GENDER, INTERESTS, AND WRITING STRATEGIES FOR ENGLISH STUDENTS AT PRIVATE HIGH SCHOOLS IN MALANG

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Abstract: Despite its relevance with English language studies, not many studies have been carried out on the effect of self-regulation on writing strategies in Indonesia. This research attempted to test the effect of individual differences, particularly gender and academic interest, on writing strategies based on self-regulation while taking into account the academic interest as a mediator. This research was conducted quantitatively using a correlational design. Data were obtained through online questionnaires distributed to 324 high school students who were studying English as a foreign language in Malang, Indonesia, and were processed using descriptive and inferential multivariate statistical analyses. The results showed that students' usage of self-regulation-based writing strategies was classified as good, and gender differences were found in the use of the 'planning' strategy. However, after inputting variables of academic interest as covariates, gender differences were found in several writing strategies, such as self-initiating, planning, revising, text-generating, and acting on feedback. Theoretically, this research contributes to explaining gender differences in writing strategies in teaching and learning practices. Teachers are advised to consider gender differences when introducing writing strategies, either explicitly or implicitly.

Keywords: English academic interests, gender, individual differences, self-regulation, writing strategies

Proficient writing skills are important for academic success (Gabas et al., 2022; Naghdipour, 2021). A good writer who realizes the different registers and linguistic repertoire uniquely used in academic writing tends to get better grades in their academic report (DiCerbo et al., 2014; Setyowati & Sukmawan, 2016). However, students in Indonesia often encounter significant challenges when writing in English as a foreign language (Bulqiyah et al., 2021; Mulyono et al., 2020; Pratama & Astuti, 2021). Learners need to adapt to the demands of various genres of English texts while improving their knowledge of the vocabulary of the language (Zhang et al., 2022). Therefore, the ability to self-regulate and use a variety of appropriate writing strategies is needed to ensure that students are able to produce good writing (Graham et al., 2005; Setyowati & Sukmawan, 2016; Sun & Wang, 2020; Xu & Wang, 2024; Zimmerman & Kitsantas, 2014).

The use of self-regulated learning strategies in writing skills is also known as Self-Regulation in Writing (SRW). Studies conducted in China (Xu, 2021, 2022), Thailand (Apridayani & Teo, 2021), Singapore (Bai et al., 2014), and Hong Kong (Bai & Guo, 2018) have reported the effects of SRW strategies on the writing skills of elementary school students, junior high school students, and college students. Senior high school is important in preparing students to enter tertiary education (Changwong et al., 2018; Rooij et al., 2017). There are some transitions of writing discourse used in high school to the university, and students need to be prepared so that they are able to convey more complex ideas (Baker, 2013). However, research examining the Indonesian student use of SRW in this educational level is still limited. Therefore, further study is needed to identify strategies that need to be implemented in the classroom.

English teachers need to consider various factors in choosing appropriate teaching strategies and methods, including gender (Bećirović, 2017), as well as interests, which have been shown to positively impact attention, learning achievement, achievement targets, and student learning strategies (Hidi & Renninger, 2006; Scherrer et al., 2020). Interest is positively correlated with several SRW strategies, namely 'planning', and 'acting on feedback' (Bai & Guo, 2021). However, in the context of learning English in Asia, interest has not been studied in depth regarding its effect on self-regulation (Bai et al., 2022). In addition to interest, gender also plays a role in self-regulated learning (Guo et al., 2021; Virtanen & Nevgi, 2010). However, the extent to which both interest and gender influence students' use of writing strategies in English, particularly in Indonesia, remains unclear. Therefore, this study aims to analyze individual differences, in terms of gender, and the covariate relationship between English academic interest and SRW strategies among senior high school students in the Indonesian context.

This research was conducted as an attempt to elucidate the answers to the following three research questions: (1) What is the general description of the SRW strategies that have been used by high school EFL students? (2) How are differences in the use of SRW affected by gender differences? (3) Taking into account academic interest as a mediator, how is the gender difference in terms of the use of SRW? Correlational design was used with the aim of linking influence between variables without researcher intervention (Fraenkel et al., 2018; Paltridge & Phakiti, 2018). Through this design, instruments were validated first before being utilized to answer the research questions (Paltridge & Phakiti, 2018). For the last two research questions, two initial hypotheses were proposed. First, there is a significant difference in the use of the SRW strategies between male and female students. Second, if a learner's academic interest in English acts as a mediator, then there is a significant difference in the use of the SRW strategies by male and female students.

This study aims to provide additional insight into senior high school students' writing strategies. Using this insight, teachers can consider some writing strategies that potentially benefit students in increasing their writing skills and fluency. Thus, research-based evidence can be valuable input for consideration in improving classroom lesson plans.

LITERATURE REVIEW

Individual differences, such as gender (Cook, 2008) and interests, are inseparable elements that underlie differences in writing ability between students (Kormos, 2012; Tahmouresi & Papi, 2021; Yu et al., 2019). Female students are often regarded as superior in motivation and writing skills (Cahyono & Rahayu, 2020; Cook, 2008), especially in using more strategies among the advanced learners (Al-Saadi, 2020; Ardila, 2020). However, among less proficient learners, male students tend to use certain writing strategies, such as 'memory' and 'compensation' more frequently (Ardila, 2020). Based on the findings of these previous studies, the researchers argue that there are differences in writing strategies, that is, when compared to male students, female students use more varied strategies.

Teachers need to understand students' interests so they can design learning activities and choose the right material to develop students' academic interests (Tin, 2013). Interest in this paper refers to a person's psychological level to engage in learning in the form of meaningful topics, assignments, objects or activities that are driven by curiosity, challenges, experience, and mastery of the material (Dörnyei & Ushioda, 2013; Hidi & Renninger, 2006; Neitzel et al., 2016). Interest can be identified through several factors, including the time spent and the level of involvement of a person in certain activities (Neitzel et al., 2016). In addition, interest can be increased through parental intervention in the form of encouragement to learn certain subject matters (Casey & Ganley, 2021). This study intends to examine the influence of gender on writing strategies by considering academic interests.

In simple terms, self-regulated learning (SRL) is the learners' ability to monitor and reflect on the learning process through affective, cognitive, metacognitive, motivational, and behavioral processes for themselves so that they are able to achieve learning goals (Guo et al., 2022; Umamah & Cahyono, 2020; Zimmerman, 2000). The use of SRL in writing skills is better known as self-regulated writing strategies (SRW) (Arianto & Wulyani, 2022; Umamah & Cahyono, 2020). The SRW concept, which has sociocognitive influences, consists of self-planned, self-initiated, and self-sustained activities (Teng, 2022). Several previous studies have revealed different findings regarding the effect of gender on SRL (Guo et al., 2021; Virtanen & Nevgi, 2010). In China, female high school students use more SRL metacognitive and monitoring strategies in language classes (Guo et al., 2021). However, another study in Finland shows that there are no significant differences in the use of self-regulation strategies by female and male students (Virtanen & Nevgi, 2010). Therefore, further research is needed in Indonesia to examine whether there is an influence of gender differences in SRL-based writing strategies.

Several previous studies have revealed the use of writing strategies by Indonesian students (Mistar et al., 2014; Zuhairi & Umamah, 2016). At the junior high school education level in Malang, Zuhairi & Umamah (2016) found that students used writing strategies at a moderate level, based on the mean ranging from 2.45 to 3.44 on a 5-point Likert scale. For high school student learners of English, another study by Mistar et al. (2014) found that students' use of writing strategies is still relatively moderate, based on the same range of mean value in the research done by Zuhairi & Umamah (2016). Therefore, teachers need to introduce strategies to maximize students' writing potential (Zuhairi & Umamah, 2016). This study was done to elucidate the strategies that need to be implemented in classroom.

METHOD

This research used a quantitative method (Kornuta & Germaine, 2019) with a correlational design. A questionnaire distributed online via Google Forms within one week was used as the instrument for this study. The sample was 324 students (190 girls, 134 boys, age range of 15-20 years from four private high schools in Malang city). In contrast to public schools which follow government education standards, private schools education policies are generally regulated by their foundations (Qoyyimah, 2018). Therefore, research involving several private high schools with different policy and accreditation backgrounds can provide a more complete picture regarding the use of SRW by students in the city of Malang. All respondents involved in this study were recruited randomly. The high schools were different in terms of accreditation ranks and students' social and economic backgrounds. Thus, the students in the schools were considered representative of private high school students in Malang. The questionnaire is accompanied by a consent form that describes the purpose of the research and guarantees the confidentiality of the names of the respondents and their high schools.

There are several independent and dependent variables used as part of the three concepts applied in this study. The first is the concept of individual differences as reflected by the gender variable (biological) that differentiates foreign language acquisition. Gender and academic interest in English are used as independent variables. Secondly, academic interest is employed as a covariate variable, which encompasses four constructs; those are, emotion, value, knowledge, and engagement. This research adapted the Academic Interest Scale for Adolescents (AISA) scale (Luo et al., 2019) for English learning in Indonesia. The questionnaire was declared reliable as the Cronbach's alpha value was above 0.65 (Mehrens & Lehmann, 1978). The AISA scale has been tested and considered reliable and valid to be used in Indonesia (Kaluge & Halimi, 2023). It consists of 29 questions with four composite dimensions/variables which have been validated through factor analysis and calculation of Cronbach's alpha values, namely 'emotion' (7 questions; α =.907), 'value' (8 questions; α=.895), 'knowledge' (7 questions; α =.891), and 'engagement' (7 questions; α =.865). Emotion is positive feelings such as joy and enthusiasm that accompany someone in learning. Value is a person's perception of the significance and relevance of certain lessons to their future development. Knowledge is the perception that a person has the sufficient knowledge in a particular field. Engagement is a person's tendency to participate actively in learning activities.

Thirdly, SRW as the dependent variable consists of five constructs, namely self-initiating, planning, text-generating, revising, and acting on feedback. For this purpose, the researchers used the Writing Strategy Scale (WSS) instrument (Kaluge & Halimi, 2022) which has been validated for the context of learning in Indonesia. The WSS scale consists of 22 questions (Appendix 1) and 5 constructs, namely 'self-initiating' (4 questions; α =.835), 'planning' (5 questions; α =.708), 'text-generating' (4 questions; α =.654), 'revising' (4 questions; α =.770), and 'acting on feedback' (5 questions; α =.702). 'Self-initiating' and 'planning' are classified as metacognitive strategies. On the other hand, 'revising' and 'text-generating' are categorized as the cognitive strategies. Each AISA and WSS item is followed by a four-point Likert scale. The readability level of the questionnaire items was discussed with a total of four English teachers from the high schools involved in the study to ensure that the questions could be

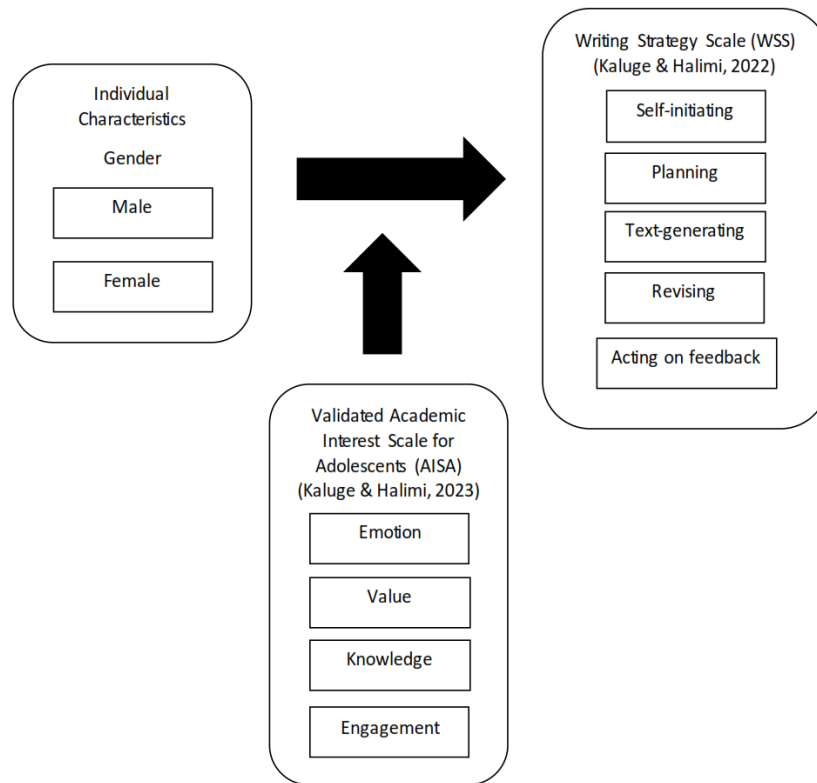correctly understood by students from different backgrounds. The three concepts were depicted in Figure 1.

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┌─────────────────────┐                        ┌──────────────────────────────┐
│    Individual       │                        │  Writing Strategy Scale (WSS) │
│  Characteristics    │                        │    (Kaluge & Halimi, 2022)    │
│                     │                        │  ┌────────────────────────┐   │
│      Gender         │   ────────────►        │  │    Self-initiating     │   │
│  ┌──────────────┐   │                        │  └────────────────────────┘   │
│  │    Male      │   │                        │  ┌────────────────────────┐   │
│  └──────────────┘   │                        │  │       Planning         │   │
│  ┌──────────────┐   │                        │  └────────────────────────┘   │
│  │   Female     │   │                        │  ┌────────────────────────┐   │
│  └──────────────┘   │                        │  │    Text-generating     │   │
└─────────────────────┘                        │  └────────────────────────┘   │
                                               │  ┌────────────────────────┐   │
                      ┌──────────────────────┐ │  │       Revising         │   │
                      │ Validated Academic   │ │  └────────────────────────┘   │
                      │ Interest Scale for   │ │  ┌────────────────────────┐   │
                      │ Adolescents (AISA)   │ │  │   Acting on feedback   │   │
                      │ (Kaluge & Halimi,    │ │  └────────────────────────┘   │
                      │        2023)         │ └──────────────────────────────┘
                      │ ┌──────────────────┐ │
                      │ │     Emotion      │ │
                      │ └──────────────────┘ │
                      │ ┌──────────────────┐ │
                      │ │      Value       │ │
                      │ └──────────────────┘ │
                      │ ┌──────────────────┐ │
                      │ │    Knowledge     │ │
                      │ └──────────────────┘ │
                      │ ┌──────────────────┐ │
                      │ │    Engagement    │ │
                      │ └──────────────────┘ │
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Figure 1. Conceptual Framework

The data obtained were analyzed through the SPSS application to answer the three research questions. The first research question was answered through descriptive statistical analysis. The question was regarding the general description of the SRW strategies that have been used by high school EFL students. The conversion of the Likert points into categories (very good, good, poor, very poor) was adjusted based on Amania et al., (2021) and Widoyoko (2014). The mean value obtained from the four-point Likert scale is converted into four types of categories as follows. A mean of 1.00-1.75 is classified as "Very Poor". Meanwhile, a mean of 1.76-2.50 is classified as "Poor", and a mean of 2.51-3.25 is classified as "Good". The mean of 3.26-4.00 is included in the "Very Good" category. Furthermore, the second question was answered through the use of MANOVA and the third question was answered by the analysis of MANCOVA. The second question was about describing the differences in the use of SRW affected by gender differences. In addition, the third question was about the gender difference in terms of the use of SRW after taking into account the academic interest as a mediator.

FINDINGS AND DISCUSSION

Findings

The first research question was related to the general use of SRW by high school students. Overall, the average use of SRW by students was in the range of 2.51-3.25; and therefore, it is quite good. Among the five constructs, the highest mean value ($\bar{x}$) was found in 'revising' of 2.9252 (SD = 0.601), which means that the spread of scores in terms of 'revising' did not vary too much. This score indicates that when writing, students consider revision, but they have not reached the maximum score of 4. However, their revision strategy is also not too low, so it can be categorized as good. While the lowest construct is found in 'self-initiating' with an average ($\bar{x}$) of 2.5285 and an SD of 0.59746. These results indicate that in some cases students wrote after receiving teacher instructions. Even though it is classified as good, the initiation from students was not very high and not too low. On the other hand, the other three constructs, namely 'planning' ($\bar{x}$ = 2.9247, SD = 0.64813), 'text-generating' ($\bar{x}$ = 2.74, SD = 0.57328), and 'acting on feedback' ($\bar{x}$ = 2.9012, SD = 0.51708) had a good average value. The standard deviations for 'self-initiating', 'planning', 'text-generating', and 'acting on feedback' showed that the distribution was not too high among respondents.

The general use of SRW by gender is shown in Table 1. Both male and female students had averages in the range between 2.4907 and 2.9937. This value indicates that the use of the SRW strategy by the two groups of students was quite good. In general, female students had a higher average use of SRW, both in 'self-initiating' ($\bar{x}$ = 2.5553, SD = 0.58721), 'planning' ($\bar{x}$ = 2.9937, SD = 0.64633), 'text-generating' ($\bar{x}$ = 2.7605, SD = 0.57496), 'revision' ($\bar{x}$ = 2.9474, SD = 0.60301), and 'acting on feedback' ($\bar{x}$ = 2, 9337, SD = 0.49849). However, the difference between the average strategy of female students and male students was not too big. The standard deviation of the five dimensions of writing strategies showed that the variation among respondents was not too high.

Table 1. Overall Usage of SRW by Gender

	Gender	Mean	Standard Deviation (SD)	N
Self-initiating	Female	2.5553	.58721	190
	Male	2.4907	.61192	134
	Total in general	2.5285	.59746	324
Planning	Female	2.9937	.64633	190
	Male	2.8269	.64039	134
	Total in general	2.9247	.64813	324
Text-generating	Female	2.7605	.57496	190
	Male	2.7108	.57178	134
	Total in general	2.7400	.57328	324
Revising	Female	2.9474	.60301	190
	Male	2.8937	.60105	134
	Total in general	2.9252	.60185	324

	Gender	Mean	Standard Deviation (SD)	N
Acting on feedback	Female	2.9337	.49849	190
	Male	2.8552	.54089	134
	Total in general	2.9012	.51708	324

The second research question was related to the influence of individual differences (gender) on the use of SRW. Based on the results of the Equality Test of the MANOVA Covariance Matrix, the Box's M value of 16.626 was transformed into F = 1.089 with p = 0.360. In other words, both male students and female students had the same intensity of variance. Both gender groups came from the same population. So, there were no obstacles to using MANOVA. Levene's test results revealed homogeneity in the five constructs. Homogeneity was proven through insignificant values on 'self-initiating' (p = 0.507), 'planning' (p = 0.740), 'text-generating' (p = 0.529), 'revising' (p = 0.702), and 'acting on feedback' (p = 0.236). In general, all SRW dimensions were homogeneous (p > 0.05) and met the requirements for continuing to the analysis of MANOVA. In addition, the five dependent variables were found to be normally distributed. Furthermore, test scores from Pillai's Trace, Wilk's Lambda, Hotelling-Lawley Trace, and Roy's Largest Root (Tabachnick & Fidell, 2019) for intercepts were transferred to a uniform F value of 2347.408. All these scores were significant. This shows that the mean gender score in SRW did not intersect from zero. Meanwhile, regarding gender effects, the value of F = 1.385, p > 0.230 illustrates that there was no significant difference in performance. Based on the results of this analysis, there was no significant difference in the use of SRW between male and female students.

Table 2 shows the results of the analysis of MANOVA. The results show that gender did not make a significant difference in 'self-initiating' [F (1.322) = 0.918, p = 0.339; ηp^2 = 0.003], 'text-generating' [F (1.322) = 0.590, p = 0.443; ηp^2 = 0.002], 'revising' [F (1.322) = 0.625, p = 0.430; ηp^2 = 0.002], and 'acting on feedback' [F (1.322) = 1.814, p = 0.179; ηp^2 = 0.006]. The effect size was relatively small with values ranging from 0.2% to 0.6%. However, a significant difference between male and female students was found in 'planning' [F (1.322) = 5.275, p = 0.022; ηp^2 = 0.016]. The effect size was found to be 1.6%. Nevertheless, based on the adjusted R value, the effect of 'planning' on the use of SRW as a whole was only 1.3%. Approximately 98.7% actually resulted from other elements that have not been covered in this research. One of these elements could be academic interest and this will be revealed through MANCOVA.

Table 2. Effect Test between Subjects from MANOVA

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Self-initiating	.328[a]	1	.328	.918	.339	.003
	Planning	2.187[b]	1	2.187	5.275	.022	.016
	Text-generating	.194[c]	1	.194	.590	.443	.002

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
	Revising	.227[d]	1	.227	.625	.430	.002
	Acting on feedback	.484[e]	1	.484	1.814	.179	.006
Intercept	Self-initiating	2000.768	1	2000.768	5603.583	.000	.946
	Planning	2662.205	1	2662.205	6421.404	.000	.952
	Text-generating	2352.350	1	2352.350	7148.464	.000	.957
	Revising	2680.967	1	2680.967	7392.872	.000	.958
	Acting on feedback	2633.339	1	2633.339	9873.973	.000	.968
Gender	Self-initiating	.328	1	.328	.918	.339	.003
	Planning	2.187	1	2.187	5.275	.022	.016
	Text-generating	.194	1	.194	.590	.443	.002
	Revising	.227	1	.227	.625	.430	.002
	Acting on feedback	.484	1	.484	1.814	.179	.006
Error	Self-initiating	114.971	322	.357			
	Planning	133.496	322	.415			
	Text-generating	105.961	322	.329			
	Revising	116.771	322	.363			
	Acting on feedback	85.876	322	.267			
Total	Self-initiating	2186.813	324				
	Planning	2907.120	324				
	Text-generating	2538.563	324				
	Revising	2889.313	324				
	Acting on feedback	2813.520	324				
Corrected Total	Self-initiating	115.298	323				

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
	Planning	135.682	323				
	Text-generating	106.155	323				
	Revising	116.997	323				
	Acting on feedback	86.360	323				

a. R Squared =.003 (Adjusted R Squared =.000)
b. R Squared =.016 (Adjusted R Squared =.013)
c. R Squared =.002 (Adjusted R Squared = -.001)
d. R Squared =.002 (Adjusted R Squared = -.001)
e. R Squared =.006 (Adjusted R Squared =.003)

The third research question was related to the effect of individual (gender) differences mediated by academic interest in English on students' use of SRW. The results of the Covariance Matrix Equality test with the resulting Box'M value were 16.626 (p = 0.360). Thus, the inter-group covariance matrices were assumed to be the same. The Levene test revealed that there was homogeneity in the five SRW constructs by considering the academic interest construct. Homogeneity was evidenced through the values of 'self-initiating' (p = 0.579), 'planning' (p = 0.646), 'text-generating' (p = 0.268), 'revising' (p = 0.191), and 'acting on feedback' (p = 0.467). The data fulfilled the assumption of homogeneity of variance and therefore could be tested against the following assumptions. The correlation matrix between the dimensions of academic interest as a covariate, revealed that 'emotion' and 'engagement' were highly correlated (r = 0.818), so there was a possibility of multicollinearity. Therefore, it was necessary to do a follow up through tests of collinearity tolerance and VIF (variance inflation factor). As a result, after being regressed on the five dimensions of SRW, the tolerances for both variables were 0.231 and 0.259 (tolerance values did not occur multicollinearity above criteria > 0.10) while VIF values were in the range of 4.329 and 3.733 (multicollinearity occured when below criteria < 10.00); this means that there was no multicollinearity so that the data could be involved in the MANCOVA analysis.

The results of a multivariate test that informed male and female students did not result in a significant difference in using self-regulation-based writing strategies after controlling their academic interest in English. This finding was shown by the value of $F_{(5.314)} = 1.043$, p > 0.001. However, several dimensions of English academic interest were found which contributed to significant differences in students' writing strategies. These dimensions included 'value' [$F_{(5.314)} = 6.682$ p < 0.05], 'knowledge' [$F_{(5.314)} = 10.980$ p < 0.05], and 'engagement' [$F_{(5.314)} = 5.672$ p < 0.05].

Table 3 shows some significant effects of academic interest as a covariate on the use of SRW. First, 'value' had a significant effect on 'self-initiating' [$F_{(1.318)} = 4.429$, p = 0.036; $\eta p^2 = 0.014$], 'planning' [$F_{(1.318)} = 5.388$, p = 0.021; $\eta p^2 = 0.017$], 'text-generating' [$F_{(1.318)} =$

4.449, p = 0.036; $\eta p^2 = 0.014$], and 'acting on feedback' [F (1.318) = 12.617, p = 0.000; $\eta p^2 = 0.038$]. Second, 'knowledge' had a significant effect on 'self-initiating' [F (1.318) = 33.962, p = 0.000; $\eta p^2 = 0.096$], 'planning' [F (1.318) = 22.623, p = 0.000; $\eta p^2 = 0.066$], 'text-generating' [F (1.318) = 33.097, p = 0.000; $\eta p^2 = 0.094$], 'revising' [F (1.318) = 23.205, p = 0.000; $\eta p^2 = 0.068$], and 'acting on feedback' [F (1.318) = 9.875, p = 0.002; $\eta p^2 = 0.030$]. Third, 'engagement' affected 'self-initiating' [F (1.318) = 13.318, p = 0.000; $\eta p^2 = 0.040$], 'revising' [F (1.318) = 12.146, p = 0.001; $\eta p^2 = 0.037$], and 'acting on feedback' [F (1.318) = 11.685, p = 0.001; $\eta p^2 = 0.035$]. The findings show that the effect of the covariate (academic interest) on the dependent variable (writing strategy) was significant, and applied to both males and females. The covariate effect was only found in several dimensions of academic interest, namely 'value', 'knowledge', and 'engagement'. Effect sizes were found to range from 1.4 to 9.6%. However, gender remained not significantly different in terms of the use of writing strategies, with effect sizes ranging from 0-0.7%.

Table 3. **MANCOVA's Inter-Subject Effect Test**

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	Self-initiating	42.999[a]	5	8.600	37.825	.000
	Planning	44.082[b]	5	8.816	30.607	.000
	Text-generating	29.740[c]	5	5.948	24.753	.000
	Revising	37.773[d]	5	7.555	30.323	.000
	Acting on feedback	30.947[e]	5	6.189	35.519	.000
Intercept	Self-initiating	6.941	1	6.941	30.528	.000
	Planning	5.219	1	5.219	18.118	.000
	Text-generating	8.519	1	8.519	35.450	.000
	Revising	9.850	1	9.850	39.537	.000
	Acting on feedback	6.846	1	6.846	39.286	.000
Emotion	Self-initiating	7.934E-5	1	7.934E-5	.000	.985
	Planning	.003	1	.003	.012	.913
	Text-generating	.549	1	.549	2.285	.132
	Revising	.204	1	.204	.817	.367
	Acting on feedback	.174	1	.174	.997	.319
Grade	Self-initiating	1.007	1	1.007	4.429	.036
	Planning	1.552	1	1.552	5.388	.021
	Text-generating	1.069	1	1.069	4.449	.036
	Revising	.010	1	.010	.039	.843

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.
	Acting on feedback	2.199	1	2.199	12.617	.000
Knowledge	Self-initiating	7.722	1	7.722	33.962	.000
	Planning	6.517	1	6.517	22.623	.000
	Text-generating	7.953	1	7.953	33.097	.000
	Revising	5.781	1	5.781	23.205	.000
	Acting on feedback	1.721	1	1.721	9.875	.002
Engagement	Self-initiating	3.028	1	3.028	13.318	.000
	Planning	.285	1	.285	.990	.321
	Text-generating	.353	1	.353	1.471	.226
	Revising	3.026	1	3.026	12.146	.001
	Acting on feedback	2.036	1	2.036	11.685	.001
Gender	Self-initiating	.018	1	.018	.080	.777
	Planning	.175	1	.175	.607	.437
	Text-generating	.028	1	.028	.117	.733
	Revising	.209	1	.209	.840	.360
	Acting on feedback	.364	1	.364	2.090	.149
Error	Self-initiating	72.300	318	.227		
	Planning	91.600	318	.288		
	Text-generating	76.415	318	.240		
	Revising	79.225	318	.249		
	Acting on feedback	55.413	318	.174		
Total	Self-initiating	2186.813	324			
	Planning	2907.120	324			
	Text-generating	2538.563	324			
	Revising	2889.313	324			
	Acting on feedback	2813.520	324			
Corrected Total	Self-initiating	115.298	323			
	Planning	135.682	323			
	Text-generating	106.155	323			
	Revising	116.997	323			

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.
	Acting on feedback	86.360	323			

a. R Squared =.373 (Adjusted R Squared =.363)
b. R Squared =.325 (Adjusted R Squared =.314)
c. R Squared =.280 (Adjusted R Squared =.269)
d. R Squared =.323 (Adjusted R Squared =.312)
e. R Squared =.358 (Adjusted R Squared =.348)

Discussion

This study was done to analyze the individual differences, in terms of gender, and the covariate relationship between English academic interest and SRW strategies. Table 3 shows the average value of Adjusted R2 is above 25%. Thus, there is a 64% possibility that the use of SRW was influenced by other factors, besides interest and gender. Individual influences (talent, age, student learning styles), and the way teachers teach, the curriculum applied in schools, environmental influences (family background, friendships, and the surrounding / social environment, school), and school influences (the way teachers teach, curriculum prevailing in schools) may contribute to differences in SRW. A study by Toba et al. (2019) reveals that students' writing skills can be influenced by personal factors such as lack of practice, negative perceptions of writing activities, lack of time allotted for writing essays as a test, low motivation to write, and lack of skills in the writing process provided by the teacher. The data of the present study was obtained from four private schools with different qualities, as indicated by their accreditation ranks, and different policies, which were influenced by the foundations running the schools. Therefore, these differences in the school background had the opportunity to influence the findings of this study.

The findings show that, although the students' use of SRW could be classified as good, the strategies had not been used optimally by private high school students in Malang city. The SRW usage in general was around 2.4907 and 2.9937 out of 4 means that there is still some room of improvement for the students to utilize more writing strategies. This finding differed from the studies by Mistar et al. (2014) and Zuhairi and Umamah (2016) which found that the SRW of Indonesian students tends to be moderate, that is no strategies were dominantly used by the students. Nonetheless, this study used a 4-point scale while the previous studies (Mistar et al., 2014; Zuhairi & Umamah, 2016) used a 5-point Likert scale. However, this research supports Zuhairi and Umamah (2016) who found that cognitive writing strategies were mostly used by junior high school students. In this study, students from private senior high schools in Malang tended to use the 'revising' strategy most, which is included in the cognitive strategy in writing. Learning activities in class influence the dominant writing strategies used by students. If the teacher routinely provides feedback on student essays and conducts question and answer sessions in class to support critical thinking skills, these activities could indirectly increase students' tendency to revise (Song & Ferretti, 2013).

Overall, the results of the analysis show that female students use more self-regulation-based writing strategies than male students, although significant differences were only found in the

'planning' strategy. The findings of this study support the research of Virtanen and Nevgi (2010) which found no significant differences in self-regulation strategies between female and male students with a European cultural background in Finland. The culture of individualism in Europe contributes to increasing self-regulation abilities which are not different between men and women (Eklöf et al., 2014). In contrast, in Indonesia the culture of individualism is not very strong. Collectivism is still dominant in Indonesia. However, the findings of this study indicate that despite differences in culture, the ability of self-regulation of male and female students in Indonesia, especially in the city of Malang, is also not different. This might be due to the developments in technology and globalization today which have contributed to increasing individualism in Indonesia (Abdullah et al., 2019). Research conducted on adolescents in urban areas (Cleary & Callan, 2014) or other metropolitan areas in Indonesia provide results similar to this study.

The findings of this study slightly support the results obtained by Guo et al. (2021) that female students used more cognitive and metacognitive strategies than male students, although the differences were not significant. In this study, significant difference was only found in one SRW dimension, namely 'planning'. Therefore, the hypothesis related to the other four dimensions is not accepted. Olinghouse et al. (2015) found that the intelligence of female students could be due to their better understanding of how to write than male students. Through this better understanding, female students have the ability to organize writing (planning) better (Guo et al., 2021).

Although this study did not analyze the quality of students' writing, the findings showed that female students had higher perceptions of writing strategies than men, although not significantly. In addition, the stereotype that writing is a feminine activity sometimes contributed to the prominence of female students in this activity (Sun & Wang, 2020). This study did not include reading proficiency and motivation variables. The difficulties of male students could be caused by low motivation to read which has an impact on low motivation to write (Ilahiyah et al., 2019). In addition, there was a diversity among fellow students, namely students who were proficient tended to use more varied writing strategies and students who were less proficient used fewer strategies (Al-Saadi, 2020; Alfian, 2018; Ardila, 2020). Although these two variables were not included in this study, the findings obtained indicate the possible influence of gender differences on writing strategies.

The results of the analysis show several significant differences in the effect of gender on SRW when academic interest acted as a mediator. The findings of this study support Kang and Wu (2022) who found no significant differences in male and female academic interest in junior high school students. This present study also supports Bai et al. (2022) who found that although interest predicts metacognitive strategies significantly, the academic interests of women and men were not significantly different. The findings of this study are also in line with previous research (Bai & Guo, 2021; Lee & Durksen, 2018) which revealed the role of interest in learning a foreign language. This was shown through the relationship between academic interest and students' writing strategies.

Students who have an interest in English tend to be more actively involved in class activities. Women have a higher sensitivity in understanding texts that contain elements of feelings such as happy and sad, and this influences the strategies they use (Bećirović, 2017). Meanwhile,

men's interest in writing tends to be more situational (Hidi et al., 2002). Situational interest is influenced by the surrounding environment so that it does not necessarily last long if students do not get support (Luo et al., 2019). Therefore, the findings in this study can be additional evidence regarding differences in interests that affect differences in writing strategies between male and female students.

Several factors may be the background to the findings of this study. First, the teacher may neglect to teach their students applicable writing strategies (Suriyanti & Yaacob, 2016). Sometimes students do not realize that writing activities are recursive and non-linear, so the teachers need to introduce them to the various writing strategies required (Arifin, 2020). To overcome this obstacle, teacher capacity building training is needed. Second, insufficient critical thinking skills also influence the use of less than optimal writing strategies. In this case, it is necessary to increase critical thinking skills so that students can produce quality essays (Aunurrahman et al., 2017; Changwong et al., 2018). Third, the level of difficulty of the assignments given in class. In this regard, Bai et al. (2014) found that the more difficult the task, the more students tend to use writing strategies.

As a suggestion, several things can be considered to increase the use of SRW. First is the implementation of instruction that encourages students to improve their ability to regulate learning independently (Teng & Zhang, 2020). Principals can consider implementing flexible policy that support teachers in introducing writing strategies as well as increasing student independence. Regarding classroom instruction, teachers can apply self-assessment to increase learner autonomy (Ratminingsih et al., 2018). In addition, students' awareness of metacognitive strategies can be increased through explicit teaching of writing strategies and modeling by the teacher (Varier et al., 2021). Second, the lack of 'planning' by male students indicates the need to adapt learning by taking gender into account. To improve the writing accuracy of male and female students, it is necessary to increase corrections and suggestions from friends through peer-assessment (Umamah et al., 2019). Third, to increase students' academic interest, the teacher can provide useful feedback to increase their attention to the material, and through the positive affection that the teacher gives, student interest can increase (Hidi, 2006). Fourth, academic interest can be increased through the preparation of material that is tailored to the interests of the students, or through the intervention of parents who could also emphasize the importance of certain subjects for students (Casey & Ganley, 2021).

CONCLUSIONS

Based on the presentation of the data and the results of the analysis that have been carried out, three points can be concluded in response to the research questions posed in this research. First, the use of SRW by private high school students is categorized as good but needs to be optimized to support students in preparing themselves to continue their study to a higher degree. Optimal use of writing strategies is beneficial as well for gaining maximum results that lead to improvement in grades when students have to complete their school assignments. Second, significant differences between male and female students were only found in the use of the SRW of 'planning'. Third, if academic interest in English functions as a mediator, significant

differences were found between men and women in 'self-initiating', 'planning', 'text-generating', 'revising', and 'acting on feedback'.

This study identifies pedagogical implications that teachers can use to enhance their instruction of English writing skills to high school students. First, teachers can consider implementing learning instructions that foster learner autonomy, both through self-assessment and explicit introduction of various writing strategies. Second, teachers should provide positive feedback to encourage students' interest in improving writing skills. Third, teachers can support the provision of suggestions and feedback from fellow students to increase motivation and the use of writing strategies in general. Through these adjustments, students can practice applying several writing strategies while honing their social skills and self-regulation abilities. Theoretically, the findings of this study reveal a meaningful relationship between academic interest and writing strategies.

This quantitative study supports the generalization of the findings to private high schools in Malang. The results of this analysis can be used as a reference for teachers in improving the introduction of writing strategies to increase the use of SRW by students. However, this research has some limitations. First, the research method carried out is fully quantitative. Therefore, there are opportunities for further studies involving both qualitative methods and multi-method/mixed-methods. Second, the scope of this research was limited to the analysis of private schools. Further research could be carried out by including public schools to provide a broader view and understanding. In addition, research could also be conducted at different levels, such as junior high school or university. Future researchers could also consider different regions, both rural and urban areas, in Indonesia as data collection sites.

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Appendix 1. Writing Strategy Scale (WSS) (Kaluge & Halimi, 2022)

No	Item Statement	Construct
1	I try to figure out how to write a good English essay.	Self-initiating
*2	I am reluctant to learn to write regularly.	
3	Besides doing my homework, I also practice writing English essays.	
4	I read good English essays.	
5	I think of some ideas to write about.	Planning
6	I think of vocabulary or sentences to be used in the essay.	
7	I think of how to organize my ideas when writing an essay.	
*8	I make a different essay from the samples the teacher gave in class.	
9	I pay attention to the provisions given by the teacher when writing an essay.	
*10	I am reluctant to re-read what I have written to develop new ideas.	Text-generating
11	I remember the format of my previous essays to be reused in my next essay.	
12	I remember vocabulary or sentences from other books/other essays to be used in my essay.	
13	I re-read what the teacher asked, for gaining new ideas.	
14	I make a grammar change while checking my essay.	Revising
15	I make a vocabulary change while checking my essay.	
*16	I preserve my essay's original idea as I check my essay.	
17	I always revise my writing before submitting it.	
18	I use helpful suggestions from my classmates in my essay.	Acting on feedback
*19	I ignore my parents' useful advice for my essay.	
20	I incorporate useful feedback from my teachers into my essay.	
21	I like to get critique/feedback about the ideas I use in my essay.	
22	I try to improve my writing based on feedback/suggestions from others.	

*Notes: *Reversed item*