

## THE RELATIONSHIP BETWEEN WRITING ANXIETY, WRITING SELF-EFFICACY, AND SPANISH EFL STUDENTS' USE OF METACOGNITIVE WRITING STRATEGIES: A CASE STUDY

JAVIER AULA BLASCO  
University of Zaragoza  
javieraula@gmx.com

**ABSTRACT.** *The composing process of a written text is one of the most challenging tasks encountered by foreign language learners. Mastering writing depends on numerous aspects, being the use of metacognitive writing strategies a paramount factor in the process. However, writing metacognition is not isolated from other factors, and emotional constructs have a deep influence both on the use of strategies and on the final written outcome. In this article, a case study is undertaken among six upper-secondary-school Spanish EFL students in order to explore, identify, and analyze the unique relationships existing between the use of metacognitive writing strategies, writing anxiety and writing self-efficacy, observing also how these three factors influence students' writing performance. To do so, participants were invited to take part in a think-aloud protocol while writing a text in English. Results were cross-validated with students' completion of a questionnaire designed drawing on previous literature (O'Neil and Abedi 1996; Cheng 2004; Jones 2008; Stewart et al. 2015; Ho 2016) to measure the three factors. Participants' responses to both research instruments showed a positive correlation between writing metacognition and writing self-efficacy. On the other hand, these two factors were reported to be negatively correlated with students' level of writing anxiety. Findings also suggest that think-aloud protocols might have flaws when measuring emotional constructs. Thus, EFL instruction should aim at reducing both personal and environmental factors that may cause writing anxiety and decrease learners' self-efficacy, ultimately enhancing students' writing skills.*

**Keywords:** Writing, secondary education, EFL students, metacognition, anxiety, self-efficacy.

## LA RELACIÓN ENTRE LA ANSIEDAD, LA AUTOEFICACIA Y EL USO DE ESTRATEGIAS METACOGNITIVAS EN LA ESCRITURA EN ESTUDIANTES ESPAÑOLES DE INGLÉS COMO LENGUA EXTRANJERA: UN ESTUDIO DE CASO

**RESUMEN.** *El proceso de escritura de un texto es una de las tareas más desafiantes a las que se enfrenta un estudiante de lengua extranjera. Dominar la habilidad escritora depende de numerosos aspectos, siendo uno de los más importantes el uso de estrategias metacognitivas. Sin embargo, la metacognición en la escritura no es ajena a otros factores, y los constructos emocionales influyen profundamente tanto en el uso de estrategias como en el texto escrito final. En esta investigación se ha realizado un estudio de caso con seis estudiantes españoles de inglés como lengua extranjera de 2º de Bachillerato con el fin de explorar, identificar y analizar las relaciones únicas que existen entre el uso de estrategias metacognitivas, la ansiedad y la autoeficacia en la escritura, observando a su vez cómo estos tres factores influyen en el nivel escritor de los estudiantes. Para hacer esto, los participantes se sometieron a un protocolo de pensamiento en voz alta mientras escribían un texto en inglés. Los resultados se validaron mediante un cuestionario diseñado en base a la literatura previa (O'Neil and Abedi 1996; Cheng 2004; Jones 2008; Stewart et al. 2015; Ho 2016) para medir los tres factores. Las respuestas de los participantes a ambos instrumentos de investigación mostraron una correlación positiva entre la metacognición y la autoeficacia en la escritura. Por otra parte, estos dos factores resultaron estar negativamente correlacionados con el nivel de ansiedad en la escritura de los estudiantes. Los resultados también sugieren que los protocolos de pensamiento en voz alta pueden no ser adecuados para medir constructos emocionales. Por tanto, la enseñanza del inglés como lengua extranjera debería tener como objetivo el reducir aquellos factores, tanto personales como ambientales, que pueden causar ansiedad en la escritura y reducir la autoeficacia de los estudiantes, para así poder mejorar las habilidades escritas de los mismos.*

*Palabras clave:* Escritura, educación secundaria, estudiantes de inglés como lengua extranjera, metacognición, ansiedad, autoeficacia.

*Received 14 July 2016  
Accepted 22 October 2016*

### 1. INTRODUCTION

Mastering a foreign language is a complex and strenuous process which usually has its major challenge in productive skills, that is, writing and speaking. From these two skills, the former is the one that has a greater social and cultural importance in the vast majority of current societies (Winch, Ross, March, Ljungdahl and Holliday 2010). Back in the 1980s, critics such as Ong stated that literacy –i.e. writing– is one of the main instruments that humanity has in order to improve, and that any

present-day culture is conscious of “the vast complex of powers forever inaccessible without literacy” (1982: 15). Mastering the writing skill is complex even in the mother tongue, and it is even tougher when writing in a second language (L2) (Gil 2002). Within the academic field, it has been argued that English as a Foreign Language (EFL) researchers have been very much concerned by writing over the other language skills (Jebreil, Azizifar and Gowhary 2014). This may be so because being able to write appropriately in English is deemed to be imperative for students’ academic and professional future in present-day multicultural society (Tuan 2010). Likewise, improving students’ writing skills fosters the development of certain cognitive abilities desirable for any language learner such as analysis, structuring, synthesis, and reasoning, among others (Bacha 2002).

Over the last decades, there has been a growing interest in the literature about students’ ability to “think about thinking” (Stewart, Seifert and Rolheiser 2015: 44) in the writing process, that is, the use of metacognitive writing strategies (Biggs 1988; Nightingale 1988; Allen and Armour-Thomas 1993). Once it has been proved that a metacognitive approach to writing leads to better writing outcomes, attention has now been turned to establish what aspects and emotional constructs lead to a higher use of writing metacognition in language students (King 2004; Lv and Chen 2010; Stewart *et al.* 2015).

Spanish students of English are expected to have a satisfactory writing skill at the end of their second year of the Spanish Bachillerato, and one of the four main learning outcomes in the Spanish curriculum for that year is exclusively focused on writing (España, RDL 1105/2014). Furthermore, those Bachillerato students who want to access university studies at the end of their second year, are required to sit an English language exam which involves the production of a written text (España, RDL 1892/2008).

The 2015 *EF English Proficiency Index* (EPI), a world-wide report which ranks countries according the average level of EFL possessed by the population, tiered Spain as medium level with 56.8 points out of 100. This figure placed the country on the 23<sup>rd</sup> position out of 70 participating countries, and on number 19 in the European rank. In addition, the *European Survey on Language Competences* (ESLC) conducted in 2012, which evaluated EFL proficiency across European countries, reported that Spanish EFL students had an inferior level than the majority of other participating countries. Spanish writing skill was revealed to be over 3 points lower than the European top one country in EFL performance, Sweden (De la Rica and González 2012). Even though overall English proficiency has grown among Spanish learners in the last decades, writing performance still

needs to be developed in Spanish EFL students in order to achieve satisfactory written outcomes (Plo 2007).

It has been consistently argued that writing performance is improved by developing the students' use of metacognitive writing strategies (Nightingale 1988; Allen and Armour-Thomas 1993; Hounsell 1997; King 2004; Lv and Chen 2010; Schellings, van Hout-Wolters, Veenman and Meijer 2013; Aydin 2016). However, writing metacognition may be affected by emotional constructs such as writing anxiety and writing self-efficacy (Stewart *et al.* 2015). As a consequence, EFL researchers and instructors need to be aware of how metacognition, anxiety, and self-efficacy might influence students' composing processes, and up to which point the interaction of these three factors impact learners' English writing skills.

### 1.1. METACOGNITIVE WRITING STRATEGIES

The term metacognition was coined by developmental psychologist John Flavell back in the late 1970s. Flavell (1979) considered that metacognition included both metacognitive knowledge and metacognitive experiences or regulation. The former concept refers to the acquired knowledge which is used to handle cognitive processes, whereas the latter involves the heaped use of metacognitive knowledge. Some years later, Allen and Armour-Thomas (1993: 203) described the notion of metacognition as “the knowledge and control individuals have over their own cognition and learning experiences”. Therefore, whereas the idea of cognition is connected with the simple fact of solving a given trouble, metacognition encompasses a deep understanding of the procedure followed in order to solve such problem (King 2004).

Since early studies on metacognition, the concept has been widely accepted in the field of education, and numerous studies have highlighted the benefits of promoting metacognition and metacognitive strategies among students (Nightingale 1988; Allen and Armour-Thomas 1993; Hounsell 1997; King 2004; Lv and Chen 2010; Schellings *et al.* 2013; Aydin 2016). However, over the past decade, educational research has paid particular attention to those issues and methodologies that help students to develop their metacognition, and has sought to understand which metacognitive strategies need to be used in order to accomplish better learning outcomes (Stewart *et al.* 2015).

Being writing one of the four macro-skills in language teaching, the literature has broadly studied both how proficient and successful EFL writers use metacognitive strategies in their writings, and up to what extent emotional constructs –such as anxiety and self-efficacy– have an impact on EFL students'

metacognition and writing outcomes (Biggs 1998; Lavelle and Guarino 2003; Jones 2008; Martinez, Kock and Cass 2011; Stewart 2015). These two issues have been commonly studied in isolation, but there is also research on the connection between emotional constructs and the final written outcome (Karakaya and Ülper 2011; Jebreil *et al.* 2014; Kirmizi and Kirmizi 2015; Liu and Ni 2015; Ho 2016).

The literature has well established the positive influence that the use of metacognitive writing strategies has in EFL students' written outcomes. It has been pointed out that those students who are more effective in their writings make use of a wider range of metacognitive writing strategies (Connor 2007; Lavelle and Bushrow 2007). Furthermore, research has shown that students with a deeper approach to learning and writing, that is, learners who cogitate and understand better the process of learning and writing –subsequently making a higher use of metacognitive writing strategies– turn out to have a better writing performance than those who do not use these strategies (Biggs 1988; Lavelle 1993; Hounsell 1997; Lavelle and Bushrow 2007; Lavelle and Guarino 2003; Stewart *et al.* 2015). The ability to write effectively has been linked to students' expertise to understand writing beyond the bounds of basic cognition, being able to approach writing metacognitively, and successfully carrying out the writing task (Allen and Armour-Thomas 1993; Connor 2007; Lavelle and Bushrow 2007).

The use of metacognitive writing strategies in EFL learners is not fixed and stable. It is usual that as students develop their English language skills, including writing, their metacognition adapts and grows (Allen and Armour-Thomas 1993). Lavelle and Guarino (2003) hold that the learning environment also influences how metacognitive a student's writing approach is. Therefore, these authors highlight the importance of teaching writing in a way that encourages the use of metacognitive strategies.

## 1.2. WRITING ANXIETY

Metacognitive writing strategies are conceived as part of the control level of the mind, being systematized and rational (Hayes 2000). However, typical studies on metacognition do not take into account how emotional constructs may trigger or impair the use of metacognitive strategies (Stewart *et al.* 2015). Writing anxiety is one of those emotional factors. The term writing anxiety refers to an intrinsic tendency to anxiety that arises when a subject comes across tasks that entail a writing component (Woodrow 2011). The literature reports that writing anxiety largely affects learners' writing performances in a negative way. Entwistle and McCune (2004: 327) pointed out that anxiety “was linked to conscientious study methods, high motivation, and high academic performance, and yet anxiety could

also be debilitating or associated with ineffective studying, leading to poor grades". Some of the effects that writing anxiety produces in students are stress, nervousness, anger, and ineffective attitudes towards writing such as avoidance, dawdling, and resignation (Onwuebguzi and Collins 2001; Martinez, Kock and Cass 2011; Sanders-Reio, Alexander, Reio Jr. and Newman 2014).

In the context of EFL learning, the vast majority of research on writing anxiety has been undertaken in university contexts, observing both how anxiety affects writing performance and which may be the reasons for writing anxiety (Huwari and Aziz 2011; Kara 2013; Meng and Tseng 2013; Jebreil *et al.* 2014; Ho 2016). Nevertheless, to the best of my knowledge, very little research has been done concerning writing anxiety in secondary school EFL students.

### 1.3. WRITING SELF-EFFICACY

Self-efficacy is another emotional factor that can also influence writing performance. In psychology, self-efficacy comprises individuals' assumptions as to whether they can accomplish tasks that will have an effect in their own lives (Bandura 1995). The confidence in self-regulatory strategies, the self-regulation of cognitive development, the long-term and intermediate-term goal setting, and the determination in spite of difficulties are characteristics shared by self-believers, which suggest that self-efficacy is an emotional construct closely related with metacognition (Jones 2008; Williams and Takaku 2011). Concerning writing self-efficacy, the literature reports a positive correlation between such factor and a positive writing performance (Pajares and Valiante 2006; Jones 2008; Prat-Sala and Redford 2012; Stewart *et al.* 2015; Ho 2016). In fact, recent research has found that writing self-efficacy is a more significant predictor of a good writing performance than writing anxiety itself (Woodrow 2011; Sander-Reio *et al.* 2014). Inexperienced writers seem to be more affected by self-efficacy than advanced-skill writers (Multon, Brown and Lent 1991). Lavelle and Guarino (2003) stated that a low self-efficacy is a factor negatively correlated with a satisfactory use of writing metacognition. It has also been argued that, unlike the use of metacognitive strategies, self-efficacy tends to stay stable over time in each subject (Jones 2008).

As also happens for the case of writing anxiety, research dealing with writing self-efficacy in EFL settings has been mostly undertaken in university contexts (Jones 2008; Martinez, Kock and Cass 2011; Kirmizi and Kirmizi 2015; Ho 2016), and, as noted above, to the best of my knowledge, little research has been carried out in EFL secondary school scenarios.

#### 1.4. AIM OF THE STUDY

The existing literature has widely acknowledged the influence that emotional constructs such as writing anxiety and writing self-efficacy have in students' writing skills. Furthermore, it has also been shown that the use of metacognitive writing strategies improves students' written outcomes. However, it seems that little research has examined how both emotional constructs may influence writing metacognition, and how the interaction of all three factors may affect students' written performance. In this paper, the distinctive relationships between writing anxiety, writing self-efficacy, writing metacognition, and writing performance are addressed in six Spanish EFL upper-secondary-school students. In addition, the use of two different research instruments adds valuable information to the existing debate on how similar the results obtained from think-aloud protocols and those accessed via questionnaires are when measuring constructs. In analyzing all the factors mentioned above, this case study sought to answer the following questions:

1. To what extent is writing anxiety related to student use of metacognitive writing strategies?
2. To what extent is writing self-efficacy related to student use of metacognitive writing strategies?
3. What are the connections between the use of metacognitive writing strategies, writing anxiety, writing self-efficacy, and writing performance?

In light of the findings, and given that writing anxiety, writing self-efficacy, and the use of writing metacognitive strategies interact together and are connected with students' writing skills, several implications for EFL secondary-school teaching and writing training will be provided at the end of this article.

## 2. METHODS

### 2.1. PARTICIPANTS

The six participants in this case study were students in their second year of *Bachillerato* (17-18 years old) in a high-school in Teruel, Spain. The participants' English language competence was expected to be a B1 level according to the Common European Framework of Reference for Languages (CEFR). Three of the participants were categorized as high-intermediate achievers (grades higher than 7 –out of 10– both in writing performance and English subject), and the other three were considered low achievers (grades equal to or lower than 5 in the previously mentioned measures). The basic information concerning each participant that was considered in the present study was the following:

*Raquel*: Female. B2 level of English. Grade 9 in English subject. Grade 8 in writing performance. Bilingual education background. Overall, eight months of stay in English-speaking countries.

*Eva*: Female. B2 level of English. Grade 8 on English subject. Grade 9 in writing performance. Bilingual education background. Short stays in English-speaking countries.

*Paula*: Female. B1.2 level of English. Grade 7 on English subject. Grade 7 in writing performance. Bilingual education background. Overall, three months of stay in English-speaking countries.

*Raúl*: Male. B1 level of English. Grade 5 on English subject. Grade 5 in writing performance. Bilingual education background. Short stays in English-speaking countries.

*Álvaro*: Male. B1 level of English. Grade 5 on English subject. Grade 4 in writing performance. Overall, one month of stay in English-speaking countries.

*Jorge*: Male. A2 level of English. Grade 4 on English subject. Grade 4 in writing performance. Short stays in English-speaking countries.

## 2.2. RESEARCH DESIGN AND PROCEDURES

In order to have *online* access –that is, during the writing process itself– to students’ metacognitive strategies, participants took part in a concurrent think-aloud protocol, that is, they were recorded while-writing a text in English and asked to voice aloud their thoughts, judgments, approaches, strategies, and reasoning regarding their process of writing. The concurrent think-aloud protocol was preferred over the retrospective think-aloud protocol under the believe that even though the latter is less intrusive, it is more lacking and tends to cause a loss of information concerning the aim and the sub-aims of the task which may not enter short-term memory (Hayes and Flower 1983; Raimes 1985). Even though think-aloud protocols encountered in the past a number of critics who argued for the ineffectiveness and the intrusive nature of such process (Perl 1980; Faigley and Witte 1981; Cooper and Holzman 1983), recent research has demonstrated that think-aloud protocols are “the most direct and therefore best tools available in examining the on-going processes and intentions as and when learning happens” (Gu 2014: 74). Furthermore, studies making use of eye-tracking techniques have validated think-aloud protocols, refusing previous ideas of such method being invasive and disrupting (Guan *et al.* 2006). Likewise, other studies have validated



the effectiveness of think-aloud protocols even in primary school students (e.g. Chamot and El-Dinary 1999).

Participants in the present study were asked to write about a topic adapted from the writing question proposed in Raimés' (1985) case study on the composing processes of ESL unskilled university freshmen, which was in turn inspired by Jones' (1982) topic: "Tell about something unexpected that happened to you". As a result, students were requested to think aloud while writing on a topic that elicits narrative, has a specific aim and an explicit audience, and may be slightly challenging to understand for them at first due to its indirect nature:

One of your classmates tells you that his older sister, María García, is writing a paper for a psychology course at university about what people do when something unexpected happens to them. She is collecting information for this paper and would like your help. Tell her about something unexpected that happened to you.

Participants were carefully instructed about the kind of information they were expected to voice while they were being recorded, that is, metacognitive strategies and issues related with anxiety and self-efficacy. However, they were not discouraged to voice any thought they could have so that their thinking-aloud was as complete, fluent and natural as possible.

Since all participants were underage, both them and their parents were asked to sign a consent form in which they were informed that the recorded tapes would be exclusively used for academic research purposes and hence completely confidential.

Once procedural issues were set in place, potential environmental concerns which were thought to influence the students' behavior and thoughts were suppressed. As a consequence, participants wrote their composition one after the other in one of their usual classrooms, during regular class time, and with the possibility to ask me any question they might have regarding the writing process –i.e. the same kind of questions related with content and/or form they may ask to their teacher in a natural classroom-writing situation.

One week after the completion of the think-aloud protocol, the students were asked to fill in a questionnaire on metacognitive strategies (see Appendix A) in order to cross-validate the results of the present study and increase both reliability and validity. This second part of the analysis was conducted under the belief that measuring both metacognitive strategies and emotional constructs is a complex task that stresses the need of higher levels of validity and that would benefit from being analyzed under the light of two different research instruments (Winne and Perry 2000; Veenman 2005; Veenman and Alexander 2011; Schellings *et al.* 2013).

Likewise, this cross-validation process added further information to the current debate existing in the literature of whether questionnaires' responses accurately correlate with think-aloud protocols' findings or whether there is no significant correlation between both measures (Cromley and Azevedo 2006; Van Hout-Wolters 2009; Schellings *et al.* 2013).

The questionnaire that participants filled out aimed to measure the students' use of metacognitive writing strategies in connection with writing anxiety and writing self-efficacy. It included a list of 53 items divided into three categories: metacognitive writing strategies (17 items), writing anxiety (19 items), and writing self-efficacy (17 items). The students self-assessed these items according to a 5-point Likert scale (1-5), in which 1 meant *Never or almost never true of me* (the student), 2 meant *Usually not true of me*, 3 meant *Somewhat true of me*, 4 meant *Usually true of me*, and 5 meant *Always or almost always true of me*. The first section of the questionnaire was designed to measure metacognitive writing strategies and used items taken both from Stewart *et al.*'s (2015) study on Canadian undergraduate students' use of writing metacognition, and from O'Neil and Abedi's (1996) inventory of metacognitive strategies. The former study reported a Cronbach's alpha coefficient of 0.78, and the latter scored 0.8 in such coefficient. Nevertheless, since O'Neil and Abedi's (1996) list of metacognitive strategies encompassed metacognition as a whole, certain items which did not refer to writing were removed from the final version of the questionnaire used in the present study. The whole questionnaire was made bilingual –i.e. both in English and Spanish– following Dornyei and Taguchi's (2010: 49) statement that “the quality of the obtained data increases if the questionnaire is presented in the respondents' own mother tongue”.

The items included in the section that sought to measure writing anxiety were all borrowed from Cheng (2004). This author developed the Second Language Writing Anxiety Inventory (SLWAI) and validated it reporting an overall Cronbach's alpha of 0.94. Some of the items of the original inventory were removed or gathered since they all measured similar aspects. For instance, the items “I would do my best to excuse myself if asked to write English compositions” and “I usually do my best to avoid writing English compositions” were both closely connected with “I do my best to avoid situations in which I have to write in English”.

The third section of the questionnaire, which measured participants' writing self-efficacy, comprised items taken from Jones (2008) and from Ho (2016). Jones' (2008) inventory scored a Cronbach's alpha coefficient of 0.85 and was adapted from a previous study undertaken by Ferrari and Parker (1992). Minor changes were made to the items of Jones' (2008) scale, in fact, there was only one item which was removed because it referred to written assignments that could be

completed at home, not in-class compositions. Ho's (2016) Research Writing Self-efficacy Index (RWSI) reported a Cronbach's alpha of 0.93. Since the RWSI was supposed to be used in university contexts, it included several items related with source citation, academic writing, and research procedures that were omitted in the final version of the questionnaire used for the present study.

Following Dornyei's (2003) indications, the layout and style of the questionnaire was clean, with a professional appearance, typed in space-economical fonts, with various typographies, and printed in a thick –100 grams– paper. Every paper was watermarked with the logo of the University of Zaragoza following the guides provided in the University of Zaragoza's corporate identity (Universidad de Zaragoza 2010) in order to highlight the professional nature of the questionnaire. All these improvements in the overall look of the questionnaire were taken under the belief that even in a case study with a small sample, "the format and graphic layout [of a questionnaire] carry a special significance and have an important impact on the responses" (Dornyei 2003: 19).

Even though all the sources for the items included in the questionnaire had a considerable Cronbach's alpha coefficient (see above), the complete version of the questionnaire was piloted by two Spanish EFL students of the same age and educational level as those of the participants. Very minor amendments were done after the piloting process to improve the final version of the questionnaire. Overall, the list of items was deemed appropriate.

Just as with the think-aloud protocol, participants were instructed orally into how to respond the questionnaire. The students were encouraged to ask about any hesitation they may have while they were filling in the questionnaire. They were also requested to consider all their writing exercises as a whole –e.g. classroom activities, essays, tests, etc.– before giving an answer. There was no specific time allotted to fill in the questionnaire.

### *2.3. CODING OF THE THINK-ALOUD PROTOCOL*

The audio files obtained from the think-aloud protocol were coded using an adapted version of the coding scheme proposed by Raimes (1985), which was in turn adapted from Perl (1981). The coding was made without any timeline since the present study focuses on what subjects think and feel as they write, and how frequently they do so, rather than on the duration of each thought and feeling. The coding scheme used is described in Appendix B. As a reliability check procedure, I coded each audio file twice. The rate of concurrence for both coding processes in the six audio files and all coding categories was at a 97.8 per cent. An example of the coding can be found in Appendix C.

2.4. DIGITIZING THE QUESTIONNAIRE RESPONSES

The data gathered with the questionnaire was digitized using a spreadsheet application. Reliability checks were also undertaken by digitizing each questionnaire twice, obtaining a rate of concurrence of 100% for all the questionnaires. Certain items which were negatively worded or expressed negative behaviors in the questionnaire were reverse-coded –hereafter marked as (R)– so that high and low values in the Likert scale would indicate the same kind of response for each item.

3. RESULTS

3.1. FINDINGS FROM THE THINK-ALOUD PROTOCOL

Table 1 summarizes the five types of utterances considered in the coding scheme and that were more recurrent in each individual student. The types of utterances referred to the three different factors measured in the present study –metacognitive writing strategies (MC), writing anxiety (AN), and writing self-efficacy (SE). Each position in the rank includes information regarding the type of utterance and the number of times it appeared in the think-aloud protocol –i.e. frequency. Those moments in which the participant was writing (W), in silence (S), or mumbling (M) are not included in the table since they are not connected to any factor.

Table 1. Type and frequency of the most used utterances found in the TAP of each student.

		1		2		3		4		5		
		Type	Freq.	Type	Freq.	Type	Freq.	Type	Freq.	Type	Freq.	
High-achievers	Raquel	MC	Q <sup>h</sup>	55	P	23	Re	22	E	14	Rv	12
		AN	AN <sub>10</sub>	2	AN <sub>7</sub>	1	AN <sub>14</sub>	1				
		SE	SE <sub>8</sub>	2	SE <sub>9</sub>	1	SE <sub>12</sub>	1				
	Eva	MC	Q <sup>h</sup>	47	P	24	Rv	19	MC <sub>8</sub>	10	E	10
		AN	AN <sub>8</sub>	2	AN <sub>10</sub>	2						
		SE	SE <sub>12</sub>	4	SE <sub>9</sub>	1						
	Paula	MC	Q <sup>h</sup>	53	Re	31	Rv	20	P	8	MC <sub>2</sub>	6
		AN	AN <sub>8</sub>	4	AN <sub>10</sub>	3	AN <sub>14</sub>	1				
		SE	SE <sub>12</sub>	6	SE <sub>7</sub>	2	SE <sub>9</sub>	1	SE <sub>15</sub>	1		

		1		2		3		4		5		
		Type	Freq.	Type	Freq.	Type	Freq.	Type	Freq.	Type	Freq.	
Low-achievers	Raúl	MC	Q <sup>h</sup>	32	Re	20	MC <sub>5</sub>	9	MC <sub>7</sub>	5	P	5
		AN	AN <sub>8</sub>	5	AN <sub>14</sub>	1						
		SE	SE <sub>7</sub>	3	SE <sub>6</sub>	1						
	Alvaro	MC	Q <sup>h</sup>	28	P	19	Re	18	MC <sub>7</sub>	14	MC <sub>14</sub>	4
		AN	AN <sub>8</sub>	8	AN <sub>12</sub>	2						
		SE	SE <sub>2</sub>	1	SE <sub>10</sub>	1						
	Jorge	MC	Q <sup>h</sup>	35	P	18	MC <sub>5</sub>	14	Re	13	MC <sub>10</sub>	5
		AN	AN <sub>8</sub>	8	AN <sub>6</sub>	1	AN <sub>10</sub>	1	AN <sub>16</sub>	1		
		SE	SE <sub>7</sub>	5								

As can be seen, the vast majority of the utterances were related to writing metacognition. In contrast, writing anxiety and self-efficacy were barely present in the participants' think-aloud protocols. All the students were aware of their cognition to a greater or lesser extent, highlighting metacognitive strategies such as questioning themselves in order to understand the topic better or get an idea on how to continue (column 1). High-achievers exhibited a higher use of metacognitive writing strategies related to planning (P), revising (Re), and editing (E) than low-achievers (columns 2 to 5).

In spite of the low rate of appearance of both writing anxiety and writing self-efficacy, the utterances dealing with these emotional constructs dropped some findings that are valuable for discussion. For instance, low-achievers reported less utterances related to positive writing self-efficacy than their more proficient counterparts. Only an 18.2% of the utterances showed optimism and confidence in low-level writers (SE<sub>2</sub> and SE<sub>6</sub>), whereas high-achievers reported a 78.9% on such positive factor. Utterances dealing with writing anxiety appeared similarly in all participants' think-aloud protocols, however, low-achievers stated more instances of such construct (27 times) than high-achievers (16 times).

### 3.2. QUESTIONNAIRE RESULTS

The following tables show the quantitative findings obtained after examining writing metacognition (Table 2), writing anxiety (Table 3), and writing self-efficacy (Table 4) in the six participants using a questionnaire. The table lists the students' responses as they were found in the questionnaire.

Hence, the responses for those items that were reverse-coded (R) should be analyzed in consequence.

Table 2. Questionnaire responses of each student for writing metacognition.

<i>Item</i>	<i>High-achievers</i>			<i>Low-achievers</i>		
	<b>Raquel</b>	<b>Eva</b>	<b>Paula</b>	<b>Raúl</b>	<b>Álvaro</b>	<b>Jorge</b>
	<i>Metacognitive writing strategies</i>					
1. I consider the purpose of the written assignment before I start writing.	2	3	3	2	3	2
2. I think about the audience for whom I am writing.	1	3	1	1	1	1
3. I ask myself how the writing topic is related to what I already know.	3	4	3	2	1	2
4. I am aware of the need to plan my writing process.	3	4	4	4	3	2
5. I have a hard time organizing my ideas. (R)	1	1	2	4	3	5
6. I divide the writing process into parts.	3	4	2	1	1	1
7. I make sure I understand just what has to be done and how to do it.	5	5	5	4	4	3
8. I select and organize relevant information to write the composition.	4	5	3	3	3	3
9. I am aware of my own thinking when writing in English.	4	5	4	3	2	1
10. I have difficulties when having to put my ideas down in writing. (R)	1	2	2	4	5	5
11. I check my work while I am writing.	5	5	4	3	2	4
12. I check my accuracy as I progress through the composition.	3	4	3	1	2	2

<i>Item</i>	<i>High-achievers</i>			<i>Low-achievers</i>		
	<b>Raquel</b>	<b>Eva</b>	<b>Paula</b>	<b>Raúl</b>	<b>Álvaro</b>	<b>Jorge</b>
	<i>Metacognitive writing strategies</i>					
13. I correct my errors.	5	5	5	3	3	1
14. I tend to forget about the purpose of the written assignment. (R)	1	1	1	1	2	3
15. I keep track of my progress and, if necessary, I change my techniques and/or strategies.	3	1	2	2	1	1
16. I complete written assignments in a timely manner.	4	5	4	3	2	2
17. I see revision as part of the writing process.	5	5	4	1	2	2

As can be seen, the six participants reported a similar use of metacognitive writing strategies if compared to their think-aloud protocol accounts. That is, high-achievers made a wider use of metacognition in their writing than their low-achieving counterparts (all items). Even though each student's metacognitive strategy use is different from those of the others, there were some similarities between the answers of the six participants. Students reported that, generally, in the planning stage, they did not take into account the audience for whom they were writing (item 2). However, their responses showed that they tried to make sure that they had understood what they need to do and how to do it before starting to write (item 7), and that they rarely forgot such purpose while writing (item 14).

Table 3. Questionnaire responses of each student for writing anxiety.

<i>Item</i>	<i>High-achievers</i>			<i>Low-achievers</i>		
	<b>Raquel</b>	<b>Eva</b>	<b>Paula</b>	<b>Raúl</b>	<b>Álvaro</b>	<b>Jorge</b>
	<i>Writing anxiety</i>					
1. I often choose to write down my thoughts in English.	3	1	1	1	1	1
2. I do my best to avoid situations in which I have to write in English. (R)	1	1	2	3	4	5

	<i>High-achievers</i>			<i>Low-achievers</i>		
	<b>Raquel</b>	<b>Eva</b>	<b>Paula</b>	<b>Raúl</b>	<b>Álvaro</b>	<b>Jorge</b>
<i>Item</i>	<i>Writing anxiety</i>					
3. I freeze up when unexpectedly asked to write English compositions. (R)	1	1	1	1	1	2
4. I am not nervous at all while writing in English.	4	4	3	3	3	1
5. I usually feel comfortable and at ease when writing in English.	2	3	3	1	1	1
6. I often feel panic (trembling, perspiring, feeling my body rigid, having my thought jumbled, etc.) when I write English compositions under time constraint. (R)	1	1	1	1	1	3
7. When I write in English, my mind is usually very clear.	4	5	4	3	2	1
8. My mind often goes blank when I start to work on an English composition. (R)	1	2	2	3	4	4
9. When I write in English, my ideas and words usually flow smoothly.	4	4	3	2	2	1
10. I often worry that I may use expressions and sentence patterns improperly while writing in English. (R)	2	1	3	2	3	4
11. I often worry that the ways I express and organize my ideas do not conform to the norm of English writing. (R)	1	1	3	1	3	4
12. I do not worry at all about what other people would think of my English compositions.	5	5	4	5	4	4



<i>Item</i>	<i>High-achievers</i>			<i>Low-achievers</i>		
	<i>Raquel</i>	<i>Eva</i>	<i>Paula</i>	<i>Raúl</i>	<i>Álvaro</i>	<i>Jorge</i>
	<i>Writing anxiety</i>					
13. I am not afraid at all that my English compositions would be rated as very poor.	3	2	2	4	3	1
14. While writing compositions in English, I feel worried and uneasy if I know they will be evaluated. (R)	2	2	3	3	3	5
15. If my English composition is going to be evaluated, I worry about getting a very poor grade. (R)	4	5	5	3	3	5
16. I do not worry that my English compositions are worse than others'.	5	5	4	4	3	3
17. I am afraid that the other students would deride my English composition if they read it. (R)	1	1	1	2	1	2
18. I usually seek every possible chance to write English compositions outside of class.	3	1	2	1	1	1
19. I am afraid of my English composition being chosen as a sample for discussion in class. (R)	2	1	2	3	4	4

Concerning writing anxiety, there was one student (Jorge), who exhibited a high level of writing anxiety, as his responses showed that he sometimes freezes up when unexpectedly being asked to write in English (item 3) and often feels panic when the writing task had to be done under time constraints (item 6). However, the other two low-achievers reported a lower level of writing anxiety (all items). This level was even lower in high-achievers, who related their few cases of writing anxiety mainly as a consequence of fearing poor grades (item 15), without suffering from any kind of anxiety derived from a possible bad use of the English language (items 10 and 11) –as happened with low-achievers.

Table 4. Questionnaire responses of each student for writing self-efficacy.

<i>Item</i>	<i>High-achievers</i>			<i>Low-achievers</i>		
	<b>Raquel</b>	<b>Eva</b>	<b>Paula</b>	<b>Raúl</b>	<b>Álvaro</b>	<b>Jorge</b>
	<i>Writing self-efficacy</i>					
1. When I make plans to do a written assignment, I am certain I can make them work.	4	5	4	3	2	2
2. When I have to do a written assignment, I go right to work on it.	4	3	3	2	3	1
3. One of my problems in writing is that I cannot get down to work when I should. (R)	1	2	2	4	3	5
4. When I have unpleasant written work to do, I stick to it until I finish it.	4	3	4	1	2	2
5. I give up on my composition before completing them. (R)	1	1	1	2	4	3
6. Failure to write well just makes me try harder.	4	3	4	3	1	3
7. I feel insecure about my ability to do written work. (R)	2	1	3	3	4	5
8. When unexpected problems with writing occur, I do not handle them well. (R)	2	1	2	3	4	4
9. When writing compositions in English, I can get ideas across in a clear manner without getting off topic.	4	5	3	3	3	2
10. I do not seem capable of dealing with most problems that come up in completing written work. (R)	2	1	2	3	4	5
11. I can correctly apply grammar rules (singulars, plurals, verb tenses, etc.) when writing in English.	5	4	4	3	2	2

<i>Item</i>	<i>High-achievers</i>			<i>Low-achievers</i>		
	<b>Raquel</b>	<b>Eva</b>	<b>Paula</b>	<b>Raúl</b>	<b>Álvaro</b>	<b>Jorge</b>
	<i>Writing self-efficacy</i>					
12. I can spot grammar mistakes and correct them in my composition.	4	4	3	1	2	1
13. I can write grammatically correct sentences in English.	4	5	4	3	3	2
14. I can use the right punctuation marks and put them in the right places in my composition.	5	5	5	5	4	3
15. I can rewrite complicated sentences into clear and shorter sentences.	4	3	3	2	1	1
16. Even if I make punctuation and spelling errors, I am sure I can correct them.	4	4	3	2	2	1
17. I can write a well-organized text in English.	5	5	4	3	4	2

Writing self-efficacy seemed to be remarkably higher in high-achievers than in low-achievers. Participants' responses showed that high-performers were, in general, more aware of their linguistic knowledge and their ability to accomplish the written task (items 1, 9, 11, 13, 15, and 17). High-achievers also reported a higher commitment towards the completion of their work (items 2, 4, 5, 6, and 8). On the contrary, the questionnaire responses suggest that low-achievers were conscious of their linguistic limitations, being generally insecure about their skills (items 7, 9, and 10), unable to deal with unexpected problems occurred while writing (items 8 and 10), and disregarded their revision and proofreading abilities (items 12 and 16).

### 3.3. CORRELATION BETWEEN FACTORS IN THE QUESTIONNAIRE

The overall correlation coefficients obtained by calculating Pearson's product-moment correlation coefficient in the questionnaire helped to establish several relationships between the use of metacognitive writing strategies, writing anxiety, and writing self-efficacy. A higher use of writing metacognition appeared to be

negatively correlated with writing anxiety ( $\rho = -0.89$ ), but positively correlated with writing self-efficacy ( $\rho = 0.99$ ). Similarly, writing anxiety was negatively correlated with writing self-efficacy in the participants of the present study ( $\rho = -0.94$ ).

Table 5 shows the correlation coefficients for the three constructs depending on students' language and writing performance. A column with the overall correlation coefficients mentioned above is also included.

Table 5. Correlation coefficients in the questionnaire.

	<i>High-achievers</i>	<i>Low-achievers</i>	<i>Overall</i>
<i>Metacognition / Anxiety</i>	-0.68	-1	-0.89
<i>Metacognition / Self-efficacy</i>	0.81	1	0.99
<i>Anxiety / Self-efficacy</i>	-0.98	-1	-0.94

Surprisingly, the correlation between the three constructs was reported to be almost perfect –results above are rounded– in low-achievers. High-achievers showed a relatively weaker negative correlation between the use of metacognitive writing strategies and writing anxiety.

### 3.4. CORRELATION BETWEEN RESEARCH INSTRUMENTS

The results included in the previous sections showed that whereas writing metacognition can be measured with a think-aloud protocol and a questionnaire alike ( $r = 0.78$ ), presenting similar results using both research instruments, emotional constructs such as writing anxiety ( $r = 0.23$ ) and writing self-efficacy ( $r = 0.33$ ) are more difficult to assess with think-aloud protocols than with questionnaires.

## 4. DISCUSSION

### 4.1. USE OF METACOGNITIVE WRITING STRATEGIES

In spite of individual differences, the six participants of the present study share certain aspects of their writing metacognition. Furthermore, several differences were observed between high- and low- achievers. Students seemed to be all equally aware of the importance of planning in the writing process and, in this sense, the think-aloud protocol reflected it. However, responses from the questionnaire indicated that high-achievers have a wider range of planning strategies than their lower-level counterparts. The former appear to be more likely

to use their background knowledge about the topic and the genre in order to improve the planning process. They also exhibited a higher frequency of use of metacognitive strategies (e.g. bringing together the ideas, organizing the information, and clarifying any kind of doubt regarding the written task before writing). In this respect, this difference supports the view that the use of planning strategies has an influence on the writing process as a whole, meaning that those students who plan before writing, create better pieces of writing (Subramaniam 2004; Maarof and Murat 2013).

Concerning the use of metacognitive writing strategies in the revision stage, high-achievers declare in the think-aloud protocol to reread, revise, and make necessary changes more often than low-achievers. These results support the idea that good writing might be attributed to the fact that the three high-achievers check both accuracy and coherence within their written work more than low-proficiency writers. The findings are therefore consistent with previous studies that claim that lack of awareness regarding the importance of revision is detrimental for the written performance and the development of writing skills (Zamel 1983; Raimes 1985; Chien 2010). Furthermore, questionnaire responses reveal that low-achievers have more problems when completing the written assignments in a timely manner, which, according to the literature, may leave fewer time to revise and increase students' writing anxiety due to time constraints (Kirmizi and Kirmizi 2015).

#### 4.2. WRITING ANXIETY

High-achievers appear to be more comfortable when thinking and writing in English in their think-aloud protocols. Their ideas seem to flow more easily and swiftly, and even though they might face similar problems to those of low-achievers –e.g. doubting about the topic or the requirements of the task, thinking about how to organize their ideas, and having their minds going blank–, they dealt with them more calmly, with more confidence, and worrying less than low-level writers. These findings are consistent with the majority of the literature, which correlates a lower level of anxiety with a better writing performance (Lee and Krashen 2002; Huwari and Aziz 2011; Martinez *et al.* 2011; Kara 2013; Meng and Tseng 2013; Jebreil *et al.* 2014; Liu and Ni 2015; Stewart *et al.* 2015; Ho 2016), but contrast with Entwistle and McCune (2004), who link writing anxiety with high academic performance. Likewise, the causes for participants' writing anxiety commented above are parallel to those described by Liu and Ni (2015) in their study on EFL Chinese university students. The responses to the questionnaires are congruent with the think-aloud protocol results, but they also provide further

insights on writing anxiety connected with grammar –such as those commented in the following paragraph– and what happens before and after the writing process –such as issues related with avoidance, freezing, and being chosen as a sample for discussion in class.

Grammar aspects and the norm of English writing cause more troubles to low-achievers, who appear to be more concerned with using expressions and sentence patterns improperly, and with organizing and expressing their ideas inadequately. This, in a way, is not an unexpected finding, since these issues have been reported to be a recurrent problem in Spanish EFL students that hunts them even at university and makes low-proficiency students unable to cope with English writing demands (Gil 2002).

Being evaluated and obtaining high grades have been accounted for being some of the factors that may also lead to writing anxiety (Kirmizi and Kirmizi 2015; Ho 2016). In the present study, only low-achievers confirm such premise in the questionnaire, reportedly feeling worried about getting poor grades, receiving negative feedback, being chosen as a sample for discussion in class, and even about writing a worse composition than their classmates in certain cases.

#### 4.3. WRITING SELF-EFFICACY

As pointed out earlier in this article, writing self-efficacy is the factor which indicates the most significant difference between high- and low-achievers in the present study. The former report a higher level of self-efficacy than the latter. High-achievers seem to be more confident with their writing plans, have less tendency to procrastinate, and show a higher level of commitment towards the task. This lack of self-efficacy in low-achievers has been connected with an external locus of control, that is, to the fact that low-proficiency students may associate their achievements and failures to outside elements, overlooking their own potential and abilities (Jones 2008).

Likewise, high-achievers account for a more developed capability to handle appropriately any kind of problem occurred when writing than low-achievers. High-proficiency writers are also aware of their English language skills, meaning that they feel competent enough to apply grammar rules accurately, write grammatically correct sentences, and organize their texts appropriately. Furthermore, since they tend to revise more than low-achievers, it might be assumed that they find easier grammar, spelling, organization, and punctuation mistakes. These findings are consistent with the literature on self-efficacy (Pajares and Valiante 2006; Jones 2008; Prat-Sala and Redford 2012; Stewart *et al.* 2015; Ho 2016).

#### 4.4. CORRELATION BETWEEN FACTORS

In agreement with previous literature on the topic (Jones 2008; Martinez *et al.* 2011; Kirmizi and Kirmizi 2015; Liu and Ni 2015; Stewart *et al.* 2015; Ho 2016), the fact that having a low level of writing anxiety and a high level of writing self-efficacy seems to be a strong indicator of a higher use of metacognitive writing strategies and, therefore, of a better writing performance. Writing anxiety has also been found to be negatively correlated with writing self-efficacy. However, five out of six participants in this case study do not show a significant high level of writing anxiety no matter their English proficiency or their writing skill –even though there are certain differences that have already been commented. Therefore, a lower writing anxiety level might not be such a substantial predictor of a good writing outcome as a high writing self-efficacy. This finding supports previous studies such as Woodrow (2011), Sander-Reio *et al.* (2014), and Ho (2016).

#### 4.5. CROSS-VALIDATION OF DATA FROM RESEARCH INSTRUMENTS

The present case study followed Veenman's (2005) belief that, when assessing metacognitive writing strategies, it is preferable the use of a questionnaire and a think-aloud protocol within the same research design. While some studies claim that questionnaire data does not correlate with think-aloud measures (Cromley and Azevedo 2006; Bannert and Mengelkamp 2008), others convincingly maintain that this is usually so because of a flaw in the questionnaire design, making it too general rather than task-specific (Van Hout-Wolters 2009; Schellings *et al.* 2013). The part of the questionnaire used in the present study which deals with writing metacognition correlates up to 0.78 points with the results obtained from think-aloud protocols. This high level of correlation between the two instruments is parallel to Schellings *et al.*'s (2013) findings ( $r = 0.63$ ) in their study on metacognition in Dutch third-graders (15-years-old).

The fact that the information retrieved from think-aloud protocols does not correlate with that of questionnaire data when measuring emotional constructs such as writing anxiety and writing self-efficacy might indicate that one of the two research instruments may not be as suitable as the other when assessing such constructs. Even though participants were widely instructed on which kind of information they were expected to voice in the think-aloud protocol, the data accessed with this *online* method seems to be relatively vague and unsatisfactory if compared to the significant knowledge retrieved via retrospective reports such as questionnaires. The reason for this might be that think-aloud protocols do not reveal every piece of information hidden within the writing process, and

participants could, unintentionally, edit or omit part of their thoughts (Magliano, Millis, The R-SAT Development Team, Levinstein and Boonthum 2011; Schellings *et al.* 2013). This may be particularly the case with purely subjective and idiosyncratic factors such as emotional constructs.

Likewise, it might be possible that students feel more relaxed in non-real writing contexts such as the experimental one, overlooking writing anxiety and experiencing a higher level of confidence that it is not uttered in verbal reports since it is not related to actual self-efficacy.

#### 4.6. LIMITATIONS

Given that the present research is a case study with six Spanish EFL students, it is not possible to generalize from the findings. However, since the results of this article align with previous literature dealing with the same topics within larger samples of students, the labor-intensive nature of think-aloud protocols seems to fit exclusively on researchers investigating a small number of participants.

In addition, think-aloud protocols appear to be not fully appropriate to measure the influence of emotional constructs in writing. As a consequence, some information regarding such factors may have been lost unintentionally in this study. It is complex to determine the actual effect of this limitation, but further research should be done to evaluate other *online* and *offline* research instruments until a more suitable and integrated method to gain access to students' emotional constructs is found.

#### 4.7. IMPLICATIONS FOR PRACTICE

After exploring the impact that writing anxiety and writing self-efficacy has in students' use of metacognitive strategies and, as a consequence, in students' writing performance, it seems sensible to create learning environments that reduce anxiety and boost self-efficacy. Since emotional constructs are generally a consequence of the interaction between internal and external factors (Bandura 1986), the main aim of an EFL instructor would be to modify external elements in order to achieve a change within the students. For example, a positive and encouraging learning atmosphere, in which positive feedback is given, discussing the challenges of writing, and student participation is boosted, may be built. The effectiveness of these practices has already been validated by previous literature (Boscolo, Arfe and Quarisa 2007; Connor 2007; Armstrong, Wallace and Chang 2008). Furthermore, making use of authentic tasks and providing the students with numerous writing opportunities has similarly been proved to develop students' writing self-efficacy,



decreasing their anxiety and strengthening their use of writing metacognition (van Dinther, Dochy and Segers 2011). For these reasons, integrating active writing teaching and writing strategy teaching in unit plans can be helpful for students writing skills, as has been established by previous research (Pintrich 2002; Connor 2007; Rolheiser *et al.* 2013; Stewart *et al.* 2015).

Tutoring –either by teachers, peers, or specialized staff– has also proved to reduce writing anxiety and increase writing self-efficacy, especially in those students suffering from behavioral anxiety in the form of avoidance, withdrawal, or procrastination (Rechtien and Dizinnio 1998; Martinez *et al.* 2011). For instance, tutors may assist students by suggesting them to focus on positive aspects of their English writing skills and to counteract negative thoughts especially before and during the composing process, and by giving them positive and detailed feedback on how to improve specific features of their writings and explaining them which writing strategies they might use to develop their written outcomes.

## 5. CONCLUSION

The main aim of this case study was to examine the extent to which writing anxiety and writing self-efficacy have an influence on the use of metacognitive writing strategies in six Spanish EFL students. Furthermore, this research sought to analyze how all these factors interact between them and how they are influenced by both student's English language performance and English writing skill. In order to measure participants' writing metacognition, writing anxiety, and writing self-efficacy, results retrieved from a think-aloud protocol and a questionnaire were considered. This helped to establish up to which point both research instruments are reliable enough to assess the above mentioned factors. It should be stressed that results bring to the fore the importance of reducing students' writing anxiety and boosting their self-efficacy in order to trigger their use of metacognitive writing strategies, thus improving their written outcomes.

As explained earlier, participants seemed to be equally aware of the importance of planning. However, high-achievers reported a wider use of metacognitive strategies when coming up with and organizing information, and when clarifying doubts in the pre-writing stage than low-achievers. The same happened in the post-writing stage, when high-performers tend to reread and revise more often than low-achievers. This higher use of writing metacognition is positively correlated with participants' level of writing self-efficacy since high-achievers appear to have a greater self-belief than their low-level counterparts. The results of the case study indicate that skilled writers are more confident with their skills, procrastinate less, and are more committed to the writing task than low achievers. A wider use of

metacognition writing strategies and a higher self-efficacy is negatively correlated with participants' level of writing anxiety. In this study, low-level writers were found to deal with problems emerged from the composing process less calmly and with less confidence than high-achievers. This higher level of writing anxiety in low-achievers also extends to grammatical and structural issues, and to the possibility of receiving negative feedback about their writings.

Regarding the correspondence between research instruments, the most relevant finding to emerge from the analysis is that questionnaires are deemed appropriate to measure the three factors assessed in the present paper, that is, writing metacognition, writing anxiety, and writing self-efficacy. On the other hand, it is interesting to note that think-aloud protocols –at least in this case study– do not elucidate as much information connected with emotional constructs as the questionnaire. However, further research would be needed to validate this finding and explore which research instruments are more suitable for exploring constructs such as writing anxiety and self-efficacy.

As a final reflection, EFL instruction should aim at creating a safe and constructive learning environment, providing positive feedback and numerous learning and writing opportunities, implementing student-centered lessons in which participation is encouraged, using authentic materials and writing tasks, and tutoring attentively students when necessary. By doing so, it is expected that teaching EFL writing –and EFL instruction as a whole– will remarkably improve both the composing processes and the writing outcomes of the students, eventually rendering a continuous improvement in the process of mastering English writing skills.

## REFERENCES

- Allen, B. A. and E. Armour-Thomas. 1993. "Construct validation of metacognition". *The Journal of Psychology* 127(2): 203-211.
- Armstrong, N., Wallace, C. and S. Chang. 2008. "Learning from writing in college biology". *Research in Science Education* 38(4): 483-499.
- Aydin, S. 2016. "An analysis of the relationship between high school students' self-efficacy, metacognitive strategy use and their academic motivation for learn Biology". *Journal of Education and Training Studies* 4(2): 53-59.
- Bacha, N. N. 2002. "Developing learners' academic writing skills in higher education: A study for educational reform". *Language and Education* 16(3): 163-173.
- Bandura, A. 1986. *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs: Prentice Hall.
- Bandura, A. 1995. *Self-efficacy in changing societies*. Cambridge: Cambridge University Press.

- Bannert, M. and C. Mengelkamp. 2008. "Assessment of metacognitive skills by means of instruction to think aloud and reflect when prompted. Does the verbalization method affect learning?". *Metacognition and Learning* 3: 39-58.
- Biggs, J. 1988. "Approaches to learning and essay writing". *Learning strategies and learning styles*. Ed. R. R. Schmeck. New York: Plenum. 185-228.
- Boscolo, P., Arfe, B. and M. Quarisa. 2007. "Improving the quality of students' academic writing: an intervention study". *Studies in Higher Education* 32(4): 419-438.
- Chamot, A. U. and P. B. El-Dinary. 1999. "Children's learning strategies in language immersion classrooms". *Modern Language Journal* 83(3): 319-338.
- Cheng, Y.-S. 2004. "A measure of second language writing anxiety: Scale development and preliminary validation". *Journal of Second Language Writing* 13: 313-335.
- Chien, S. 2010. "Enhancing English composition teachers' awareness of their students' writing strategy use". *The Asia-Pacific Education Researcher* 19(3): 417-438.
- Connor, L. 2007. "Cueing metacognition to improve researching and essay writing in a final year high school biology class". *Research in Science Education* 37(1): 1-16.
- Cooper, M. and M. Holzman. 1983. "Talking about protocols". *College Composition and Communication* 34(3): 284-293.
- Cromley, J. G., and R. Azevedo. 2006. "Self-report of reading comprehension strategies: What are we measuring?". *Metacognition and Learning* 1: 229-247.
- De la Rica, S. and A. González. 2012. "Determinantes del rendimiento académico en competencia inglesa en España". *Estudio europeo de competencia lingüística EECL* (vol. II). Ministerio de Educación, Cultura y Deporte. 12-29.
- Dornyei, Z. 2003. *Questionnaires in second language research: construction, administration and processing* (1st ed.). Mahwah, NJ: Lawrence Erlbaum Associates.
- Dornyei, Z. and T. Taguchi. 2010. *Questionnaires in second language research: construction, administration and processing* (2nd ed.). New York: Routledge.
- Entwistle, N. and V. McCune. 2004. "The conceptual bases of study strategy inventories". *Educational Psychology Review* 16(4): 325-345.
- España. Real Decreto-ley 1892/2008, de 14 de noviembre, por el que se regulan las condiciones para el acceso a las enseñanzas universitarias oficiales de grado y los procedimientos de admisión a las universidades públicas españolas. *Boletín Oficial del Estado*, 24 de noviembre de 2008. 46, 932-46, 946.

- España. Real Decreto-ley 1105/2014, de 26 de diciembre, por el que se establece el currículo básico de la Educación Secundaria Obligatoria y del Bachillerato. *Boletín Oficial del Estado*, 3 de enero de 2015. 169-546.
- Faigley, L. and W. Stephen. 1981. "Analyzing revision". *College Composition and Communication* 32(4): 400-414.
- Flavell, J. 1979. "Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry". *American Psychologist* 34(10): 906-911.
- Gil, M. C. 2002. "Spanish students in British universities: Developing a support resource to improve their academic writing skills". [Presentation]. *Paper presented at the Setting the Agenda: Languages, Linguistics and Area Studies in Higher Education Conference*. Manchester.
- Gu, Y. 2014. "To code or not to code: Dilemmas in analysing think-aloud protocols in learning strategies research". *System* 43: 74-81.
- Guan, Z., Lee, S., Cuddihy, E. and J. Ramey. 2006. "The validity of the stimulated retrospective think-aloud method as measured by eye tracking". *Proceedings of the SIGCHI conference on human factors in computing systems, CHI'06*. Ed. W. E. Mackay. New York, NY: ACM. 1253-1262.
- Hayes, J. R. 2000. "A new framework for understanding cognition and affect in writing". *Perspectives on writing: Research, theory, and practice*. Eds. R. Indrisano and J. Squire. Newark: International Reading Association. 6-44.
- Hayes, J. R. and L. S. Flower. 1983. "Uncovering cognitive processes in writing: an introduction to protocol analysis". *Research on writing*. Eds. P. Mosenthal, L. Tamar, and S. A. Walmsley. New York, NY: Longman, Inc. 206-220.
- Ho, M. 2016. "Exploring writing anxiety and self-efficacy among EFL graduate students in Taiwan". *Higher Education Studies* 6(1): 24-39.
- Hounsell, D. 1997. "Learning and essay writing". *The experience of learning*. Eds. F. Marton, D. Hounsell, and N. Entwistle. Edinburgh: Scottish Academic Press. 103-123.
- Jebreil, N., Azizifar, A. and H. Gowharya. 2014. "Investigating the effect of anxiety of male and female Iranian EFL learners on their writing performance". *Procedia - Social and Behavioral Sciences* 185: 190-196.
- Jones, C. S. 1982. "Attention to rhetorical information while composing in a second language". [Presentation]. *Paper presented at the 4th Los Angeles Second Language Research Forum*. Los Angeles.
- Jones, E. 2008. "Predicting performance in first-semester college basic writers: Revisiting the role of self-beliefs". *Contemporary Educational Psychology* 33: 209-238.

- Kara, S. 2013. "Writing anxiety: A case study on students' reasons for anxiety in writing classes". *Anadolu Journal of Educational Sciences International* 3(1): 103-111.
- Karakaya, I. and H. Ülper. 2011. "Developing a writing anxiety scale and examining writing anxiety based on various variables". *Educational Sciences: Theory & Practice* 11(2): 703-707.
- King, K. 2004. "Just don't make me think: Metacognition in college classes". [Presentation]. *Selected papers from the 15th Annual Conference on College Teaching and Learning*. Jacksonville, FL.
- Kirmizi, Ö. and G. D. Kirmizi. 2015. "An investigation of L2 learners' writing self-efficacy, writing anxiety and its causes at higher education in Turkey". *International Journal of Higher Education* 4(2): 57-66.
- Lavelle, E. 1993. "Development and validation of an inventory to assess processes in college composition". *British Journal of Educational Psychology* 63: 489-499.
- Lavelle, E. and K. Bushrow. 2007. "Writing approaches of graduate students". *Educational Psychology* 27(6): 807-822.
- Lavelle, E. and A. J. Guarino. 2003. "A multidimensional approach to understanding college writing processes". *Educational Psychology* 23(3): 295-305.
- Lee, S. Y. and S. D. Krashen. 2002. "Predictors of success in writing in English as a foreign language: Reading, revision, behavior, apprehension, and writing". *College Student Journal* 36(4): 532-543.
- Liu, M. and H. Ni. 2015. "Chinese university EFL learners' foreign language writing anxiety: Pattern, effect and causes". *English Language Teaching* 8(3): 46-58.
- Lv, F. and H. Chen. 2010. "A study of metacognitive-strategies-based writing instruction for vocational college students". *English Language Teaching* 3(3): 136-144.
- Maarof, N., and M. Murat. 2013. "Writing strategies used by ESL upper secondary school students". *International Education Studies* 6(4): 47-55.
- Magliano, J. P., Millis, K. K., The R-SAT Development Team, Levinstein, I. and C. Boonthum. 2011. "Assessing comprehension during reading with the Reading Strategy Assessment Tool (RSAT)". *Metacognition and Learning* 6: 131-154.
- Martínez, C. T., Kock, N. and J. Cass. 2011. "Pain and pleasure in short essay writing: factors predicting university students' writing anxiety and writing self-efficacy". *Journal of Adolescent & Adult Literacy* 54(5): 351-360.
- Multon, K. D., Brown, S. D. and R. W. Lent. 1991. "Relation of self-efficacy beliefs to academic outcomes: A meta-analytic investigation". *Journal of Counselling Psychology* 38(1): 30-38.

- Nightingale, P. 1988. "Understanding problems and processes in student writing". *Studies in Higher Education* 13(3): 263-283.
- Ong, W. J. 1982. *Orality and literacy: the technologizing of the world*. New York: Routledge.
- Onwugbuzie, A. J. and K. M. T. Collins. 2001. "Writing apprehension and academic procrastination among graduate students". *Perceptual and Motor Skills* 92: 560-562.
- Pajares, F. and G. Valiante. 2006. "Self-efficacy beliefs and motivation in writing development". *Handbook of writing research*. Eds. C. A. MacArthur, S. Graham, and J. Fitzgerald. New York, NY: Guilford Press. 158-170.
- Perl, S. 1980. "Understanding composing". *College Composition and Communication* 31(4): 363-369.
- Perl, S. 1981. *Coding the composing process: A guide for teachers and researchers*. Washington, D.C.: National Institute of Education.
- Pintrich, P. 2002. "The role of metacognitive knowledge in learning, teaching, and assessing". *Theory into Practice* 41(4): 219-225.
- Plo, R. 2007. "La producción escrita en inglés: una propuesta integradora en el paso de bachillerato a la universidad". *El desarrollo de competencias en lenguas extranjeras: texto y otras estrategias*. Ed. R. Plo. Ministerio de Educación y Ciencia. 65-98.
- Prat-Sala, M. and P. Redford. 2012. "Writing essays: Does self-efficacy matter? The relationship between self-efficacy in reading and in writing and undergraduate students' performance in essay writing". *Educational Psychology* 32(1): 9-20.
- Raimes, A. 1985. "What unskilled ESL students do as they write: A classroom study of composing". *TESOL Quarterly* 19(2): 229-258.
- Rechtien, J. G. and G. Dizinnio. 1998. "Apprehension about writing: Further results". *Psychological Reports* 82(1): 221-222.
- Rolheiser, C., Seifert, T., McCloy, C., Gravestock, P., Stewart, G., Greenleaf, E., Burnett, M., Carpenter, S., Pottruff, B. and S. McKean. 2013. *Developing teaching assistants as members of the university teaching team*. Toronto: Higher Education Quality Council of Ontario.
- Sanders-Reio, J., Alexander, P. A., Reio Jr., T. G. and I. Newman. 2014. "Do students' beliefs about writing relate to their writing self-efficacy, apprehension, and performance?". *Learning and Instruction* 33: 1-11.
- Schellings, G. L. M., van Hout-Wolters, B. H. A. M., Veenman, M. V. J. and J. Meijer. 2013. "Assessing metacognitive activities: the in-depth comparison of a task-

- specific questionnaire with think-aloud protocols". *European Journal of Psychology of Education* 28: 963-990.
- Stewart, G., Seifert, T. A. and C. Rolheiser. 2015. "Anxiety and self-efficacy's relationship with undergraduate students' perceptions of the use of metacognitive writing strategies". *The Canadian Journal for the Scholarship of Teaching and Learning* 6(1): 43-59.
- Subramaniam, I. D. 2004. *The composing process of skilled and unskilled Chinese and Indian students: A case study*. [Unpublished Master Thesis]. Universiti Kebangsaan Malaysia, Malaysia.
- Tuan, L. T. 2010. "Enhancing EFL learners' writing skill via journal writing". *English Language Teaching* 3(3): 81-88.
- Universidad de Zaragoza. 2010. Manual de identidad corporativa. <[http://www.unizar.es/sites/default/files/identidadCorporativa/manual\\_de\\_imagen\\_corporativa.pdf](http://www.unizar.es/sites/default/files/identidadCorporativa/manual_de_imagen_corporativa.pdf)>. (Accesed 19 June 2015).
- Van Dinther, M., Dochy, F. and M. Segers. 2011. "Factors affecting students' self-efficacy in higher education". *Educational Research Review* 6: 95-108.
- Van Hout-Wolters, B. H. A. M. 2009. "Measuring Learning strategies. Different kinds of assessment methods and their usefulness in education and research". *Pedagogische Studiën* 86: 110-103.
- Veenman, M. V. J. 2005. "The assessment of metacognitive skills: What can be learned from multi-method designs?". *Lernstrategien und Metakognition: Implikationen für Forschung und Praxis*. Eds. C. Artelt, and B. Moschner. Münster: Waxmann. 77-99.
- Veenman, M. V. J., and P. Alexander. 2011. Learning to self-monitor and self-regulate. *Handbook of research on learning and instruction*. Eds. R. Mayer, and P. Alexander. New York: Routledge. 197-218.
- Willians, J. D. and S. Takaku. 2011. "Help seeking, self-efficacy, and writing performance among college students". *Journal of Writing Research* 3(1): 1-18.
- Winch, G., Ross, R., March, P., Ljungdahl, L., and M. Holliday. 2010. *Literacy: Reading, writing and children's literature*. Victoria: Oxford University Press.
- Winne, P. H. and N. E. Perry. 2000. "Measuring self-regulated learning". *Handbook of self-regulation*. Eds. P. R. Pintrich, M. Boekaerts, and M. Zeidner. Orlando: Academic Press. 531-567.
- Woodrow, L. 2011. "College English writing affect: Self-efficacy and anxiety". *System* 29: 510-522.
- Zamel, V. 1983. "The composing processes of advanced ESL learners: Six case studies". *TESOL Quarterly* 17: 165-187.

APPENDIX A

**Questionnaire on writing anxiety, writing self-efficacy, and the use of metacognitive writing strategies.**

Section A: Information

Name: \_\_\_\_\_ Date: \_\_\_\_\_

This questionnaire is divided into three different parts: metacognitive writing strategies, writing anxiety, and writing self-efficacy. Please read each statement and circle a number from 1 to 5 indicating how true the statement is for you, being 1 never or almost never and 5 always or almost always true for you.

Concerning privacy, both your identity and your answers will be kept entirely confidential and, if an allusion to you has to be made, it will be completely anonymous and your name will never be revealed.

Section B: Questionnaire

<b>Metacognitive writing strategies</b> <i>Estrategias metacognitivas en la escritura</i>					
1. I consider the purpose of the written assignment before I start writing. <i>Tengo en cuenta el propósito del trabajo escrito antes de empezar a escribir.</i>	1	2	3	4	5
2. I think about the audience for whom I am writing. <i>Tengo en cuenta la audiencia para la que estoy escribiendo.</i>	1	2	3	4	5
3. I ask myself how the writing topic is related to what I already know. <i>Reflexiono acerca de cómo el tema de la redacción está relacionado con mis conocimientos previos.</i>	1	2	3	4	5
4. I am aware of the need to plan my writing process. <i>Soy consciente de la necesidad de planificar mi proceso de escritura.</i>	1	2	3	4	5
5. I have a hard time organizing my ideas. <i>Tengo dificultades al organizar mis ideas.</i>	1	2	3	4	5
6. I divide the writing process into parts. <i>Divido el proceso de escritura en varias partes.</i>	1	2	3	4	5
7. I make sure I understand just what has to be done and how to do it. <i>Me aseguro de que he entendido exactamente lo que tengo que hacer y cómo hacerlo.</i>	1	2	3	4	5
8. I select and organize relevant information to write the composition. <i>Selecciono y organizo la información relevante para escribir la redacción.</i>	1	2	3	4	5
9. I am aware of my own thinking when writing in English. <i>Soy consciente de mis propios pensamientos cuando escribo en inglés.</i>	1	2	3	4	5



10. I have difficulties when having to put my ideas down in writing. <i>Tengo dificultades al poner mis ideas sobre el papel.</i>	1	2	3	4	5
11. I check my work while I am writing. <i>Compruebo mi trabajo conforme voy escribiendo.</i>	1	2	3	4	5
12. I check my accuracy as I progress through the composition. <i>Compruebo mi precisión conforme avanzo en mi redacción.</i>	1	2	3	4	5
13. I correct my errors. <i>Corrijo mis errores.</i>	1	2	3	4	5
14. I tend to forget about the purpose of the written assignment. <i>Suelo olvidarme del propósito del trabajo escrito.</i>	1	2	3	4	5
15. I keep track of my progress and, if necessary, I change my techniques and/or strategies. <i>Controlo mi progreso y, si es necesario, modifico las técnicas y/o estrategias que uso.</i>	1	2	3	4	5
16. I complete written assignments in a timely manner. <i>Completo las tareas escritas en el tiempo establecido.</i>	1	2	3	4	5

<b>Writing anxiety</b>					
<i>Ansiedad causada por la escritura</i>					
1. I often choose to write down my thoughts in English. <i>Suelo escribir mis pensamientos en inglés.</i>	1	2	3	4	5
2. I do my best to avoid situations in which I have to write in English. <i>Hago todo lo posible para evitar situaciones en las que tengo que escribir en inglés.</i>	1	2	3	4	5
3. I freeze up when unexpectedly asked to write English compositions. <i>Me paralizó cuando me piden escribir redacciones en inglés inesperadamente.</i>	1	2	3	4	5
4. I am not nervous at all while writing in English. <i>No me pongo nervioso cuando escribo en inglés.</i>	1	2	3	4	5
5. I usually feel comfortable and at ease when writing in English. <i>Suelo sentirme cómodo y a gusto al escribir en inglés.</i>	1	2	3	4	5
6. I often feel panic (trembling, perspiring, feeling my body rigid, having my thought jumbled, etc.) when I write English compositions under time constraint. <i>Suelo sentir pánico (tiemblo, transpiro, siento mi cuerpo rígido, las ideas se me lían, etc.) cuando tengo que escribir redacciones en inglés con límite de tiempo.</i>	1	2	3	4	5

7. When I write in English, my mind is usually very clear. <i>Cuando escribo en inglés, suelo tener las ideas muy claras.</i>	1	2	3	4	5
8. My mind often goes blank when I start to work on an English composition. <i>Me suelo quedar en blanco cuando empiezo a escribir una redacción en inglés.</i>	1	2	3	4	5
9. When I write in English, my ideas and words usually flow smoothly. <i>Cuando escribo en inglés, las ideas y las palabras me salen sin problema.</i>	1	2	3	4	5
10. I often worry that I may use expressions and sentence patterns improperly while writing in English. <i>Me suele preocupar el hecho de poder usar expresiones o construir frases incorrectamente cuando escribo en inglés.</i>	1	2	3	4	5
11. I often worry that the ways I express and organize my ideas do not conform to the norm of English writing. <i>Me suele preocupar que la forma de expresar y organizar mis ideas no se adecúe a las normas inglesas de escritura.</i>	1	2	3	4	5
12. I do not worry at all about what other people would think of my English compositions. <i>No me preocupa lo que otras personas puedan pensar de mis redacciones en inglés.</i>	1	2	3	4	5
13. I am not afraid at all that my English compositions would be rated as very poor. <i>No me asusta que mis redacciones en inglés puedan ser calificadas como muy deficientes.</i>	1	2	3	4	5
14. While writing compositions in English, I feel worried and uneasy if I know they will be evaluated. <i>Cuando escribo redacciones en inglés, me siento preocupado e incómodo si sé que las van a evaluar.</i>	1	2	3	4	5
15. If my English composition is going to be evaluated, I worry about getting a very poor grade. <i>Si mi redacción en inglés va a ser evaluada, me preocupa sacar una mala nota.</i>	1	2	3	4	5
16. I do not worry that my English compositions are worse than others'. <i>No me preocupa que mis redacciones en inglés sean peores que la de los demás.</i>	1	2	3	4	5
17. I am afraid that the other students would deride my English composition if they read it. <i>Me asusta el hecho de que mis compañeros pudieran ridiculizar mi redacción en inglés si la leyeran.</i>	1	2	3	4	5

18. I usually seek every possible chance to write English compositions outside of class. <i>Suelo buscar cualquier oportunidad posible para escribir redacciones en inglés fuera de clase.</i>	1	2	3	4	5
19. I am afraid of my English composition being chosen as a sample for discussion in class. <i>Me asusta que mi redacción en inglés pueda ser elegida como un ejemplo para debatir en clase.</i>	1	2	3	4	5

<b>Writing self-efficacy</b> <i>Autoeficacia para la escritura</i>					
1. When I make plans to do a written assignment, I am certain I can make them work. <i>Cuando hago planes para hacer un trabajo escrito estoy seguro de que los voy a poder llevar a cabo.</i>	1	2	3	4	5
2. When I have to do a written assignment, I go right to work on it. <i>Cuando tengo que hacer un trabajo escrito me pongo enseguida a trabajar.</i>	1	2	3	4	5
3. One of my problems in writing is that I cannot get down to work when I should. <i>Uno de mis problemas relacionados con la escritura es que no consigo ponerme a trabajar cuando debería.</i>	1	2	3	4	5
4. When I have unpleasant written work to do, I stick to it until I finish it. <i>Cuando tengo un trabajo escrito desagradable que hacer me pongo con el hasta que lo acabo.</i>	1	2	3	4	5
5. I give up on my composition before completing them. <i>Abandono mi redacción antes de completarla.</i>	1	2	3	4	5
6. Failure to write well just makes me try harder. <i>Cometer fallos al escribir me hace intentarlo con más fuerzas.</i>	1	2	3	4	5
7. I feel insecure about my ability to do written work. <i>Me siento inseguro en relación a mi habilidad para hacer trabajos escritos.</i>	1	2	3	4	5
8. When unexpected problems with writing occur, I do not handle them well. <i>Cuando me surgen problemas inesperados al escribir no los gestiono correctamente.</i>	1	2	3	4	5
9. When writing compositions in English, I can get ideas across in a clear manner without getting off topic. <i>Cuando escribo redacciones en inglés tengo ideas claras sin alejarme del tema tratado.</i>	1	2	3	4	5

10. I do not seem capable of dealing with most problems that come up in completing written work. <i>No me veo capaz de gestionar la mayoría de los problemas que me surgen al realizar trabajos escritos.</i>	1	2	3	4	5
11. I can correctly apply grammar rules (singulars, plurals, verb tenses, etc.) when writing in English. <i>Soy capaz de aplicar reglas gramaticales (singulares, plurales, tiempos verbales, etc.) correctamente cuando escribo en inglés.</i>	1	2	3	4	5
12. I can spot grammar mistakes and correct them in my composition. <i>Soy capaz de encontrar y corregir errores gramaticales en mi redacción.</i>	1	2	3	4	5
13. I can write grammatically correct sentences in English. <i>Soy capaz de escribir oraciones gramaticalmente correctas en inglés.</i>	1	2	3	4	5
14. I can use the right punctuation marks and put them in the right places in my composition. <i>Soy capaz de usar correctamente los signos de puntuación y ponerlos en su lugar apropiado en mi redacción.</i>	1	2	3	4	5
15. I can rewrite complicated sentences into clear and shorter sentences. <i>Soy capaz de reescribir oraciones complejas en oraciones más cortas y claras.</i>	1	2	3	4	5
16. Even if I make punctuation and spelling errors, I am sure I can correct them. <i>A pesar de cometer errores ortográficos y de puntuación, soy capaz de corregirlos.</i>	1	2	3	4	5
17. I can write a well-organized text in English. <i>Soy capaz de escribir un texto correctamente organizado en inglés.</i>	1	2	3	4	5

## APPENDIX B

### Coding scheme

#### General scheme:

A <sup>+</sup>	Assessing positively
A <sup>-</sup>	Assessing negatively
E	Editing
M	Mumbling
P	Planning
Q <sup>h</sup>	Questioning to his/herself
Q <sup>R</sup>	Questioning to the researcher
R	Reading a sentence or a part of a sentence (followed by the number of the sentence).
R <sup>T</sup>	Reading the topic
R <sup>W</sup>	Reading the whole draft
Re	Repeating (a word, a sentence, or a part of a sentence)
Rh	Rehearsing
Rv	Revising
S	Silence
U	Unintelligible remark
W	Writing

#### Specific scheme:

MC <sub>x</sub>	Metacognitive writing strategy.
AN <sub>x</sub>	Utterance related to writing anxiety.
SE <sub>x</sub>	Utterance related to writing self-efficacy.

*Note: X stands for the number of the item in the questionnaire that is related to the utterance.*

#### Subscripts:

<b>Subscripts of E and Rh</b>	
a	addition
d	deletion
g	grammar
pr	pronunciation
pu	punctuation
sp	spelling
ss	sentence structure
v	verb form or tense
wf	word form

**Subscripts of Rv**

- a addition
- d deletion
- sub substitution
- wc word choice

**Subscripts of A, E, Q<sup>h</sup>, Q<sup>R</sup>, Rh, and Rv**

- c content
- f form
- s style

APPENDIX C

Example of coding (Paula SJ)

Vale, a ver, [reads writing topic]. Buff, repetimos [laughs] [reads writing topic slower]. Vale, así

R<sup>r</sup>

Re-R<sup>r</sup>

MC<sub>7</sub> / P

que tengo que contarle a María García algo *unexpected*, mmm, inesperado [laughs], que me

haya pasado, básicamente. Mmm, ¿y esto es una carta o algo? Mejor un *e-mail*. Entonces, a ver,

Q<sup>h</sup><sub>f</sub>

P

*dear María*, ¿y esta me conoce o no? No sé si presentarme. Va, me presento. *My name is Paula*,

W

Q<sup>h</sup><sub>s</sub> / MC<sub>2</sub>

W

*I am your brother's* ¿compañera? Mmm, *classmate*. Buff, ¿y ahora qué pongo? ¿Algo *unexpected*

Q<sup>h</sup><sub>f</sub>

Q<sup>h</sup><sub>c</sub>

que me haya pasado? Pues, no sé [laughs], a ver, digo yo que me lo podré inventar, pues, no sé.

AN<sub>8</sub>

[Reads writing topic fast] ¡Ay no! ¡Que es para la universidad! Tiene que ser real [laughs]. Pues,

R<sup>r</sup>

MC<sub>2</sub> / MC<sub>14</sub>

P

cuando me encontré veinte euros en la calle, eso fue *unexpected*, ¿no? Entonces, *Dear María*,

SE<sub>9</sub>

Q<sup>h</sup><sub>c</sub>

R<sub>1</sub>

*My name is Paula*, *I am your brother's classmate*. Okay. *I remember that when I find, (find, found,*

R<sub>2</sub>

W

A<sup>+</sup><sub>1</sub> / Rh<sub>1</sub>

*found,)* *twenty euros in the street I was unexpected*, no, *I was*, mmm, *surprised!* ¿Cómo era?

A<sub>f</sub> Re

Rh<sub>1</sub> / E<sub>1</sub> / MC<sub>12</sub> Q<sup>h</sup><sub>f</sub>

*Surprised* está bien, ¿no? *I was extremely surprised*. Y le tengo que decir que hice al

A<sup>+</sup><sub>f</sub>

Re / W

Q<sup>h</sup><sub>c</sub>

encontrármelos, ¿no? Vale, entonces...