. 2. On the reading ability effect low ability group had significantly higher gain scores than the other two groups on sentence and composite comprehension. 3. The moderate group had the greatest gain score in speed of reading compared to the other two ability groups.	✓✓
Dohrman-Swain (1999)	Pretest& posttest.	Examines the effectiveness of goal setting and teacher feedback on increasing student achievement on computerized curriculum-based measurement reading assessments	19 middle school students with learning disabilities	1. Both groups, goal setting and teacher feedback, made significant gains in achievement. 2. Students in the goal setting group were significantly more variable on their CBM performance than students in the teacher feedback group.	✓
Schunk and Rice (1991)	Pretest & posttest	Investigated the effects of goals and goal progress feedback on reading comprehension self-efficacy and skill.	30 students from two fifth-grade classes	1. The students receiving process goals and progress feedback demonstrated significantly higher performance on the self-efficacy and skill tests than the process goal and product goal conditions. 2. Subjects assigned to the process goal and process goal plus feedback conditions judged perceived progress in strategy learning higher than product goal subjects. Feedback does not necessarily facilitate concept learning and that adjunct application questions do not always facilitate the learning of concepts through reading.	✓
Andre and Thieman (1988)	Pretest & posttest	Investigate the effects of level of adjunct question (factual, application) and type of feedback on learning concepts by reading.	135 volunteers from Iowa State University.	1. Delayed feedback produced significantly (2.4. 05) more learning on the original task than immediate feedback. 2. Immediate feedback produced significantly (p. < .01) more perseverance on the continuation passage than delayed feedback.	✓✓
Guthrie (1971)	Pretest & posttest interview	Investigate the effects of feedback on motivation and learning in reading.	72 male college students	3. Per-severance on the continuation passage was positively correlated (.46) with scores on a comprehension test over the continuation passage.	✓

III. STUDIES RELATED TO READING COMPREHENSION AND FEEDBACK TIMING

In the limited studies reviewing the feedback on reading, it can be found that most of these studies focus on the influence and effect of one type of feedback on students' reading comprehension. In China, the study relates to feedback timing on reading comprehension are not available till now (referred to table1). And only two studies focus on reading and feedback time in abroad, choosing immediate and delayed feedback that is common in teaching as research objects (referred to table2).

The time of feedback had been noticed since 1920's. But overall, the studies on feedback timing were limited before 1960s. From later 1960s, a number of researchers started to investigate the effects of immediate and delayed feedback on learning (Bown, 2004; Clariana, 1999; Jurma & Froelich, 1984; Prather & Berry, 1973). However, there are lack of attention to feedback timing on reading comprehension in classroom, although reading comprehension is often viewed as an important way to the language input (Manoli & Papadopoulou, 2013; Janzen, 2007). In general, the research on the differences of immediate and delayed feedback on students' reading comprehension is very rare. And there is no research regarding to feedback time and reading comprehension in China till now.

Guthrie (1971) investigated the motivational effect of timing feedback on reading. The results showed that under different feedback conditions (immediate feedback and delayed feedback), students' emotional responses to reading tasks were different. The learning effect of delayed feedback on original task was significantly higher than that of immediate feedback. But in the completion of a continuous passage, immediate feedback produced more motivation than delayed feedback. This study investigated whether delayed and immediate feedback provided during the learning phase affected participants' motivation to perform reading tasks.

The purpose of the above relevant study was to explore the immediate and delayed feedback on reading-related factor (motivation). However, to investigate the effect of feedback timing on reading related factors, the effect of different time of feedback on students' reading was first necessary to study. Lastly, there was only one research, Samuels and Wu (2003) examined the effect of feedback timing on reading performance, the goal was to explore whether the timing feedback would affect students' reading performance that guided students to improve their reading proficiency finally. Samuels and Wu (2003) evaluated the effects of immediate versus delayed feedback on sentence and passage comprehension, as well as reading speed. Pretest and posttest were employed to gather data of participants' achievements. The researcher found that students in the immediate feedback condition performed significantly superior on measures of passage comprehension and composite comprehension. Furthermore, the researcher suggests that teachers should provide frequent and immediate feedback in order to improve student performance. The quasi-experimental study was done to evaluate immediate versus delayed feedback on reading performance. However, there was no evidence in the study that the presence of feedback affected participants' reading performance differently than the absence of feedback.

IV. CONCLUSION

From this investigation mentioned above, there are many problems existed in the feedback on reading comprehension field, which shows the revelatory meaning for the development of this research. First of all, few

studies were carried out on the providing of feedback on reading comprehension. Compared to the related researches on feedback on oral English and writing, the researches of feedback on reading comprehension are not enough. Since reading is the primary source of English input, and it accounts for a large proportion of English courses in Chinese universities and middle schools. How to provide teacher feedback and when to provide feedback efficiently should attract more attention on it.

Second, the research methods of current studies related to feedback timing on reading comprehension are not comprehensive. Due to scarcity of a triangulation design studies conducted regarding the immediate and delayed feedback on reading performance, such fields still require searching and discussing in later researches. And it can provide an in-depth understanding of the phenomenon under study.

Furthermore, the majority of existing research has failed to manipulate and compare the two types of feedback in the real classroom teaching environment. This consolidation of previous findings provides a context that can be tested in a real classroom setting. Additionally, giving the right amount of feedback in the right place at the right time of the learning phase may be central in understanding how instructors can provide feedback in a systematic and productive way so that students can effectively interpret and incorporate it. It is found that the most effective timing of the feedback depends on whether the situation is in a real-life classroom environment or an experimental-lab type of environment. Thus, it is important to examine effects of feedback in real classroom situations, especially in English reading classes in Chinese college and not just the controlled lab environment.

REFERENCES

- [1] Andre, T., & Thieman, A. (1988). Level of adjunct question, type of feedback, and learning concepts by reading. *Contemporary Educational Psychology*, 13(3), 296-307.
- [2] Bitchener, J., & Ferris, D. R. (2012). *Written corrective feedback in second language acquisition and writing*(Vol. 10): Cambridge University Press.
- [3] Bown, A. (2004). *The Usefulness of Guided Feedback in a WebBased IELTS Reading Programme for Arab Learners*. Unpublished M. Ed dissertation of the University of Manchester.
- [4] Clariana, R. B. (1999). Differential Memory Effects for Immediate and Delayed Feedback: A Delta Rule Explanation of Feedback Timing Effects, *Association for Educational Communications and Technology Annual Convention*. Houston, TX.
- [5] Dohrman-Swain, K. J. (1999). *Participation in curriculum-based measurement with goal setting and teacher feedback: Effects on reading achievement, goal knowledge, and reading self-efficacy*. The University of Nebraska.
- [6] Fan, liu. (2018). A study of teachers' questioning and feedback in English reading class by observation in senior high school. *Journal of hubei normal university*, 4(38), 71-76.
- [7] Guthrie, J. T. (1971). *Motivational Effects of Feedback in Reading*. The Johns Hopkins University.
- [8] He, X. (2017). *The Comparative Study of Teachers' Negative Feedback in Junior English Listening-Speaking and Reading Class*. Minnan Normal University.
- [9] Janzen, J. (2007). Preparing teachers of second language reading. *TESOL quarterly*, 41(4), 707-729.
- [10] Jurma, W. E., & Froelich, D. L. (1984). Effects of immediate instructor feedback on group discussion participants. *Central States Speech Journal*, 35(3), 178-186.
- [11] Kulik, J. A., & Kulik, C.-L. C. (1988). Timing of feedback and verbal learning. *Review of educational research*, 58(1), 79-97.
- [12] Kulhavy, R. W. (1977). Feedback in written instruction. *Review of educational research*, 47(2), 211-232.
- [13] Leki, I. (1991). The preferences of ESL students for error correction in college-level writing classes. *Foreign language annals*, 24(3), 203-218.
- [14] Liu, X. (2012). Research on the reading feedback model in college foreign language teaching -- an experimental exploration based on online classroom. *Modern education technology*, 22(12), 70-74.

- [15] Manoli, P., & Papadopoulou, M. (2013). Strategic reading in multimodal texts: An application in EFL. *Paper presented at the Electronic Proceedings of the 5th International Conference on Education and New Learning Technologies* (pp. 3533-3540). Barcelona, Spain: International Association of Technology, Education and Development.
- [16] More, A. J. (1969). Delay of feedback and the acquisition and retention of verbal materials in the classroom. *Journal of educational psychology*, 60(5), 339.
- [17] Murphy, P. (2007). Reading comprehension exercises online: The effects of feedback, proficiency and interaction. *Language Learning & Technology*, 11(3), 107-129.
- [18] Paulus, T. M. (1999). The effect of peer and teacher feedback on student writing. *Journal of second language writing*, 8(3), 265-289.
- [19] Pearson, P. D., & Gallagher, M. C. (1983). The instruction of reading comprehension. *Contemporary Educational Psychology*, 8(3), 317-344 .
- [20] Prather, D. C., & Berry, G. A. (1973). Delayed Versus Immediate Information Feedback on a Verbal Learning Task Controlled for Distribution of Practice. *Education*, 93(3), 230-232.
- [21] Samuels, S., & Wu, Y. (2003). *The effects of immediate feedback on reading achievement*. Unpublished manuscript, University of Minnesota, Minneapolis. Available online from [http://www. tc. umn. edu/~samue001/webpdf/immediate_feedback. pdf](http://www.tc.umn.edu/~samue001/webpdf/immediate_feedback.pdf).
- [22] Schunk, D. H., & Rice, J. M. (1991). Learning goals and progress feedback during reading comprehension instruction. *Journal of Reading Behavior*, 23(3), 351-364.
- [23] Sukhram, D. P. (2008). *The effects of oral repeated reading with and without corrective feedback on the fluency and comprehension of narrative and expository text for struggling readers*. University of Illinois at Urbana-Champaign.
- [24] Tabatabaei, O., & Banitalebi, A. (2011). Feedback strategies in foreign language reading classes. *Asian Culture and History*, 3(2), 59.
- [25] Tierney, R. J., & Cunningham, J. W. (1980). Research on teaching reading comprehension. *Center for the Study of Reading Technical Report*; no. 187
- [26] Wang Z. (2017). *A Study on Teachers' Corrective Feedback and Students Uptake in Senior High School's Reading Lessons*. Chongqing Normal University.
- [27] Zhang, & Wang. (2017). Influence of feedback timing on oral accuracy and fluency development of Chinese English learners. *Journal of ocean university of China: social science edition*, (1) 102-108.