

A Review on Writing Anxiety and Metacognitive Strategy in the Process of EFL Writing

Lisha Yan

Jilin Engineering Normal University

Changchun, China

40754778@qq.com

Abstract—EFL writing is an English learning skill which is a huge challenge for learners. It is influenced by cognitive and emotional factors. Cognitive factors cover language learning strategies and learning styles; emotional factors involve foreign language learning anxiety, learning motivation and attitudes. This paper explores the influence of writing anxiety and metacognitive strategies on EFL writing through literature review methods, paving the way for further study of the relationship between the two.

Keywords—writing anxiety, metacognitive strategy, metacognition, EFL writing

I. INTRODUCTION

EFL Writing is a complex and advanced cognitive activity that is a huge challenge for EFL learners (Kasper 1997: 2). Moreover, for domestic learners, English writing is the weakest of all English learning skills (Huang Yuanshen 2006: 13). It can be seen that writing is an important part of L2 learning and also a difficult point for learners. Gardner and MacIntyre argue that individual differences are a major factor influencing L2 learning. They generalize this individual difference into two categories: (1) cognitive factors; (2) emotional factors (1992). Cognitive factors cover language learning strategies and learning styles; emotional factors involve foreign language learning anxiety, learning motivation and attitudes.

In recent years, with the study of metacognition as a new hotspot in the study of second language acquisition, a large number of studies at home and abroad have found that metacognition has a direct and important influence on the English writing process and writing level: the successful writers have higher levels of metacognition, richer metacognitive knowledge, and there is a significant correlation between metacognitive knowledge, metacognitive strategies, and English writing (Devine et al. 1993: 215; Kasper 1997: 12; Victori 1999: 549-550; Wu Hongyun, Liu Runqing 2004: 375; Wu Hongyun 2006a: 179; Yeh 2015: 493). The study of the role of metacognition and its various components in English writing should be one of the focuses of the study of second language writing in the future.

They may lack the social and cultural awareness of writing in a foreign language. They do not know how to implement language functions in an appropriate way or do not understand the expectations of readers of different cultures. Motivation and affective factors also affect the normal functioning of writing (Weiger 2011: 6, 15). Compared with native-language writing, L2 writing has more problems in terms of layout, goal setting, content conception and sentence formation (Silva 1993), which makes it easier for students to feel nervous and anxious. Writing has become one of the language skills of foreign language learners, which is time-consuming and slow to respond. A considerable number of foreign language learners have anxiety, fear and other anxiety in various ways during the writing process, which seriously hinders their writing ability development and writing level. It even affects the enthusiasm and initiative of its foreign language learning. It is important to understand the status quo and predisposing factors of foreign language learners' writing anxiety, and to adopt targeted intervention remediation strategies in a timely manner. It is an effective measure to suppress and overcome foreign language writing anxiety and has important teaching significance. In summary, in the process of English writing, writing anxiety and writing metacognitive strategies are two important factors that influence the writer's writing level and effectiveness.

II. THEORETICAL BACKGROUND

A. EFL Writing Anxiety

Since the famous scholars Duly and Burt first proposed the Affective Filter Hypothesis, researchers have begun to pay attention to the impact of anxiety, an important emotional factor, on foreign language learning. As an important emotional barrier affecting foreign language writing, writing anxiety has attracted the attention of researchers at home and abroad and has obtained a lot of rich research results.

The term writing anxiety, first introduced by Daly and Miller in 1975, refers to the anxiety behaviors that learners exhibit during the writing process, such as escaping writing tasks, worrying about writing or being commented on by others (Dally & Miller 1975). Writing anxiety is a unique combination of “self-awareness, beliefs, emotions, and behaviors” that learners display during their writing (Horwitz et al, 1986: 128). Anxiety creates emotions such as tension, fear, anxiety, and annoyance. These emotions directly lead to the failure of behavior, and the failure of behavior increases tension and fear, forming a vicious circle of learning process (Oxford, 1999). Writing anxiety is a negative emotional experience that students reveal during the writing process. It has its complicated formation and elimination process. (Liu Guoqing, 2007). Foreign language writing anxiety is an anxiety attribute (Woodrow 2011), which includes cognitive anxiety, physiological anxiety and avoidance behavior (Cheng 2004). It is an important factor affecting the performance of foreign language writing. EFL writing anxiety is a

negative emotional experience revealed by students in the process of writing, and is one of the factors affecting the improvement of writing ability (Wu Yuhong, Gu Satellite 2011: 51). To sum up, L2 writing anxiety means that learners' writing anxiety hinders the smooth progress of the writing process, which leads to difficulty in writing, which causes learners to have painful and negative emotional experiences on writing tasks and activities, and lower expectations for writing success.

Writing anxiety research abroad mainly includes three aspects: 1) The influence of writing anxiety on writing learning. Horwitz et al. (1986), Mohseniasl (2014), etc. believe that writing anxiety is different from general psychological stress, which will offset the learner's desire to learn, resulting in the writing process not working properly. 2) Development of the Writing Anxiety Scale. Daly & Miller (1975) first proposed the "Writing Anxiety Measurement Scale", and the Second Language Writing Anxiety Inventory developed by Cheng (2004) was widely used (Guo Yan, Xu Jinfen 2014). 3) How to deal with writing anxiety. Horwitz et al. (1986) explored how teachers can help students reduce or overcome anxiety by creating a relaxed learning environment.

Domestic research on writing anxiety pays more attention to the influence of writing anxiety and the method of teacher intervention to reduce anxiety. Li Hang & Liu Rude (2013) and Li Hang (2015) examined the correlation between writing anxiety and writing performance, and found that different degrees of anxiety have different effects on students' writing performance. Teachers' interventions to reduce anxiety are mainly concentrated in four aspects: 1) Writing methods, such as "writing long method" (Guo Yan 2011); 2) Teaching organization methods, such as "cooperative learning" and "process writing" (Wu Yuhong, Gu Weixing 2011); 3) Feedback methods, such as "Peer Feedback" (Monday Book 2013); 4) Writing environment, such as "Computer Network Writing" (Yang Xiaoqiong, Dai Yuncai 2015). There are four limitations in the study of writing anxiety: the localization of research tools is not high; the scope of research objects is narrow; the breadth of research perspectives is insufficient; and the research content is repetitive.

B. Metacognitive Strategy

The concept of metacognition is developed by American psychologist J. H. Flavell from cognitive psychology. It refers to learners who use their own cognitive systems as cognitive objects and self-awareness of self-control, self-evaluation and regulation in the cognitive processes. In the process of studying meta-memory, American psychologist Flavell (1976: 232) proposed the concept of metacognition, which refers to cognitive subjects about their own cognitive processes, cognitive outcomes, and related activities knowledge. Flavell (1979: 906) argues that metacognition consists of two major elements: metacognitive knowledge and metacognitive experience. Metacognitive knowledge refers to the factors that influence the factors and methods of cognitive processing and outcomes, including three aspects: metacognitive subject knowledge, metacognitive task knowledge and metacognitive strategy knowledge. Among them, metacognitive subject knowledge is knowledge about cognitive subjects, that is, knowledge of themselves or others as cognitive processors, such as motivation, interest, learning characteristics, etc.; metacognitive task knowledge is knowledge about cognitive objects, For example, information about cognitive tasks, knowledge about task requirements and task objectives; metacognitive strategy knowledge is about more effective knowledge about which strategies are used in different cognitive processes. Metacognitive experience refers to a conscious cognitive or emotional experience that is associated with and subordinate to intellectual activity. Flavell is not further classified for metacognitive experience.

In Flavell's (1976) view, metacognition is about individuals' knowledge of their cognitive abilities and cognitive activities that occur before a specific cognitive process. Flavell and American linguist Douglas Brown divided the metacognitive factors differently. After that, cognitive scholars analyzed and integrated the metacognitive elements of the two, and redefine the composition of metacognition. Metacognition consists of metacognitive knowledge, metacognitive experience, and metacognitive monitoring. Metacognitive knowledge includes subject knowledge, task knowledge, and knowledge about learning strategies. Metacognitive strategy is a kind of advanced executive skill strategy, which is cognition of cognition, mainly related to the regulation and management of cognitive activities in learning tasks. It can be seen that although the views of metacognition are different, they all mean that metacognition is the management and regulation of their own cognitive activities, including not only cognitive behavior and the knowledge also covers the adjustment and monitoring of cognitive processes. In summary, metacognition is the cognition of cognitive behavior and cognitive processes through the monitoring of specific cognitive activities. It is also the individual's management and cognition of many factors, so metacognition can be regarded as the control and deployment of various cognitive resources of itself.

Since there are many different views and opinions on the concept of metacognition, the definition of metacognitive strategy is also different. There will be a variety of explanations, as shown in the chart, where the following types of views are more representative. Brown (1987) believes that compared with other language learning strategies, metacognitive strategies are a higher level of ability in execution skills, whether it is the individual's arrangement of learning plans or the monitoring of learning behaviors. The evaluation of the results, the influence and role of metacognitive strategies will run through it. O'Malley & Chamot (1990: 119-120) pointed out that metacognitive strategies are knowledge about cognitive processes, and that learners adjust or self-manage cognitive processes through planning, monitoring, and evaluation, including prior planning. Various specific strategies, such as selective attention, self-management, self-monitoring and self-evaluation, are necessary conditions for successful planning, monitoring and evaluation of learning activities, and play the most crucial role in improving learning outcomes.

	Definition of Metacognitive Strategy
Brown (1983)	Metacognitive strategies are higher-level executive skills that plan, monitor, or evaluate learning activities.
O'Malley&Chamot (1990: 44)	Metacognitive strategies refer to selective attention, organization, monitoring, review, evaluation or examination of input or output of language.
Wenden (1991:21:25)	Metacognitive strategy refers to the inspection and management of the learning process.
Brown (1994:115)	Metacognitive strategies refer to the "execution" functions in information processing, including planning, thinking and evaluation of learning, and monitoring of understanding and outputting information.
Ellis (1994:536,538)	Metacognitive strategy refers to the use of knowledge about cognitive processes to regulate learning through planning, monitoring and evaluation.
Oxford (2003:316-317)	Metacognitive strategies refer to strategies for managing learning processes, such as analyzing their own learning preferences and learning needs, planning learning, monitoring errors, and assessing progress.

Based on the views of the above scholars, we can find that although the language researchers have different interpretations of the definition of metacognitive strategies, there are still some similarities, that is, these views imply metacognitive strategies for language learning activities have an irreplaceable role. All in all, language learners consciously use relevant skills and methods in their language learning based on their existing metacognitive knowledge. This is the role of metacognitive strategies in language learning. Through the arrangement, adjustment and summary evaluation of learning activities, the effectiveness of language learning can be greatly improved. Based on the research of many scholars, this paper recognizes the concept of metacognitive strategy, which is a series of techniques and methods used by learners in learning activities. Under the guidance of this strategy, language learners can formulate their own learning plans and arrangements according to their own learning characteristics, and monitor their own learning behaviors at any time. Finally, it is necessary to make reasonable evaluation and adjustment on the use of language learning effects and strategies to prepare for future language learning.

Since the emergence of metacognitive strategies, many researchers have been arguing about the classification of metacognitive strategies. Among them, O'Malley&Chamot and Oxford are the most representatives. In the Oxford classification, metacognitive strategies are divided into three parts: learning focus, scheduling and planning learning, and evaluation (Oxford, 1989). In general, O'Malley & Chamot's classification is mainly divided into pre-event planning, supervision during the learning process, and post-school evaluation. O' Malley and Chamot (2001) also developed the Metacognitive Strategy Scale, which consists of 27 questionnaires, including prior planning (8 items), selection attention (7 items), self-monitoring (6 items), and self-evaluation (6 items) 4 commonly used metacognitive strategies. All questionnaire options are in the form of a five-point scale. As shown in the chart.

Specific Definition and Classification of Metacognitive Strategies (O'Malley & Chamot1990)	
Choose to pay attention	Pay attention to specific aspects of the learning task, such as listening to keywords in listening activities;
Plan to learn	Organize written articles or oral presentations;
Testing and review	Pay attention to the completion of the learning task, such as whether to understand the information that is remembered, or to detect the output process;
Evaluation and examine	Check if you understand the language material of the input or evaluate the language of the output.

As metacognitive research becomes a new hotspot in second language acquisition research, a large number of studies at home and abroad have found that metacognition has a direct and important influence on English writing process and writing level: Successful writers have higher metacognition level, a richer knowledge of metacognition, and there is a significant correlation between metacognitive knowledge, metacognitive strategies and English writing (Devine et al. 1993: 215; Kasper 1997: 12; Victori 1999: 549-550; Wu Hongyun, Liu Runqing 2004: 375; Wu Hongyun 2006a: 179; Yeh 2015: 493). The study of the role of metacognition and its various components in English writing should be one of the focuses of the study of second language writing in the future. However, to date, researchers have focused more on metacognitive knowledge and metacognitive strategies in L2 writing (Schoonen et al. 2003: 199; Victori 1999: 549-551; Zhou Lin 2011: 61-62).

In the past ten years, there have been many researches on learning strategies in China, and the research on English writing mainly includes two categories: the research on the influencing factors of college students' writing ability and the research on college students' English writing process. English writing research based on metacognition theory has not received due attention (Tang Fang, Xu Jinfen, 2005). We believe that there are two reasons for the insufficient research on metacognitive strategies and writing: There is currently no complete set of metacognitive strategy questionnaires based on writing; because writing is a subjective category, how to determine the subject of the survey writing grades is a key factor in the research process.

III. THE RELATIONSHIP BETWEEN METACOGNITIVE STRATEGY AND WRITING ANXIETY

Studies on the correlation between metacognitive strategies and writing anxiety are few. Foreign studies have found that Stewart used data from undergraduate students at a large research-intensive university in Ontario, Canada, to find that there is a statistically significant association between reduced writing anxiety and improved self-efficacy and students' perceptions of metacognitive writing strategies. (Stewart, G., Seifert, T. A., & Rolheiser, C. 2014). Studies in domestic studies have shown that SLWA is negatively correlated with writing scores (Guo Heqin, 2010; Zhou Hetang, 2010). Various methods have been tried to explore ways to alleviate students' second language writing anxiety, as accompanied by editors (Gu Hewang, 2004), collaborative learning (Wu & Gu, 2011), writing length method (Chen, 2013; Guo, 2011; Zhou, 2015), grammar teaching (Niu, 2012) and so on. However, the results are not very satisfactory and there is a need to further reduce the way students write anxiety. In terms of writing, some researchers have found that the training of metacognitive strategies plays an important role in writing (Ji, 2002; Wang, 2009).

Zhan Xiaohai and Chen Yu (2015) used quantitative research to explore the correlation between metacognitive strategies and writing anxiety. He chose 65 non-primary English freshmen as subjects. His research shows that the overall use of metacognitive strategies is not significantly related to writing anxiety. However, his research found that the use of enhanced assessment strategies can alleviate students' anxiety about avoiding writing. Yang Liheng and Zhang Shan (2017) used the English Anxiety Scale and the English Metacognitive Scale to take the English scores of the senior high school students as the performance indicators for junior high school students, and explore the relationships of English anxiety, English metacognition and English scores of junior high school students. The research shows that: there is a negative correlation between English anxiety of junior high school students and English academic achievement, and there is a positive correlation between English academic achievement and English metacognition; different levels of English anxiety group have significant differences in English academic performance.; English metacognition has a mediating effect between English anxiety and English academic achievement.

It can be seen from the above research that there is controversy about the correlation between metacognitive strategies and writing anxiety, so it needs to be more systematic and more targeted research. Because there are few researches on the correlation between writing anxiety and metacognitive strategy, more research is needed to explore the role of metacognitive strategies in relieving students' writing anxiety.

IV. CONCLUSION

To sum up, we have also seen domestic scholars undoubtedly achieved fruitful results on the research in the field of English writing metacognition and writing anxiety. These research results have important implications for English writing teaching in China. At the same time, since this is a relatively new field of research, there are also some issues to be discussed. Therefore, in later research, the author's analysis of the metacognitive knowledge and writing strategies and the causal analysis of metacognitive knowledge and writing level can be realized through the organic combination of quantitative and qualitative methods to further reveal complex writing process characteristics. In addition, the study of metacognition in English writing is mainly focused on the understanding of metacognitive knowledge, while the research on metacognitive strategies, metacognitive monitoring, metacognitive assessment and metacognitive experience is extremely rare. In order to improve students' English writing skills, in the future, they should pay more attention to how students use metacognitive strategies in the writing process, how to monitor and evaluate them, and what is the metacognitive experience of students. Moreover, the study of English writing based on metacognition and writing anxiety have not been carried out extensively at home and abroad. Because the study of English writing metacognition and writing anxiety have far-reaching significance for the study of English writing psychology theory and writing teaching practice, we hope that more and more researchers can conduct a deep research on English writing process from the perspective of writing anxiety and metacognitive strategy.

REFERENCES

- [1] Arnold J. *Affect in Language Learning* [M]. Cambridge: Cambridge University Press, 1999.
- [2] P. D. MacIntyre and R. Gardner, "The subtle effects of language anxiety on cognitive processing in the second language," *Language Learning*, vol. 44, pp. 283-305, 1994.
- [3] Cheng, Y. S. 2004. A measure of second language writing anxiety: Scale development and preliminary validation. *Journal of Second Language Writing* 13(4): 313-335.
- [4] Wen Qiufang. Output-driving hypothesis in English major skills [J].
- [5] Cohen, A. *Strategies in Learning and Using a Second Language*. London: Longman. 1998.
- [6] Li Qingfei, Meng Fanmao. On anxiety, ambiguity tolerance and reading comprehension in EL. *US-China Foreign Language* 14(7): 491-499. *Second Language Acquisition*. New York: Oxford University Press. 2016.
- [7] Asmari, A. A. Investigation of writing strategies, writing apprehension, and writing achievement among Saudi EFL-Major students. *International Education Studies*, 6(11), 130-143. 2013
- [8] Dörnyei, Z. *The Psychology of the Language Learner: Individual Differences in Second Language Acquisition*. Mahwah, NJ: Lawrence Erlbaum Associates. 2008.
- [9] Meniado, J. C. Metacognitive Reading Strategies, Motivation, and Reading Comprehension Performance of Saudi EFL Students [J]. *English Language Teaching*. 2016.

- [10] Mostafa,A.Behzad,G.The Relationship between English Learning Anxiety and the Students' Achievement on Examinations[J]. Journal of Language Teaching &Research,2015.
- [11] Mahmoud,I.N. & Tha'er Issa,T. Effectiveness ofa Metacognitive Reading Strategies Program for Improving Low Achieving EFL Readers[J].International Education Studies,2015.
- [12] Nasrach Mahmoud Ismail & Tha' er Issa Tawalbeh. Effectiveness of aMetacognitive Reading Strategies Program for Improving Low Achieving EFLReaders. International Education Studies, 2015,VOL.8,No.1