

Do individual differences matter to learners' writing ability?

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The purpose of this study was to determine whether individual differences such as gender, interest level in writing an essay, and familiarity with and self-efficacy in writing various genres could account for 103 English-as-a-foreign language learners' writing ability. Learners' interest levels in writing an essay, familiarity with writing various genres, and self-efficacy in writing various genres were measured using four questionnaires that were administered over a period of ten weeks. An average score for each of the above variables was obtained and used for regression analysis. The learners' writing ability was represented by the average of three writing tests scores. Results show that gender, interest level in writing an essay, and familiarity with and self-efficacy in writing various genres contributed to a total of 25% of the learners' writing ability variance. Gender was highly significant and interest level in writing an essay was marginally significant, but familiarity with and self-efficacy in writing various genres were not significant.

Keywords: gender; interest level in writing an essay; familiarity with writing various genres; self-efficacy in writing various genres; writing ability; EAP; Chinese learners

Introduction

This study investigates whether variation in writing competence can be attributed to learners' individual differences. Writers vary in terms of age, gender, cognitive ability, working memory processing ability, interest level in writing an essay, familiarity with writing various writing genres, self-efficacy in writing various genres, L1 and L2 proficiencies, beliefs, anxiety, and other variables. Some of these differences were found to account for learners' writing ability (e.g., Hsieh & Schallert, 2008; S. Lee, 2005; Sasaki & Hirose, 1996). Sasaki and Hirose (1996), for example, found that L2 proficiency accounted for 52% of university learners' L2 (expository) writing ability variance; L1 (expository) writing ability accounted for 18%; and meta-knowledge accounted for 11%. In a similar vein, S. Lee (2005) found that only free-reading, which refers to leisure reading outside a school setting, significantly predicted L2 university students' writing performance, whereas their apprehension, the amount of writing they had previously done, and their beliefs and attitudes toward reading and writing instruction did not. In terms of motivation in writing, Hsieh and Schallert (2008) found that self-efficacy and ability attribution accounted for 37% and 45% of the total variances in undergraduate students' self-reported achievement in foreign language learning respectively.

An understanding of which individual differences play pivotal roles in predicting learners' writing ability is important for a number of reasons. Firstly, it will allow language teachers to predict how well learners will acquire and master writing competence. Secondly, it opens up new possibilities for student placements in classrooms. Finally, researching individual differences in writing will inform educators

about potential writing interventions. Notwithstanding the above mentioned potential, there is a paucity of studies investigating individual differences in second language writing ability (Judit, 2012; Kubota, 2003; S. Lee, 2005). The objective of the present study is to examine whether the individual differences of: gender, interest level in writing an essay, familiarity with writing various genres, and self-efficacy in writing various genres contribute to the writing ability of 103 English-as-a-foreign language (EFL) learners.

The literature

Gender

Pajares and Valiante (1999) investigated whether gender, grade-level, self-efficacy, self-concept, apprehension, perceived value of writing, self-efficacy for self-regulation, and previous writing achievement predicted the writing ability of 742 L1 middle-school students. The study found that girls were of marginally higher writing ability than boys; and self-efficacy was the only variable to predict writing ability. A follow-up study was conducted by the same researchers in 2001. They examined whether there were gender differences in self-efficacy, self-concept, apprehension, perceived value of writing, self-efficacy for self-regulated learning among 497 L1 middle school students. They found that girls not only received higher grades in language arts than boys, but also reported that girls had stronger self-efficacy, self-concept, and self-efficacy in self-regulated learning in comparison to boys (see Pajares & Valiante, 2006).

Additionally, recent research has shown that females outperform males in L1 writing, reading, and verbal ability (Preiss, Castillo, Flotts, & San Martín, 2013; Roivainen, 2011; Wai, Cacchio, Putallaz, & Makel, 2010). Roivainen (2011), for example, found that females outperformed males in writing tasks among other investigated tasks such as processing speed, rapid naming, reaction time, finger tapping, and intelligence tasks. In a similar vein, Wai et al. (2010) examined whether there were gender differences in multiple measures of standardized test scores in maths, science, verbal, reading, and writing abilities of 1.6 million 7th grade students in the South and Mid-west United States over a period of 30 years. Wai et al.'s (2010) second study examined gender differences in writing ability (measured by SAT-Test of Standard Written English and SAT-Writing test scores) and verbal reasoning (measured by SAT-Verbal test scores) over a range of scores from 1981 to 2010. The results showed a 1.56 female to male ratio of perfect scorers in the 1991 to 1994 period for the SAT-Test of Standard Written English and a 3 female to male ratio of perfect scorers in the 2006 to 2010 period for the SAT-Writing test. However, Wai et al. (2010) reported little or no male-female differences in verbal ability, reading comprehension, and vocabulary. They also found that females showed a robust advantage over males in their writing ability score; and that this advantage has been increasing over the years. Preiss et al. (2013) examined whether the ability to infer, to analyse arguments and to reason of 452 first-year undergraduates accounted for their performance in an argumentative writing test. They found that females performed better than males in the argumentative writing test, after controlling for their previous academic achievements and the types of schools they came from.

In the context of English-as-a-Second Language, Morris (1998) examined whether there were gender differences in writing at college-level in Canada. She found no differences between females and males in the accuracy and readability of their writing. However, female writers conformed to the expectations of assessment guidelines more

closely than male writers which gave them an advantage in achieving higher scores for writing quality. Sunderland (2000) identified gender in comparison to age, motivation, and learning styles as an extremely neglected factor in second language acquisition studies. The present study will examine whether gender accounts for EFL writing ability as much as it seems to account for L1 learners' writing ability.

Interest level in writing

The second variable of the current study is interest level in writing an essay. Interest, which is considered a psychological state of mind, is generated when learners interact with their environment (Hidi & Baird, 1986; Krapp, 2000, 2002). Interest includes independent affective and cognitive components; however, these components influence each other (Hidi, Renninger, & Krapp, 2004; Krapp, 2000, 2002). According to Hidi and Renninger (2006), the affective component of interest refers to the positive affect or feeling, whereas the cognitive component of interest relates to learners' perception of a task. Interest is often characterized by an increased attentional focus, concentration, and affect of the learners (Hidi & Boscolo, 2006; Hidi & Renninger, 2006); and it forms a part of motivation (Eccles, 1987; Hidi, Berndorff, & Ainley, 2002; Troia, Shankland, & Wolbers, 2012; Wigfield & Eccles, 2001).

Two categories of interest are individual and situational interest (Hidi, 1990; Hidi & Renninger, 2006). Individual interest is naturally occurring, and it tends to be enduring. Individual interest can spontaneously spur learners' engagement in a task; and such an engagement is believed to be a deep-rooted rather than a superficial phenomenon. Individual interest is also less driven by stimuli from the external environment; hence, it has a greater stability than situation interest (Hidi & Renninger, 2006). Albin, Benton, and Khramtsova (1996) examined whether learners' interest level in writing topics about baseball and soccer would influence the narrative writing quality of 224 undergraduates. The interest level in writing about baseball and soccer was each measured by a six-item interest scale. The quality of the narrative writing was assessed in terms of the number of game actions, non-game actions, and thematic maturity. They found that interest level of the writing topics was significantly related to the writing quality in terms of the number of game actions and irrelevant non-game actions when gender, discourse knowledge, and topic knowledge were controlled for. In other words, the students produced relevant information on a high-interest level topic (e.g., baseball) than a low-interest level topic (e.g., soccer). Lipstein and Renninger (2007) discussed interest in writing among 12- to 15-year-old students at various phases of interest development although their study did not relate interest level to writing ability.

Learners' familiarity with writing various genres

The third variable in this study focuses on learners' familiarity with writing various genres. This familiarity is closely related to their discourse knowledge of the genre which is an important theoretical component in Bereiter and Scardamalia's (1987) knowledge telling and knowledge transforming models that aim to distinguish cognitive processes underlying how unskilled and skilled writers compose. The unskilled and skilled writers are postulated to locate genre and topic identifiers which serve as cues for memory search, to retrieve discourse and topic knowledge from their long-term memory, and to evaluate whether the retrieved knowledge is relevant to the genre and topic. If deemed relevant, it will be transcribed as notes or drafts. The above three procedures illustrate the critical role of learners' discourse knowledge in the writing

process. However, studies examining whether learners' familiarity with writing various genres account for their writing ability are scarce. Recently, Leki (2011) explored the types of genres EFL undergraduates and graduates were familiar with and traced where learners' genre knowledge came from. However, the focus of Leki's study was not on whether learners' familiarity with writing various genres could account for their writing ability.

Self-efficacy in writing various genres

The fourth variable in the study is learners' self-efficacy in writing various genres. According to Bandura (1977), Schunk (1989), and Usher and Pajares (2008), learners' self-efficacy is predictive of their achievement. Self-efficacy, which refers to one's perceived capabilities for learning or performing actions, influences academic performance (Bandura, 1977, 1982; Schunk & Usher, 2011; Shell, Murphy, & Bruning, 1989). Previous research studies on self-efficacy showed that it is positively associated with general academic achievement (Pajares, 2003; Pajares, Britner, & Valiante, 2000; Pajares & Johnson, 1996). Furthermore, it has been found that highly self-efficacious learners are willing to participate in a task, work harder, persist in the task when faced with difficulties, and perform better in a task, whereas less self-efficacious learners are less willing to participate in a task, work less hard, easily give up when faced with difficulties in the task, and perform poorly (Bandura, 1977; Pajares, 1996).

Self-efficacy in writing refers to learners' perceptions of their ability to produce certain types of texts (Jones, 2008; Pajares & Johnson, 1994; Pajares & Valiante, 2006). Some researchers (e.g., McCarthy, Meier, & Rinderer, 1985; Pajares, 2003; Pajares & Johnson, 1994; Shell et al., 1989) found that self-efficacy predicted adult's writing performance, whilst other studies did not (e.g., Jones, 2008). Pajares and Johnson (1994) in examining whether self-efficacy in writing skills (e.g., confidence in using correct grammar, language, and mechanics) and self-efficacy in writing various types of texts (e.g., confidence in writing a letter or a term paper) predicted the writing performance of 30 undergraduates, found that the former did but the latter did not. Prat-Sala and Redford (2012) in a carefully conducted study based on the beliefs and assessments of essay writing of 94 undergraduate learners found that writing self-efficacy significantly accounted for 5.4% of the variance in the writing performance of Year 1 students and 10.9% of the variance in the writing performance of Year 2 students. Jones (2008), on the other hand, found that the self-efficacy of 118 college writers in writing various genres was insignificant in predicting both the writers' course grades and their writing proficiency test scores. Previous research studies have not shown clear evidence on whether self-efficacy in writing various genres contributes to learners' writing ability.

Aims of the study

The aim of the present study is to examine whether the four individual differences discussed above contribute to learners' writing ability. The research question that guides the present study is: Do gender, interest level in writing an essay, familiarity with and self-efficacy in writing account for learners' writing ability?

Methodology

Participants

The participants were one hundred and three students (50 males, 53 females) from an English Language Programme at a large state-funded university in Singapore. They were attending English language courses prior to entering a degree programme. They were all native speakers of Chinese from the People's Republic of China. Their ages ranged between 16 and 19 years old (mean age 18).

Data collection

The data reported here was collected from four questionnaires and three writing tests administered over a ten-week period (Figure 1). Participants rated their (a) interest level in writing an essay, (b) familiarity with writing various genres, and (c) self-efficacy in writing various genres (Table 1). Some questions appeared in multiple questionnaires. All used an eight-point Likert-type response scale ranging from 1 (not at all) to 8 (very).

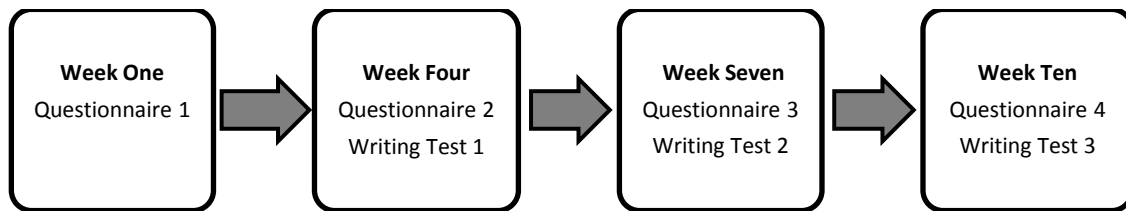


Figure 1. An overview of data-collection procedures

Table 1. Questionnaire topics and questions

Q. No.	Questions	Q'nnaire(s) in which used
<i>Topic: Interest level in writing</i>		
1.	How interested are you in writing an essay?	1, 2, 3,4
<i>Topic: Familiarity with writing various genres</i>		
2.	How familiar are you in writing an argumentative essay?	1, 4
3.	How familiar are you in writing a descriptive essay?	1, 4
4.	How familiar are you in writing a letter-writing essay?	1, 4
<i>Topic: Self-efficacy for writing various genres</i>		
5.	How well do you think you can write an argumentative essay?	1
6.	How well do you think you can write a descriptive essay?	1
7.	How well do you think you can write a letter-writing essay?	1
8.	How well do you think you have performed for the argumentative writing task?	3
9.	How well do you think you have performed for the descriptive writing task?	3
10.	How well do you think you have performed for the letter-writing task?	4

This study elicited learners' interest in writing an essay instead of their interest in writing specified genre or topic to ensure the interest level variable was not tied to writing topics or genres. Given that interest level fluctuates across time and that situational and individual interest are arbitrary variables that are, at times, blurred, this study uses an average score of the learners' interest level in writing an essay taken on four separate occasions. For this interest variable, a single-item was used (e.g., how interested are you in writing an essay?) four times in the period of the study (in questionnaires 1, 2, 3, and 4). To ascertain familiarity with writing various genres, a single-item for each genre, (e.g., how familiar are you in writing an argumentative essay?), was asked twice (in questionnaires 1 and 4). For the self-efficacy variable, a two-item scale was asked twice (in questionnaires 1 and 4) in order to assess the learners' self-efficacy for writing each of the three text types: an argumentative essay, a descriptive essay, and a letter. The first item (e.g., how well do you think you can write an argumentative essay) was asked at the beginning of the study (in questionnaire 1) and the second item (e.g., how well do you think you have performed for the argumentative writing task) was asked at the end of the study (in questionnaire 4). The number of items used to measure interest level in writing an essay, familiarity with writing various genres, and self-efficacy in writing various genres was limited although steps were taken to overcome the limitation by measuring multiple times to improve reliability. Finally, the learners' reported scores of interest level in writing an essay, familiarity with writing various genres, and self-efficacy in writing various genres were averaged for a regression analysis. Instead of examining whether the learners' familiarity with and self-efficacy in writing a specified genre accounted for their writing test score for this same genre, the analysis was simplified by examining whether a composite score could account for learners' overall writing test scores. This was done in the hope that it would be more representative of learners' writing competence.

To measure the learners' writing ability, three timed-essay writing tests were conducted. The average of learners' scores on these tests is taken to represent their writing ability. The writing tests were of three different text types: an argumentative essay, a descriptive essay, and a letter. The argumentative writing test (one hour) required the learners to argue whether the internet has caused a lot of harm to young people. The descriptive writing test (one hour) required the learners to describe ways to stay healthy in stressful days. The letter-writing test (30 minutes) required the learners to write a letter to their overseas friends who would be touring the province where they had been staying. Topics with which the learners were not familiar were selected by examining their writing portfolios for their English Language classes at the university. This minimized the influence of familiarity.

The order of implementation of the three writing tests was rotated to ensure that the task order would not influence the results. The participants were instructed to perform their best and were further told that the three writing tests would serve as a measurement of their writing ability. They were also informed their essays would be scored based on the overall communicative effectiveness of their writing. A total of 309 writing tests (i.e., 103 argumentative, 103 descriptive, and 103 letter-writing tests) were scored by two independent raters who were trained beforehand to rate the essays using an ESL analytical rating scheme (Jacobs, Zinkgraf, Wormuth, Hartfiel, & Hughey, 1981) which permitted the scoring of the writing quality of an essay based on five main components: content (30 marks), organization (20 marks), vocabulary (20 marks), language use (25 marks), and mechanics (5 marks).

Results

The Cronbach alpha inter-rater reliabilities for the 103 argumentative writing test score, 103 descriptive writing test score, and 103 letter-writing test score, were .89, .96, and .94 respectively. The three writing test scores were averaged for each participant to represent their writing ability. Table 2 shows means and standard deviations of writing test scores, together with the learners' interest level in writing an essay and their familiarity with and self-efficacy in writing various genres.

Table 2. Means and standard deviations of writing test score, learners' interest level in writing an essay, familiarity with and self-efficacy in writing various genres

	Means	Standard Deviations
Writing Test Score	61.36	6.20
Interest Level in Writing	4.00	.97
Familiarity with writing various genres	4.93	1.22
Self-efficacy in writing various genres	3.76	.87

Table 3 shows the Pearson correlation coefficients among the learners' writing test score and their interest level in writing an essay and their familiarity with and self-efficacy in writing various genres. The learners' interest level in writing an essay and familiarity with writing various genres were significantly correlated with their writing test score, but the learners' self-efficacy with writing various genres was not.

Table 3. Pearson correlation coefficients among writing test score and various predictors (n = 103)

	1	2	3	4	5
1. Writing Test Score	-	.46***	.26**	.19*	.05
2. Gender		-	.21*	.19*	.07
3. Interest level in writing an essay			-	.10	.40***
4. Familiarity with writing various genres				-	.24**
5. Self-efficacy with writing various genres					-

*p < .05; **p < .01; *** p < .001

A regression analysis was used to estimate the proportion of variance of the dependent variable that can be explained by the independent variables. The writing test score constituted the dependent variable. Four variables, i.e., gender, interest level in writing an essay, familiarity with writing various genres, and self-efficacy in writing various genres formed the independent predictors. Gender was coded as a dummy variable; males were coded 0; females were coded 1.

The regression results, using the enter method, showed that all the four variables accounted for a total of 25% variance, [$F(4, 100) = 8.17, p < .001$]. Table 4 shows the predictions of these variables on the writing test scores. The regression analysis revealed that gender, [$\beta = .41, p < .000$] was highly significant; and interest level in writing an essay was marginally significant, [$\beta = .20, p < .06$]. To confirm the result of the regression analysis, an independent t -test was conducted between the males and females on their writing test scores. The independent t -test confirmed that females ($M = 64.05, SD = 5.11$) scored significantly higher than males ($M = 58.08, SD = 5.88$) in their writing test scores, [$t(106) = 5.68, p < .001, d = 1.10$]. The result in the regression model is confirmed by this independent t -test.

Table 4. Predictions of variables on the writing test score

Variables	Categories	B	Std. Error	Beta	T	Significance
Gender	Male Female	.41	3.30	1.13	4.44	.000
Interest level in writing an essay	Not at all interested (1) Very interested (8)	1.20	.63	.19	1.93	.06
Familiarity with writing various genres	Not at all familiar (1) Very familiar (8)	.57	.48	.11	1.22	.23
Self-efficacy with writing various genres	Not at all well (1) Very well (8)	-.58	.70	-.08	-.82	.42

Discussion and conclusion

The main aim of present study was to examine whether gender, interest level for writing an essay, familiarity with and self-efficacy in writing various genres could account for the writing test scores of the 103 EFL learners. The writing ability of the learners was rigorously assessed using three writing tests that were specially designed and implemented for this study and was not elicited based on self-reports of writing performance. The learners' interest level for writing an essay, and their familiarity with and self-efficacy in writing various genres were also measured repeatedly to obtain composite scores for the regression analysis. Additionally, the present study explored variables of individual differences that have been little researched and examined a relatively new variable, i.e., the learners' familiarity with writing various genres (see Leki, 2011). In summary, the results of the regression analyses show that all the four variables, gender, interest level in writing an essay, and familiarity with and self-efficacy in writing various genres accounted for a total of 25% variance of EFL learners' writing ability. The regression analysis further reveals that gender was highly significant and interest level in writing was marginally significant, but familiarity with and self-efficacy in writing various genres were not significant.

The results of this L2 writing study are consistent with those of several L1 writing studies which examined gender differences in writing among L1 middle-school or college-level writers (J. Lee, 2013; Pajares & Valiante, 1999, 2001; Roivainen, 2011; Wai et al., 2010). In line with J. Lee (2013), Pajares and Valiante (1999, 2001) and Wai et al. (2010), it was found that gender predicted EFL learners' writing ability; and

females performed significantly better than males in their writing test scores. Thus, gender contributes to EFL writing ability variance, as much as it accounts for first language writing ability. The result shows that learners' interest level in writing an essay contributed to their writing ability. In a way, this outcome converges with the findings of Albin et al. (1996) who found that writers who had a higher interest level in writing a particular topic wrote better in terms of relevance of content and thematic development than the writers who had a lower interest level for the writing topic.

Although the finding here that female students perform better than male students in writing test scores is not new information, few teachers consider this gender gap in writing instruction (J. Lee, 2013). Consequently, teachers can consider motivating male students in writing and early interventions are encouraged. Motivation is a complex and multi-faceted construct, with many components such as interest, intrinsic motivation, task values, self-efficacy, and goal orientations. Some pedagogical suggestions include providing learners with choices for their reading and writing materials, selecting in-class reading and writing materials that male students might enjoy, designing task instructions of variety, interest, relevance, and novelty, and encouraging greater expression among male students. Teachers can avoid creating an impression that writing is a feminine activity in their instructional discourse.

In finding that self-efficacy in writing various genres does not contribute to EFL writing ability, the result of this study is in line with those of Pajares and Johnson (1994) and Jones (2008) although it does contradict several previous studies (e.g., McCarthy et al., 1985; Pajares, 2003; Pajares & Johnson, 1994; Shell et al., 1989) that found self-efficacy to be a strong predictor of writing performance.

It is worth reflecting on why self-efficacy in and familiarity with writing various genres are not predictive of EFL learners' writing ability. Perhaps the modesty of learners when reporting their self-efficacy or familiarity levels created this result of non-significance. If this is the case, classroom teachers are in the best position to further observe, identify, challenge, and alter the learners' inaccurate judgments. It is also likely that, in line with the findings of Bandura (1997) and Pajares (1996), the learners with low self-efficacy for writing tend to put in minimum effort or avoid future writing tasks which may result in their failures in developing writing skills. Teachers can implement writing tasks of suitable difficulty levels to ensure sufficient success that learners' self-efficacy is fostered. Teachers can also consider the roles of different types of feedback on learners' self-efficacy.

Finally, like all studies, this one had several limitations. First, learners' interest level and self-efficacy might be task-specified so finer distinctions for interest level in writing could be made. Second, learners' familiarity with writing various genres might have influenced their self-efficacy beliefs in writing. Third, this study focused on only four variables excluding other equally important variables such as attitudes and behaviour towards writing (see J. Lee, 2013).

About the author

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