



Article

Vlog-Based Multimodal Composing: Enhancing EFL Learners' Writing Performance

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Abstract: For most learners of English as a foreign language (EFL), there has long been a lack of effective opportunities to practice English writing skills. However, the recent development of social networking services (SNS) provides new possibilities for these learners to practice writing English in a meaningful way. Meanwhile, with the popularity of social media in language learning, writing is unnecessarily in the form of plain text, and multimodal composing based on text and additional modes such as audio, video or images has been a new form of writing activity instead. This study integrated SNS-based multimodal composing activities into secondary and higher education, with the aim of determining its effects on learners' writing performance. Two classes in senior high school Grade 10 and four in college were recruited, three as the control groups without using SNSbased multimodal composing, and others as the experimental groups. While all classes' writing performance improved between pretest and posttest, the gains in overall writing competence by experimental groups and the gains in three detailed aspects (readability, lexical complexity and syntactic complexity) by college students were significantly larger. Progress in detailed aspects, on the other hand, was different across different groups. These findings are discussed in relation to specific characteristics of multimodal composing and SNS-based learning that enables learners to improve writing performance.

Keywords: SNS; multimodal composing; writing; vlog



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1. Introduction

Writing, serving as one of the most important skills among English learning, is the most challenging area in EFL leaning and can be assumed as a difficulty for learners [1,2], and recent studies have shown disadvantages exist in traditional methods of teaching English writing. For example, Al-Jarrah et al. [3] noted that most of students' writing is classroom bounded, which leads to the lack of authenticity. Moreover, Kirmizi [4] reports that some EFL learners have writing anxiety, which leads to poor writing performance. There are no exact methods as to how learners can improve EFL writing as different approaches provide different results. The traditional single-modal teaching method, such as only text or picture separately, mainly being dominant by teachers, has been unable to meet the needs of students and gave birth to multimodal learning.

Social networking services (SNS), online platforms which allows users to share ideas, digital photos, music and videos and to inform others about online or real-world activities, hold considerable promise for improving the writing performance of EFL learners, who have been found to experience lower levels of anxiety and higher levels of authenticity when finishing tasks in these online environments than in traditional classroom paper writing. SNS can be a tool whereby students are encouraged to use their creativity combined with personal expressions to improve and strengthen their writing [3], and it embodies the characteristics of multimodal composing. Multimodal composing with SNS allows for

better communication of personal knowledge and expressions through various modes of representation [5].

Vlogs, as one of the most enjoyable SNS, often combine embedded video with supporting text, images, etc., which provides a visual design which written blogs cannot. Vlog making is a typical multimodal composing activity in which learners experience the organization and distribution of language, audio, video, picture, animation and other multimodal resources. It is assumed that learners would be motivated and more engaged in English writing if vlogs are applied to English writing teaching. For example, Saiful [6] found that EFL teachers who used vlogs to teach English vocabularies and genre-based text believed the implications of vlogs in teaching could be the driving force of students' learning style.

Using SNS such as Facebook or vlogs for learning has rapidly become a growing trend. Some studies of SNS have indicated that the application of vlogs into English listening and speaking classes helps learners achieve better results than the use of traditional methods and help alleviate learners' anxiety and anxiousness [7,8]. Since multimodal composing holds considerable promise for improving writing performance of EFL learners, it is important to discuss the major intervention effects of multimodal composing applied to EFL writing. Some studies have indicated that multimodal composing and vlogs reduce anxiety and anxiousness about using this target language [9,10]. There is scant research on the application of SNS-based multimodal composing in language writing, but the studies cited above can serve as a basis for further research on this important topic.

2. Literature Review

2.1. Multimodal Composing and Vlog

Writing is no longer "monomodal", while it has become multimodal [11]. First, it is important to distinguish between multimodal composing and multimodal writing, since they are regarded as almost the same in many research studies [12]. To a certain extent, multimodal composing does not mean multimodal writing. Multimodal composing refers to some multimodal teaching activities under the guidance of "design learning" theory, which moves beyond alphabetic print to utilize additional modes as well, such as audio, video or images, etc. [13]. Multimodal writing is when teachers adopt multimodal resources in classroom teaching, which focus on the effects that multimodal methods bring about in class and traditional methods of conveying meaning through pen and paper, which are only monomodal. However, multimodal composing emphasizes the process by which students use "text, images, sound, music, gestures and other social symbols to communicate and create" [14], which is based on multimodality and student-centered learning. Video compositions, graphic writing, digital video composing, etc. can be regarded as forms of multimodal composing. Therefore, considering the characteristics of this study, the authors adopt the features of multimodal composing.

Multimodal composing has become an important trend in EFL learning [14]. Researchers have documented the effects of multimodal composing on the improvement of EFL learners' learning performance. For instance, Beard and Jeannie [15] reveal how multimodal documentary essays improved EFL learners' traditional writing performance, and the research results show that multimodal composing can not only enhance writing performance, but also help learners better meet challenges in real life. Darrington and Dousay [16] discuss that compared with traditional pen and paper writing, the application of multimodal composing to teaching EFL writing can enhance the motivation of students with learning difficulties. Learners have their own preferences on different modes, but visual resources have a more positive influence than traditional methods in writing [17]. Rahmadhani [18] reveals that students show positive responses to improve their writing ability by teaching multimodal texts. Though traditional and multimodal methods of writing can both improve EFL learners' narrative writing, the multimodal composing method provides more feasible suggestions for teachers and students. To conclude, several studies

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have upheld the notion that the integration of multimodal composing into EFL teaching can improve learners' language performance, learning attitudes and outcomes [19,20].

Nowadays, students have been not only exposed to teaching and learning materials presented in the classroom, but also some audio-visual materials on the Internet [21]. Using online SNS has become a rapidly growing trend. According to Majid [22] and Shabita [23], there are several features of SNS that can be used in language classroom. Mardyati [24] defined vlogs as video blogging, which is a form of activity such as recording videos that are combined with texts, images, sounds, animations, and videos, etc. For some people, especially for educators, vlogs are not only an entertainment tool for teenagers, but also a useful method for teaching. Several researchers state that vlogs have a positive influence on students' English learning and enrich English teaching modes and teaching resources [25]. More importantly, its appearance meets the need of L2 English learners in line with the characteristics of young EFL students.

A high proportion of vlog studies in EFL teaching demonstrate that the application increases students' interaction, develops teaching efficacy and helps EFL learners improve language skills [26,27]. For example, Almurashi [28] points out that the use of vlogs helps with teachers' language teaching and learners' performance in English. Much research has been devoted to vlogs application to the improvement of EFL listening and speaking classes. Vlogs tend to have a positive effect on improving learners' fluency, accuracy, and accent or language complexity [29]. For example, Saputri [30] proposed that there is a correlation between students watching English YouTube vlogs and their listening skill. Furthermore, Abkary [31] demonstrated that EFL learners' processes of making vlogs can improve their speaking fluency. The effectiveness of vlogs' application to English listening and speaking class have been seen in many other studies [21,32,33]. To conclude, much attention has been paid to vlog use as it can improve EFL listening and speaking learning attitudes and outcomes, while there has not necessarily been an emphasis on its application in the aspect of writing.

Since vlogs have offered many benefits in EFL learning, and because they combine text, sound, movies, increasing information with real action, and potentially emotions shared with users [29], the process of producing a vlog in language learning and teaching is considered to be the process of multimodal composing.

The above literature has stated the current research status of multimodal composing and vlogs separately, while there is a need for more investigation on the integration of them. The discussion of SNS-based multimodal composing has attracted scant research and this gap in our knowledge needs to be filled for two main reasons. First, prior research suggests that access to multimodal composing may reduce learner anxiety, and second, the use of mobile SNS and multimodal composing is gradually becoming popular in EFL writing.

2.2. SNS in EFL Writing

Social technologies can be utilized to support EFL teaching and learning through SNS educational activities, such as Facebook, Instagram, wiki, etc. In foreign language pedagogy, these can bring flexible support to the process of language learning to ease academic communication, provide the sharing of ideas, and fully utilize learning resources [34]. There were many studies that were conducted to promote the application of SNS in language teaching. For instance, Blattner and Fiori [35] indicated that Facebook had the potential for classroom language teaching and learning. Abrahim et al. [36] found that most of the candidates in the study agreed that Facebook could offer great promises to facilitate English learning and improve their confidence and motivation in using English.

In order to investigate exactly how SNS aid in teaching EFL writing, several scholars also spent much effort in studying them. Warnock [37] showed that students can be put into an interesting environment to express themselves to audiences with their writing, and learners were actively involved in it. Another similar example is that Facebook was proven to improve learners' motivation and enhance writing ability in a social context [38]. Yu [39] provided empirical evidence that participants recognized the usefulness of Facebook and

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the interactive nature of the incorporation of Facebook in writing classes. Shukor and Noordin [40] found that Facebook can be a useful tool in collaborative writing for EFL learners by improving English writing quality. Nabati [41] discovered that learners' writing accuracy has been improved by receiving instruction of grammar points through SNS (Telegram APP). Additionally, several studies have reported learners' positive perceptions towards using SNS in EFL writing classes. Akhiar et al. [42] demonstrated that students hold high positive perceptions and views towards using Instagram in writing skill improvement, but moderate attitudes. Mohammad et al. [43] indicated that participants in the study felt they had a sense of purpose and became more engaged in the writing tasks, and they were interacting more confidently in Google+ writing classes compared with conventional writing lessons.

Numerous studies indicate that EFL learners benefit from using SNS to develop writing skills and other aspects. However, despite the advantages that SNS brought, the application of vlogs was rarely found in these studies. It is true that SNS can provide opportunities for the teaching and learning of EFL writing. Nevertheless, different types of SNS can serve different purposes [44]. Vlogs, as one form of SNS, receive less attention to the application to EFL writing classes. Therefore, there is a need to investigate the application of vlogs to teaching English writing, as well as its effects on learners' writing performance.

3. The Study

3.1. Research Questions

This study is an attempt to examine whether multimodal composing based on vlogs—i.e., by using multimodal modes such as pictures, videos, etc.—can improve young EFL learners' English writing performance. The three research questions addressed in this study are as follows:

RQ1. Is the application of multimodal composing based on vlogs effective in improving young EFL learners' writing performance?

RQ2. What are the major intervention effects of multimodal composing based on vlogs in this study?

RQ3. What are learners' perceptions of and attitudes toward practicing English writing on multimodal composing based on vlogs in this study?

3.2. Methodology

This study employed an experimental design to examine whether the use of SNS based on multimodal composing is effective in improving EFL learners' writing performance. To assess the participants' progress in such skills, a pretest-posttest design was employed.

3.2.1. Participants

A university and a senior high school in Guangdong China were selected as the study site. A total of 94 senior high school students in Grade one (pair A), 105 freshmen (pair B), and 95 sophomores (pair C) were recruited for this study. All the participants had smart phones, and they had experience in video making with mobile phones. Based on their entrance test scores, they were at the intermediate level in writing ability and were randomly selected as the experimental groups and the control groups.

3.2.2. Contexts

VUE Vlog is a China-based SNS focused on online video making (Figure 1), which allows users to edit, record, upload texts, music, pictures, etc., and composes a video to share with others. The main interface of VUE Vlog is shown in Figure 1. Despite VUE Vlog not having been designed for language learning, both instructors believed that its features could be repurposed for practicing English writing.

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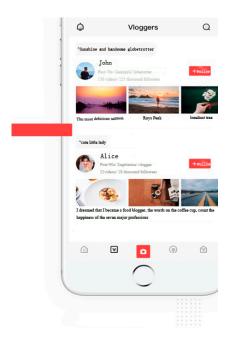


Figure 1. The main interface of VUE Vlog.

Another application used is the TIM (Tencent Instant Messaging) document, which is designed for office cloud services to support simultaneous and interactive online document editing for multiple persons. It is supposed to be an appropriate tool for learners to interact with their classmates in class and learn independently out of class, and makes it possible and convenient for language teachers to correct errors and give feedback.

3.2.3. Procedures

The intervention lasted about 4 weeks. All learning materials and assignments were the same for three pairs of both sides, and the only difference was that the experimental groups used vlogs to finish the first writing assignment and final homework piece.

Figure 2 shows how the participants were presented with a vlog product. The aims of the study were clearly explained, and all students consented to participate in it. The English writing pretest was then administered to the students. After the pretest, two college classes and one high school class were selected as the control groups and others as the experimental groups. The control groups consisted of 50 freshmen, 49 sophomores, and 46 high school students, and the experimental groups consisted of 55 freshmen, 46 sophomores, and 48 high school students. Up to the beginning of the study, both college and high school classes had received the same course content, respectively. After the experiment, questionnaires (evaluated on 5-point Likert scale) about participants' perceptions and attitudes towards vlogs were assigned to them.



Figure 2. Learner's vlog.

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Brainstorming based on Brainstorming vlog Drafting Drafting First writing based on First writing based on TIM vlog & TIM Peer assessment based Peer assessment based on TIM on TIM Editing based on TIM Editing based on TIM Homework: make a Homework vlog Control group Experimental group

The procedure of the experiment is illustrated in Figure 3.

Figure 3. Experimental procedures.

In order to arouse learners' vlog-making and writing interests, teachers chose one topic that was closely related to learners. Therefore, "My Daily life" was eventually chosen as the topic.

3.3. Tools

Data for this study included the students' English writing performance of pretest and posttest results, and questionnaire results.

The participants were assessed at the beginning and the end of this experiment. The same topic was written in both the pretests and the posttests. All of the participants were supposed to write based on TIM, while each participant in the experimental group took part in vlog making.

3.4. Measures

The participants' writing performance was assessed in four aspects: total scores, readability, lexical complexity, and syntactic complexity. The writing tests of college students were scored by two raters who had experience in rating CET4 (College English Test Band 4) writing; the writing tests of high school students were scored by two teachers who had experience in rating College Entrance Examination writing, and the scores referred to the corresponding standard. Descriptive statistics of the pretest and posttest results of six classes in two schools are presented in Tables 1–3.

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Table 1. Descriptive	e statistics and t-test resu	ılts, pretest and posttest.
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-	Experimer	ital Group	Contro	l Group		44
Pair A —	Mean	SD	Mean	SD t		p
Control group Score	78.391	4.963	80.034	4.232	-1.798	0.079
Readability	76.315	7.714	77.465	5.837	-0.922	0.361
Lexical complexity	0.755	0.069	0.755	0.059	0.000	1.000
Syntactic complexity	25.753	26.786	40.620	55.311	-1.807	0.078
Experimental group						
Score	79.333	5.025	81.979	3.930	-3.298	0.002
Readability	76.454	6.056	75.416	5.383	1.056	0.297
Lexical complexity	0.759	0.059	0.769	0.056	-1.035	0.306
Syntactic complexity	20.780	15.632	21.312	9.332	-0.209	0.835

Table 2. Descriptive statistics and *t*-test results, pretest and posttest.

Pair B —	Experimental Group		Contro	l Group		
	Mean	SD	Mean	SD	- t	p
Control group Score	79.11	15.215	83.44	5.261	-2.049	0.046
Readability	66.006	27.981	70.262	7.94	-1.042	0.303
Lexical complexity	0.747	0.131	0.763	0.071	-0.920	0.362
Syntactic complexity	32.205	34.303	28.633	22.303	0.629	0.532
Experimental group						
Score	78.972	3.47	85.418	4.507	-8.938	< 0.001
Readability	66.681	18.086	60.78	25.785	1.33	0.189
Lexical complexity	0.789	0.063	0.826	0.569	-3.942	< 0.001
Syntactic complexity	32.439	44.292	22.588	10.967	1.799	0.078

Table 3. Descriptive statistics and *t*-test results, pretest and posttest.

Pair C —	Experimental Group		Contro	l Group	_	40
	Mean	SD	Mean	SD	t	p
Control group Score	75.653	16.294	81.724	1.773	-2.073	0.010
Readability	60.759	24.651	69.469	7.346	-2.552	0.014
Lexical complexity	0.749	0.170	0.724	0.116	0.949	0.348
Syntactic complexity	24.886	28.66	17.996	4.52	1.744	0.087
Experimental group						
Score	83.097	7.184	86.054	6.149	-3.157	0.003
Readability	61.384	25.244	63.652	22.048	-0.408	0.642
Lexical complexity	0.769	0.052	0.767	0.434	0.224	0.824
Syntactic complexity	24.850	19.209	32.532	24.451	-2.503	0.016

Readability refers to the ease with which a reader can understand a written text, which depends on its content (the complexity of its vocabulary and syntax) and its presentation. In this study, the author chose Flesch Reading Ease in Microsoft Office Word, the degree number of which ranges from 0 to 100. The bigger the number is, the easier the text is.

According to Lu [45], lexical complexity is operationalized as the range of a learners' vocabulary as displayed in language use. Lexical complexity was measured by LCA (Lexical Complexity Analyzer) using the index of LV (lexical variation).

Syntactic complexity was measured by L2SCA (L2 Syntactic Complexity Analyzer) using the index of MLS (Mean Length of Sentence). The higher the MLS is, the more complex the syntactic aspect was regarded as being achieved.

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3.5. Data Collection and Analysis

Analysis of variance (ANOVA) was performed to determine if there were any relevant pre-existing differences between the control and experimental groups of three pairs. The ANOVA results are presented in Table 4. For the total scores, the experimental groups of pair A and pair C had somewhat higher scores, while pair B had lower scores. In terms of readability, all the experimental groups had somewhat higher scores, which means that writings of experimental groups in the pretest were easier to read, and the same as that in lexical complexity. In the field of syntactic complexity, pair A and pair B gained a somewhat higher score. However, the results of ANOVA indicated that there were no statistically significant differences between control groups and experimental groups of three pairs in the pretest.

Pair A/B/C —	Experimental Group		Contro	l Group	_	
	Mean	SD	Mean	SD	- F	p
Pair A Score	79.333	5.025	78.391	4.963	0.024	0.363
Readability	76.454	6.065	76.315	7.714	1.745	0.923
Lexical complexity	0.759	0.059	0.755	0.069	0.629	0.744
Syntactic complexity	20.780	15.632	25.753	26.786	3.636	0.290
Pair B Score	78.972	3.470	79.110	15.215	17.136	0.948
Readability	66.681	18.086	66.006	27.981	1.025	0.882
Lexical complexity	0.789	0.063	0.747	0.131	1.427	0.039
Syntactic complexity	32.439	44.292	32.205	34.303	0.195	0.976
Pair C						
Score	83.097	7.184	75.653	16.294	0.656	0.005
Readability	61.384	25.244	60.759	24.651	0.031	0.903
Lexical complexity	0.769	0.052	0.749	0.170	4.165	0.452
Syntactic complexity	24.850	19.209	24.886	28.66	0.094	0.994

Table 4. Analysis of variance of the pretest.

To answer the first research question, *t*-tests were performed on the data from both experimental and control groups of participants to determine whether the application of multimodal composing based on mobile SNS was effective in improving EFL learners' writing performance. The *t*-tests were performed separately for the control and experimental groups of three pairs. The results were shown in Table 5. Regarding the second research question, the gains in total scores, readability, lexical, and syntactic complexity from pretest to posttest were computed for both sides of three pairs, and AVONA was performed to examine the intervention effect. Lastly, for the third research question, pertaining to students' perceptions of and attitudes towards using multimodal composing based on vlog, content analysis of the responses from the experimental-group questionnaire was performed. RQ3 focused on learners who used multimodal composing in English writing, so the learners in control groups did not respond to the learning attitude questionnaire.

Table 5. Analysis of variance of score gai	ns.
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Comparison between	Total Scores		Readability		Lexical Complexity		Syntactic Complexity	
Two Groups	F	p	F	p	F	p	F	р
Pair A	1.002	0.023	0.393	0.080	2.447	0.240	39.833	0.019
Pair B	1.985	0.041	18.265	0.014	1.088	< 0.001	8.662	0.077
Pair C	91.048	< 0.001	11.063	0.084	7.575	0.019	35.844	< 0.001

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4. Results

4.1. Descriptive Statistics

The control groups' average total scores were all more than 75 (full score in 100) in the pretest, indicating that the participants had a grasp of basic writing skill that allowed them to finish the writing tasks. As for the readability, the average for three pairs were 76.315, 60.579, and 66.006 (out of 100) in the pretest, indicating that most participants in the control condition could not produce a more complicated text. For lexical complexity, the control groups' average scores were 0.749, 0.747, and 0.755, indicating that they might not use more advanced vocabularies in writings. For syntactic complexity, the control groups' average scores were 32.205, 24.886, and 25.753, indicating that they might not produce more complex sentences in a comprehensible way. Similar pretest patterns were observed for the experimental groups. The experimental groups of pair A, B, and C had average pretest scores of 79.333, 76.454, 0.759, and 20.780; 78.972, 66.681, 0.789, and 32.439; 83.097, 61.384, 0.769, and 24.850 in total scores, readability, lexical complexity, and syntactic complexity, respectively (see from Figure 4).

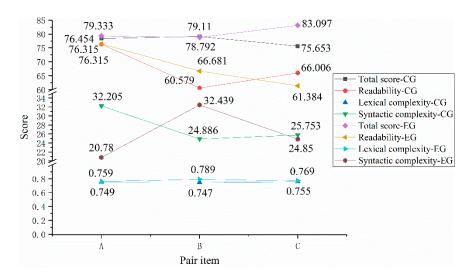


Figure 4. Descriptive statistics in pretest.

4.2. Progress

As can be seen from the descriptive statistics in Table 1, for the control group, it had higher scores, respectively, in total readability and syntactic complexity in the posttest than in the pretest; for the experimental group, it had higher scores in total lexical complexity and syntactic complexity. As can be seen from Table 2, for the control group, it had higher scores in total readability and lexical complexity in the posttest than in the pretest; for the experimental group, it had higher scores in total and readability. As can be seen from Table 3, for the control group, it had higher scores in total readability in the posttest than in the pretest; for the experimental group, it had higher scores in total readability and syntactic complexity. Conducting t-tests of three pairs of each of these four aspects of writing performance confirmed this observation. For pair A, the control group did not improve significantly from pretest to posttest in total scores and other three aspects, because p values were all over 0.05; p values for the experimental group improved significantly from pretest to posttest only in total scores (t = -3.298, p < 0.05). For pair B, the control group improved significantly from pretest to posttest in total scores (t = -2.049, p = 0.046); the experimental group's improvement was significant in two areas: t = -8.938, p < 0.001for total scores, t = -3.942, p < 0.001 for lexical complexity. For pair C, the control group improved significantly from pretest to posttest in total scores (t = -2.073, p = 0.010); the experimental group's improvement was significant in two areas: t = -3.157, p = 0.003 for total scores, t = -2.503, p = 0.016 for syntactic complexity.

4.3. Intervention Effect

In pair A, the experimental group had slightly lower pretest scores in syntactic complexity and higher scores in readability (the higher the score of readability is, the easier the text is) than the control group did, but higher posttest scores in total scores and lexical complexity, and lower scores in readability. In terms of syntactic complexity, the control group gained 14.867 from pretest to post test, while the experimental gained 0.532. In pair B, the experimental gained slightly lower pretest scores in total scores and higher in readability than the control group did, but higher posttest scores in total scores and lexical complexity and lower in readability. In terms of syntactic complexity, the control group gained -3.572 from pretest to posttest, while the experimental group gained -9.851. In pair C, the experimental group had slightly lower scores in syntactic complexity and higher in readability than the control group did, but higher posttest scores in total scores, lexical complexity and syntactic complexity, and lower in readability.

ANOVA was performed to determine if these gains were significantly different between two groups of three pairs, respectively (see Table 5). For pair A, in the case of total scores (F = 1.002, p = 0.023) and syntactic complexity (F = 39.833, p = 0.019), a statistically significant difference was found, indicating that the experimental group made more progress than the control group in these two areas. For pair B, in the case of total scores (F = 1.002, p = 0.023), readability (F = 18.265, p = 0.014) and lexical complexity (F = 1.088, p < 0.001), a statistically significant difference was found, indicating that the experimental group made more progress than the control group in total scores and used more advanced vocabularies to produce more complex writings. For pair C, in the case of total scores (F = 91.048, p < 0.001), lexical complexity (F = 7.575, p = 0.019) and syntactic complexity (F = 35.844, p < 0.001), a statistically significant difference was found, indicating that the experimental group made more progress in basic writing performance and used more complex vocabularies and sentences in writings.

4.4. Attitudes

Students' perceptions of and attitudes towards using vlogs were used to answer the third research question (see from Figure 5). In the questionnaire, questions can be divided into two categories: Q1 to Q9 demonstrated the advantages of a vlog's application to writing, while Q10 to Q13 stated several negative opinions. Using Cronbach's alpha, the questionnaire reflects high reliability (r > 0.90).

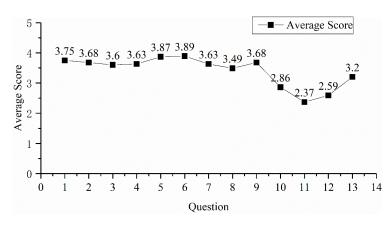


Figure 5. Average score of learners' responses in the questionnaire.

Advantages: participants identified two main features of vlog-based English writing that they found useful: being motivated and improving whole writing performance. The average score of Q1 to Q9 was above 3.00 (out of 5), indicating that the important role vlogs had played in writing improvement was acknowledged.

Negative opinions: The average score of Q10 to Q12 was below 3.00, revealing that some participants still hold uncertain attitudes towards the effect of vlogs brought to

writing improvement. However, the average score of Q13 was slightly higher than 3.00, which may result from the pressure of participants' other learning tasks. Though vlogs were useful in writing improvement, they still required learners' time and energy.

As to the open-ended Q14, most learners suggested that vlogs should be recommended in writing class because of its usefulness. For example, "Using vlogs in writing class is interesting", "This is an interesting method that enhance writing practice". However, several learners thought it time-consuming, among which one student wrote, "I need to spend much time thinking about how to make my vlog attractive".

5. Discussion

The results of data analysis indicated that the control and experimental groups of three pairs all improved their English writing performance pertaining to total scores, while not all of them improved in all three other dimensions—readability, lexical complexity, and syntactic complexity.

5.1. Overall Trend of Writing Performance

While using English for the expression of ideas used to be difficult, uncomfortable, and mundane, the convergence of multiple modes encouraged learners to practice their writing competence in a more meaningful way. The results of this experiment showed that, to a certain degree, the learners' writing performance had been improved. Except for the descriptive statistics in tables, the following figures also show the improvement. Both groups in three pairs in the pretest gained similar scores, which showed little difference. From the posttest, the three experimental groups had achieved better results than the control groups. For this aspect, similar results can be seen from Figure 6a,b. In the pretest, writings of most participants, whether they were in experimental groups or control groups, had similar degree of readability. In the posttest, though the results were insignificant, the experimental groups obviously had lower scores in readability, which means that some participants in experimental groups could product more difficult texts (see from Figure 6c,d).

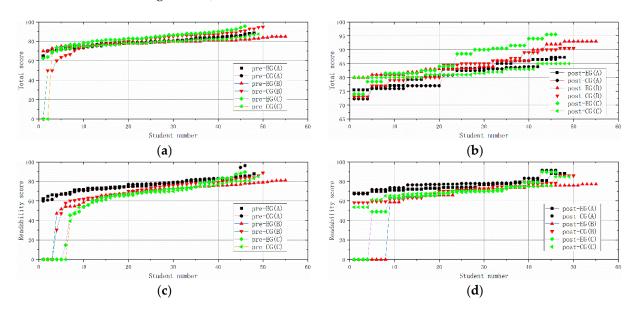


Figure 6. Comparison of pre-and posttests scores. (a) Comparison of pretest total scores. (b) Comparison of posttest total scores. (c) Comparison of pretest readability scores. (d) Comparison of posttest readability scores.

As to the lexical complexity, from the trend we can see that though the control groups and experimental groups had similar same trend in the pretest, the experimental groups' improvement was significant in this aspect (see from Figure 7a,b).

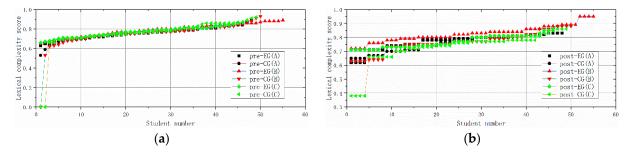


Figure 7. Comparison of pre-and posttests scores. (a) Comparison of pretest lexical complexity. (b) Comparison of posttest lexical complexity.

Examples:

Special classes are also important. What makes us happy are the history class and instrumental class. Our teachers are great and have a lot of experience. (Pretest.)

Specialized courses are also essential. What makes us impressive are the history class and instrumental practice class. Our teachers are excellent and experienced. (Posttest.)

In the aspect of syntactic complexity, most participants of both groups in three pairs had similar scores, as we could hardly see any significant difference. While in the posttest, the experimental groups had significantly higher posttest scores in syntactic complexity than the control groups did (see from Figure 8a,b). The improvements in syntactic complexity can be shown in Figure 8b.

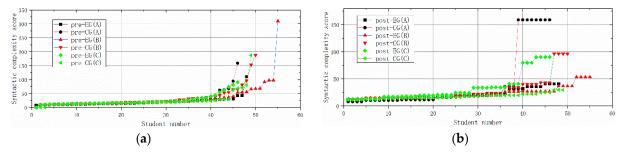


Figure 8. Comparison of pre-and posttests scores. (a) Comparison of pretest syntactic complexity. (b) Comparison of posttest syntactic complexity.

Examples:

In the evening, I will review the knowledge, divide, and summarize it. (Pretest.) In the evening, I will review what I have learned that day, sorting out and summarizing. (Posttest.)

5.2. Affordances of Writing Competence Improvement

The improvement this study discerned can be attributed to four specific attributes of multimodal composing and mobile-based SNS use: visual representation activities, scaffolding for text writing, the fostering of an encouraging environment, and reduction in learning anxiety.

Firstly, multimodal composing represents connotation of viewing. As Anderson and Miyazoe [46] stated, visualized activities could produce higher outcomes in the target skill such as writing, when accompanied by a clear and appropriately challenging goal for online learning participation. Some of participants mentioned in the questionnaire that using vlogs to complete writing tasks was an interesting experience that stood out from their previous learning experience. It enabled them to practice their English writing skills under the help of visual activities, insofar as all the writing procedures were about visualizing. "Vocabularies with images or videos impressed me deeply, so I was willing to choose these in their writings". In addition, mobile access to vlog writing was promised for an increasing access to more writing opportunities. As such, the learners could find

suitable expressions and authentic materials for their writings, which could benefit the development of writing performance. Findings from the current study also echo those of a study by Ciekanski and Chanier [47], who developed a multimodal communication to enhance the writing competence in an audio-graphic environment.

Secondly, making multimodal products provides a certain scaffold for later text writing. Scaffolding is a kind of assistance used to maintain effective learning [48]. In traditional EFL writing teaching methods, the major shortcoming is that there was sometimes limited scaffolding, but the instructors often required students to write according to a given topic, which is a product-oriented method. Participants in this study, in contrast, could use vlogs to prepare formal text writing, and the whole procedure is process-oriented. In the process of multimodal composing, learners would search resources from the internet, where learners could find out native expressions that can be a bridge for later writing. Therefore, learners could use relative pictures or moving figures to substitute former words or phrases and enhance their understanding of some vocabularies correspondingly.

Thirdly, SNS created an environment that encouraged learners to have more interest in English writing. As instructors stated, multimodal composing developed learners' feeling of comfort, which made learning English a less painful experience and re-engaged learners with print-based writing. This offered opportunities for learners to use the target language, English, to communicate in authentic contexts. Some participants reported that they were motivated using vlogs before writing and were eager to actively participate in this process. Prior studies of mobile SNS reported similar results. Jiang [49], for example, found that in the process of digital multimodal composing, the student evolved from an exam-oriented writer and textbook-decoder to a multimodal designer, which could promote students' motivation in writing.

Lastly, multimodal composing and SNS-based writing practice reduced writing anxiety in the study. EFL learners are likely to experience shyness or anxiousness in communicating in English [50]. In the present study, participants had the opportunity to pre-access related writing materials such as pictures and videos via vlogs as they desired, and group cooperation helped to incorporate members' ideas, so these appeared to have reduced the feelings of anxiousness and fear of nothing to write, not least because of full preparation and interest that vlogs encouraged compared with traditional paper-based writing. Gkonou et al. [51] showed that language anxiety could affect the English skills of learners, as the anxiety increased and the quality of writing performance lowered. Thus, the participants' improved writing proficiency in total scores and lexical and syntactic complexity may represent indirect effects that their anxiety had lessened over the course of the experiment.

In addition to the affordances provided by multimodal composing and SNS, though the research results in pre- and posttests revealed a positive change in writing proficiency for most of the participants, the high school students performed a less significant difference than college students did. Possible explanations for this could be summarized as follows. First, students at a younger age had a comparatively lower writing competence than undergraduates did, which would confine their performance in this study, thus leading to insignificance in the improvement in writing competence. Second, according to the instructor, students in high school had less opportunities to access to mobile devices in and out of class, which may lead to unfamiliarity with the use of vlogs, thus the significance of research results in this pair would be subtle. Third, the pressure from the college entrance examination would reduce the efficiency of making a high-quality vlog, which would also weaken the effects that multimodal composing brought.

6. Conclusions

Based on a combination of linguistic analysis and a questionnaire, the current study found that SNS-based multimodal composing improved EFL learners' English whole writing performance and lexical and syntactic complexity to a certain degree. This finding is important for practitioners, as it suggests ways in which SNS-based multimodal composing

might positively impact EFL writing performance, both undergraduate students and high school students. It appears that using multimodal composing based on an SNS can be an impactful method of engaging and motivating students' learning, reducing anxiety, and making EFL writing entertaining. Researchers have reported some similar findings in recent years [52]. However, the main contribution of this paper is to identify what aspects English writing performance were improved exactly among Chinese EFL learners through the adoption of multimodal composing theory based on SNS learning.

The results of this study should yield improved methods of EFL writing teaching in the education of Chinese students and other non-English-speaking countries. Specifically, these implied improvements can be summarized as follows:

- (1) SNS-based multimodal composing may effectively support current language curricula if appropriately implemented in combination with activities that promote interaction and cooperation. Activities based on task-based approaches, such as information gaps, have been found effective in promoting writing competence [53]. For example, teachers could pair students and provide different information for each member, so that students could not complete writing task unless they cooperate with each other effectively.
- (2) If language teachers are to exploit the benefits of mobile technology in their teaching, they should enhance their competency of mobile technology so that the impact of this approach could be maximized. In assistance of this, pre- and in-service teacher should be trained to focus on student-centered knowledge construction instead of teacher-centered knowledge transmission.

Further study should consider recruiting elementary students, postgraduate students, and even adult learners to further investigate the effects of multimodal composing based on mobile SNS on EFL writing competence. In addition, to verify the results, it might be useful to incorporate a broader range of data resources: for example, thinking aloud of the process of designing, interview on the instructors. Extending the duration of future experiments might help enhance the reliability of this research. Lastly, the effects of different teaching strategies and learning methods on writing performance based multimodal composing should also be investigated.

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