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The Predicting Power of Self-Efficacy on Students' Argumentative Writing Quality

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This study aims to investigate the relationships among the aspects of writing self-efficacy and students' writing quality in the argumentative writing domain. Multiple linear regression analysis is applied to reveal how writing self-efficacy, in the aspect of ideation, convention and self-regulation, predicts the students' argumentative writing performance. The participants in this study are the fourth semester students of English language teaching department in Mahasaraswati University Denpasar enrolled in argumentative writing class (N = 135; 4 classes). The results indicate that convention self-efficacy made the largest significant contribution to students' writing quality, followed by self-regulation self-efficacy. Nonetheless, the ideation self-efficacy gives the lowest insignificant contribution to students' writing quality, although its items have been already adjusted to argumentative writing. These findings suggest that the students' perception on their ability to express ideas in an appropriate rule of written expression would best reflect their written product quality. Therefore, EFL teachers should still consider providing intensive assistance on writing conventions for their students, because students would rely more on the rules of written expression to be able to produce a high-quality writing. Besides, other researches are required to corroborate these findings in another writing domains to extend the body of knowledge of writing and writing self-efficacy.

Keywords: ideation, convention, self-regulation, argumentative writing quality

Introduction

Studies in the area of writing has dealt with the relationships between students' self-efficacy in writing and students' writing quality (Balci, 2013; Bruning, Dempsey, Kauffman, McKim, & Zumbrunn, 2013; Callinan, van der Zee, & Wilson, 2018; Ekholm, Zumbrunn, & Conklin, 2015; Huerta, Goodson, Beigi, & Chlup, 2017; Lichtinger, 2018; Limpo & Alves, 2017; Prat-Sala & Redford, 2012; Villalón, Mateos, & Cuevas, 2015). Bruning et al. (2013), by using Self-Efficacy for Writing Scale (SEWS), investigated the

relationships among the dimensions of SEWS and students' writing performance, and found that: (a) all dimensions of writing self-efficacy (ideation, convention, and self-regulation) showed moderate positive correlations with self-reported writing performance, (b) ideation and self-regulation self-efficacy in writing have a significantly strong relationship with students' positive attitude in writing more than convention, and (c) conventions self-efficacy has a significantly strong relationship with students' writing performance more than ideation and self-regulation.

Bruning et al. (2013) also argue that the significantly low relationships between both ideation and self-regulation self-efficacy and writing performance are due to two main reasons; first, the long interval (1 month) between the administration of SEWS and writing performance test which may give a chance to other variables to intervene the relationship between those domains and students' actual performance. Regarding this reason, Pajares (2003) had mentioned that the scale to assess self-efficacy should be administered in as close interval as possible before the test of actual performance with which self-efficacy will be compared. This statement is also in line with Chae (2016) who states that the contribution of motivational constructs to EFL writing performance depends on time.

Second, SEWS does not specify the students' confidence of ability in accomplishing a specific writing assessment or specific writing genre or task (Bruning et al., 2013). In this case, Pajares (2003) has also mentioned that the predictive power of any self-efficacy scales will depend on the actual performance specification that they will predict. Therefore, since the students' self-efficacy beliefs are different among the types of writing task, the efficacy scale should be as match as possible with the writing outcome. In recent research studies on writing self-efficacy, SEWS is applied and validated in several studies (Ekholm et al., 2015; Ramos Villagrasa, Sánchez Iglesias, Grande de Prado, Oliván Blázquez, & Martín Peña, 2018). Ramos Villagrasa et al. (2018) also developed a Spanish version of this scale and found that *Cronbach's Alpha* coefficient for the SEWS dimensions ranged between .89 and .90.

The inconsistencies of the relationship between the dimensions of SEWS and the components of writing performance and quality were also found in other studies. Limpo and Alves (2017) argue that among the dimensions of SEWS, only self-efficacy for self-regulation contribute to writing performance and quality. This result is in line with Callinan et al. (2018) who mention that students' level of confidence influences their writing performance, which is mediated by their actual writing ability. This result also shows how different group of students manage their writing activities, where the underperforming students focus on the task outcomes while the high performing would give more attention to detailed skill requirements and deep understanding. This statement is in line with Ekholm et al. (2015) and Prat-Sala and Redford (2012) who state that students writing self-efficacy is one of the predictive factors of students' self-regulation, which means that personal capability judgment determines one's effort and persistence in accomplishing a writing task.

Based on the aforementioned inconsistencies in previous studies about the predicting power of each aspect of writing self-efficacy, this study sought to explore them in the domain of argumentative writing. Therefore, the only research question of this study is:

How well do the aspects of writing self-efficacy, i.e., ideation, convention and self-regulation, predict the students' writing quality in the argumentative writing domain?

The results of this study were expected to corroborate previous findings on the contribution of each aspect of writing self-efficacy in the argumentative writing domain.

Literature Review

Self-Efficacy in Writing

Self-efficacy was introduced as a construct of Social Cognitive Theory by Bandura (1989). This construct is defined as *"the beliefs in one's capabilities to organize and execute the course of action required to produce given attainment"* (Bandura, 1997, p. 3). Research in the area of self-efficacy has been done for about three decades and it is still developing until the present time. Reviews about the way researchers conceptualize and measure writing self-efficacy and the synthesis of research findings in this area has recently been done by several researchers (Pajares, 2003; Troia, Shankland, & Wolbers, 2012), but yet it still suggest several directions for future research. Pajares (2003) mentions that more research studies should focus on the psychological state/affective component of writing self-efficacy because it could affect the whole process of writing. Besides, more research studies are expected to investigate specific domain within writing self-efficacy, gender stereotyping in writing self-efficacy, more authentic writing task environment, and the relationship between writing self-efficacy and task interest and value (Pajares, 2003; Troia et al., 2012).

There are four main sources from which people define their self-efficacy those are enactive mastery experience, vicarious experience, verbal persuasion and physiological state (Bandura, 1997; Pajares, 2003; van Blankenstein et al., 2018). From various areas in which self-efficacy is investigated, it was found that that self-efficacy beliefs influence one's career choice, instructional practice, and the academic progress (for teachers), and correlate with other motivational construct and also students' academic performance and achievement (Pajares, 2007; Pajares & Valiante, 1999).

The research studies in self-efficacy area has confirmed that there are two major types of self-efficacy, namely; (1) *generalized self-efficacy,* the belief that one could be successful on a non-specific, global task, and (2) *specific self-efficacy,* the belief that one can complete a task-specific behavior from a domain-specific construct (Bandura, 1997; Green, 2003; Troia, Shankland, & Wolbers, 2012). In academic setting, especially English language teaching, there are domains in which self-efficacy is operationalized specifically, such as reading (Chou, 2017; Solheim, 2011; Taboada Barber et al., 2015; Walker, 2003), listening (Smith, Kathleen Pichora-Fuller, Watts, & La More, 2011), speaking (Bolívar-Cruz, Verano-Tacoronte, & Galván-Sánchez, 2018), and writing (Balci, 2013; Callinan et al., 2018; Ekholm et al., 2015; Huerta et al., 2017; Lichtinger, 2018; Matoti & Shumba, 2012; Prat-Sala & Redford, 2012; Villalón et al., 2015). Among those domains of self-efficacy in ELT, writing self-efficacy is an interesting and developing area for both self-efficacy and writing researches. Writing self-efficacy is a writing domain-specific construct which is operationalized and measured based on the properties of the expected writing outcomes. It means that writing self-efficacy has its own properties which become the basis in constructing the measurement scales (Bruning et al., 2013; Prat-Sala & Redford, 2012).

There are several definitions of Writing Self-Efficacy (WSE) which are given by different researchers. Zimmerman and Bandura (1994) and Matoti and Shumba (2012) mention that WSE refers to the students' self-confidence in their writing capability. In this definition, WSE is explained as the personal confidence which will promote students' engagement and interest in a writing task and to manage the writing activity. In another context of research studies, WSE is defined as students' relative confidence in relation to their writing and writing-related abilities (Bong, 2008; Rayner, Papakonstantinou, & Gleadow, 2016). This definition emphasizes that every student has a different level of writing self-efficacy which will also affect their writing performances. Besides, self-efficacy in writing is also defined as the writers' judgment about their capability in coping with the psychological, linguistic and behavioral challenges (Bruning et al., 2013). This definition then developed into the three dimensions of writing self-efficacy, namely ideation, convention and self-regulation.

Writing Quality

The quality of students' writing product is an important information in writing researches and instructions. It can be used to fulfill the 4 core functions of education, namely; 'inter-individual comparison', 'planning instruction', 'monitoring student progress', and 'giving feedback' (Isaacson, 1988, p. 528). Using the information from students' writing quality as inter-individual comparison means that, it can distinguish between successful and unsuccessful students who might need for remedial instruction. Further, it can also be used as the basis of planning the instructional objectives by examining the strength and weakness of the aspects of writing quality. Teachers can also monitor the students' progress in learning writing and give a specific feedback for their improvement. Therefore, both teachers and researcher have to determine the appropriate components of writing quality to be assessed in either instructional activities or empirical studies.

Isaacson (1988) mentions that there are 5 principle components of writing product, namely; 'fluency' or the number of words written, 'content' or the originality of ideas, organization of thought, and maturity of styles, 'convention' refers to the mechanical aspects, such as spelling, punctuation, and grammar, 'syntax' or the complexity of the sentence, and 'vocabulary' or the originality and the students' maturity in the choice of words.

The set of writing subskills selected in this study were content, organization and language use, which were adapted from McDonough, De Vleeschauwer, and Crawford (2018). Content refers to the ideas which are presented by the students in each part of the essay, including a clear explanation of the issue and thesis statement (in introductory paragraph), logical, and relevant details and reasons to support the opinion (in body paragraph), and accurate restatement of the thesis, summary of the reasons and also call for action (in concluding paragraph). Organization refers to the presence, order and also the number of the parts of essay, i.e., introductory, body and concluding paragraphs, as required. And, language use refers to the correctness of the essay in terms of grammar and mechanics.

The Relationships between Writing Self-efficacy and Writing Quality

The investigation on the relationships between writing self-efficacy and writing quality was initialized by Meier, McCarthy, and Schmeck (1984). Meier et al. (1984) mention that "efficacy expectation can be utilized in all types of behavioral situation". Therefore, they developed a writing self-efficacy scale, which consists of 19 items, to assess students' efficacy expectation in writing courses. The purpose of their study is to demonstrate the predictive ability of writing self-efficacy on students' writing. However, the findings indicate that efficacy expectations predict students' writing at the beginning of the writing course (phase 1), but not at the end of the course (phase 2). The weak predictive ability of writing self-efficacy in phase 2 is because of perceived low-risk of the task, ceiling effect, and other variables (Meier et al., 1984).

The same scale is also used by Mccarthy, Meier, and Rinderer (1985), which is introduced as "Self-Assessment of Writing Scale", to measure students' writing self-efficacy based on the undergraduate students' certainty in performing 19 specific writing skills of expository essays. The findings show that students' self-efficacy could predict the students writing both in pre-test (phase 1) and post-test (phase 2). They also state that self-efficacy is the strongest predictor of writing performance among other variables investigated, i.e., perceived locus of control, anxiety, and cognitive processing.

In its development, writing self-efficacy scales are also developed with two subscales, i.e., writing task and writing component subscale. Shell, Murphy, and Bruning (1989) apply this writing self-efficacy scales to investigate relationship between writing self-efficacy and students' writing performance. Writing task subscale measures students' certainty in their ability to successfully accomplish 16 different writing tasks, while in writing component skill subscale, measures students' ability in performing 8 writing skills, namely; spelling, punctuation, part of speech, grammatical structure, wording, compound and complex sentences, paragraph, and overall organization. The result shows that self-efficacy in writing

is strongly related to writing performance than outcome expectancy. It means that perception of ability in writing a set of specific tasks and writing components predicts writing performance better than does the perception of outcomes.

Writing self-efficacy scales developed by (Shell et al., 1989) was also applied in other studies (Pajares & Johnson, 1994; Pajares & Valiante, 1997) until the introduction of Writing Self-Efficacy Scale (WSES) (Pajares & Valiante, 1999). In developing this scale, writing self-efficacy is defined as "students' judgments of their confidence that they possess the various composition, grammar, usage, and mechanical skills appropriate to their academic level" (Pajares & Valiante, 1999, p. 394). WSES consists of 10 items asking about the students' statement of ability in performing specific writing skills in middle school level, in 0 to 10 scales. Then, Pajares (2007) provides a stronger empirical evidence about the functionality of WSES in measuring students' self-efficacy across school levels. There were 1,258 students from grade 4-11 participated in the study which yielded a finding that WSES was equally well-functioned in every academic level investigated. Getting inspired by Pajares (2007), Kaan Büyükikiz, Uyar, and Balci (2013) also developed a 17-items writing self-efficacy scale for Turkish students which gain .94 reliability coefficient.

Other scale which focuses on students' self-regulation in writing activities and perceived efficacy for academic attainment is developed by Zimmerman and Bandura (1994). This scale, which is called "Writing Self-Regulatory Efficacy Scale", consists of 25 items measuring students' perceived capability in performing; a strategic aspect of writing (planning, organizing and revising), creative aspect of writing (generating good topic, writing interesting introduction, etc.), and self-management (time, motivation and activity). The inclusion of self-regulation was based on a belief that a highly confident student will set a higher goal, more persistent in coping with challenges, perform better time management, apply more problem-solving strategies, and yet would gain the better achievement. This scale is beneficial not only for predicting writing performance but also can be used as a diagnostic assessment (Bruning, Dempsey, Kauffman, McKim, & Zumbrunn, 2013; Huerta, Goodson, Beigi, & Chlup, 2017).

An alternative scale to measure students' self-efficacy for writing activity is also developed using different set of dimensions. Bruning et al. (2013) propose self-efficacy for writing scale (SEWS) which includes16 items corresponding to three main dimensions, namely ideation, convention, and self-regulation. Ideation refers to the writers' belief about their ability in generating content and ideas and also ordering of their thoughts. It is an ongoing process which influences all other parts of writing. The writing ideation self-efficacy items focus on writers' judgments of the availability, quality, and ordering of their ideas. Writing convention refers to the writers' efficacy to spell, punctuate, capitalize, and structure sentences as the frames within which writers express their ideas. Self-Regulation refers to the writers' confidences in accomplishing writing task, managing anxieties, and emotions, etc. from beginning to the end of the writing process. It also includes the writers' confidences in giving judgments about cognitive and linguistic features of the writing composition. There are two study phases where SEWS model is tested. First study is testing the model fit. Bruning et al. (2013) included 697 middle school students to answer SEWS. The result indicates that the fit of SEWS items to the three-factor model (ideation, convention, and self-regulation) is acceptable.

Method

Participants

This study aims to explain the relationships among the aspects of writing self-efficacy, i.e., ideation, convention and self-regulation, with students' writing quality. The investigation was done to see how well those aspects predict students' writing quality in the argumentative writing domain. The participants in this study were the fourth semester students of English language teaching department in Mahasaraswati University Denpasar enrolled in argumentative writing class (N = 135 students; total of 4 classes). Table

1 provides the number of students and their gender in each class. They all speak English as a foreign language. Those students had passed several writing-related courses pior to the argumentative writing class, including intensive English course (smt. 1), paragraph writing (smt. 2), and essay writing (smt. 3). Therefore, they were considered as equal in terms of basic writing knowledge.

TABLE 1
Number of Participating Students in Each Class

No.	Class	Male	Female	Total
1	A	9	22	31
2	C	13	23	36
3	D	8	28	36
4	E	8	24	32
	Total	38	97	135

Research Data

The data was collected through survey to measure students' writing self-efficacy and writing test to measure their argumentative writing quality. For the survey, we employed Self-Efficacy for Writing Scale (SEWS). SEWS comprises of three main dimensions, namely, ideation, conventions, and self-regulation. SEWS was at first used to measure self-efficacy for writing of high school students (Bruning et al., 2013). However, the first developed SEWS was not intended specifically for argumentative writing domain. Therefore, in this study, we modified the items in ideation dimension to suit our target writing. Originally, there are 16 items in 0-100 response format scale, ranging from no confidence to complete confidence. After the modification, there are 19 items in the scale, see Table 2. The instrument for writing self-efficacy also includes demographic questions (age & gender), class, and years in their department. In this study, SEWS had adequate internal consistency indicated by *Cronbach's Alpha* value for the eight items of ideation is $\alpha = .95$, *Cronbach's Alpha* value for the five items of convention is $\alpha = .89$, and *Cronbach's Alpha* value for the five items of self-regulation is also $\alpha = .89$.

TABLE 2
The Modified Item of SEWS

Dimensions	Items
Ideation	I can think of many ways to write an opinion about an issue.
	I can think of many ideas to support my arguments in writing.
	I can think of many details to support my reasoning.
	I can think of many ways to conclude an argument.
	I can put all of my ideas into writing.
	I can think of many words to describe my ideas.
	I can think of a lot of original ideas for my opinion.
	I know exactly where to place my ideas in my writing.
Convention	I can spell my words correctly.
	I can write complete sentences.
	I can punctuate my sentences correctly.
	I can write grammatically correct sentences.
	I can begin my paragraphs in the right spots.
Self-Regulation	I can focus on my writing for at least one hour.
	I can avoid distractions while I write.
	I can start writing assignments quickly.
	I can control my frustration when I write.
	I can think of my writing goals before I write.
	I can keep writing even when it's difficult.

Source: Adapted from Bruning et al. (2013)

The second type of data set is the students' writing quality. This data is the writing product quality, in terms of analytic score (content, organization and language use). There are two main instruments that are

used to gain this data, namely: (a) opinion essay writing tasks, and (b) analytic scoring rubric. Opinion essay is a form of academic writing which requires students to state their opinion on a particular topic. The opinion they state should be supported using relevant reasons and adequate supporting details. The organization of the opinion essay that should be written by the students including; (a) introductory paragraph which contains the explanation of the issue and thesis statement, (b) body paragraphs which contain 2 reasons for the thesis and their supporting details, and (c) concluding paragraph which contains the restatement of the thesis, summary of the reasons, and also a final comment which state a call for an action. The opinion essay task is adapted from (Oshima & Hogue, 2006). The content and organization of an opinion essay used in this study are illustrated in Figure 1. The opinion essay task was composed by 2 lectures of argumentative writing in Universitas Mahasaraswati. The selected issue is "The restrictions on single-use plastics in Bali". This essay task was administered right after the students finished filling out the writing self-efficacy questionnaire. They were given 90 minutes to write their essays on a blank paper and they were not allowed to consult any electronic resources.
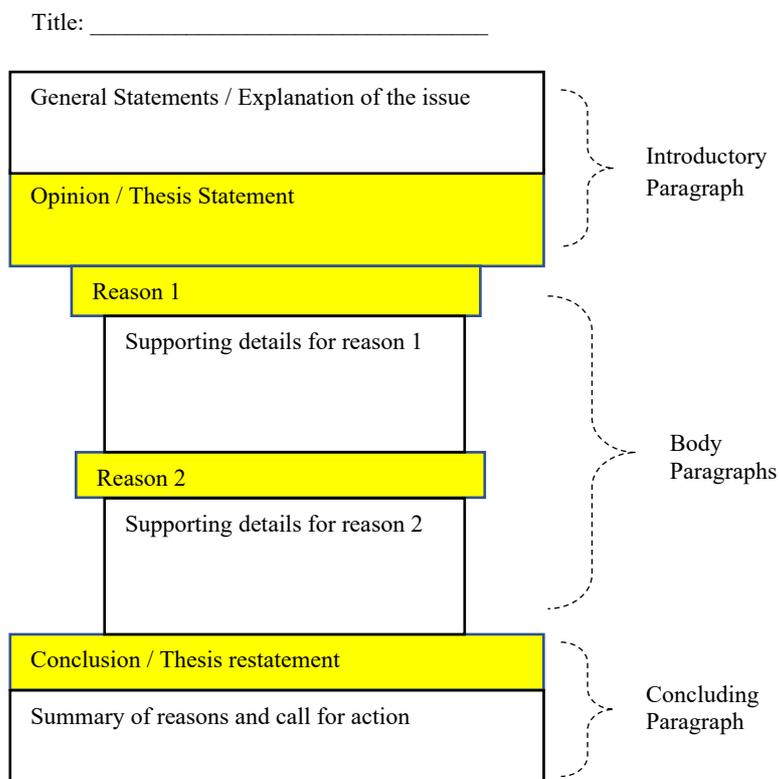
Title: _____

General Statements / Explanation of the issue
Opinion / Thesis Statement

Introductory Paragraph

| Reason 1 |
| Supporting details for reason 1 |
| Reason 2 |
| Supporting details for reason 2 |

Body Paragraphs

| Conclusion / Thesis restatement |
| Summary of reasons and call for action |

Concluding Paragraph

Figure 1. The content and organization of opinion essay.

The analytic scoring rubric, which covers the aspect of content, organization and language use, is adapted from (McDonough et al., 2018), see Appendix. The selection of this set of writing traits due to several reasons, namely; this scoring rubric has been used in a school/university-based writing research, the descriptors for each of the trait is well-defined and appropriately graded, it is user-friendly and can be used by less experienced teacher/lecturer after a short-term descriptor agreement training, the rubric is effective in a way that it can reflect the qualities of an opinion essay, and it is efficient in a way that it requires a short time to assess an essay, so it is appropriate for a large scale evaluation. There are two raters for the writing quality who were given rating training based on the applied instruments upon the tryout. The scores reliability between the two raters is considered high (ICC = .895, p < .001). Both survey and test were done in a single meeting to avoid any changes in students' self-efficacy and also writing ability if the data is collected between a long period of time (Bruning et al., 2013; Pajares, 2007).

Data Analysis

The data from questionnaire were tabulated based on the dimensions of SEWS to identify the students' writing self-efficacy in term of ideation, convention and self-regulation. Besides, the writing products were divided and rated separately by the two equally-eligible raters who had an equal understanding and tolerable score outcome differences from the same writing product. The writing products were coded and made anonymous to ensure that there were no subjectivity and biases in the scoring process. All of the data sets were at first analyzed descriptively to see its central tendency and variability. Then after data met all relevant assumptions related to multicollinearity, outliers, normality, linearity, homoscedasticity and independence of residuals, we conducted multiple regression analyses to examine the contribution of ideation, convention and self-regulation as the predicting variables toward students' argumentative writing quality as the predicted variables.

Finding and Discussion

The purpose of this study was to examine the predicting power of the three aspects of writing self-efficacy, i.e. ideation, convention, and self-regulation toward students' argumentative writing quality. It was done because there were inconsistencies of findings in the previous studies which indicates different contributing power among ideation, convention, and self-regulation toward writing quality (Bruning et al., 2013; Limpo & Alves, 2017). Therefore, multiple linear regression analysis was applied to examine the contribution of ideation, convention and self-regulation as the predicting variables toward students' argumentative writing quality as the predicted variables.

Before the multiple linear regression analysis was conducted, the data from the result of questionnaire and writing task were analyzed descriptively and to fulfill the statistical assumptions required for the main analysis. Table 3 shows the central tendency, variability and the distribution of the data sets. The first assumption that should be fulfilled prior to multiple linear regression analysis is that the dependent variable should be normally distributed. *Shapiro-Wilk Normality Test* in Table 3 shows that the scores of students' writing quality is normally distributed $p = .133$. Besides all predictor variables are also considered as normally distributed.

TABLE 3
Descriptive Statistics & Normality Test Result

	Descriptive Statistics			Shapiro-Wilk Normality Test		
	Mean	Std. Deviation	N	Statistic	df	Sig.
Writing Quality	72.96	9.50	106	.981	106	.133
Ideation	74.15	10.57	106	.985	106	.298
Convention	74.26	9.79	106	.979	106	.095
Self-Regulation	70.28	11.06	106	.974	106	.036

The other assumptions that should be fulfilled besides the normality of the dependent variable data are multicollinearity between the predictor variables and linearity of the predictor variables with the dependent variable. *Multicollinearity* among predictor variables occur if there is a correlation greater than .70 between any of the predictor variables. Table 4 shows that all of the correlations among predictor variables are below .70, which indicates that those predictor variables are eligible for multiple regression analysis. Besides, the predictor variables should correlate in a value greater than .30 with the dependent variable. Table 4 also indicate that none of the predictor variables correlate with the dependent variable in a value less than .30. Therefore, the assumption of linearity is fulfilled.

TABLE 4
Correlations among Variables

		Writing Quality	Ideation	Convention	Self-regulation
Pearson Correlation	Writing Quality	1			
	Ideation	.460	1		
	Convention	.486	.515	1	
	Self-Regulation	.511	.684	.594	1
Sig. (1-tailed)	Writing Quality				
	Ideation	.000			
	Convention	.000	.000		
	Self-Regulation	.000	.000	.000	

The multiple regression model as shown in Table 5 explained 30.5% of the variance in students' argumentative writing quality (adjusted $R^2 = .305$, $F = 16.363$, $p < .001$).

TABLE 5
Regression Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
.570[a]	.325	.305	7.91848	.325	16.363	3	102	.000

a. Predictors: (Constant), ID, CV, SR

TABLE 6
The Unique Contribution of All Predicting Variables

	Unstandardized Coefficients		Standardized Coefficients	*t*	*Sig.*	*Correlations*		
	B	Std. Error	Beta			Zero-order	Partial	Part
(Constant)	28.941	6.547		4.421	.000			
Ideation	.139	.102	.155	1.365	.175	.460	.134	.111
Convention	.247	.100	.255	2.478	.015	.486	.238	.202
Self-Regulation	.218	.104	.254	2.099	.038	.511	.204	.171

Convention self-efficacy made the largest significant contribution to the model ($\beta = .255$, $p = .015$) followed by self-regulation self-efficacy ($\beta = .254$, $p = 038$). However, ideation self-efficacy of which items already adjusted to suit the target writing domain give the lowest insignificant contribution to the model ($\beta = .155$, $p = .175$). Then, from Table 6, the linear regression line can be drawn as follows:

Writing Quality = 28.941 + 0.139 (Ideation) + 0.247 (Convention) + 0.218 (Self-regulation)

The above line tells us that the constant argumentative writing score of every student is 28.941. Every one point of ideation self-efficacy will contribute 0.139 points to speaking performance, every one point of convention self-efficacy will contribute 0.247 points and every one point of self-regulation self-efficacy will contribute as many as 0.218 to student's writing quality.

Previous studies reported that conventions self-efficacy had a significantly strong relationship with students' writing performance more than ideation and self-regulation (Bruning et al., 2013). In this study, similar finding is also revealed from the analysis. Students' self-efficacy on writing conventions best predicts their argumentative writing quality. This result also in line with Sheehan (2015) who mention that students who are given a direct instruction of writing conventions has a more effective writing mechanics mastery that could efficiently applied in accomplishing writing task. It shows that the change in students' convention self-efficacy gives a high contribution in the success of writing activity. This success is related to the success of the students in conveying their opinion in their argumentative text to

the audience, in this case their lecturer who will give score to their writing. Conventions itself is seen as *"a powerful tool for communicating a message"* to the audience (Patriotta, 2017). Students with high self-efficacy in writing conventions tend to be able to express their ideas better that those who possess a lower efficacy in writing convention. This result suggests that teaching conventions would still play a significant role in writing courses. Teachers are responsible for their students' convention ability in writing, so that they should be able to provide any necessary feedback, because students favor and incorporate more of the teacher feedback rather than peer feedback (Park, 2018).

Finding in this study is different from the finding from Bruning et al. (2013) in a way that the change in students' self-efficacy for self-regulation also has a significant contribution to students argumentative writing quality. This result then partially support the finding from Limpo and Alves (2017) which states that among the dimensions of SEWS, only self-efficacy for self-regulation contribute to writing performance and quality. Students with high writing self-regulation self-efficacy are able to stay focused and avoid distraction while writing and finish their assignment completely as expected. This finding supports the statement that students with low self-regulation self-efficacy are suffering from procrastination and binge writing which lead to inability to complete the given writing task (Santelmann, Stevens, & Martin, 2018). Besides, students with high self-regulation self-efficacy also able to overcome various cognitive challenges, i.e. conceptualization problems, problem solving in writing, and using the academic resources by means of their owned writing skill (Strain, Azevedo, & D'Mello, 2013). These findings would suggest that students' self-efficacy in writing especially in the aspect of writing self-regulation also reflects their capacity in both regulating affection (manage the anxieties and emotions) and also cognition (generate productive ideas and writing strategies) in writing (Bruning et al., 2013; Wagener, 2018), because good writer uses writing strategies more frequently than poor writer (Poorebrahim, Sattarpour, & Ajabshir, 2019). Therefore, academic writing course especially for argumentative writing domain should give more focus on the activities that promote students' self-regulation ability. Providing feedback on students' writing would affects the students' motivation and also affective responses toward writing and would improve their writing self-regulation, so that students would be able to apply their writing knowledge as best as possible in their writing activities (Ekholm et al., 2015).

The result remains similar especially for the contribution of self-efficacy for ideation. Ideation self-efficacy gives the lowest insignificant contribution to students' writing quality. In the previous study, low relationship between ideation self-efficacy and students' writing performance might be explained by two factors, those are: long interval between SEWS and writing test (approximately 1 month), which might give chance for other variable to intervene the relationship between the self-efficacy and writing quality, and SEWS is not focused on specific writing tasks and genres being tested (Bruning et al., 2013; Pajares, 2003). In this study, the writing test was done right after the students finished fulfilling the SEWS and the scale itself has been modified to suit the target writing domain (argumentative writing). However, the result shows that the change in students' ideation self-efficacy still could not give any significant contribution toward their argumentative writing quality.

The first possible reason for the low contribution of ideation to students' argumentative writing quality is the limited time given for the students to write. Students are only given 60 minutes to finish 4 paragraphs of argumentative text. Most of the students might not have enough time to plan their writing. It means that, students might not be able to provide an adequate judgement of the availability, quality and the order of their ideas prior to writing (Bruning et al., 2013). Besides, Planning is indeed a very significant stage of writing process, prior to translating and editing, in which students might employ various technique to plan their writing both mentally or written (Flower & Hayes, 1981; Jones, 2014). However, in a short time, the planning process might not be executed properly as expected which then would affect their writing quality.

The second reason dealing with weak predicting power of ideation on writing quality might be because of the topic familiarity. Beside the limited time to finish the task, students are also given no chance to select the topic for their argumentative writing. There might be a possibility that students are not familiar

with the topic for their writing. Students are doing better job in applying their linguistic knowledge, i.e., greater subordination, and use of target structures, if they are asked to write about a topic they are familiar with (McDonough & Crawford, 2018; Rahimpour & Hazar, 2007). Therefore, ideation items in SEWS should not only adjusted to the target writing genre, in this case argumentative writing, but also the topic that is going to be discussed and given arguments. So that, the ideation self-efficacy might give a better prediction on students' writing quality.

Conclusions

It is envisaged that this study will contribute to the existing knowledge by providing three main conclusions. First, students' self-efficacy on writing conventions best predicts their argumentative writing quality. It means that the students' perception on their ability to express ideas in an appropriate rule of written expression including its spelling, punctuation, and also correct sentence structure would best reflect their written product quality. Therefore, EFL teachers should still consider providing intensive assistance on writing conventions for their students, because students would rely more on the rules of written expression to be able to produce a high-quality writing.

Second, the change in students' self-efficacy for self-regulation also has a significant contribution for students argumentative writing quality. Beside the importance on writing convention, the predicting power of students' self-efficacy on self-regulation in writing should also be managed seriously. This aspect is the key success of a writer, because this would help the students in generating productive ideas, and also managing anxieties and emotions through the process of writing (Bruning et al., 2013). Teachers may provide training on self-regulatory strategies during writing for their students, and also provide more space for the students to express their feeling prior, during and after the writing process. So that, they may exchange feeling and exchange strategies with their peers about how to resolve their problems during writing and also direct themselves successfully through the writing process.

And third, ideation self-efficacy gives the lowest insignificant contribution to students' writing quality. The result that indicate the low contribution of ideation self-efficacy toward writing quality might be because of some limitations of this study, including the limited time given to write, the topic familiarity issue, and also the sensitivity of analytical scoring rubric used. These limitations then might suggest the direction of future study where the length of time, topic familiarity, and rubric sensitivity should be considered when examining students writing quality based on the aspects of ideation, convention and self-regulation. Besides, other researchers are expected to replicate this study in different context and writing domains, which would yield a more generalizable findings and give positive implication on the development knowledge about aspects that contribute to students' writing quality.

Acknowledgements

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References

Balci, A. (2013). A study on correlation between self-efficacy perceptions and writing skills of students with Turkish ancestry and foreign students. *Anthropologist*, *16*(3), 539–549. https://doi.org/ 10.1080/09720073.2013.11891380

Bandura, A. (1989). Human Agency in Social Cognitive Theory. *American Psychologist*, *44*(9), 1175– 1184. https://doi.org/10.1109/SCORED.2002.1033040

Bolívar-Cruz, A., Verano-Tacoronte, D., & Galván-Sánchez, I. (2018). Do self-efficacy, incentives and confidence in public speaking influence how students self-assess? / *¿Influyen la autoeficacia, los incentivos y la confianza para hablar en público en cómo se autoevalúan los estudiantes? Cultura y Educación*, *30*(3), 528–555. https://doi.org/10.1080/11356405.2018.1488420

Bong, M. (2008). Effects of parent: Child relationships and classroom goal structures on motivation, help-seeking avoidance, and cheating. *Journal of Experimental Education*, *76*(2), 191–217. https://doi.org/10.3200/JEXE.76.2.191-217

Bruning, R., Dempsey, M., Kauffman, D. F., McKim, C., & Zumbrunn, S. (2013). Examining dimensions of self-efficacy for writing. *Journal of Educational Psychology*, *105*(1), 25–38. https://doi.org/ 10.1037/a0029692

Callinan, C. J., van der Zee, E., & Wilson, G. (2018). Developing essay writing skills: An evaluation of

the modelling behaviour method and the influence of student self-efficacy. *Journal of Further and Higher Education*, *42*(5), 608–622. https://doi.org/10.1080/0309877X.2017.1302564

Chae, S. E. (2016). Importance of ongoing motivation for EFL writers' performance: Growth curve modeling. *Journal of Asia TEFL*, *13*(4), 280–293. https://doi.org/10.18823/asiatefl.2016.13.4.3.280

Chou, M. H. (2017). Modelling the relationship among prior english level, self-efficacy, critical thinking, and strategies in reading performance. *Journal of Asia TEFL*, *14*(3), 380–397. https://doi.org/10.18823/asiatefl.2017.14.3.1.380

Ekholm, E., Zumbrunn, S., & Conklin, S. (2015). The relation of college student self-efficacy toward writing and writing self-regulation aptitude: Writing feedback perceptions as a mediating variable. *Teaching in Higher Education*, *20*(2), 197–207. https://doi.org/10.1080/13562517.2014.974026

Flower, L., & Hayes, J. R. (1981). A Cognitive Process Theory of Writing. *College Composition and Communication*, *32*(4). https://doi.org/10.2307/356600

Green, D. M. (2003). Self-Efficacy: A Communication Model for the Development of Self-Efficacy in the Classroom. *Journal of Teaching in Social Work*, *23*(3/4), 15–28. https://doi.org/10.1300/J067v23n03

Huerta, M., Goodson, P., Beigi, M., & Chlup, D. (2017). Graduate students as academic writers: Writing anxiety, self-efficacy and emotional intelligence. *Higher Education Research and Development*, *36*(4), 716–729. https://doi.org/10.1080/07294360.2016.1238881

Isaacson, S. (1988). Assessing the writing product: Qualitative and quantitative measures. *Exceptional Children*, *54*(6), 528–534. https://doi.org/10.1177/001440298805400606

Jones, S. (2014). From ideas in the head to words on the page: Young adolescents' reflections on their own writing processes. *Language and Education*, *28*(1), 52–67. https://doi.org/10.1080/09500782.2013.763820

Kaan Büyükikiz, K., Uyar, Y., & Balcı, A. (2013). A writing self-efficacy scale for non-native students of Turkish origin: A validity and reliability study. *International Online Journal of Educational Sciences*, *5*(2), 302–313.

Lichtinger, E. (2018). Gap between self-efficacy and college students' writing skills. *Journal of College Reading and Learning*, *48*(2), 124–137. https://doi.org/10.1080/10790195.2017.1411213

Limpo, T., & Alves, R. A. (2017). Relating beliefs in writing skill malleability to writing performance: The mediating role of achievement goals and self-efficacy. *Journal of Writing Research*, *9*(2), 97–125. https://doi.org/https://doi.org/10.17239/jowr-2017.09.02.01

Matoti, S. N., & Shumba, A. (2012). Assessing the writing efficacy of undergraduate students at a South African University of Technology. *Anthropologist*, *14*(2), 131–139. https://doi.org/10.1080/09720073.2012.11891230

Mccarthy, P., Meier, S., & Rinderer, R. (1985). Self-efficacy and writing : A different view of self-evaluation. *National Council of Teachers of English*, *36*(4), 465–471. https://doi.org/10.2307/357865

McDonough, K., & Crawford, W. J. (2018). Identifying effective writing tasks for use in EFL write-to-learn language contexts. *Language Learning Journal*. https://doi.org/10.1080/09571736.2018.1465990

McDonough, K., De Vleeschauwer, J., & Crawford, W. (2018). Comparing the quality of collaborative writing, collaborative prewriting, and individual texts in a Thai EFL context. *System*, *74*, 109–120. https://doi.org/10.1016/j.system.2018.02.010

Meier, S., McCarthy, P. R., & Schmeck, R. R. (1984). Validity of self-efficacy as a predictor of writing performance. *Cognitive Therapy and Research*, *8*(2), 107–120. https://doi.org/10.1007/BF01173038

Oshima, A., & Hogue, A. (2006). *Introduction to academic writing* (3rd ed.). Retrieved from http://www.amazon.com/dp/0131933957

Pajares, F. (2003). Self-efficacy beliefs, motivation, and achievement in writing: A review of the

literature. *Reading & Writing Quarterly*, *19*(2), 37–41. https://doi.org/https://doi.org/10.1080/10573560308222

Pajares, F. (2007). Empirical properties of a scale to assess writing self-efficacy in school contexts. *Measurement and Evaluation in Counseling and Development*, *39*(4), 239–249. https://doi.org/10.1080/07481756.2007.11909801

Pajares, F., & Johnson, M. J. (1994). Confidence and competence in writing: The role of self-efficacy, outcome expectancy, and apprehension. *Research in the Teaching of English*, *28*(3), 313–331. https://doi.org/10.2307/40171341

Pajares, F., & Valiante, G. (1997). Influence of self-efficacy on elementary students' writing. *Journal of Educational Research*, *90*(6), 353–360. https://doi.org/10.1080/00220671.1997.10544593

Pajares, F., & Valiante, G. (1999). Brief research report: Grade level and gender differences in the writing self-beliefs of middle school students. *Contemporary Educational Psychology*, *24*, 390–405. Retrieved from http://www.idealibrary.com

Park, J. (2018). Effectiveness of teacher and peer feedback : Through the lens of Korean tertiary writing Classroom. *The Journal of AsiaTEFL*, *15*(2), 429–444. https://doi.org/10.18823/asiatefl.2018.15.2.11.429

Patriotta, G. (2017). Crafting papers for publication: Novelty and convention in academic writing. *Journal of Management Studies*, *54*(5), 747–759. https://doi.org/10.1111/joms.12280

Poorebrahim, F., Sattarpour, S., & Ajabshir, Z. F. (2019). Written text quality and socio-affective strategy use. *The Journal of Asia TEFL, 16*(4), 1119–1134.

Prat-Sala, M., & Redford, P. (2012). Writing essays: Does self-efficacy matter? The relationship between self-efficacy in reading and in writing and undergraduate students' performance in essay writing. *Educational Psychology*, *32*(1), 9–20. https://doi.org/10.1080/01443410.2011.621411

Putra, I. D. G. R. D. (2020). *The effects of pair collaboration and self-efficacy on students' writing quality* (Unpublished doctoral dissertation). Universitas Negeri Malang.

Rahimpour, M., & Hazar, F. (2007). Topic familiarity effect on accuracy, complexity, and fluency of L2 oral output. *The Journal of Asia TEFL*, *4*(4), 191–211.

Ramos Villagrasa, P. J., Sánchez Iglesias, I., Grande de Prado, M., Oliván Blázquez, B., & Martín Peña, J. (2018). Spanish version of "Self - Efficacy for Writing Scale" (SEWS). *Anales de Psicología*, *34*(1), 86–91. https://doi.org/10.6018/analesps.34.1.264931

Rayner, G., Papakonstantinou, T., & Gleadow, R. (2016). Comparing the self-efficacy and writing-related abilities of native and non-native English-speaking students. *Cogent Education*, *3*(1), 1–11. https://doi.org/10.1080/2331186X.2016.1179164

Santelmann, L. M., Stevens, D. D., & Martin, S. B. (2018). Fostering master's students' metacognition and self-regulation practices for research writing. *College Teaching*, *66*(3), 111–123. https://doi.org/10.1080/87567555.2018.1446898

Sheehan, K. (2015). *The impact of direct writing conventions instruction on second grade writing mechanics mastery.* Nova Southeastern University. Retrieved from http://nsuworks.nova.edu/fse_etd/64

Shell, D. F., Murphy, C., & Bruning, R. (1989). Self-efficacy and outcome expectancy mechanisms in reading and writing achievement. *Journal of Educational Psychology*, *81*(1), 91–100. Retrieved from http://psycnet.apa.org/journals/edu/81/1/91/

Smith, S. L., Kathleen Pichora-Fuller, M., Watts, K. L., & La More, C. (2011). Development of the listening self-efficacy questionnaire (LSEQ). *International Journal of Audiology*, *50*(6), 417–425. https://doi.org/10.3109/14992027.2011.553205

Solheim, O. J. (2011). The impact of reading self-efficacy and task value on reading comprehension scores in different item formats. *Reading Psychology*, *32*(1), 1–27. https://doi.org/10.1080/02702710903256601

Strain, A. C., Azevedo, R., & D'Mello, S. K. (2013). Using a false biofeedback methodology to explore relationships between learners' affect, metacognition, and performance. *Contemporary*

Educational Psychology, *38*(1), 22–39. https://doi.org/10.1016/j.cedpsych.2012.08.001

Taboada Barber, A., Buehl, M. M., Kidd, J. K., Sturtevant, E. G., Richey Nuland, L., & Beck, J. (2015). Reading engagement in social studies: Exploring the role of a social studies literacy intervention on reading comprehension, reading self-efficacy, and engagement in middle school students with different language backgrounds. *Reading Psychology*, *36*(1), 31–85. https://doi.org/10.1080/02702711.2013.815140

Troia, G. A., Shankland, R. K., & Wolbers, K. A. (2012). Motivation research in writing: Theoretical and empirical considerations. *Reading & Writing Quarterly*, *28*(1), 5–28. https://doi.org/10.1080/10573569.2012.632729

van Blankenstein, F. M., Saab, N., van der Rijst, R. M., Danel, M. S., Bakker-van den Berg, A. S., & van den Broek, P. W. (2018). How do self-efficacy beliefs for academic writing and collaboration and intrinsic motivation for academic writing and research develop during an undergraduate research project? *Educational Studies*, 1–17. https://doi.org/10.1080/03055698.2018.1446326

Villalón, R., Mateos, M., & Cuevas, I. (2015). High school boys' and girls' writing conceptions and writing self-efficacy beliefs: what is their role in writing performance? *Educational Psychology*, *35*(6), 653–674. https://doi.org/10.1080/01443410.2013.836157

Wagener, B. (2018). The importance of affects, self-regulation and relationships in the writing of a master's thesis. *Teaching in Higher Education*, *23*(2), 227–242. https://doi.org/10.1080/13562517.2017.1379480

Walker, B. J. (2003). the Cultivation of student self-efficacy in reading and writing. *Reading & Writing Quarterly*, *19*(2), 173–187. https://doi.org/10.1080/10573560308217

Zimmerman, B. J., & Bandura, A. (1994). Impact of self-regulatory influences on writing course attainment. *American Educational Research Journal*, *31*(4), 845–862. https://doi.org/10.3102/00028312031004845

Appendix

Analytic Scoring Rubric

	Content	Organization	Language Use
10-9 Above standard	The introductory paragraph presents a clear explanation of the issue and thesis statement. The body paragraphs present logical, and relevant reasons to support the opinion. Each of the reason in body paragraph is given sufficient supporting details. Concluding paragraph provides an accurate restatement of the thesis, summary of the reasons and also call for action.	Opinion essay contains all three parts, i.e. introductory, body and concluding paragraphs. There are at least two body paragraphs which are developed from different reasons.	Almost no errors in grammar and/or mechanics. Errors do not interfere with meaning.
8-7 Standard	The issue or thesis statement isn't clearly stated but can be inferred from the tittle or solutions. One of the body/reason paragraphs is not clearly stated or lacks logical, relevant, and sufficient supporting details. Conclusion attempts to restate the thesis statement, but it is too narrow or broad.	Opinion essay is missing one of the three parts.	Few errors in grammar and/or mechanics. Some errors interfere with meaning.
6-5 Approaching Standard	The issue and thesis statement are not clearly stated but can be inferred from the tittle or solutions. All of the body/reason paragraphs are not clearly stated or lacks logical, relevant, and sufficient supporting details. Concluding paragraph is a verbatim copy of the introductory paragraph.	Opinion essay is missing two of the three parts.	Many errors in grammar and/or mechanics. Most errors interfere with meaning.
0-4 Below Standard	The issue is not explained and thesis statement is difficult to infer. There are no reasons stated or lack supporting details. Concluding paragraph is completely missing or incorrect. Not enough language produced to evaluate.	Opinion Essay is missing all three parts. Not enough language produced to evaluate.	Extensive errors. Meaning is unclear. Not enough language produced to evaluate.

Adapted from (McDonough et al., 2018)