

THE EFFECTS OF SELF-REGULATED STRATEGY DEVELOPMENT (SRSD) INSTRUCTION ON EFL LEARNERS' AUTONOMY AND WRITING PROFICIENCY

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Abstract

This quasi-experimental study investigated the effects of self-regulated strategy development (SRSD) instruction on learners' autonomy and writing proficiency in a university-level English program in Indonesia. Two intact classes of English students were involved in the study. They were in their second semester learning English Writing, a compulsory topic in their department. Within one semester, participants in the experiment group were trained with SRSD to improve their autonomous learning and writing proficiency. A comparison group learning the same topic without the SRSD training was also assigned. Data were gathered in two ways: a questionnaire for assessing learners' autonomy and pretest and posttest writing tasks for assessing writing proficiency. Jamovi Software, an open-access statistical tool, was used to analyse the data. The results showed that the experiment groups' learning autonomy and writing proficiency improved significantly and outperformed the control group. The effect sizes of the analysis ranged from medium to large. The study's results contribute to research and practice on EFL learners' autonomy and writing development by strengthening claims regarding the relationship between SRSD instruction, autonomy, and writing proficiency.

Keywords— Autonomous learning, Jamovi, self-regulated language learning, writing strategy

Introduction

In many EFL contexts internationally, English is taught through a teacher-centred approach in which the teacher acts as the source of all knowledge and focuses on the content of learning. Teachers typically prepare all the materials, design tasks and classroom activities, prepare assignments, and make an evaluation and tests to measure the students' achievement. This practice gives almost no room for students to make a personal investment in their learning because students mainly conduct pre-designed activities under the teacher's guidance. Learners are not given any responsibility in the learning process. As a result, learners become very dependent and rely on the teacher for all the problems in their learning. This condition creates a problem for the teacher who should cater to student's individual needs and issues and for the student who tends to be passive in their learning. Such a problem could be solved if students become more independent and are willing to take more responsibility for their learning. Thus, it requires transferring some degree of commitment from teacher to student. In other words, more learner-centred learning is required. One of the alternatives that can be undergone in order to apply the learner-centred approach is learner autonomy.

Providing learners with autonomy may enable them to benefit more from their learning and become more responsible for the outcome. Support for this argument can be found in studies such as Weinert and Helmke (1995), who found a positive relationship between autonomy support and learning achievement, and Miserandino (1996), who reported that children with perceived competence and



autonomy were more curious, persistent, more involved, and enjoy schoolwork more than students with low competence and autonomy. In addition, Dam (1995) and Natri (2007) also reported that autonomy improved learners' participation, while (Mizuki, 2003) claimed that autonomy enhanced learners' responsibility in learning. Thus, learners with a degree of autonomous learning could be more favourable toward their learning. This attitude would improve their learning achievement (Nunan, 1996; Nunan & Richards, 2015), including in writing (Godwin-Jones, 2011). In so doing, learners could be helped to achieve a degree of autonomy through classroom learning, such as a writing class, by applying Self-Regulated Strategy Development (SRSD). Specifically, SRSD could be applied since this approach focuses on teaching learners strategies for completing writing tasks and knowledge and self-regulatory procedures such as self-monitoring and self-instruction, essential in promoting autonomous learning.

Even though the SRSD has been applied in research and practice of English writing for various learners' backgrounds, more research is still required to understand better the effects of this instruction on improving EFL learners' autonomous learning and writing proficiency. Especially when low to intermediate-level university English learners, such as in the study context, are involved.

Hence, this study aims to investigate whether the SRSD, which stresses self-regulation, could improve learners' autonomous learning and writing skill within the context of lower to intermediate-level EFL university learners. The instruction formulation could enable the achievement of the research goal because learners were trained in an autonomous setting focusing on improving their writing proficiency.

Literature Review

Learner autonomy refers to the ability to plan, conduct, and evaluate learning and independently overcome related problems. Dickinson (1995) characterized autonomous learners as "those who have the capacity for being active and independent in the learning process; they can identify goals, formulate their own goals, and can change goals to suit their own learning needs and interests; they can use learning strategies, and to monitor their learning" (p. 167). The concept offered by Dickinson (1995) was in line with one widely cited and wider definition by Holec (1979), which referred to autonomy as the ability to take charge of one's learning. Holec (1985) added that this ability was not inborn, so every learner could learn to be autonomous. In addition, Dickinson (1987) also stated that autonomy was an attribute of the learner rather than a learning situation which meant that learners could develop this ability with certain support.

Learner autonomy is related to self-regulation in learning. It refers to understanding and controlling one's learning by setting goals, implementing strategies, and monitoring progress towards goal achievement (Schunk, 1996). Zimmerman (2002) defines self-regulation as "self-generated thoughts, feelings, and actions that are planned and cyclically adapted to the attainment of personal goals" (p. 14). Learners with self-regulation in their learning can employ and maintain their personal cognition, feeling, and behaviour to achieve goals. Self-regulated learners are also adaptive in their effort to attain their goals. They can create a self-oriented feedback loop to monitor and evaluate their learning (Zimmerman, 2002).

Autonomy in Language Learning

Littlewood (1997) provides a concept of learner autonomy in language learning that covers language acquisition, learning approach, and personal development. For Littlewood, autonomy in language acquisition means that learners can use their language independently for communicating and expressing themselves in real and unpredictable situations. Autonomy in the learning approach refers to responsibility for one's learning in the classroom context and the active application of preferred strategies relevant to the learning task. Meanwhile, autonomy as personal development is associated with higher-level goal orientation as a learner, which triggers the ability to generalize autonomy as individuals. If learners have these abilities, their language learning might be improved because they can

communicate well and control all aspects of the learning process (e.g., goal setting, strategic implementation, and self-evaluation). This concept of autonomy places what happens in the classroom as one integral aspect of developing learner autonomy. The classroom can be used as a basis for strategy implementation where learner autonomy can be introduced, trained, and practised.

Fostering Autonomy in Language Classrooms

One way of fostering learner autonomy is through classroom instruction, in which students are encouraged to take responsibility for their learning and to plan and evaluate their achievement critically (Benson & Voller, 2014). Regarding concrete approaches to developing learner autonomy, (Benson, 2007) offers six possibilities: resource-based, technology-based, curriculum-based, teacher-based, classroom-based, and learner-based. Each approach focuses on different aspects of control over the learning process. Two of these approaches were adopted in the present study. The classroom-based approach focuses on teachers' and students' changing relationships and practices. Meanwhile, the learner-based approach is intended to provide learners with skills and strategies to be used in their learning activities. The current study focused on the classroom-based approach since intact classes of English learners were the participants.

Classroom-Based Approach

During the late 1990s, the concept of autonomy started to be applied and embedded within classroom instruction. The research on this area started from experiments investigating group work and cooperative classroom decision-making, up to curriculum-based approaches. Prominent studies in classroom autonomy were conducted by Dam (1995), who integrated autonomy within secondary classroom instruction; Breen and Littlejohn (2000), who investigated negotiated classroom learning; Little et al. (2002) with a collaborative project of secondary teachers; Lynch (2001) with an innovative learning training program for EAP, and Cotterall (2000) with the course design for autonomy. Most research suggests that learner autonomy can be developed and fostered in a language classroom. Regarding the implications of the emergence of this classroom autonomy, Benson (2007) argued that it had led to a re-conceptualization of autonomy as a useful construct for teachers who wanted to help their learners develop autonomy without necessarily challenging the constraints of classroom and curriculum organization to which they are subject.

Much research has been conducted on learner autonomy, but most of this research is descriptive and exploratory. Very little evidence can be found regarding the effectiveness of specific approaches to fostering learner autonomy in language achievement. For example, Goh and Taib (2006) investigated the effectiveness of metacognitive strategy instruction on young ESL learners listening ability in Singapore. They found a positive relationship between metacognition instruction and listening ability. Another study is Gu, Yashima, and Nabei (2007), which integrated strategy training into Singapore's primary five writing curricula. The results indicated that the experimental groups significantly outperformed the control groups in their writing scores.

Meanwhile, Nguyen and Gu's (2013) experiment with Vietnamese tertiary-level students indicated that strategy training in task-specific metacognitive self-regulation improved learner autonomy in learning and writing ability. Mastan, Maarof, and Embi (2017) used the Self-Regulated Strategy Development (SRSD) approach (Harris et al., 2006) to improve intermediate-level ESL learners' writing skills. After comparing the result with a control group, Mastan et al. (2017) found that the trained group outperformed the control group significantly. In another study employing the SRSD, Chen, Zhang, and Parr (2021) trained two groups of EFL learners to revise their writing using two SRSD revision instructions: genre-specific criteria and generic criteria. The result showed that SRSD conditions were effective in assisting learners to improve the quality of their writing. "The treatment groups produced more reader-oriented writing and made greater gains in the scores for content than the comparison group" (Chen et al., 2021, p. 1).

Self-Regulated Strategy Development (SRSD)

The SRSD approach for writing is designed to help learners to compose text while at the same time developing their cognitive and self-regulation skills relevant to the writing. This approach integrates three important learning components: (1) six stages of explicit writing instruction across a variety of genres; (2) explicit instruction in self-regulation strategies, including goal setting, self-monitoring, and self-instruction; and (3) development of positive student attitudes and self-efficacy about writing (Harris, 2021; Harris et al., 2006).

The six stages of SRSD instruction include:

1. *Develop background knowledge* stage. This stage aims to raise learners' awareness regarding what they know about a specific genre (e.g., narrative, descriptive, persuasive). Learners could be asked to discuss the structure of texts, purpose, or target audience.
2. *Discuss its* stage. In this stage, learners reflect on their writing skills and their progress in using writing and self-regulation strategies.
3. *Model it* stage. Learners are shown the proper way to use the target writing skills. They are asked to do a "writing-aloud" process by verbalizing their thoughts while composing text. Any issues usually emerge during writing could also be discussed at this stage. Learners are informed that these issues can be overcome by using specific writing strategies they are about to learn.
4. *Memorize it* stage. Learners are asked to memorize the strategy and are encouraged to use the strategy during the writing process. Throughout the instruction, learners will be constantly reminded to use the strategy.
5. *Support it* stage. This stage demands the teacher's help and guidance during the intervention. The teacher must support learners by providing complementary materials for charting and monitoring progress, self-evaluation, and other necessary resources.
6. *Independent performance* stage. The teacher needs to progressively fade the support and leave learners to do the work independently as they become more proficient in writing and self-regulation strategies.

Autonomy and Writing Proficiency

The literature on learner autonomy has suggested links between autonomy and language proficiency. Autonomy, characterized by self-regulated learning, refers to the ability to plan, monitor, and evaluate one's learning (Baker & Brown, 1984; Flavell, 1979). Self-regulated learning is a mediating process that could bridge learners to their learning achievement (Christenson et al., 2008; Pintrich, 2004). However, since these pieces of literature only serve as theoretical perspectives, an objective study must be conducted to prove their correlation. Some researchers have found a link between autonomous learning and learners' improvement in writing. Kessler (2009), for example, found that an autonomous collaborative writing environment could help learners become more accurate in their writing and improve their initiative to correct their own and peer contributions. By applying Guided Autonomous Learning designs by integrating eight 21st-century skills to investigate learners' French writing, Ghofur, Kisyani, and Yulianto (2019) also found that learners with improved autonomy improved their writing and eight 21st-century skills. Tyas (2020) also found a connection between learners' improved autonomy and writing tasks. Despite the previous studies, much research is still needed to understand the connection between autonomous learning and learners' writing proficiency and a better teaching approach that can facilitate and promote them.

Research Method

The research questions addressed in this study are:



1. Does SRSD training improve learners' autonomy?
2. Does SRSD training improve learners' writing proficiency?

Research Design

The study was a one-semester-long (14 meetings) quasi-experiment involving two intact Indonesian EFL University classes. One class was the experimental group, while the other was a control group. Within the constraints of the context, steps were taken to ensure the initial equivalence of the two groups in terms of the key moderating variables of gender, proficiency, motivation for learning English and foreign language aptitude (Campbell & Stanley, 1963). Both groups were given a pretest and posttest, but only the experiment group was trained with SRSD to improve students' writing skills and autonomous learning.

Participant

The study participants were 50 students from two intact classes of an English major. The two classes were randomly assigned as experimental and control groups. Therefore, there were 25 participants in each group. The participants were in their second semester of study. The TOEIC score measured participants' English proficiency between basic user and intermediate (300-600).

Instruments

The language objective of all training sessions was *Writing 2* as the continuation of *the Writing 1* topic the participants' completed in their previous semester. The topic focuses on teaching students about essay writing, including many genres of essays, such as narrative, persuasive, argumentative, and comparison-contrast. The only difference between the two groups was that the experiment group received an SRSD training package as part of the course's instruction. In contrast, the comparison group received additional time to practice traditionally, the teacher-centred method. The model of SRSD training was adapted from the work of (Harris et al., 2006). The questions in the autonomous learning questionnaire were adopted from Murase (2015).

The five-point Likert scale questionnaire of autonomous learning consists of 10 questions measuring the participants' level of agreement reflecting their autonomy level. They stated their opinion on one out of five points of agreement; (1) Strongly Agree, (2) Agree, (3) Uncertain, (4) Disagree, and (5) Strongly Disagree. The questions addressed followed the Measuring Instrument for Language Learner Autonomy (MILLA) established by Murase (2015), consisting of 49 items. The questions cover the dimensions that have become the main aspects of autonomous language learning; technical dimension (11 items), psychological dimension (14 items), political, philosophical dimension (11 items), and socio-cultural dimension (13 items) (Swatevacharkul & Boonma, 2021; Tassinari, 2015).

A holistic rating scale developed by Jacobs (1981) was adapted to measure the overall quality of the writing. The rubric offers five different ranking categories for writing quality. They are *content*, *organization*, *vocabulary*, *language use*, and *mechanics*. Jacob's original scales have four specific descriptions with different scores related to each category. The present study used simplified scoring to ease the coding process and the analysis and interpretation by applying scores 1 to 4 to each of the rubric's categories. Hence, a score of 1 represents very poor writing, 2 equals fair to poor writing, 3 means good to average writing, and 4 is for writing categorised as excellent to very good.

Procedure

The experimental group was trained with SRSD instruction focusing on improving participants' self-regulation, which led to autonomous learning and the strategy of how to plan for their writing. A two-hour SRSD session was incorporated into the course's instruction. During the development background knowledge stage (the first stage), participants hoped to acquire knowledge and skills about genres in essay writing and the structures of essays. They were introduced to the concepts and asked to work together continuously until they could explain the genres and essay structures.

In the second stage, they were asked to discuss a sample writing resulting from one of the participant's pretests. The sample was the one that could be categorized as 'average', so there was still

room to improve it. They were explicitly asked to identify whether the sample had included all the required structures of an essay, such as the introduction, body, and conclusion, that they had learned during the early meetings. The participants were then introduced to goal setting by stressing that one goal of the writing was to include all of the structures and ensure that they were written well.

In the model stage, the participants were shown how to apply POW and the essay's structure to their writing. They were also introduced to self-instruction, such as self-talk, by reading aloud the idea they wanted to write. Harris et al. (2006) suggest that participants should be introduced to a variety of self-statements to help with many activities during the writing, such as

"The problem definition (e.g., What do I have to do here?), planning (e.g., What comes next?), self-evaluation (e.g., Does that make sense?), self-reinforcement (e.g., I like that part!), and coping (e.g., I'm almost finished!). Students continued to help the instructor do additional planning. At the same time, the story was being composed (i.e., "Write and say more"), suggesting new words and ideas as well as recommending modifications in the initial ideas recorded on the graphic organiser (p. 309).

Next, the memorize it stage was intended to encourage participants to always remember about POW and all possible self-talks and self-statements they could use to help their writing. In the fifth stage, the support stage, the participants were asked to set a goal to include all the essay structures in their writing and then started to write using POW and self-instructions. They were also asked to work together to discuss their writing with a partner. They must read their writing and ask their partner if any improvement could still be made, especially regarding the required structures. They also discussed whether or not the strategy helps them write better. Then they moved to the last stage, the independence performance. Here, the participants were asked to write their essays independently without help from peers or the teacher.

At the same time, the control group only did their writing task without the SRSD instruction. The control group was asked to complete two writing tasks in every lesson to equal the instruction time between the two groups.

Data Analysis

Two raters were involved in rating the writing tasks. These raters were non-native English speakers with years of expertise instructing Indonesian students in English. They both held full-time teaching positions in the university's English department and had never worked with any participants. Instead of using participants' names to identify recordings, judges used numbers to minimize subjectivity in their evaluations.

Data generated by both raters were analysed using descriptive and inferential statistics to determine the internal consistency between raters and the student's level of proficiency. In addition, paired-sample t-tests and paired mean difference estimation analysis of effect sizes and confidence intervals were used to determine the resulting data's significance level and effect sizes. All the statistical analyses were performed using Jamovi software (Project, 2021).

Results and Discussions

Effects of SRSD Training on Learners' Autonomy

According to the questionnaire results, as shown in Table 1, the level of autonomy in all four categories was high on average (Mean = 3.56, SD = 0.32), suggesting that the individuals were highly autonomous in all dimensions of learner autonomy. Only one *socio-cultural* scale had a moderate level (M=3.27, SD=0.34). As suggested by the questionnaire, the scores which fall between 4.21-5.00 indicate a *very high* level of learner autonomy, 3.41-4.20 indicate a *high* level, 2.61-3.40 indicate a *moderate* level, 1.81-2.60 indicate a *low* level and 1.00-1.80 indicate a *very low* level.

Table 1. Learner Autonomy Level of the Experiment Group



Dimensions	N	Minimum	Maximum	Mean	SD	Level
All Dimensions	25	2.78	3.89	3.56	0.32	High
Technical	25	2.79	4.56	3.66	0.44	High
Psychological	25	2.98	4.68	3.89	0.45	High
Political-philosophical	25	2.72	4.25	3.48	0.58	High
Socio-cultural	25	2.68	3.72	3.27	0.34	Moderate

As a comparison, the questionnaire results of the control group, as displayed in Table 2, show a different condition. The average scores are moderate ($M=2.96$, $SD=0.45$), with one technical dimension falling within a low level ($M=2.42$, $SD=0.58$). Based on these two results, the experimental group became more autonomous in their learning after being instructed with the self-regulated strategy development instruction.

Table 2. Learner Autonomy Level of the Control Group

Dimensions	N	Minimum	Maximum	Mean	SD	Level
All Dimensions	25	2.18	3.59	2.96	0.45	Moderate
Technical	25	1.79	2.90	2.42	0.58	Low
Psychological	25	2.28	3.88	3.04	0.49	Moderate
Political-philosophical	25	2.02	3.55	2.88	0.54	Moderate
Socio-cultural	25	2.47	3.62	3.10	0.47	Moderate

Effects of SRSD Training on Learners' Writing Proficiency

As a first step of the analysis, the internal reliability of each rater's scores was assessed using Cronbach's alpha to confirm the validity of the rating scores. The Cronbach's alpha value for Rater 1's scores was 0.94. Rater 2 had a Cronbach's alpha value of 0.90, and the total scores of both raters also had a Cronbach's alpha value of 0.90. Because the numbers surpass 0.70, the cut-off for an appropriate Cronbach's alpha value (Field, 2017), this finding shows that the generated scores were internally reliable. However, neither the inter-rater agreement nor the degree of agreement between the two raters reached an acceptable level. After compressing categories, Cohen's Kappa score of 0.02 still needed to suggest good inter-rater agreement. According to (Cohen, 1960), this figure shows little agreement. The lack of agreement between the two raters occurred in practically every category in the rubric. The unreliability of raters could be caused by educational background discrepancies or bias owing to familiarity with participants.

The raters' scores were then evaluated to determine any improvements associated with the SRSD training instruction. For analysis, the scales from both raters were merged and divided by two (the number of raters) to produce the average mean scores. These mean scores were then assessed visually using a bar chart, paired-sample t-tests, and the paired mean difference estimation of ESCI to detect noteworthy differences between the experiment group's pretest and posttest scores.

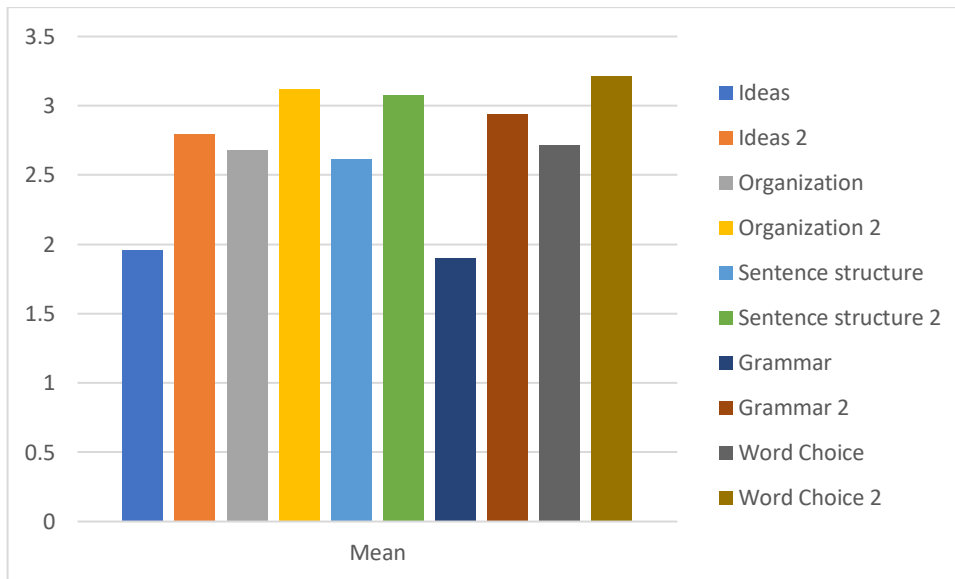


Figure.1. The experiment group's pretest and posttest mean scores for the writing proficiency scales

Note: 1 denotes the pretest, and 2 is the posttest.

As seen in Figure 1, most of the scales show a visible increase in mean from the pretest to the posttest. The growth appears to be most significant in grammar, followed by ideas and word choice. The paired-sample t-tests were used to determine whether the evident increases in the mean scores of the oral proficiency scales were statistically significant. The t-test could be used for this case because the data appeared normally distributed since the skewness and kurtosis of all scales were between -2 to +2 points (Byrne, 2016). The t-test results are shown in Table 3.

Table 3. The experiment group paired-sample t-test results

Scales	statistic	df	p	Mean difference	SE difference	95% Confidence Interval		Effect Size
						Lower	Upper	
Ideas	-8.16	24	<.001	-0.84	0.10	-1.05	-0.63	-1.63
Organization	-3.89	24	<.001	-0.44	0.11	-0.67	-0.21	-0.78
Sentence structure	-6.55	24	<.001	-0.46	0.07	-0.61	-0.32	-1.31
Grammar	-9.66	24	<.001	-1.04	0.11	-1.26	-0.82	-1.93
Word Choice	-5.77	24	<.001	-0.5	0.09	-0.68	-0.32	-1.16

The *p* values of all scales in the data, as shown in Table 3, appeared to be below 0.01, indicating a statistically significant difference between the pretest and the posttest data. The effect size of those scales is also large or above 0.7, indicating that the results could have a practical significance. Next, a paired-mean difference estimation analysis was also applied. The results are detailed in Table 4.

Table 4. The results of paired-mean difference estimation of the experiment group.

Condition	M	95 % CI		s	N	davg	95% CI
		Lower	Upper				
Ideas 2	2.8	2.61	2.99	0.45	25	1.86	[1.34, 2.55]
Ideas	1.96	1.78	2.14	0.43	25		

Difference	0.84	0.62	1.05	0.51	25		
Organization 2	3.12	2.92	3.31	0.46	25	0.79	[0.39, 1.26]
Organization	2.68	2.42	2.93	0.62	25		
Difference	0.44	0.20	0.67	0.56	25		
Sentence structure 2	3.08	2.95	3.20	0.31	25	1.28	[0.89, 1.82]
Sentence structure	2.62	2.45	2.78	0.38	25		
Difference	0.46	0.31	0.60	0.35	25		
Grammar 2	2.94	2.74	3.13	0.46	25	2.17	[1.62, 2.91]
Grammar	1.9	1.70	2.1	0.47	25		
Difference	1.04	0.81	1.26	0.53	25		
Word Choice 2	3.22	3.06	3.37	0.38	25	1.24	[0.79, 1.80]
Word Choice	2.72	2.55	2.88	0.41	25		
Difference	0.5	0.32	0.67	0.43	25		

The paired mean difference estimation analysis detailed in Table 4 shows similar results to the t-test data in Table 3. All scales in the analysis have acceptable confidence of intervals, with all the effect sizes falling above the large category. These results indicate significant improvement in participants writing proficiency after the treatment as the effects of the instructional experiment.

A similar analysis was also performed on the comparison group data to compare the results of this group with the control group. First, paired-sample t-tests were administered, and the results were detailed in Table 5.

Table 5. Independent samples t-test results of Both Groups

	Statistic	df	p
Ideas	3.13	48	0.003
Organization	3.76	48	< .001
Sentence structure	3.25	48	0.002
Grammar	2.39	48	0.021
Word Choice	4.49	48	< .001

As can be seen in Table 5, all scale comparisons resulted in statistically significant differences between the experiment and the comparison groups, in which the experiment group outperformed its counterpart in writing proficiency improvement. The significant levels of all the scales fall below 0.05 as an acceptable cut-off.

Discussion

Concerning Research Question 1 about the effects of Self-Regulated Strategy Development Instruction on EFL learners' autonomous learning development, the present study found that the instruction could improve learners' autonomy within the study context. Compared to the comparison group, learners in the experiment group produced a higher level of autonomy in all four scales of the questionnaire. This improvement could be caused by design embedded in the SRSD providing an opportunity for learners to self-regulate their learning, such as writing. The SRSD enables learners to take on some of their learning responsibilities, such as setting goals, choosing learning methods, and monitoring and evaluating their progress (Benson, 2007). This finding aligns with Hue's (2008) statement, which highlights that one of the goals of SRSD is to develop learners' autonomous use of the strategy. Similarly, the study of Palermo and Thomson (2018) also found that the SRSD instruction positively affected learners' learning autonomy, which was reflected by the improvement in their participants' self-regulation.

Meanwhile, to answer Research Question 2, which asks about the effects of SRSD on EFL writing proficiency, the study found significant improvement in learners' writing after the instruction (treatment). This finding could be connected to the effects of the SRSD instruction. After a one-semester-long instruction, learners with SRSD instruction outperformed their peers in the control group in writing proficiency. It could be assumed that the SRSD instruction is one effective instruction for teaching writing, especially for EFL learners within the study context.

This finding corroborates similar studies utilising SRSD for teaching writing, such as Palermo and Thomson (2018), Salas, Birello, and Ribas (2021), and Setyowati, Sukmawan, and El-Sulukiyyah (2020). Palermo and Thomson's (2018) study found that their participants in the SRSD instruction condition produced posttest essays with higher quality, longer, and included more basic elements of argumentative essays than those in the other two conditions in the study. However, unlike this present study which used Jacob's writing rubric for the scoring, Palermo and Thomson used an automated writing evaluation system called NC Write. By investigating disadvantaged school-year children in their study, Salas et al. (2021) found that learners in the SRSD condition outscored the control group in all outcomes. In this study, Salas et al. used measures of planning quality, productivity (number of words and clauses), text quality, and genre-appropriate elements or structural elements to assess participants' writing proficiency.

Meanwhile, in their study, Setyowati et al. (2020) specifically used Jacob's rubric to assess the effect of SRSD instruction on university EFL learners' writing. The study found improvement in their participant writing, categorized as moderate-high performance. However, this study did not apply a control group that could present a comparison for the results.

Hence, SRSD might help teach writing to various levels of learners with educational and sociological backgrounds. This usefulness could be due to SRSD's ability to target specific learning strategies in the planning. SRSD intervention that focuses on strategies for planning and specifically teaches self-regulation skills may help to reduce some of the cognitive efforts during composition. This could also help learners manage their attentional resources and direct them partially to the accuracy of the writing. Furthermore, self-regulation training using genre-specific knowledge, explicit discussion and writing practices, and raising awareness of learners' aims or intentions could also influence other writing aspects such as organization, ideas development, and grammatical aspects.

Conclusion

The present study investigated the effects of Self-Regulated Strategy Development (SRSD) instruction on EFL learners' autonomous learning development and writing proficiency. The findings revealed that the SRSD instruction positively impacted both learner autonomy and writing proficiency. Improvement in learners' autonomy can be attributed to the SRSD instruction's design, which fosters self-regulation in learners' writing. By allowing learners to set goals, choose learning methods, and monitor and evaluate their progress, SRSD empowers learners to take responsibility for their learning. In terms of writing, the results suggest that SRSD instruction is a practical approach, particularly for teaching writing to EFL learners. SRSD is beneficial for learners with diverse educational and sociological backgrounds. These findings highlight the potential of SRSD as a valuable instructional approach for teaching writing to various levels of learners, irrespective of their educational and sociological backgrounds.

However, this study is far from being perfect because of a couple of limitations it had. First, the application of teachers' ratings could be completed using an Automated Writing Evaluation (AWE) system called NC Write, as Palermo and Wilson (2020) suggested. This addition will make the scoring becomes more objective. Second, interview data could be added to strengthen the questionnaire results about learners' autonomy. Interviews enable the researcher to understand the real reasons for learners' autonomy improvement. Future studies could apply these two suggestions to improve the findings.

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