



Genre-Based Indonesian Language Learning Scientific Approach and Method

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Abstract: This study aims to analyze the scientific approach and method of learning and show the results in genre-based Indonesian language learning. This study used a qualitative approach. The data were collected from three sources: literature review, student learning outcomes, and questionnaire results. Data on students' learning outcomes and views were explicitly taken from two groups. The first group consisted of 113 respondents who were asked to construct literary texts. The second group consisted of 105 respondents who were asked to construct exposition texts. The library research data was analyzed using theoretical and conceptual analysis, while the students' learning outcome data were analyzed qualitatively and quantitatively. The data from the questionnaire were analyzed by quantitative analysis. Based on the analysis of the three forms of data, it was discovered that; (a) the terms scientific approach and method were relevant to genre-based (Indonesian) language learning, (b) scientific as a learning method (scientific method) could be used by teachers as a method in delivering learning material as well as by students to construct texts as a form of learning outcomes, (c) scientific method guides students to construct text systematically, in controlled, empirically, and analytically through scientific stages, and (d) there was a gap between the views of the students who think that the scientific method could guide students in constructing text and enhancing the quality of text production. With a score of 41.43, 91.15% of the students in the first group believed that the scientific approach might help students produce texts with high-quality output outcomes. 90% of the 105 respondents in the second group said that the scientific approach might help students create explanation texts even though the degree of text creation quality is low (score: 49.5). The students' less expressive language use was to blame for this.

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Introduction

Scientific is not a new term. This term is closely related to the world of science. This word has become increasingly popular only in learning a language, especially the Indonesian language. In the 2013 Curriculum, it is known for its derivative terms, "scientific approach." That is an approach to learning the Indonesian language through observing, inquiring, trying, associating, and communicating (Sarwanti, 2016; Armadi, 2017; Suryati and Hazairin Eko, 2018). Its primary purpose is to make students the center of learning, develop a diverse approach, and use the scientific method (cf. Suja, 2019; Lazanyi, 2012; Usman, 2015). The goal is possible to achieve because science itself is a learning process designed in such a way that the students play an active role in constructing concepts, laws, or principles through the stages of observing, formulating problems, putting forward or formulating hypotheses, collecting data with various methods and techniques, analyzing data, drawing conclusions,



and communicating concepts, laws, or principles found (Hosnan, 2016; Gelman and Breneman, 2004; Karar dan Yenice 2012). In that context, Hosnan (2016), compared with Machin (2014) and Kurniasih (2014), puts forward six objectives of the activities that are related to the scientific method, namely; (1) increasing students' high-order thinking skills, (2) shaping students' abilities to solve problems systematically, (3) creating conditions in which the students feel that learning is a necessity, (4) obtaining high learning outcomes, (5) training the students to communicate their ideas, and (6) developing students' character. In practice, the term is used in two senses. First, it is used to arrange the learning material in the teaching manual. Second, it refers to how the teacher delivers the learning material/the teacher's method.

According to Zaim (2017) and Majid (2014), the scientific approach is used to investigate phenomena, acquire new knowledge, and correct and interpret previous knowledge. In addition to the term 'scientific approach,' several terms are also known for having the term 'scientific' as one of its constituent elements, for example, scientific method (Sarwanti, 2016; Mahsun, 2014 and 2018), Scientific Writing (Zaim, 2017): Scientific Inquiry (Gyllenpalm and Per-Olof Wickman, 2010), and the term 'scientific approach' itself (Mahsun, 2014 and 2018); A Scientific Approach to Scientific Writing (Blackwell, John, and Jan Martin, 2011).

In the 2013 Curriculum, the term 'scientific approach' refers to an approach to learning all subjects. The scientific approach is learning activities that begin with observing, inquiring, trying, associating, and communicating (Daryanto, 2014; Kosasih, 2014. Dan, 2016). However, Mahsun (2014 and 2018) uses this scientific term in two derivative terms: the scientific term as an approach and the scientific term as a method. So, Mahsun distinguishes between the scientific approach and the scientific method in language learning. The difference between the scientific approach and the scientific method; how it relates to genre-based Indonesian language teaching; how it applies to the learning process; and how the implementation of this scientific method is viewed in language learning are the main problem that will be discussed in this article.

Research Method

This study used a qualitative approach. The data for writing this article consisted of three types, i.e. (a) Data in the form of the views of experts on the concepts contained in terms of the scientific approach and the scientific method; (b) Data in the form of anecdotal texts constructed using the scientific method by a total of 113 respondents and data in the form of exposition texts constructed using a project-based scientific method by 105 respondents whom both came from high schools in the city of Mataram; (c) Data in the form of questionnaire results regarding the views and understanding of respondents on the use of the scientific method in producing anecdotal texts and exposition texts. These three types of data were collected using the documentary method.

The first data were analyzed using qualitative descriptive analysis, a theoretical conceptual (Mahsun, 2017), while the second type of data was analyzed qualitatively and quantitatively. The third type of data was analyzed by quantitative analysis. The second and third types of data analysis were carried out by students, each of whom used it as material for their thesis writing. Therefore, the research for writing this article utilizes the results of this analysis to support the results of the qualitative conceptual descriptive analysis of the first type of theoretical data.

Results and Discussion

From the perspective of genre-based language learning, Mahsun (2018) distinguishes the terms “scientific approach” and “scientific method.” The scientific approach refers to a perspective in viewing the primary substance that becomes the learning materials. In such cases, text, the language unit that serves as a primary language learning material, is seen as systematic, controlled, empirically, and analytically structured according to the cores of scientific activities, as Kerlinger (1993) stated. Meanwhile, the scientific method was interpreted concerning ways or stages passed in constructing or reconstructing text—either as a primary material for learning or as a learning outcome. In this case, Mahsun (2018) argues that the stages conducted in learning activities are scientific, such as data collection, analysis, and results presentation. Here, these activities were also conducted when constructing or reconstructing text. In actuality, these three scientific stages were not so much different from the 5-stages concept (observing, inquiring, trying, associating, and communicating)—the conceptual content of the scientific approach in the 2013 Curriculum. The first three stages (observing, inquiring, trying) could be classified into scientific data collection activities; the fourth stage (associating) could be classified into scientific data analysis activity; and the last stage (communicating) could be classified into the scientific activity of presenting the analysis results. How the scientific approach and method are related to genre-based language learning is described sequentially below.

Texts and Scientific Approach as a Basis of Learning Materials

Scientific terms can be seen from two angles: scientific as an approach and scientific as a method. The scientific approach in language learning is interpreted as a perspective in seeing lingual units as learning material. A unit is a text. Text can be viewed as something composed systematically, controlled, empirically, and analytically as in the characteristics of scientific activities of science (Kerlinger, 1993). As for scientific as a method —scientific method— in language learning, it is viewed as being related to ways or stages passed in producing or reproducing a text. From a scientific point of view (i.e., scientific approach), a text is seen as the lingual unit of a learning material whose text thinking structure/generic structure is arranged systematically, controlled, empirically, and analytically. The following anecdotal text comprises the following thinking or text structure: orientation, crisis, and reaction.

Table 1. Structure of Anecdotal Text

Text structure	Text Description	Meaning
Orientation	Akhir-akhir ini masih sering terjadi pemadaman listrik bergilir. Semua tempat di sekitar rumah saya terjadi pemadama listrik setiap minggunya.	‘Lately, there are still frequent rolling blackouts. All places around my house experience a blackout every week’
Crisis	Pada saat saya sedang mendengar radio, listrik padam. Malam ini giliran listrik di rumah saya yang padam. Saya panik dan langsung meloncaat dari tempat tidur untuk keluar dan lari dari dalam kamar.	‘Just as I was listening to the radio, the electricity went off. Tonight, it is my house’s turn for the rolling. I panicked and jump straight off my bed to get out and run out the room’
Reaction	Saya mencoba memukul wajah yang menyeramkan itu. Waktu saya pukul, orang itu menangis dan minta ampun. Ternyata orang itu adik saya yang	‘I tried to hit that creepy face. When I hit it, the person cried and asked for mercy. It turned out that that person was my

	sedang menakut-nakuti dengan menggunakan senter di wajahnya.	younger brother who was trying to scare me by using flashlight on his face'
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The linked of the language units was an orientation, crisis, and reaction are arranged sequentially (systematically); it starts from orientation, followed by crisis, and ends with reaction. A non-coherent and cohesive text is obtained if the sequence is changed (e.g., starting from the reaction, followed by orientation, and ending with crisis).

Table 2. The Non-coherent and Cohesive Text

Text structure	Text Description	Meaning
Reaction	Saya mencoba memukul wajah yang menyeramkan itu. Waktu saya pukul, orang itu menangis dan minta ampun. Ternyata orang itu adik saya yang sedang menakut-nakuti dengan menggunakan senter di wajahnya.	'I tried to hit that creepy face. When I hit it, the person cried and asked for mercy. It turned out that that person was my younger brother who was trying to scare me by using flashlight on his face'
Orientation	Akhir-akhir ini masih sering terjadi pemadaman listrik bergilir. Semua tempat di sekitar rumah saya terjadi pemadama listrik setiap minggunya.	'Lately, there are still frequent rolling blackouts. All places around my house experience a blackout every week'
Crisis	Pada saat saya sedang mendengar radio, listrik padam. Malam ini giliran listrik di rumah saya yang padam. Saya panik dan langsung meloncaat dari tempat tidur untuk keluar dan lari dari dalam kamar.	'Just as I was listening to the radio, the electricity went off. Tonight, it is my house's turn for the rolling. I panicked and jump straight off my bed to get out and run out the room'

Non-cohesive and coherent text resulting from the conversion illustrates that from a scientific point of view, the thinking structure of a text must be arranged systematically. If it is not systematic, it will produce non-coherent and cohesive text. The order of the thinking structure of a text should be kept the same to start from the end of the story and ending at the beginning of the story (flashback structure). Next, the text should be controlled, meaning that the content of the message for each text structure must be focused on the main issue. If the content of the crisis does not discuss things related to power outages discussed in the orientation (e.g., talking about a car breaking down), the message contained in the orientation will not be linked to the message contained in the crisis and reaction. It means that being controlled is a characteristic of a text. Next, empirical means that compiling a text requires information. Here, what is meant as information is a unit of meaning or idea which, in written form, can take the form of words or phrases, but not sentences. In addition, information or unit of meaning can be facts, data, or ideas in our mind that comes from realities or someone's thought. Information, or a unit of meaning from reality, is essential to produce factual and responsive texts. It does not mean that literary genre texts do not require information originating from facts (data). Only in literary genre texts do the factual level and nature of information differ from the factual level and nature of information in factual genre texts. Information in the form of facts or data in literary genre text is released from its context so that the author of the text can freely provide a new context. It is where the author's imagination process occurs. Meanwhile, the context of facts or data that become information in factual genre text is preserved since the context will explain the facts or the data.



Analytical—the last characteristic of ‘scientific’—as a means to view a text, is needed to recheck whether or not the text is well structured and whether or not the use of language components or sources of materials is appropriate. Furthermore, in this second view, the scientific approach characterized by systematic, controlled, empirical, and analytical is connected to the stages of scientific activities (scientific as a method) in the form of provision/gathering of information, information analysis, and analysis of analysis results. All scientific stages must be conducted systematically, in a controlled, empirical, and analytical following the characteristics of the scientific approach. Systematic means that the three stages must be conducted sequentially; the three are inseparable constitute. The information-gathering stage is the most important as it becomes a basis for implementing the analysis stage. Likewise, the information gathering and analysis stage is the basis for implementing the analysis result presentation stage. A more detailed discussion of science as a method is presented in the following section.

Scientific Method in Genre-Based Language Learning

Scientific as a method —scientific method — means that a learning material unit in the form of a text is arranged (produced or reproduced) in accordance to scientific stages: provision/gathering of information, analysis of information, and presentation of analysis results (which is actually a text in a certain form). In constructing text, those three stages are controllable. For example, when does information gathering produce an "orientation" structure in a story text beginning and ending, and when can information analysis be started? Firstly, data collection to produce an "orientation" structure will be finished if questions regarding "who, what, when, and where" have been answered. Why is that? Because the "orientation" structure will only contain information about "who, what, when, and where"; so, it just refers to the questions using the words: who, what, when, and where. In other words, in learning a text with the scientific method, the question words: who, what, when, and where are used for gathering information in order to produce "orientation" literary genre story texts. An explanation that is not used in the learning approach adopts structural linguistics. In the structural linguistics view, language units are described separately to social context, which is the social purpose of language use. When does information gathering to produce a narrative text begin and end, and when can information analysis be started? Information gathering to compile the narrative text ends if questions about who, what, when, and where of the problems that emerged due to that event and how to solve the problems are answered. Only then is the information gathering stage ended, and the next stage, information analysis, can be started. Thus, when does the data analysis phase end, and when can the presentation of the analysis results be started? The analysis stage ends if the gathering of data, information, or facts with the capacity to develop a particular text structure being produced has been carried out. After that, the data is turned into sentences connected to form a paragraph. Then, the analysis phase ends.

Along with the connection of paragraphs that form the text, the presentation stage (writing) has begun and finished. Only after the written presentation stage can the results be produced orally—by presenting it in PowerPoint. Thus, this ends the controlled activities of implementing the scientific activities. The third characteristic of activities in the scientific method is empirical. The demands over information, a unit of meaning, or an idea to produce text or particular text structure show that those activities are empirical. Therefore, empirical becomes the innate characteristic of the text itself. Finally, it is analytical.

Analytical is the attitude of constantly questioning the appropriate methods used in gathering information for the social purposes of the text being produced and the validity of the information. It includes questioning: its source, correct choice of words and word forms,

sentence structure, conjunctions between paragraphs, linguistic strategies used in connecting sentences to form paragraphs, and linking one paragraph to another to form a cohesive and coherent text. Coherent must be a concern by always being analytical. Thus, the scientific method in language learning is related to the ways and scientific stages conducted in producing or reproducing text—either as a method of delivering the learning material or a method for realizing learning outcomes; the former is related to the method used by teachers in delivering text-related material, while the latter is related to the method used by students to produce or reproduce the text. More specifically, the application of scientific methods in genre-based language learning is shown as follows.

The Implementation of Scientific Method

Methodologically, three stages are passed in constructing text using the scientific method, namely information gathering, analysis, and presentation of analysis results. In gathering information, several methods can be selected according to the type of text to be generated. There are observation, inquiry, trial, library research, and introspection. For example, the applied of observing method is to gather information when constructing descriptions and reports of observation result texts. It is impossible to use inquiring method; the applied inquiring method is to collect information for narrative and biographical texts; the Trying method is to collected an information for procedure and observation report text; the library research method, aka documentary method, it is for constructing recount narrative texts, biographical texts, or reproducing texts; introspection method is used to compile autobiographical texts, personal story texts. Next, the analysis stage is intended to classify the information into meanings or ideas based on the text structure to be constructed. Information is then processed to become verbal statements in single sentences; single sentences are combined to form compound sentences and, later, to form paragraphs. The stage of presenting the results of the analysis is done by combining paragraphs with other paragraphs based on the text structure to produce a cohesive and coherent text through the use of appropriate language devices. An example will be shown below for clearing up the implementation of the scientific method in constructing a text: Examples of scientific stages in constructing narrative text.

Information Gathering

A text to be constructed is a narrative text. The narrative text is one of the literary genre texts with a storytelling character. Therefore, information gathering was done by asking (interviewing) a person or a group of people to talk about events they experienced. It is shown briefly below.

Table 3. The Interviewing to Get information in Narrative Text

No.	Questions	Responds: Information	Meaning
1.	Who is experiencing the event?	saya, teman-teman, kami	'I, my friends, we
2.	What event was experienced?	belajar bersama, nonton televisi, menjadi terang, gelap, listrik, masuk desa, belajar, malam hari	'Studying in group, watching TV, experiencing light, darkness, electricity, to the village, night time'
3.	When did it happen?	baru saja, ketika belajar bersama	'Just now, during group study'
4.	Where did it happen?	desa saya, kampung	'In my village, Kampong'
	What problems were rising from the event?	panik, takut, gelap, tidak dapat belajar, listrik, padam	'Panicked, scared, dark, couldn't study, electricity off'

6.	What did the actors do to solve the problems?	menyalakan lilin, belajar, kembali, mengerjakan pekerjaan rumah	'Light on the candle, go back to study, do the homework'
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Information gathered from the results of interviews is a unit of meanings, ideas, and thoughts in the form of words or phrases. The information resulted from the reduction of informants' answers from the text author. The information was then analyzed through the stages of: classifying information according to the structure of the text to be constructed, as is in the following table:

Table 4. The Classifying Information Based on the Structure Text

No.	Text Structure	Information components for the text structure	Meaning
1.	Orientation	saya, teman, desa, masuk, listrik baru saja, gelap, menjadi terang, kami, dapat belajar, malam hari, menonton, televisi, kampung	'I, friends, village, entered, dark, electricity just installed, become bright we, can study, at night, watching, television, village'
3.	Problems	kami, ketika belajar bersama, padam, panik, gelap, listrik, tidak dapat belajar, takut	'we, when studying together, blackout, panicked, dark, electricity, unable to study, afraid'
4.	Solution to the problems	Menyalakan lilin, belajar, kembali, mengerjakan pekerjaan rumah, kami	'Light on the candle, study, come back, doing homework, we'

The next stage of the analysis was to change the information in the form of unit of meaning to become verbal statement in the form of single sentences.

Table 5. Change the Information to be a Verbal Statement

No	Text Structure	Information components for the text structure	Meaning
1.	Orientation	1. Di desa saya baru masuk Listrik 2. Kampung dulu gelap menjadi Terang 3. Saya dapat menonton televisi 4. Teman-teman dapat menonton Televisi. 5. Saya dapat belajar malam hari. 6. Teman-teman dapat belajar malam hari	'1. The electricity was just installed in my village. 2. The village which used to be dark at night becomes bright 3. I could watch television. 4. My friends could watch television. 5. I can study at night. 6. My friends could study at Night'
3.	Problems	1. Ketika kami belajar bersama. 2. Listrik padam 3. Kami takut 4. Kami panik 5. Kami tidak dapat belajar	'1. When we study together. 2. Power went out. 3. We were afraid 4. We panicked 5. We cannot study'
4.	Solution to the problems	1. Kami menyalakan lilin 2. Kami dapat belajar kembali 3. Kami dapat mengerjakan pekerjaan rumah kembali	'1. We light on the candles. 2. We could study again. 3. We could do the homework again'

The next analysis was to combine some simple sentences to become compound (complex) sentences as follows.

Table 6. Combine the Simple Sentences to Become a Compound Sentences

No	Text Structure	Information components for the text structure	Meaning
1.	Orientation	1. Di desa saya baru masuk listrik 2. Kampung dulu gelap menjadi terang 3. Saya dan teman-teman dapat menonton televisi 4. Kami juga dapat belajar malam hari.	'1. The electricity was just installed in my village. 2. The village which used to be dark at night becomes bright. 3. I and my friends could watch television. 4. We could also study at night'
3.	Problems	1. Ketika kami belajar bersama, listrik padam. 2. Kami takut, panik, dan tidak dapat belajar.	'1. When we study together, The power went out. 3. We were afraid, panicked and we could not study'
4.	Solution to the problems	1. Kami menyalakan lilin 2. Kami dapat belajar dan mengerjakan pekerjaan rumah kembali.	'1. We light on the candles. 2. We could study and did the homework again'

The next step was to analysed data with combine the sentences to be a paragraph and filled the text structure. Every paragraph was connected with each other to form cohesive and coherent narrative text. At this stage, students begin to present the analysis results in the form of narrative text, as follows.

Table 7. Combining the Sentences to be a Paragraph

No	Text Structure	Information component for the text structure	Meaning
1.	Orientation	Di desa saya baru masuk listrik. Kampung yang dulu gelap menjadi terang. Saya dan temanteman dapat menonton televisi. Kami juga dapat belajar pada malam hari. ATAU Di desa saya baru masuk listrik. Kampung yang dulu gelap menjadi terang. Saya dan temanteman dapat menonton televisi dan belajar pada malam hari	'My village just got electricity. The village that was once dark became bright. My friends and I can watch television. We can study at night too. OR My village just got electricity. Village that was once dark became bright. My friends and I can watch television and study at night'
3.	Problems	Ketika kami belajar bersama, listrik padam. Kami takut, panik, dan tidak dapat belajar	'When we were studying together, the electricity went out. We were scared, panicked, and unable to study'
4.	Solution to the problems	Kami menyalakan lilin. Kami dapat belajar dan mengerjakan pekerjaan rumah kembali.	'We lighted on candles. We can study and do the homework again'

Scientific Method and Its Implementation to the Learning



The data analyzed were taken from two groups of respondents. The first group consisted of 113 people and the second group of 105 people. Data from the first group were obtained from the research entitled "Ability to Produce Literary Genre Texts with Scientific Method by Students from High, Vocational, and Islamic High School in Mataram City" (Mahsun, Mahyudi J., dan Adha I.D., 2020). Meanwhile, the data from the second group were obtained from the research entitled "Ability to Produce Expository Text with Project-Based Scientific Methods by High School Students in Mataram City" (Mahsun, Mahyudi J., dan Rosmayanti N.I., 2020). Both types of research were funded under the Master Thesis Writing grant scheme by the Ministry of Education and Culture of the Republic of Indonesia 2020. In the first research, there were three forms of data; (1) the implementation process of the scientific method, (2) texts from student works, and (3) questionnaire results containing the student's views on the use of the scientific method to produce text and their understanding of the stages in the scientific method (Adha, 2020). As for the second research, there were four forms of data, namely; (1) implementation process of the scientific method, (2) project design, (3) exposition texts from student works, and (4) questionnaires results containing the student's views on project-based scientific method and their understanding of the project-based scientific method (Rosmayanti, 2020).

The results obtained from the first study were; (1) the application score of the scientific method in producing anecdotal texts stood at an excellent level with a score of 98.5 (2) the score was relevant to the number of respondents who argued that the scientific method could guide them in producing texts. 91.15% of 113 respondents stated that the scientific method guided them in producing texts. However, the achievement in applying the scientific method steps was irrelevant to the quality of anecdotal texts. Using linguistic devices showed that the mastery score reaches only 41.96 (low level). The texts produced did not show cohesiveness and coherence. That indicated that the respondents have inadequate language skills, lack of expression ability, and limited vocabulary mastery, especially grammatical words such as conjunctions that connect inter-sentences, between sentences, and inter-paragraph. For example, the widely used between-sentence conjunction is 'and,' which appears 147 times and is used by as many as 96 respondents. The conjunction of 'or' and 'but' appears as many as once for every informant and seven times by five informants. Conjunctions between paragraphs that characterize literary genre texts of storytelling type, 'after that,' 'then,' 'then,' and 'finally,' each appears in low frequency and with few respondents. The conjunction of 'after that' appears 13 times on 13 respondents; 'then' appears 21 times on 21 respondents; 'then' appears eight times on eight respondents; and 'finally' appears 26 times on 24 respondents. The strategy of connecting one sentence to another sentence, one paragraph to another, and repetition of forms are very much liked. In contrast, the repetition of meaning, such as synonymy, antonym, and hyponymy, is not found. It shows that the respondents have limited ability to master Indonesian vocabulary, think from general to specific, and, in particular, understand the hyponymy form.

The same thing also occurred for the second group of respondents. The score for applying the scientific method stood at a very capable level with a score of 90, and out of the 105 sample respondents, 92.38% thought that the scientific method could guide them in producing text. Concerning the project, with a score of 88.8, this group was also quite capable; 105 respondents—76.19% of them—thought the project helped them to produce text with the scientific method.

However, the text quality must align with the score for implementing the project-based scientific method. It stood at 49.5, slightly above the text quality score of the texts constructed by the first group. Hence, the two groups have the same ability level: low



proficiency. Mahsun et al. (2017) and Sukroni (2020) also found similar findings. In genre-based Indonesian language learning, it is necessary to emphasize learning vocabulary and using grammatical words such as conjunction.

Conclusion

The analysis and the discussion above can be concluded as follows.

Scientific approach and the scientific method are two different terms in genre-based language learning. The scientific approach means that the text, as a learning material unit, is viewed as a lingual unit that is arranged systematically, empirically, analytically, and controlled, following the nature of scientific activities. Meanwhile, the scientific method can be elaborated as follows: learning about constructing text can be done through scientific stages, starting from gathering information, analyzing information to be verbal statements in the form of sentences, combining sentences to form paragraphs, and finally, presenting the results of analysis by merging the paragraphs to create a certain kind of text. In the implementation of the learning, a teacher can use the scientific method to train students to construct texts. Besides that, this method can also be used by students to construct and reproduce text in the form of learning outcomes.

Based on the research on the ability to produce literary genre texts with scientific method conducted on 113 students and the study on the ability to produce exposition text with project-based scientific method conducted on 105 students in Mataram city, it was discovered that the achievement of scientific method implementation and the positive attitudes towards scientific methods that are perceived as able to guide students in constructing text are not in line with the quality of the text produced. With used the scientific method, which obtained a high score, does not produce better-quality text.

Recommendation

This study recommended for teachers, so that the Indonesian language learning can develop the verbal thinking skills of students scientifically.

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