

Research on the Role of Corrective Feedback in Teaching of Chinese as a Second Language: A Systematic Review and Meta-Analysis

Geng Xinxin

Abstract—The study adopts a systematic review and meta-analysis approach to summarize the qualitative research on corrective feedback and to discuss the application and effect of corrective feedback under different conditions in Teaching Chinese as a Second Language in the classroom setting. Data mining was conducted from 2006 to 2020 based on the database of CNKI and Google Scholar and analyzed by a systematic review and meta-analysis. There are a total of 20 articles, 18 master's degree thesis and 2 journal papers were involved based on the selection criteria. The use distribution and correction effect of different feedback methods are integrated. The correlation of another five factors (error type, teaching link, language proficiency, research setting, individual factors of teachers and students) was established. Several conclusions were drawn: (a)Error types, teaching links, language proficiency and research setting will all affect the utilization rate and repair rate of corrective feedback, and their influence decreases successively. (b)The response rate and self-repair rate of implicit feedback are higher than that of explicit feedback. (c)Prompts (especially metalinguistic clues and elicitation) is most conducive to learners' self-correction, so as to promote their Chinese acquisition. (d)The utilization rate of recast is the highest, but its repair rate is much lower. (e)The utilization rate of repetition is the lowest, but response and repair rate is high. (f)The feedback rate to clarification is high but the rate of correction is low. (g) Metalinguistic clues are most likely to trigger learners' anxiety, while recast can effectively reduce anxiety.

Index Terms—Corrective feedback, feedback type, teaching Chinese as a second language, uptake.

I. LITERATURE REVIEW

Foreign second language acquisition field has made great achievements in the research of corrective feedback. Chaudron started the research on corrective feedback. Lyster & Ranta proposed six basic types of corrective feedback and introduced the concept of "uptake" for the first time. Allwright, Fanselow and Chaudron respectively conducted descriptive studies on teacher-student interactions and types of classroom corrective feedback [1].

Research on corrective feedback of second language acquisition in China mainly focuses on English teaching. However, a few studies on corrective feedback were conducted in the field of teaching Chinese as a second language [2]. At present, the field of teaching Chinese as a second language has reached a consensus on whether learners' errors should be corrected or not, believing that correcting

errors is beneficial to learners' Chinese acquisition, but there are still differences on "the methods of correcting errors" and "the effects and influencing factors of different types of correcting errors".

Based on above background, the current study adopts meta-synthesis, a novel research method based on qualitative case study, to summarize and integrate the qualitative research on corrective feedback in TCFL classrooms from 2006 to 2020, and to discuss the application and effect of corrective feedback under different conditions.

II. KEY CONCEPTS

A. Corrective Feedback

In this paper, we use the term "correction feedback" to refer to teachers' treatment of students' errors. According to the definition of Chaudron, corrective feedback refers to "teachers' response to students' errors, including correcting students' errors, raising objections to the errors that occur, and requiring students to make further corrections [1], [2]."

B. Types of Corrective Feedback

Integrating the collected literature, six types proposed by Lyster and Ranta were adopted in the current study, namely explicit correction, recast, elicitation, metalinguistic clue, clarification request and repetition [3], [4].

In addition, Lyster divided six types of feedback into two categories according to the degree of obscurity, explicit feedback or no negotiation, including explicit correction and recast; and implicit feedback or prompt, including metalinguistic clue, elicitation, clarification request and repetition [4].

C. Uptake

Uptake refers to the utterance of students following the feedback of teachers, which can be regarded as the response of students after they correctly understand the correction intention of teachers [1].

Uptake can be divided into two types, one is 'repair', that is, learners successfully corrected the errors in utterance; the other is 'to be repaired', that is, learners do not correct or present new utterance containing errors. The correction can be further divided into two types, one is repetition: simple repetition of correct answers provided by teachers, and the other is self-repair: self-correcting errors after receiving corrective feedback [4]. We regard self-repair as the most ideal effect of corrective feedback in TCFL class.

Manuscript received November 9, 2021; revised May 10, 2022.

Xinxin Geng is with Hebei Normal University, China (e-mail: 15830012170@163.com).

III. PROCESS AND METHOD

A. Determine Research Questions

According to the literature searched and integrated to the maximum extent, we find that there is a big difference between the language-form-based TCSL classroom and the meaning-centered classroom in foreign countries. TCSL class has the following features, as shown in the Table I:

TABLE I: THE FEATURES OF TCSL CLASS

feedback factors	provider of feedback	feedback method	teaching context	age of student	feedback effect
feedback features	Chinese teachers	oral feedback	TCSL class in college	18 to 24 years old	in the short term

Therefore, on the basis of previous studies, this study adopts the meta-synthesis method and strives to comprehensively describe the corrective feedback in TCSL class from different perspectives. Specific research questions are addressed as follows: a) What is the application rate and repair rate of each feedback method under 5 different influencing factors (error type, teaching link, language proficiency, research setting, individual factors of teachers and students)? b) What are the short-term influences of different types of feedback on learners' Chinese acquisition?

B. Literature Retrieval

The literature was searched in both Chinese and English by CNKI and Google Scholar database. In addition, the review of the corrective feedback and the retrieval of the references were re-searched. Due to the problem of access, this research only retrieves master's theses and journal papers. The retrieval time is set from 2006 to 2020. After several searches, 20 literature meeting the requirements were finally included, including 18 master's theses and 2 journal papers [1], [4]-[22].

C. Inclusion/Exclusion Criteria

According to the following criteria, the literature was included:

a) The publication time is from January 2006 to June 2020 (Prior to 2006, most publications are based on experience). b) The literature types are master's theses and journal articles. c) The feedback involved is corrective feedback. d) The feedback provider is the teacher. e) The research context is TCSL classroom. f) The measurement results are uptake rate [23].

The reasons why the article was not included are:

a) Beyond the above years of publication. b) The feedback involved is positive feedback. c) The feedback provider is peer. d) The research context is not TCSL class. e) Adopt a variety of mixed research methods (such as experience summary and experimental method). f) The content of the article does not explicitly involve the use and effect of corrective feedback, such as simply discussing error correction techniques and suggestions [23].

Through the three stages of title browsing, abstract browsing and full text browsing, based on the above inclusion and exclusion rules, 20 articles that are closely related to the research issues and meet the quality requirements of the qualitative meta-analysis are finally

retained.

D. Literature Analysis and Extraction

After identifying relevant research literature, we conducted literature information extraction. The data extraction includes author, publication year, literature type, research method and sample size.

E. Coding and Classification

First, data was summarized and coded based on the feedback types. Second, new categories are formed by comparative analysis. Third, five factors that may influence the effect of feedback were discussed in terms of the utilization rate and correct rate. And five codes of corrective feedback are shown in the following Table II:

TABLE II: FIVE CODES OF CORRECTIVE FEEDBACK

code name	the specific content
types of error	phonetic errors, lexical errors, grammar errors, pragmatics errors and Chinese characters errors
teaching links	review, explain, practice and communicate
proficiency level	elementary, intermediate, advanced
research setting	Chinese environment and non-Chinese environment
individual factors of teachers and students	the situation is complex, as detailed below

IV. QUALITATIVE META-ANALYSIS ACROSS STUDIES

A. Overall Overview

The correction feedback of TCSL class which is focus-on-form generally shows the characteristics of "high feedback rate but low repair rate", that is, the feedback rate of teachers to errors is very high (more than 50%, even more than 90%), but the repair rate of students is relatively low compared with the feedback rate.

Besides, the utilization rate of each feedback type is not proportional to the repair rate, as shown in the following Table III.

The formula for calculating the feedback rate is the number of times the teacher gives corrective feedback divided by the total number of student errors. And the formula for calculating the repair rate is the number of errors corrected by students divided by the number of feedback given by teachers.

TABLE III: THE UTILIZATION RATE AND FEEDBACK EFFECT OF EACH FEEDBACK METHOD

	FEEDBACK METHOD
utilization rate	recast > elicitation, metalinguistic clue or clarification request > explicit correction > repetition
response rate	elicitation, metalinguistic clue, clarification request or repetition > recast or explicit correction
repair rate	elicitation, metalinguistic clue or repetition > clarification request > recast or explicit correction

B. Types of Errors

For different types of errors, the use and distribution of corrective feedback and the understanding of response analysis are the focus of elementary literature research.

1) Corrective feedback of different error types

Corrective feedback of different error types is shown in the following Table IV:

TABLE IV: CORRECTIVE FEEDBACK OF DIFFERENT ERROR TYPES

Rate	types of errors
rate of errors	phonetic > grammar > lexical > Chinese characters > pragmatics
feedback rate	Chinese character > grammar > lexical > phonetic > pragmatics
response rate	grammar > phonetic > lexical
correct rate	grammar > phonetic > lexical

As for the feedback rate of Chinese teachers, it is supplemented as follows: a) Errors in grammar and lexical will affect expression, so teachers' tolerance of these errors is low. b) The phonetic errors feedback rate is the lowest because speech errors have little impact on the expression and have fossilization characteristics, and it is difficult to correct, so teachers' error tolerance is high. c) The phonetic feedback rate is the highest at the elementary, and the grammar feedback rate is the highest at the intermediate level, but the intermediate and advanced level overall feedback rate is low. d) There are few elementary studies on Chinese characters and pragmatics errors, and the conclusions are somewhat accidental. In addition, the response rate and repair rate are positively correlated [9].

2) The usage of different feedback types

The usage of different feedback types is shown in the following Table V:

TABLE V: THE USAGE OF DIFFERENT FEEDBACK TYPES

types of errors	the feedback method use distribution
Phonetic	recast (over 50%)
Grammar	recast, metalinguistic clue, elicitation, explicit corrections, and clarification request
Lexical	recast, explicit correction and elicitation
Pragmatic	recast and explicit correction
Chinese characters	elicitation and recast

Some additions are as follows: a) The utilization rate of other feedback types is much lower than that of recast [24], and the regularity is unclear, which is related to teachers' preference. b) The single type of feedback leads to learners' inability to distinguish the correct language form and unsatisfactory error correction effect. c) The types and causes of grammatical errors are complex, and the feedback types are diversified and targeted, so the correction rate is the highest. d) The recast is simple and direct, which saves the class time, while the error correction effect is general, therefore, it is not the best feedback method. e) Pragmatic errors are not regular or analogical, so it is difficult for teachers to explain the causes, and they tend to correct them directly without explanation.

3) Teaching links

a) Corrective feedback of different teaching links

Corrective feedback of different teaching links is shown in the following Table VI:

TABLE VI: CORRECTIVE FEEDBACK OF DIFFERENT TEACHING LINKS

Rate	teaching link
feedback rate	practice > explain > communication
response rate	explain > practice > review > communication
repair rate	explain > practice > communication

Some additions are as follows: a) Teachers pay attention to accuracy during explain and practice links, they correct most even all of the errors, so feedback rate is high. b) The

communication link pays attention to train the students' ability to express fluently in paragraphs. Feedback rate is greatly reduced or even no error correction, and the response rate is the lowest. c) Both teachers and students do not pay enough attention to the review link, so the feedback rate is low.

b) The usage of different feedback methods

The usage of different feedback methods is shown in the Table VII:

TABLE VII: THE USAGE OF SIX FEEDBACK METHODS IN THE TEACHING LINKS

teaching links	feedback types	
	elementary level	intermediate and advanced level
explain something new	recast or repetition	elicitation, explicit correction or metalinguistic clue
practice	recast or explicit correction	elicitation, metalinguistic clue or recast
communication	repetition, elicitation or ask for clarification	explicit correction, recast or elicitation
review	elementary level < intermediate and advanced level	elicitation or metalanguage clue

In the teaching link of communication, we can know: a) Explicit correction is direct and conducive to the cultivation of students' communicative ability. b) The communication ability of elementary students is lower, and the utilization rate of explicit correction is lower than that of intermediate and advanced students.

4) Language proficiency

The usage of six feedback methods of different learning levels is shown in the Table VIII:

TABLE VIII: THE USAGE OF SIX FEEDBACK METHODS OF DIFFERENT LEARNING LEVELS

Rate	Language proficiency
rate of errors	elementary level > intermediate and advanced level
feedback rate	elementary level > intermediate and advanced level
response rate	elementary level > intermediate and advanced level
repair rate	elementary level < intermediate and advanced level

We conclude that there is not a big difference between the use of elementary level and intermediate and advanced level on feedback methods. The elicitation feedback rate and repair rate of elementary level is higher than that of intermediate and intermediate and advanced level, but the repair rate of explicit correction is lower than the intermediate and advanced level.

5) Teaching environment

Differences in corrective feedback between Chinese environment and non-Chinese environment class: a) The error rate, feedback rate, response rate and repair rate of non-Chinese environment are higher than that of Chinese environment. b) The utilization rate of explicit correction in non-Chinese environment is low, but the response rate and repair rate are the highest, while the utilization rate of explicit correction in Chinese environment is average. c) In non-Chinese environment class, repetition repair rate is the lowest, while in Chinese environment class, repetition repair rate is higher. d) For phonetic errors, the feedback method in non-

Chinese environment is recast and explicit correction, while in Chinese environment is recast and elicitation.

6) *Individual factors of teachers and students*

a) *Non-target language environment: Chinese teachers vs local teachers*

Teachers' age, gender, educational background, teaching experience, teaching style, feedback skills and feedback attitude will all affect the results of the correction feedback. For example, in the non-target language environment, Chinese teachers have a high feedback rate of phonetic errors, while local teachers have a higher feedback rate of grammatical errors. That is because Chinese teachers are professionally trained with standard pronunciation and high sensitivity to phonetic errors; while local teachers are more sensitive to grammar as the second language learners of Chinese.

b) *The preference of learners with different personalities for corrective feedback methods*

Students with different personalities prefer different corrective feedback methods, which influences the correction rate. For example, the feedback method of extroverted learners' preference from high to low is: explicit correction > elicitation > recast. And the feedback type of introverted learners' preference from high to low is: elicitation > metalinguistic clue > explicit correction.

c) *The influence of different feedback methods on learners' anxiety*

Different feedback methods will cause students to have different degrees of anxiety. The level of anxiety caused by corrective feedback is from high to low: meta-language prompts > explicit correction > metalinguistic clue > clarification request, repetition > recast.

V. CONCLUSION AND DISCUSSION

A. Conclusion

1) *The factors affecting the use distribution and effect of corrective feedback*

Several conclusions were drawn: (a) Different types of errors, teaching links, research setting and language proficiency all affect the utilization rate and repair rate of corrective feedback, and their influence decreases successively. (b) There is a complex relationship between individual factors of teachers and students and the utilization rate and repair rate of corrective feedback, which needs further research and discussion by scholars. (c) Different feedback methods will cause different degrees of anxiety in learners, and then affect their Chinese acquisition efficiency.

2) *Utilization rate and effect of different feedback methods*

Several conclusions were drawn: a) Recast is used the most whereas repetition is used the least. b) The response rate of explicit correction is the highest in the context of non-Chinese, and the response rate of elicitation is the highest in the elementary level. c) The repair rate of elicitation is the highest in Chinese environment, while repair rate of explicit correction is the highest in non-Chinese environment. (d) Metalinguistic clue can be most likely to cause learners' anxiety, and recast can most effectively reduce learners' anxiety. e) In the non-Chinese environment, recast and clarification request are more commonly used by Chinese teachers, and elicitation and metalinguistic clue are more commonly used by local teachers. f) Explicit correction is

most popular with extroverted learners; and elicitation is most liked by introverted learners.

B. Discussion

1) *Deficiencies*

The overall quantity of the study on corrective feedback in TCSL class isn't much, when reading and analysis of the literature from early to late, we found that since the first piece of literature (H. Zhang, 2006), almost all the previous articles were cited in later literature. And due to the same type of master theses and the same research method, similar conclusion are got. Although the author tried to be objective in the inclusion and analysis of literature, to some extent, there is "literature bias".

2) *Prospects*

There are still differences and unsolved problems in the field of corrective feedback in TCSL. There is still a lot of room for both elementary and qualitative meta-analysis research. We are looking forward to further discussion and research in this field.

CONFLICT OF INTEREST

The author declares no conflict of interest.

AUTHOR CONTRIBUTIONS

The paper was independently completed by the first author Geng Xinxin, who was responsible for the topic selection, literature collection and induction, data sorting as well as paper writing, modification, typesetting, proofreading and other work.

ACKNOWLEDGMENT

A lot of time and effort was devoted to complete the article. I would like to thank all my family, teachers and friends who helped me. I am very grateful to the experts of ICCLL conference committee for their review and revision of my paper, and I want to thank all the staff of ICCLL for giving me the opportunity to participate in an excellent academic conference.

REFERENCES

- [1] H. Zhang, "Research on teachers' corrective feedback in teaching Chinese as a foreign language," M.A. thesis, Dept. Humanities, Chi., Beijing Language and Culture Univ., Beijing, China, 2006.
- [2] X. Liu, *Introduction to Teaching Chinese as a Foreign Language*, 1st ed. Beijing Language and Culture University Publishing House, China: Beijing, 2000.
- [3] O. Lourdes, *Understanding-Second Language Acquisition*, 2nd ed. Routledge, U.K.: London; U.S.A.: New York, 2013.
- [4] Q. Zhong, "Research on correction and feedback of teaching Chinese as a foreign language," M.A. thesis, Dept. Teaching Chinese as a Foreign Language, Chi., East China Normal Univ., Shanghai, China, 2009.
- [5] X. M. Zu, "Investigation and analysis of corrective feedback in Chinese classroom," *Chinese Learning*, vol. 01, pp. 93-100, 2008.
- [6] Z. Y. Fan, "An empirical study on corrective feedback in elementary Chinese classroom in Thailand," M.A. thesis, Dept. Linguistics, Chi., Jinan Univ., Guangzhou, China, 2011.
- [7] H. Y. Lai, "Research on classroom corrective feedback of elementary Chinese as a foreign language comprehensive course," M.A. thesis, Dept. Teaching Chinese as a Foreign Language, Chi., East China Normal Univ., Shanghai, China, 2011.
- [8] Q. Sun "Research on error correction and feedback in teaching Chinese as a foreign language," M.A. thesis, Dept. International Cultural Education, Chi., Nanjing Normal Univ., Nanjing, China, 2012.
- [9] Y. Zhang and D. P. Pan, "Research on effective interaction between teachers' corrective feedback and students' understanding response in elementary Chinese classroom," *Chinese Teaching and Research*, vol.

- 2, pp. 19-26, 2015.
- [10] Q. Fu, "Research on the effectiveness of feedback for error correction in teaching Chinese as a foreign language," M.A. Thesis, Dept. International Education, Chi., Minzu Univ. of China, Beijing, China, 2016.
- [11] Z. Yang, "A survey on the corrective feedback and understanding response of elementary Chinese as a foreign language comprehensive course," M.A. thesis, Dept. International Cultural Education, Chi., Nanjing Normal Univ., Nanjing, China, 2016.
- [12] J. W. Song, "Research on error correction and feedback in oral English classes of elementary and intermediate Chinese as a foreign language," M.A. thesis, Dept. Chinese, Beijing International Studies Univ., Beijing, China, 2017.
- [13] X. L. Luo, "Research on phonetic corrective feedback in elementary Chinese class," M.A. thesis, Dept. Chinese Language and Literature, Chi., Beijing Foreign Studies Univ., Beijing, China, 2017.
- [14] J. J. Dong, "Research on error correction of elementary oral Chinese as a foreign language," M.A. thesis, Dept. Literature, Chi., Shenyang Normal Univ., Shenyang, China, 2018.
- [15] Y. F. Xia, "A study of error correction feedback and understanding response in primary class of teaching Chinese as a foreign language—Taking the class teaching of three Universities in Kunming as an example," M.A. thesis, Dept. International, Chi., Yunnan Univ., Kunming, China, 2018.
- [16] Z. H. Wang, "A comparative study of corrective feedback in the elementary class of TCSL," M.A. thesis, Dept. Chinese Language and Literature, Chi., Beijing Foreign Studies Univ., Beijing, China, 2019.
- [17] L. Wen, "A study on teacher's corrective feedback in oral Chinese teaching for intermediate foreign students," M.A. thesis, Dept. International Cultural Exchange, Chi., Northwest Normal Univ., Lanzhou, China, 2019.
- [18] R. Zhao, "Teacher's oral corrective feedback in Chinese classroom of Cambodia," M.A. thesis, Dept. Foreign Languages, Chi., Guizhou Univ., Guiyang, China, 2019.
- [19] P. Dai, "A study on corrective feedback in elementary Chinese classroom—Based on Kenya Chinese Language Institute," M.A. thesis, Dept. Literature, Chi., Lanzhou Univ., Lanzhou, China, 2020.
- [20] S. Wu, "A study of corrective feedback of primary, middle and senior English native speakers in the CSL classroom," M.A. thesis, Dept. International Chinese Studies, Chi., East China Normal Univ., Shanghai, China, 2020.
- [21] Y. Wang, "Case study of corrective feedback in intermediate Chinese class-taking the three teachers from ELTE Confucius Institute as the example," M.A. thesis, Dept. Chinese Language and Literature, Chi., Beijing Foreign Studies Univ., Beijing, China, 2020.
- [22] Q. X. Li, "The influence of recast and prompts in overseas Chinese classes on the oral expression ability of elementary Chinese learners," M.A. Thesis, Dept International Cultural Exchange, Chi., Shanghai International Studies Univ., Shanghai, China, 2020.
- [23] S. F. Li, "Review article the effectiveness of corrective feedback in SLA: A meta-analysis," *Language Learning*, pp. 309-365, June 2010.
- [24] X. W. Lu and L. Q. Gao, "The influence of corrective feedback on acquisition in classroom interaction of Chinese as a foreign language," *World Chinese Teaching*, vol. 01, pp. 95-110, 2015.

Copyright © 2022 by the authors. This is an open access article distributed under the Creative Commons Attribution License which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited ([CC BY 4.0](https://creativecommons.org/licenses/by/4.0/)).



Geng Xinxin was born in Hebei Province, China. In June 2020, she received her bachelor of arts degree from Hebei Normal University, China, majoring in teaching of Chinese as a second language.

During her undergraduate study, she won the first place in her major and the scholarship for four consecutive years, and has published two journal papers before this paper. She has been teaching English for one year, and now she is in Hebei to prepare for the postgraduate entrance examination. She has always

been interested in language teaching, especially second language acquisition, and hopes to continue her research in this field.

Ms. Geng is committed to teaching on the front line and contributing to research in the fields of literature, language and education.