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Exploring the Impact of Process-Genre Approach on Learners' Academic Writing and Higher Order Thinking Skills

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ABSTRACT

Background. The study of using process-genre approach that was used to increase the writing competence had been conducted by many researchers. However, the contribution of this learning approach for HOTS aspects has not been done by many researchers, especially on learning writing Indonesian

Purpose. Many studies only focused on one research approach, consequently, the finding was not quite comprehensive. Besides, to examine the effect of process-genre approach on academic writing competence and HOTS, this research also aimed to explore attitude and students' expectation on their learning experience by using this approach.

Methods. The research used a sequential, mixed-method explanatory approach. Two grades were randomly chosen to enroll in the experimental class and a monitoring class of up to 52 students. The individual is a member of the Indonesian language education department who is currently taking the writing 1 course at the Bengkulu University, Indonesia. There are two instruments used in this analysis, the writing test & HOTS test for Quantitative statistics and semi-structured qualitative data interviews. The data from the writing test and the HOTS were quantitatively analysed for the paired sample t-test, the stand-alone sample t-test and the MANOVA, while the interview data were analysed using thematic analysis techniques.

Results and Implications. The results have found that process-genre approach had a substantial positive effect on scholarly writing and student HOTS. Besides, thematic research also reveals that there are favorable views and expectations of students regarding the influence of the process-genre approach towards academic writing and student HOTS. This finding is expected to enrich knowledge about how students could enhance their writing ability and HOTS by using process-genre approach.

KEYWORDS:

academic writing, higher-order thinking skills, mixed methods, process-genre approach

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INTRODUCTION

The Higher Order Thinking Skills (HOTS) are basic skills that students must possess in addition to their academic achievement (Marshall & Horton, 2011; Tajudin & Chinnappan, 2016). In other words, these skills can assist students in constructing knowledge and various information. HOTS are also considered an important aspect of education and teaching because these skills The ability, speed, and efficacy of student learning can be impaired (Alrawili et al., 2020). The HOTS in the continuum of education and learning are therefore required in re-

sponse to the demands of evolution of education (Ramadhan et al., 2019) and produces qualified human resources that following the demand of the industrial world. (Heong et al., 2012; Misrom et al., 2020).

One way to develop HOTS for students is through learning academic writing. This is based on the fact that by using thinking skills a person can generate ideas critically and analytically in writing activities (Singh et al., 2018). Besides, with writing activities, students are invited to be creative which can encourage them to a higher taxonomic level of thinking ap-



plying, analyzing, synthesizing, and evaluating (Singh et al., 2020). Besides, with writing activities, students able to express their ideas and then organize the information through the writing they produce (Helaluddin et al., 2020).

Various studies on HOTs through the infusion approach in learning to write have been carried out by many researchers. Studies on student perspectives in learning writing to improve HOTs were carried out by Ganapathy & Kaur (2014). The results of this study stated that students felt involved in active learning, experienced independence in learning, developing writing skills, and personal skills. The study of the instructor's perspective states that they have used various strategies that can help learners increase HOTs through real-life situations and problem-solving skills (Singh et al., 2020). Research & development in learning to write by integrating HOTs was also carried out by several researchers to create valid, practical, and effective learning products in the form of syllabus, modules, and textbooks (Lustyantie et al., 2019; Singh et al., 2018). Besides, another study revealed that HOTs questions were able to improve the descriptive text writing skills of grade 8 junior high school students (Sianturi et al., 2020).

From these studies, there is one thing that has been missed by researchers/teachers an in-depth exploration effort of learning to write using the best approach in maximizing student HOTs the process-genre approach. This approach is the most advanced of several existing approaches. The genre method approach includes an understanding of vocabulary, meaning & aims, and language skills (Badger & White, 2000; Tesfie, 2017; Yanghee & Jiyoung, 2005) that can be used to improve student HOTs. The purpose of this thesis is therefore to fill in previous study gaps by using the following research queries: (1) How successful is the genre approach in improving student writing skills and HOTs relative to the traditional approach? (2) What attitudes and expectations do students have of the process genre approach to learning to write?

LITERATURE REVIEW

Higher-Order Thinking Skill

The word higher-order thinking skills (HOTs) has been commonly used in numerous paper papers, but it is not a straightforward term to describe (Schraw et al., 2011). It should be remembered, though, that while the definition is difficult to describe, it is reasonably straightforward to list some of its features (Resnick, 1987). HOTs are non-algorithmic, appear to be dynamic, and often include problems of complexity. Simply put, HOTs are characterized as the willingness of students to think at a higher level so that they can assess, examine and develop inventions to solve current problems (Ichsan et al., 2019)

Based on Bloom's taxonomy and the updated model (Krathwohl, 2002; Leighton, 2011), the implementation, review,

assessment, and improvement of skills are core elements at the HOTS stage. Brookhart (2010) suggests that HOTS include logical thought skills, reflective logic, and metacognitive skills. And the imaginative thought. In line with Brookhart, Martinez & McGrath (2014) claimed that thinking skills are closely linked to HOTS and deeper learning. Moreover, the topic of HOTS usually gives preference to the insertion of triggers in contextual contexts (Abdurahman et al., 2019; Tiruneh et al., 2017).

Concerning the current knowledge age, HOTS can be defined as the highest level in the cognitive process hierarchy. With HOTS, students will face problems dominated by multiple types of information and with comparatively small processing time (Nourdad et al., 2018) In other words, HOTS concentrate on improving students' knowledge to be able to interpret accurately, assess current knowledge and construct something different (Chinedu & Kamin, 2015). HOTS will appear when students receive new information, store it in memory, relate existing awareness and product details to accomplish priorities or overcome difficult problems (Nourdad et al., 2018).

Academic Writing

Based on its name, academic writing is of course related to writing activities carried out in an academic environment. There are several criteria used in classifying types of writing into groups of academic writing. Zainurrahman (2011) describes several criteria for academic writing: (1) academic writing is written by components of the academic community, (2) scientifically, and (3) conventional in nature or restrained by various rules. In addition to these four criteria, there are other criteria used in categorizing academic writing containing definition, description, classification, causality, comparison, contrast, and argument (Murray & Hughes, 2008).

Oshima & Hogue (2006) describes that academic writing is the type of writing required at the college level which is different from personal writing, literature, journalism, and business. These differences are identified in the specific audience, the tone or tones, and the purpose of the writing. Several types of academic writing are differentiated into several genres, narrative, procedure, hortatory, expository, observation, and implantation (Mahsun, 2014). Indrawati & Subadiyono (2018) added that academic writing can be divided into several forms, such as books & book reports, translations, essays, research articles, conference papers, academic journal articles, theses & dissertations, and abstracts.

Process-Genre Approach

In general, there are three approaches used to learn how to write a product based approach, a process-based approach, and a genre-based approach. All three approaches are judged by experts to have their respective drawbacks, so

it is important to merge the three approaches. The term for combining the three approaches is the process-genre approach. This approach is a writing activity that adopts a process model and genre theory which is intended as a solution to the various limitations of the three approaches (Agibuyah, 2017; Babalola & Litinin, 2012).

Several stages must be passed in the process of learning to write using the process- genre approach. Jarunthawatchai (2010) mentions several stages in this approach: (1) Construction of the context, (2) examination of the text of the model, (3) collective construction of the text, (4) individual construction of the text, and (5) contemplation on prose. Another stage model in the process-genre approach is also proposed by Zhao (2017)) by simplifying the stages into just four parts analysis of model texts, independent writing, revising, and editing or proofreading. On the other hand, there is a stage model that includes six stages: (1) exploration of intent and functions, (2) language scaffolding, (3) modeling, (4) mutual/ joint text construction, (5) individual text construction, and (6) description, free conversation, Q&A, & assignment (Du, 2015). In this study, the design of the writing learning approach used was the Jarunthawatchai process genre-based approach which included five stages as mentioned above.

METHODS

Research Design

This thesis employs a sequential mix-method approach to data collection and interpretation to address a variety of research questions (Ebadi & Rahimi, 2017; Riazi & Candlin, 2014). The goal of this approach is to test the feasibility of a genre-based approach to developing student writing skills & HOTS and to examine their expectations and attitudes towards learning. The use of mixed-method methodology helps researchers to carry out in-depth experiments utilising two or three stages of study or data collection at the same sample (Bakla, 2020; Greene et al., 2005; Kamalodeen & Jameson-Charles, 2016; Kazazoglu, 2020). Moreover, mixing approaches are useful for exploring inconsistencies and increasing efficiency by cultivating a holistic viewpoint (Creswell, 1994; Creswell & Plano-Clark, 2007; Luo & Dappen, 2005). In other words, this study uses qualitative findings to help explain, elaborate, and clarify quantitative findings (Creswell et al., 2003).

The use of mixed-method methodology helps researchers to carry out in-depth experiments using two or three steps to evaluate or extract data from the same sample (Bakla, 2020; Greene et al., 2005; Kamalodeen & Jameson-Charles, 2016; Kazazoglu, 2020).

Participants

Two classes from the first semester of the Indonesian Language Education Program at the University of Bengkulu, Indonesia, were chosen as participants in this research. One

class was randomly chosen to act as an experimental group and as a monitoring group. Both of the participants are students aged 19 n.d. 52 students are taking composition lessons (26 experimental group & 26 control group).

Data Collection

The dataset was grouped into two aspects of the collection of quantitative and qualitative data. Quantitative data collection was carried out using active evaluations in the form of essay writing tests (pretest & post-test) and HOTS tests in the form of multiple open-ended questions. In addition, qualitative data collection used approaches in the form of semi-structured interviews. More in-depth, the instruments in data collection were described in the following section.

Instruments

Performance Test

The type of test used in data collection to see students' academic writing skills is a writing test using Indonesian. This writing test is carried out at the beginning before the learning treatment (pretest) and also afterward (post-testing) granted to experimental and control groups. Student writing results. These are then assessed using the academic writing assessment rubric using assessment rubric developed by Oshima & Hogue (2006). Some of the aspects assessed are: (a) format aspect/maximum score of 5, (b) mechanics/maximum score of 5, (c) content/maximum score of 20, (d) organization/maximum score of 45, and (e) sentence structure & grammar/maximum score 25.

To reduce subjectivity and assessment bias, the researchers measured the consistency of the rubric score, known as inter-rater reliability. That is, it is not only researchers who are in charge of assessing student writing but also involving one of the experienced Indonesian language course teachers (Landis & Koch, 1977; Panou, 2013). Measurement of inter-rater reliability is done by selecting 10 writings randomly from both pretest and post-test (Alwaleedi, 2018). The measurement results show that the acceptable consistency of the two assessors is 0.90 which is obtained using the Pearson product-moment correlation coefficient with the SPSS version 23 application.

Higher-Order Thinking Skill Test

Another instrument used in this study is the HOTS performance test. This test measures three levels of student HOTS which include the ability to analyze, evaluate, and create open-ended questions (Salem, 2018). This test consists of three main parts: (1) the first part measures the level of student performance in the analysis task, (2) the second part measures the level of students' ability to evaluate and assess evidence and arguments in their writing, and (3) the third part measures the level of the ability of students to create something new or unusual in supporting their writ-

ing. The overall score on the HOTS performance test is 75 points with 25 points each.

Semi-Structured Interview

Subsequent data collection was carried out using semi-structured interviewing methods to examine student expectations and perspectives towards the process-genre approach to develop their academic writing skills and HOTS. Half-structured interviews were chosen by researchers because they have the potential to explore deeper and allow researchers to add several questions as a process of clarification and elaboration (Guthrie, 2019). Besides, the questions in the interview were obtained from the interview instruments used by Ebadi & Rahimi (2017) dan Pham & Usaha (2016). Twenty six students were willing to be interviewed were asked by the researcher to fill out the willingness sheet. Interviews were conducted directly for approximately 30-45 minutes for each student. All conversations in the interview were recorded using a digital recorder by asking for participant consent. The language used for the interview was Indonesian to make easy the process of getting the information from students. Interview was conducted in a closed room to avoid distractions during the interview process (Lee et al., 2019).

Data Analysis

Quantitative Analysis

The data obtained from the pre-test and post-test were then quantitatively evaluated using the SPSS 23 application. In this analysis, the researcher estimated the mean value, the standard deviation, the t-test, and the one-way MANOVA Multivariate Analysis. Paired-t samples were run to see whether there was a substantial improvement in HOTS and student academic writing using the process-generic methodology in the experimental community and traditional approaches in the control group. Besides, the examiner also conducted a one-way MANOVA test to monitor the effect of covariates on the post-test of both classes.

Qualitative Analysis

The data collected from the interviews were analysed using a thematic approach. This study was used to identify the most influential trends in student attitudes and activities regarding the impact of the genre approach on the production of academic writing skills and HOTS. Some experts suggest that thematic research often helps to analyse the viewpoints of different students, highlight parallels and differences, and produce surprising insights (Braun & Clarke, 2006; King, 2004; Nowell et al., 2017). Thus, the interviews were transcribed and coded based on open thematic coding to find the most crucial key variables on student impressions (Liu & Sadler, 2003).

Besides, in determining the accuracy of student responses to interview questions (credibility), researchers used the mem-

ber checking technique (Morse et al., 2002). This technique is an opportunity for participants to examine and agree on certain aspects of the interpretation of the data they have provided. During the interview process, participants were given a transcript of the interview and then asked to verify it by editing, clarifying, elaborating, and even if possible, they deleted their words from the transcript (Carlson, 2010).

Procedure

As previously reviewed, this report incorporates Quantitative and contextual approaches to data analysis and analysis. For this cause, in general procedures for this study can be illustrated in the following chart.

In the early stages, the researcher carried out a writing test (pretest) for all participants, both the experimental class and the governing class. This is the researcher/lecturer presented pictures/photos on written themes such as education, health, law, and other recent issues. In this pretest, the lecturer allocates 60 minutes for students to write essays with a minimum number of 500 words.

Furthermore, the intervention phase was carried out by the researcher by applying the genre process approach in learning to write to the experimental group. On the other hand, the control group was approached using a traditional approach that involved multiple steps to clarify the definition of the text, to present illustrations, to identify examples of essay texts and to write separately. On the other hand, referring to the opinion of Jarunatawatchai (2010) there are five stages in the genre process approach, (1) building context, (2) analyzing sample texts, (3) writing texts together, (4) writing essays independently, and (5) reflection.

After the intervention process in learning academic writing is complete, the researcher conducts a writing test which is commonly called a post-test. Similar to the pretest, this post-test was given to both groups with duration of 60 minutes with a minimum of 500 words. Finally, the interview phase was carried out by a special researcher on group participants who were superior to the HOTS level they achieved by seeing the increase in HOTS scores from pretest to post-test. This interview was conducted to help describe and explain known quantitative research findings in the pretest and post-test processes.

RESULTS

Quantitative Analysis

Academic Writing

The first results to be quantitatively analysed were student pre-test and post-test scores in all schools. The researcher performed two paired t-test experiments to determine the impact of the process-genre approach on the development of writing skills. Table 1 below displays the overall disparity

Figure 1
Research flow

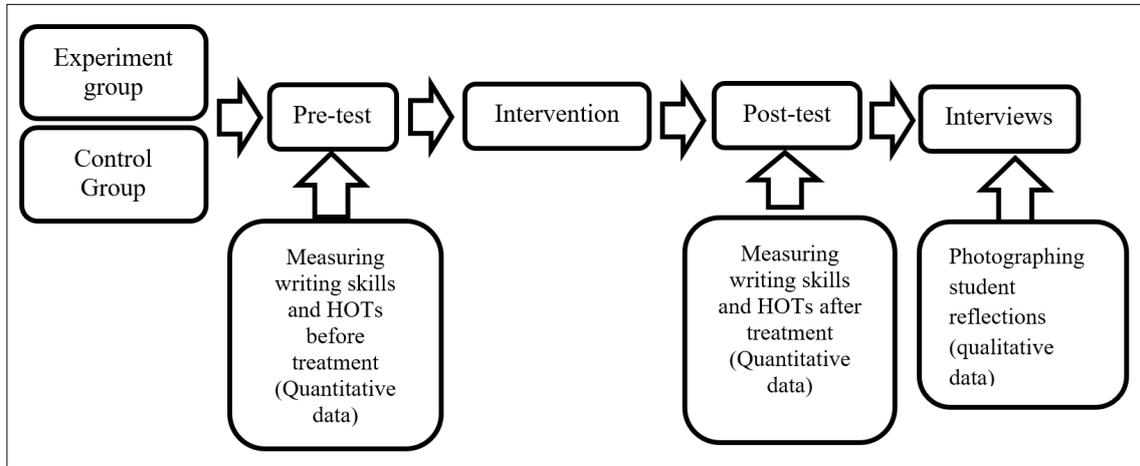
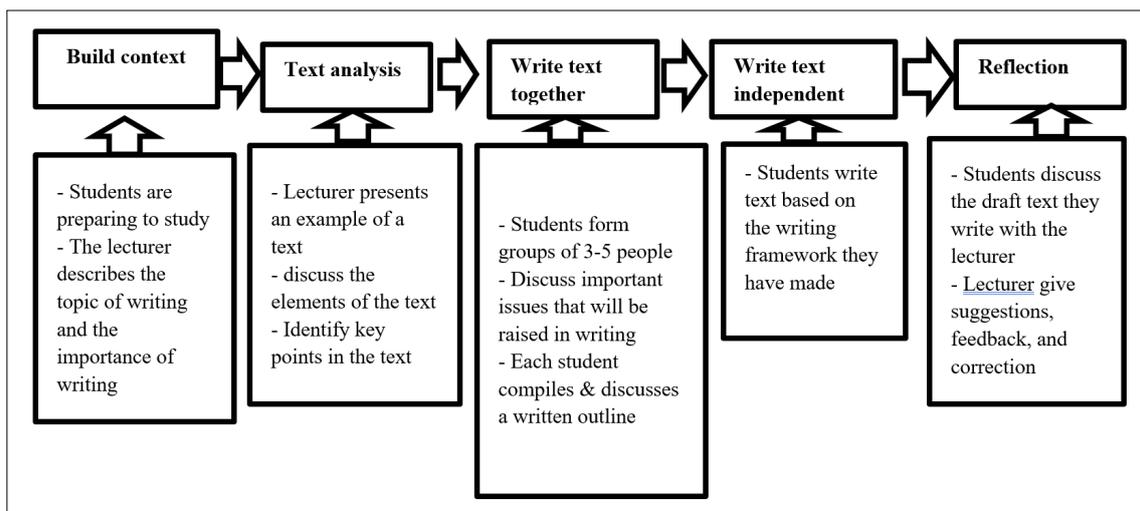


Figure 2
Learning steps with the genre process approach



between the experimental community's pre-test and post-test scholarly writing and the control class. From the data seen in the table, it can be observed that the overall post-test score of the two groups is higher than the pre-test average.

Table 2 is also the outcome of the study using the t-test matched samples to determine the discrepancy between the pre-test and the post-test in both grades. The table indicates that there is a difference in the pre-test and post-test academic writing of the two groups. In other words, there

Table 1
Descriptive statistics, analyzing the number of differences in the average score of academic writing between the pretest & post-test for the two classes

	Mean	N	Std. Deviation	Std. Error mean
Writing Ex-pre	56.5000	26	7.28972	1.42963
Writing Ex-post	73.5000	26	9.68401	1.89919
Writing Co-pre	57.5769	26	8.09530	1.58762
Writing Co-post	64.6923	26	8.26931	1.62175

Table 2

Paired samples t-test, investigating the differences between the pretest and post-test, wrote over the academics of the two groups

	Paired Differences							
	Mean	Std. deviation	Std. Error mean	95% confidence interval of the difference		t	df	Sig. (2-tailed)
				Lower	Upper			
Exp	-17.00000	5.97997	1.17277	-19.41536	-14.58464	-14.496	25	.000
Con	-7.11538	4.01325	.78706	-8.73637	-5.49440	-9.040	25	.000

was a wide difference between the pre-test and post-test academic writing of the two schools. This difference is the consequence of the use of a solution for the process-genre in the experimental class and of conventional methods in the control class.

Table 3 below indicates the amount of mean gaps between the two classes of pre-tested students in their academic writing results. From this table, it can be seen that the pre-

test scores of student academic writing in the control and experimental classes are nearly equal. In comparison, the variations between the scholarly writing pretests in the two classes are still related to Table 4 below. Table 4 indicates that there is no substantial difference in the original evaluation in the trial and control classes. In other words, the pre-test outcomes of student academic writing in both classes were identical before being approached with a process-genre approach and traditional approaches.

Table 3

Descriptive figures, investigating the number of mean variations between the two classes.

Groups	N	Mean	Std. deviation	Std. error mean
Experimental (pre)	26	56.5000	7.28972	1.42963
Control (pre)	26	57.5769	8.09530	1.58762

Table 4

Independent samples t-test, analysing the discrepancies between the pre-test classes.

	t-test for equality of means								
	Levene's test for equality of variances		t	df	Sig. (2-tailed)	Mean difference	Std. error difference	95% confidence interval of the difference	
	f	Sig.						Lower	Upper
Writing (pre)	.663	.419	.504	50	.616	1.07692	2.13644	-3.21424	5.36809

In comparison, the following table 5 identifies the number of differences in the post-test performance in student academic writing in experimental and control institutions. From this table it can be concluded that the average student writing score in the experimental category is greater than the average student writing score in the control group.

Table 6 displays the outcome of the discrepancy between the two groups' post-test evaluations, which turned out to be better than the management group score. The findings of the data analysis found that there were substantial variations between the two groups. This means that the genre-based approach to academic writing outcomes of

Table 5

Descriptive data, investigating the amount of variations in the average post-test between the two classes

Groups	N	Mean	Std. deviation	Std. error mean
Experimental (post)	26	73.5000	9.68401	1.89919
Control (post)	26	64.6923	8.26931	1.62175

Table 6*Independent samples of t-test, discrepancies between post-tests of the two classes*

	t-test for equality of means								
	Levene's test for equality of variances		t	df	Sig. (2-tailed)	Mean difference	Std. error difference	95% confidence interval of the difference	
	F	Sig.						Lower	Upper
Writing (post)	.252	.618	-3.527	50	.001	-8.80769	2.49740	-13.82386	-3.79153

students outperforms academic writing results using traditional approaches. Thus, the use of the genre-based approach is more successful in improving student scholarly writing than the traditional approach in the control class.

Higher-Order Thinking Skills

Apart from studying the impact of the process-genre approach on students' academic writing, this study also explores the influence of this approach on their HOTS. For this second target, the researcher ran a paired-samples

t-test on the HOTS test outcome findings using open-ended questions in both groups. Findings of the evaluation can be found in Tables 7 and 8 below.

Table 7 displays the results of the pre-test and post-test analysis of the average discrepancy between student HOTS in both grades. The table indicates that the average student HOT score in the post-test is higher than the pre-test score, both in the experimental class and in the control class. Table 8 reveals the difference between pre-test and post-test student HOTS in both schools, showing that there is a major contrast between

Table 7*Descriptive numbers, the amount of mean variations between the pre-test and the post-test of the two classes*

	Mean	N	Std. deviation	Std. error mean
Eva-Pre-Ex	16.4615	26	2.55433	.50095
Eva-Post-Ex	21.9231	26	2.34810	.46051
Eva-Pre-Cont	17.2692	26	1.88108	.36891
Eva-Post-Cont	20.5769	26	2.87295	.56343
Ana-Pre-Ex	16.7308	26	1.21845	.23896
Ana-Post-Ex	22.1154	26	1.63284	.33741
Ana-Pre-Cont	16.0000	26	1.72047	.32023
Ana-Post-Cont	19.5000	26	3.02324	.59291
Cre-Pre-Ex	16.9615	26	2.47355	.48510
Cre-Post-Ex	21.5385	26	2.37033	.46486
Cre-Pre-Cont	17.4615	26	1.88108	.36891
Cre-Post-Cont	17.7692	26	1.98611	.38951

Table 8*Paired samples t-test, differences between the pretest and post-test of the two groups*

	Paired differences								
	Mean	Std. deviation	Std. Error mean	95% confidence interval of the difference		t	df	Sig. (2-tailed)	
				Lower	Upper				
Eva (Ex)	-4.65385	3.28563	.64437	-5.98094	-3.32675	-7.222	25	.000	
Ana (Ex)	-5.38462	1.57675	.30923	-6.02148	-4.74775	-17.413	25	.000	
Cre (Ex)	-4.57692	1.17211	.22987	-5.05035	-4.10350	-19.911	25	.000	
Eva (Con)	-4.11538	3.20408	.62837	-5.40954	-2.82123	-6.549	25	.000	
Ana (Con)	-3.50000	3.04959	.59807	-4.73176	-2.26824	-5.852	25	.000	
Cre (Con)	-.30769	2.70953	.53138	-1.40209	.78671	-.579	25	.568	

the pre-test and the post-test. This indicates that both tables suggest that the solution to the genre mechanism and the traditional method will substantially develop student HOTS.

In comparison, Table 9 above is the research outcome of the one-way MANOVA test, which seeks to assess the disparity in

student post-test scores on three dimensions of HOTS in both classes (experiment & control). The inter-subject impact test in the table above indicates that the relationship between the genre processes approaching HOTS gave a score of 7,334 with a significance of 0,001. This shows that the univariate approach to the process-genre affects student HOTS in all three aspects.

Table 9

Tests of Between-subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Noncent. Parameter	Observed Power ^b
Corrected Model	Post_control	104.333 ^a	2	52.167	7.334	.001	14.668	.930
	Post_ex	4.487 ^c	2	2.244	.488	.616	.976	.127
Intercept	Post_control	29000.205	1	29000.205	4.077E3	.000	4077.174	1.000
	Post_ex	37269.55	1	37269.551	8.103E3	.000	8102.980	1.000
HOTS	Post_control	104.333	2	52.167	7.334	.001	14.668	.930
	Post_ex	4.487	2	2.244	.488	.616	.976	.127
Error	Post_control	533.462	75	7.113				
	Post_ex	344.962	75	4.599				
Total	Post_control	29638.000	78					
	Post_ex	37619.000	78					
Correct Total	Post_control	637.795	77					
	Post_ex	349.449	77					

Table 10.

Categories of students' perceptions and behavior towards the influence of the genre process approach on their HOTS

No	Categories	Themes
1.	Benefits of the genre process approach	Writing skills HOTS upgrade
2.	Excess steps in the process genre approach	Text analysis phase Collaborative writing phase Reflective phase
3.	New insights in writing	Text structure Current issues
4.	Positive attitude towards the genre process approach	

Qualitative Analysis

Centered on the second research question, the goal of this review, is to explore student perceptions and attitudes towards the process-genre approach in order to improve their academic writing skills & HOTS. Data derived from interviews is qualitatively analysed using a thematic analysis. Generally speaking, the findings of the analysis can be found in the table below.

All students interviewed from the experimental group showed positive responses about learning to write with the process-genre approach. The students felt that the process-genre approach provided benefits not only in terms of improving academic writing skills but also for increasing their HOTS. The process-genre approach that applies sever-

al phases is considered to provide knowledge that can then be applied in writing activities. RP-01 states that:

For me, this approach provides tips in writing such as how to compose interesting writing.

In addition to writing skills, students also feel that their HOTS are honed and developed in learning activities using this process-genre approach. Efforts to find valid and credible sources of information, provide solutions to problems, and analyze a phenomenon are activities that hone student HOTS. This is supported by the RP-21 and RP-10 statements which state:

When I write about the problem of unemployment, the solutions that I will offer in my writing must be relevant. So I have to read various sources so that my writing is more interesting.

I think writing trains me to come up with different creative ideas. For example when I write about the learning method using video as the best method then I have to describe its advantages over other methods in my essay.

Regarding the phases in the process-genre approach, the students gave a positive response and found this approach much more effective. One activity phase that was appreciated was the writing phase together. According to them, the discussion and brainstorming is able to generate new ideas about the theme of writing. The RP-07 & RP-22 claim that:

I feel that many ideas come up when discussing with friends. In fact, when my friends share their opinions, other ideas automatically pop into my head.

When discussing with friends, I am able to provide their opinions and suggestions. I think this approach is the best way of developing writing themes.

In addition to the collaborative writing phase, students also gave positive responses to other phases the text analysis and reflective phases. Students assessed the text analysis phase to help them recognize the structure of the essay text that they had not known so far. According to their view, the writing was just an activity of describing ideas from thought to written form without understanding that a text also has a systematic.

Like RP-14 which reported:

I thought a free essay text without any ties was like writing a short story or a novel. Now, I just found out that an essay text has a standard structure such as the opening paragraph, the body of the essay, and the closing paragraph.

Students also appreciated the last phase in the process-genre approach which was considered to have provided an opportunity for them to perfect the text they produced. The reflective phase is the final phase in writing by discussing the results of the writing with the lecturer. In this phase, students get corrections and suggestions in the form of using word choices (diction), sub-themes that must be developed or which must be ignored, punctuation, and so on. For example, the RP-12 says:

I really like discussing with the lecturer y. I feel that my writing is more perfect after receiving feedback and suggestions from my lecturer.

Besides, students considered that the process-genre approach was also able to help them master various current issues. When they choose an issue that they raise as the theme of their writing, of course, they need more accurate information about that issue. For that reason, students try to find various references on the issue, both searching through the internet and reading books, newspapers, magazines, and others. One of them is the RP-6 which claims that:

I feel like learning to write will make me accustomed to finding the right source of writing. Example when I write about the

practice of bullying then I have to look for literature on that theme.

Finally, based on the findings of the student interviews, it can be inferred that there are optimistic attitudes towards the introduction of the genre solution. Any students felt that their writing was stronger in terms of consistency for this approach. The standard of the writing meant was not only limited error in the linguistic element, but also in the choice of ideas and the organisation of the writing process. RP-26 reported the following:

I feel confident in my writing after receiving suggestions and corrections from friends and lecturers. I find it helpful to use the right words choice according to the context.

DISCUSSION

HOTs becomes one of the educational objectives besides academic achievement. The integration of HOTs into learning writing has a essential role for teachers or lecturers in higher education. The goal of this research is to examine the effects of the process-genre approach on the production of writing and higher-level thinking skills for students. Selain itu, penelitian kali ini juga bertujuan untuk mengeksplorasi bagaimana persepektif mahasiswa terhadap pembelajaran menulis tersebut.

The results of this study indicate that the process-genre approach has a positive effect on the development of HOTs and student writing skills. It can be indicated by improvement of HOTS and students' writing with comparing pretest and posttest scores. This is consistent with the conclusions of the report published by Ganapathy & Kaur (2014) which states that HOTs-based writing learning can facilitate students' writing skills and interests. For this reason, learning to write like this must be implanted explicitly in classroom learning.

In relation to writing competence, several researchers have conducted studies relating to the use of a process-genre approach to writing instruction. Several researches suggest that this approach has a substantial influence on the learning success of students in order to improve the standard of the writing they produce (Huang & Zhang, 2019; Janenopakarn & Thongrin, 2020). On the other hand, research findings also reinforce that this combination approach can improve writing skills, both writing essays, reports, and other academic writing (Assaggaf, 2016; Alabere & Shapii, 2019; Maolida & Salsabila, 2019; Sarala et al., 2015).

Based on the findings of the quantitative and qualitative analysis, the HOTs required for writing activities. This is focused on the idea that students would go beyond their comprehension of certain content to apply their critical reasoning as well (Singh et al., 2020). The learning of writing process also supports students' desire to think critically and creatively differently (Lustyantie et al., 2019). This means

that students can provide various possible responses or views on a problem or the same theme. Based on facts, academic writing has strong relation with HOTs' ability.

In general, this finding proved that the process-genre approach gave positive impact on improvement of students' writing ability and HOTS. The process-genre approach as a hybrid approach is considered capable by experts in developing students' writing skills. Learning to write is the most difficult stage of language learning which requires effective methods, one of which is by combining several approaches (Bin-Hady et al., 2020; Kondal, 2020; Rusinovci, 2022). That is, the process-genre approach is a synthesis of two approaches that help students master writing skills from various aspects, including aspects of organization, vocabulary, grammar, and mechanics (Agesta & Cahyono, 2017; Hoa, 2022; Xu & Li, 2018).

One of the phases appreciated by the students in the process-genre approach was the writing phase together. This phase is considered capable of generating higher-order thinking skills by providing input and views to each other. This kind of social interaction contributes to the formation of a learning community, maintaining space to encourage HOTS through the creation of a shared knowledge process (Wang, 2020). In other words, teacher and peer interactions have a positive impact on activities that encourage student HOTS (Gailea et al., 2021).

The role of the teacher in the process-genre process approach must indeed be a priority. When students can write their ideas into writing, the task of the lecturer is how to provide input and directions to the writing without the tendency to change or divert to other ideas. In other words, the function of teacher as facilitator would have an effect on students' independence in learning (Ramon-Casas et al. 2018; Toprak & Yucel, 2020). The process-genre approach has advantages for the teaching role which includes various roles, such as assistant, evaluator, and examiner (Yuniar et al., 2019). Feedback during learning also helps provide a clear picture of the process, context, and goals of writing (Winarti et al., 2021).

For further research, I recommend to enrich the scope of language competence and not only focus on writing ability. Besides, the next research could emphasize on learning outcome and examine the effectiveness of critical thinking, creative thinking, self-efficacy and so on. The limitation of the research namely the participants of interview section were only limited to experiment group. It meant that this research just focused on exploring students' perception about learning the process-genre approach and ignore traditional approach. To achieve comprehensible qualitative finding, the researcher needed to involve participant from control group.

Based on background elaboration, this research was tried to fill the gap about incomprehensible learning writing. The Majority of previous studies only used one research design, thus the finding was limited. This research employed mixed method design to gain real research finding that can be viewed

from many perspectives. By using this design, the quantitative finding that is generalizing can be supported by using proofs from qualitative data. It means that the different data analysis could strengthen and support valid and reliable of the research finding.

CONCLUSION

HOTS is one of the competences in education. One of the ways to enhances students' GOTS ability is to integrate it into learning, especially in academic writing course. In gaining the target, the lecturer or teacher could use the process-genre approach that is special method in learning writing by combining process approach and process-genre approach. This study gives emperical evidence about the use of the process-genre approach which has positive impact on students' writing ability ehancement and HOTS. Moreover, another finding showed that students had positive attitude on the process-genre approach. It means that the qualitative finding supports the previous emperical evidence.

The use of the process-genre approach in learning writing was appropriate. This form of hybrid approach is a blend of the process and genre approaches aimed at mitigating the limitations of both approaches. The characteristic of this approach dould stimulate students' ability in thinking that produces good writing. Besides, the various stages of learning in this approach are considered capable of encouraging and stimulating student HOTS such as analyzing, evaluating, and creative skills.

Concerning writing activities, of course, students need a level of thinking that is more than just putting ideas into writing. There needs to be an understanding of the problems that they raise as writing topics. Students must also be able to analyse and evaluate the various evidence and arguments put forward in writing. In the end, the highest level thinking ability is the ability to create which must be expressed by students in providing solutions, the best alternative options, and creating something new in overcoming the problems discussed in their writing.

The further research about using the process-genre approach in improving students writing ability or HOTS needs to be done comprehensively. This will be used to generalize the finding and get more deep description about this topic. The next research must consider other aspects: (1) participants; (2) Target of language skills; (3) learning of other language skills. Furthermore, it is recommended that the research involves all participants in interview session to obtain accurate data, enlarges the target, such as creative thinking, critical thinking and self-efficacy, and considers language aspects, such as reading, listening and speaking.

DECLARATION OF COMPETING INTEREST

None declared

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