Learning descriptive text through discovery model: VHS students' achievements and voices

Yoannes Yuka Krisdianata (1)
SMK BOPKRI 2 Yogyakarta
yoanneskrisdianata08@guru.smk.belajar.id

Gayatri Enok Saraini (2)
Universitas Sarjanawiyata Tamansiswa
gayatries2002@gmail.com

Enjelin (3)
Universitas Sarjanawiyata Tamansiswa
enjellin21@gmail.com

Abstract

It is common that vocational high school (VHS) students are perceived as having lower language proficiency than high school students. Therefore, this study aims to determine the use of discovery learning as a learning process of descriptive text and improve student learning outcomes through the application of the discovery learning model to tenth-grade students of vocational high school students. This research is classroom action research. The data analysis technique uses quantitative descriptive data obtained from teacher observations and student work results. Data is presented in the form of numbers which are then explained descriptively. To strengthen the quantitative data, focus groups, and semi-structured interviews were conducted. Based on the research results, it is known that: First, in the student learning process, there is increasing progress from pre-cycle, cycle I, and cycle II. The process of learning descriptive text through the application of the discovery learning model is interesting and fun. The students look motivated and very enthusiastic, students become more independent, creative, and able to solve problems on their own. From the results of this research, it can be concluded that the application of the discovery learning model in learning has been proven to improve student learning outcomes.
Keywords: Discovery learning, descriptive text, classroom action research, vocational high school.

INTRODUCTION
English is one of the subjects that must be mastered by vocational high school (VHS) students. However, several problems were found related to students' psychological and cognitive aspects in mastering language learning(Djurayeva et al., 2020; Dörnyei, 2019; Lumentut & Lengkoan, 2021). The aim of learning English at every level of the educational unit is to learn good and correct English (Priyatmojo et al., 2022). Through learning English, students have various language skills such as writing, reading, speaking, and listening.

According to the *Kurikulum Merdeka* (Emancipated Curriculum) (Syairofi et al., 2023), tenth-grade English subject has three elements, namely listening-speaking, reading-viewing, and writing-presenting. Listening and reading skills are receptive skills while speaking and writing skills are productive skills.

One of the text students' needs to study in tenth grade is descriptive text. Descriptive text is used to describe a person, thing, or place. In learning English this text is crucial because students can use this kind of text to refer to someone, something or a place when talking or describing

someone. Based on Ismayati and Kholiq (2020) descriptive text consists of two parts, which are identification and description. The text is built using the simple present tense and mostly uses action verbs, such as run, walk, sit and stand. The function of descriptive text is to describe a person, a thing, or a place by visualizing the object using adjectives and adverbs. The use of adjectives is to clarify nouns used in the text. Descriptive text should be specific, meaning it only describes a certain object, unique and not common.

Loughran (2019) interprets text as a teaching technique that emphasises individual teaching, object manipulation, and others before generalisation. Discovery is a mental process that requires students to internalise a topic or principle. The discovery model of learning encourages students to learn scientifically by observing, classifying, predicting, explaining, and drawing conclusions (Winarni et al., 2020). According to Winarni et al., the discovery learning method is a learning strategy that guides students to discover new things for themselves in the form of concepts, formulas, patterns, and so on (2020). The discovery learning technique is used to assist students become more engaged and critical in discovering new concepts about the content being studied. Students can master scientific inquiry skills while also developing a scientific attitude through discovery learning (Arianti & Ningsih, 2019). The use of discovery learning in teaching and learning proved to be beneficial. The study from Kurniawati, et al (2021) showed that discovery learning can improve students' critical thinking skills. Critical thinking skill is used for comprehending students in the way they are processing information and how to use the information properly (Supriyatno et al., 2020). Discovery learning also proved to be useful for students, such as improving problem-solving and self-efficacy (Simamora et al., 2018).

Several studies conducted by researchers on students in vocational high school has been done previously (Krisdianata & Kuswandono, 2022; Krisdianata & Teda Ena, 2022; Permatasari & Yuliasri, 2020; Sinaga & Pustika, 2021). From these studies, there were some gaps which need to be filled. The studies were concerned on improving and investigating vocational high school students in learning English. However, the studies did not discuss the implementation of the model of discovery learning on learning descriptive text. There are few studies talked about the use of discovery learning, but it was not specifically discussing about the implementation on learning descriptive text in vocational high school level (Koto, 2020; Simanjuntak et al., 2022). Other studies also try to investigate the use of discovery learning in vocational high school, meanwhile they are not focused on the descriptive text, rather another text, such as procedure, narrative, or recount text (Aslimah & Nikmah, 2020; Purnamasari & Argawati, 2020; Razaq & Muzkiyah, 2022). From those studies done by many researchers, the researchers conclude that,

1. The use of discovery learning in enhancing students' English skills are beneficial for students in any level of education.
2. There was less study in the implementation of discovery learning in vocation high school.
3. There are a need to find better way to study descriptive text from previous studies.
4. Students in the targeted school need a learning model to expand students' inquiries and interactive-constructive learning activities.

Therefore, the implementation of discovery learning in the targeted school and classes are essential to be done.

Based on the results of observations during tenth grade English lessons, problems were found in descriptive text. Students have not been able to understand the correct text in accordance with the structure and rules of the correct language. This is due to students' reluctance in reading comprehensive text. Furthermore, the descriptive text supplied by the teacher is less appealing, as is the students' lack of understanding of descriptive text, and the students' lesser advantageous activities. To address this issue, action is required to improve the learning process and student learning outcomes according to the learning objectives accomplishment criteria (KKTP) of 61-80%. However, school also targeted the students to attain score of 75 point.

In accordance with the problem findings and theoretical studies, the best learning model to apply is discovery learning. In this paradigm, the

teacher functions as a facilitator by providing opportunities for students to engage in active learning. In this model, teaching materials are not provided in finished form; instead, students are expected to engage in various tasks such as information gathering, comparison, categorization, analysis, integration, reorganization, and drawing conclusions. Thus, it is suspected that using the discovery learning paradigm to learn English is beneficial, especially descriptive text.

Based on the background of the problems that have been presented by the author above, it can be concluded that the problems encountered in English subjects in tenth-grade vocational high schools are as follows: First, there are still many students who have not mastered descriptive texts. Second, the teaching and learning process in class is still monotonous and traditional. Next, students complain about boring and less creative learning. Last, the teacher's way of teaching is based on textbooks without development from other materials. Therefore, the formulation of the problem that the researcher wants to answer in this study is: First, to what extend students' achievement of learning descriptive text through the application of discovery learning models in tenth-grade students of vocational high schools? Second, how was students' perception on the implementation of discovery learning in class? Therefore, researchers try to apply a model that can improve student learning outcomes, namely the discovery learning model.

METHODOLOGY
In this study, researchers used classroom action research. According to Lestariningsih et al. (2022) classroom action research is applied research that aims to improve and advance the quality of the learning process and the quality of student learning based on the results of evaluations or reflections carried out by the teacher, which include observation and evaluation.

This study was done in one of the private vocational high schools in the special region of Yogyakarta. The study was done in tenth grade in the odd semester of 2023-2024. The participants of this study were 20 students, 15 boys and 5 girls.

This study is classroom action research (CAR) with the characteristics of researchers taking repeated actions on students until the objectives are reached. Class action research should be carried out at least two cycles to explain how researchers conduct research in the classroom (Krisdianata & Kuswandono, 2022). Classroom action research consists of at least 2 cycles, each cycle consisting of four actions, namely: planning, implementing, observing and reflecting. This research was conducted by pre-service teacher with the help of a peer observer, the coaching teacher in the representative school.

The method used in this research is classroom action research. For data collection, researchers used quantitative and qualitative data collection. Quantitative data related to students' assignment scores were taken both during the pre-cycle and post-cycle tests. Qualitative data relates to every event and change that occurs during learning activities in the classroom. Researchers collect qualitative data by using observation, focus group discussion, and semi-structured interview.

The research data analysis method is a quantitative descriptive method. The result of student learning outcomes, observations of teacher and student learning with the discovery learning model, and observations of student learning with the discovery learning model are used to collect quantitative data. This information is given as a number, which is then explained in the form of a graphic data.

RESULT AND DISCUSSION
   A. Discovery learning process
Pre-cycle
In the pre-cycle step, the pre-service teacher does the preliminary test to measure the students' understanding on descriptive text. From 20 students that willingly participate on this study, they only achieved mean of 71.1 in the first meeting, 75,7 in the second meeting, and 79,9 in the third meeting. Even though the mean score in the second and third meeting were already 75, but half of the students' score were below 75. Therefore, the pre-service teacher starts to try to implement learning model which helps students improve their descriptive text understanding and their writing competence in writing descriptive text which is discovery learning.
Cycle I

a. Planning

At the planning stage the researcher carried out preparations for carrying out the action, namely: compiling lesson plans, compiling observation sheets on the implementation of discovery learning models, student assessments, student research questionnaires, assessment instruments, and indicators of success.

b. Implementing

The implementation of the actions in cycle I was divided into three meetings, the first meeting was held on Monday, July 24, 2023. The second meeting was held on Thursday, July 27, 2023. Meanwhile, the third meeting was held on Monday, July 31, 2023. The first and second meetings implemented learning with the discovery learning model according to the competence goal and material in lesson plans, and the third meeting was evaluation.

c. Observing

Based on the results of the formative assessment, it is known that, students were getting better understanding on how to write a descriptive text and they seems engage on the lessons by using discovery learning. In this first cycle students achieved a mean of 82,1 in the first meeting, 83,6 in the second meeting, and 84,3 in the third meeting. The mean score was good and already pass the minimum grade. However, for each student's score, the score of six out of 20 students, or 30% was still under the passing grade. Thus, there is still a need for improvement and enrichment for the students, so that all students can complete the lesson.

d. Reflecting

From the results of observations, it can be concluded that improvements and enrichments are still needed so that all students can understand and master the way to write a descriptive text. The observation sheet for the cycle I on the teacher activity showed that there were still several aspects that needed attention from the observations. First, the pre-service teacher had given apperception while teaching, but it was still not very visible. In addition, the pre-service teacher had not presented material systematically when teaching. From the results of observations, pre-service teachers had not been maximal in giving questions to students with tracking questions to encourage reasoning abilities (critical, logical, and systematic

thinking). The pre-service teacher had provided feedback, but it was not comprehensive, and had not been seen reflecting on learning. The unfulfilled value of learning outcomes and learning completeness was caused by pre-service teacher performance and student performance in learning using the discovery learning model which has not reached the standards set for indicators of action success. Therefore, the revision needed in cycle II was to improve teacher's performance and student's performance in learning by keep using the discovery learning model and giving contextual material during the learning activities.

Cycle II

a. Planning

The improvements and evaluations that will be carried out in cycle two are, first, the pre-service teacher will provide apperception while teaching by giving an overview of the descriptive text related to students' life. In addition, the teacher will present material systematically when teaching. From the results of observations, the teacher will maximize in giving questions to students with tracking questions to encourage reasoning abilities (critical, logical, and systematic thinking). The division of the groups was not random but structured with the composition of students who have understood well together with students who need more assistance. This aims to provide assistance to students who have not completed the assistance of fellow students. The teacher will provide feedback, both as a whole and individually to students, and the teacher and students will reflect on learning.

b. Implementing

In the action implementation stage, lesson plans were implemented which had been prepared in the planning phase, Emancipated Curriculum with a focus on the language features and structure of descriptive text. The implementation of the actions in cycle II was divided into three meetings, the first meeting was held on Thursday, August 3, 2023. The second meeting was held on Monday, August 7, 2023. Meanwhile, the third meeting was held on Thursday, August 10, 2023. The first and second meetings implemented learning with the discovery learning model according to the module and material in lesson

plans, and the third meeting was in the form of evaluation.

c. Observing

Based on the results of the daily assessment of Phase E class tenth as shown in graphic 1 it is known that: (1) the average score of student learning outcomes is 90,4 in the first meeting, 94,6 in the second meeting, and 98,4 in the third meeting. (2) from 20 students, all students completed their studies and minimum score of 75; (3) the percentage of learning completeness is 100%. The highest scores for student learning outcomes in cycle II were 100, while the lowest scores were 77. All students are declared complete and the percentage of learning completeness is 100%.

Thus, it can be concluded that student learning outcomes in Phase E Descriptive text with the discovery learning model in cycle II were stated to be good and thoroughly completed. The learning outcomes of these students have reached the indicators of the success of the action because student learning outcomes have exceeded score 75.

d. Reflecting

From the results of observations made and learning outcomes it can be concluded that the use of discovery learning in teaching descriptive text is good. Students and teachers carrying out teaching and learning activities using the discovery learning model have reached the standards set for indicators of action success in cycle II. This result was showed from the learning outcomes and learning completeness declared complete because all students' knowledge and skills values have exceeded the passing grade of 75. Therefore, there is no need to take corrective action in cycle II.
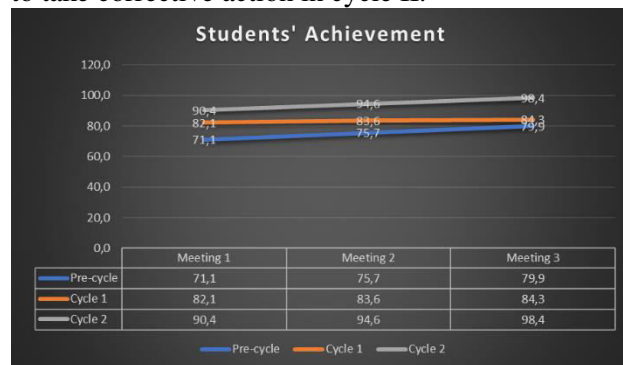

Figure 1. Students' achievement using discovery learning model.

B. The voice of students

From the focus group and semi-structured interviews conducted to the students there were several encounters gained:

In the focus group discussion student A said that he started to grown his ability to solve the problem faced during the learning activity using discovery learning. In the beginning of the implementation of discovery learning he felt nervous and not confident. However, after second cycle, his confident growth and every time he need to show his performance to solve some problems, he can do it with confident and easily. This ability to solve problem by implementing discovery learning also found by Simamora et al. (2018). Problem solving is student ability to find the solution on every case they met during learning activities. Student B elaborate her improvement in problem solving by giving statement that whenever she read a text, she already had an effective way to understand and therefore much easier to solve any questions related to the text. The increase skill in reading was proofed to be efficient after implementing discovery learning (Fahmi et al., 2019). Student C also mentioned in the FGD interview that whenever she got problem, in the beginning she always asked the teacher to guide her, furthermore, by using discovery learning, she felt that she can solve the problem by herself. She gained her confident by having the teacher and her own ability to solve any problem she faced during the learning process. According to Fahmi et al., (2019) teacher involvement in discovery learning is needed in the beginning of the learning process. The present of the teacher will provide safe feeling of the students. Therefore, the role of the teacher is as a guide or partner in learning activities.

In the semi-structured interview with students that volunteering themselves, the researchers found that they were motivated during the learning activities. Student D mentioned that he does not want to miss any class because he like to attend the class and want to learn together with friends and the teacher. Moreover, student E explained that she enjoyed the class better than before after applying discovery learning. She elaborated her statement by mentioning her curiosity and interest in joining every meeting. As mentioned by Ozdem-Yilmaz and Bilican,

(2020) in their book, they stated that the use of discovery learning emerged the feeling of addictive to learn more because of curiosity and interest on the topic and learning activity. Furthermore, the student also mentioned that they feel more autonomous, they tend to work individually or in a group without any aid from the teacher, as mentioned by student E and F. However, the result showed that the students also responsible on what they working on, this was shown on their test result and the mean of the class report. The interesting part of the implementation of discovery learning are some students likewise growing their creativity. The report said that they feel free to make anything and some texts were made variety and different from one student to another. Therefore, the researcher also believe that the creativity also improved during the discovery learning (Kari et al., 2022).

C. Discussion

From the pre-cycle, it shown that many students were facing difficulties in understanding the descriptive text. This result is the same as the finding by Anggraini (2020), in her study, she mentioned that students are scared to make a mistake during learning descriptive text. This condition made students less confident and lack of knowledge on the purposes subject (Muliati & Syam, 2020). From the result it can be seen that students were having trouble to achieve maximum score in the pre-cycle tests. They only achieved a mean of 71.1 in the first meeting, 75,7 in the second meeting, and 79,9 in the third meeting out of 20 students who participated in the study. Despite the fact that the mean score in the second and third meetings was already 75, half of the students' scores were lower.

In the first cycle, there was slightly improvement in the students' accomplishment. Students become more active and enjoy the learning activities using discovery learning. This finding was similar with the result from Tampubolon (2018). In his study he agreed that implementing discovery learning in reading class will make students more proactive (Tampubolon, 2018). According to the formative assessment results, students were gaining a better understanding of how to write a descriptive text and appeared to be engaged in the sessions through discovery learning. The average results of the students in

this first cycle were 82,1 in the first meeting, 83,6 in the second meeting, and 84,3 in the third meeting. The average score was good enough to pass the minimal grade. However, for each student's score, six out of twenty learners, or 30%, fell short of the passing standard. As a result, there is still room for growth and enrichment for learners in order for everyone to complete the lesson (Dikilitaş & Yayli, 2018).

The last cycle was done in order to perform a better accomplishment from previous cycle (Meesuk et al., 2020). Therefore, after some revision and modification, students seem quite understand the descriptive text and able to write good descriptive text in their summative test. According to the results, the average score of student performances outcomes in the first meeting is 90,4, 94,6 in the second meeting, and 98,4 in the third meeting. All 20 students completed their lessons with a minimum score of 75 and a percentage of learning completion of 100%. In cycle II, the greatest scores for student learning outcomes were 100, while the lowest scores were 77. All students are declared complete, and the learning completion rate is 100%.

According to the research findings, there is increasing development in the student learning process from pre-cycle, cycle I, and cycle II. The process of learning descriptive text using the discovery learning model is exciting and enjoyable. Students appear to be determined and passionate (Budianto et al., 2021); they become more independent, innovative, and capable of solving issues independently (Suhendi et al., 2021; Taub et al., 2020). According to the findings of this study, the use of the discovery learning model in learning has been shown to improve student learning outcomes.

CONCLUSION

The implementation of discovery learning in studying English especially descriptive text proofed to be positive. Students become more involved, critical thinkers, and excited when the discovery learning methodology is used. Their learning outcomes improve because the knowledge gained is retained longer. The students' achievements are increased after the implementation of discovery learning, from mean 71,1 to 98,4.

Discovery learning is a paradigm for creating active learning strategies that involve self-exploration to produce findings that are reliable and last a long time in memory. Students can learn to think critically and try to solve their own problems through discovery learning. Students are encouraged to learn most effectively through their own active engagement with concepts and principles in discovery learning, and teachers support students in having experiences and conducting experiments and observations that enable them to discover principles on their own. From the interview and focus group discussion, students mentioned that they feel motivated, autonomous, responsible, independent, and creative.

It would be great if future academics could explore the outcomes of discovery learning in various texts and skills. Prospective researchers are strongly encouraged to examine a variety of difficulties, including the characterization of discovery learning in the learning language. Furthermore, the teacher must examine the equality of learner's skills so that there is no knowledge gap across groups. Despite these challenges, the implementation of discovery learning has proven to be beneficial and boosts the ability and motivation of vocational high school students to learn.

REFERENCES

Anggraini, R. W. (2020). The Discovery Learning in Teaching Writing Skill in Junior High School. *Global Expert: Jurnal Bahasa Dan Sastra*, *8*(2). https://doi.org/10.36982/jge.v8i2.1016

Arianti, R., & Ningsih, A. R. (2019). Discovery Learning,Teks Laporan Application Of Discovery Learning Model In Interpreting Text Oral Results Of Observation Results In Class X Students Ipa.2 State 1st High School. *JURNAL PENDIDIKAN ROKANIA*, *4*(2). https://doi.org/10.37728/jpr.v4i2.210

Aslimah, N., & Nikmah, A. (2020). The Implementation of Discovery Learning in Teaching Writing Recount Text: The Case 12th Grade Student of 01 Batealit Vocational High School, Jepara. *Britania Journal of English Teaching*.

Budianto, L., Azmi, M., & Putera, A. A. (2021). The implementation of digital storytelling using discovery learning in EFL listening class: middle school students' and teachers' voices. *Journal on English as a Foreign Language*, *11*(2). https://doi.org/10.23971/jefl.v11i2.3036

Dikilitaş, K., & Yayli, D. (2018). Teachers' professional identity development through action research. *ELT Journal*, *72*(4). https://doi.org/10.1093/elt/ccy027

Djurayeva, Y., Kayumova, G., & Orazova, F. (2020). APPLYING INDEPENDENT EDUCATION IN FOREIGN LANGUAGE CLASSES AND ITS PROBLEMS. *European Journal of Research and Reflection in Educational Sciences*, *8*(10).

Dörnyei, Z. (2019). Psychology and Language Learning: The Past, the Present and the Future. *Journal for the Psychology of Language Learning*, *1*(1). https://doi.org/10.52598/jpll/1/1/3

Fahmi, Setiadi, I., Elmawati, D., & Sunardi. (2019). Discovery Learning Method for Training Critical Thinking Skills of Students. *European Journal of Education Studies* , *6*(3).

Ismayanti, E., & Kholiq, A. (2020). AN ANALYSIS OF STUDENTS' DIFFICULTIES IN WRITING DESCRIPTIVE TEXT. *E-LINK JOURNAL*, *7*(1). https://doi.org/10.30736/ej.v7i1.260

Kari, D. S., Ayub, S., & Verawati, N. N. S. P. (2022). The Validity of the Discovery Learning Model to Improve Students Creative Thinking Skills. *Prisma Sains : Jurnal Pengkajian Ilmu Dan Pembelajaran Matematika Dan IPA IKIP Mataram*, *10*(2). https://doi.org/10.33394/j-ps.v10i2.4720

Koto, I. (2020). Teaching and Learning Science Using YouTube Videos and Discovery Learning in Primary School. *Mimbar Sekolah Dasar*, *7*(1). https://doi.org/10.17509/mimbar-sd.v7i1.22504

Krisdianata, Y. Y., & Kuswandono, P. (2022). ENHANCING VOCATIONAL HIGH SCHOOL STUDENTS' READING SKILLS USING JEOPARDY GAMES. *Language Literacy: Journal of Linguistics, Literature, and Language Teaching*, *6*(2). https://doi.org/10.30743/ll.v6i2.6171

Krisdianata, Y. Y., & Teda Ena, O. (2022). Investigating EFL vocational high school students' speaking perception through Instagram vlog. *Journal of English Educational Study (JEES)*, *5*, 93–102.

Kurniawati, E., Oktradiksa, A., & Shalikhah, N. D. (2021). DISCOVERY LEARNING MODEL FOR IMPROVING THE STUDENTS' CRITICAL THINKING SKILLS: A NARRATIVE REVIEW. *Al-Bidayah : Jurnal Pendidikan Dasar Islam*, *13*(2). https://doi.org/10.14421/al-bidayah.v13i2.691

Lestariningsih, E. D., Wijayatiningsih, T. D., Uswatun Khasanah, D. R. A., & Setiawan, A. (2022). Developing Online Learning Media Using Task Based Language Teaching and Android Video on Writing Action Research Proposal. *Language Circle: Journal of Language and Literature*, *16*(2). https://doi.org/10.15294/lc.v16i2.34242

Linuwih, E. R., & Winardi, Y. K. (2020). Improving students' writing skill using a mobile learning application. *JURNAL BASIS*, *7*(2), 281–290. https://doi.org/10.33884/basisupb.v7i2.2433

Loughran, J. (2019). Pedagogical reasoning: the foundation of the professional knowledge of teaching. *Teachers and Teaching: Theory and Practice*, *25*(5). https://doi.org/10.1080/13540602.2019.1633294

Lumentut, Y., & Lengkoan, F. (2021). THE RELATIONSHIPS OF PSYCHOLINGUISTICS IN ACQUISITION AND LANGUAGE LEARNING. *Journal of English Culture, Language, Literature and Education*, *9*(1). https://doi.org/10.53682/eclue.v9i1.1894

Meesuk, P., Sramoon, B., & Wongrugsa, A. (2020). Classroom action research-based instruction: The sustainable teacher professional development strategy. *Journal of Teacher Education for Sustainability*, *22*(1), 98–110. https://doi.org/10.2478/jtes-2020-0008

Muliati, M., & Syam, U. (2020). PROMOTING DISCOVERY LEARNING METHOD FOR EFL STUDENTS IN READING COMPREHENSION. *EXPOSURE : JURNAL PENDIDIKAN BAHASA INGGRIS*, *9*(2). https://doi.org/10.26618/exposure.v9i2.4083

Ozdem-Yilmaz, Y., & Bilican, K. (2020). *Discovery Learning—Jerome Bruner*. https://doi.org/10.1007/978-3-030-43620-9_13

Permatasari, A., & Yuliasri, I. (2020). Errors Made by Vocational School Students in Translating Analytical Exposition Text. *Language Circle: Journal of Language and Literature*, *14*(2). https://doi.org/10.15294/lc.v14i2.23628

Priyatmojo, A. S., Widhiyanto, W., & Suprapti, S. (2022). English Podcast as Media for English Language Learning: A Case of Higher Education in the Pandemic Situation. *Language Circle: Journal of Language and Literature*, *16*(2). https://doi.org/10.15294/lc.v16i2.36352

Purnamasari, A., & Argawati, N. O. (2020). THE USE DISCOVERY LEARNING METHOD IN TEACHING WRITING RECOUNT TEXT TO THE TENTH GRADE OF SMAN NGAMPRAH. *PROJECT (Professional Journal of English Education)*, *3*(4). https://doi.org/10.22460/project.v3i4.p470-476

Razaq, Y., & Muzkiyah, N. (2022). the Impact of Using Discovery Learning on Efl Students' Writing Skill. *Indonesian Journal of Research and Educational Review*, *1*(3).

Simamora, R. E., Saragih, S., & Hasratuddin, H. (2018). Improving Students' Mathematical Problem Solving Ability and Self-Efficacy through Guided Discovery Learning in Local Culture Context. *International Electronic Journal of Mathematics Education*, *14*(1). https://doi.org/10.12973/iejme/3966

Simanjuntak, M. B., Suseno, M., Setiadi, S., Lustyantie, N., & Barus, I. R. G. R. G. (2022). Integration of Curricula (Curriculum 2013 and Cambridge Curriculum for Junior High School Level in Three Subjects) in Pandemic Situation. *Ideas: Jurnal Pendidikan, Sosial, Dan Budaya*, *8*(1). https://doi.org/10.32884/ideas.v8i1.615

Sinaga, R. R. F., & Pustika, R. (2021). EXPLORING STUDENTS' ATTITUDE TOWARDS ENGLISH ONLINE LEARNING USING MOODLE DURING COVID-19 PANDEMIC AT SMK YADIKA BANDARLAMPUNG. *Journal of English Language Teaching and Learning*, *2*(1). https://doi.org/10.33365/jeltl.v2i1.850

Suhendi, A., Purwarno, P., & Chairani, S. (2021). Constructivism-based teaching and learning in Indonesian education. *KnE Social Sciences*. https://doi.org/10.18502/kss.v5i4.8668

Supriyatno, T., Susilawati, S., & Hassan, A. (2020). E-learning development in improving students' critical thinking ability. *Cypriot Journal of Educational Sciences*, *15*(5). https://doi.org/10.18844/CJES.V15I5.5173

Syairofi, A., Mujahid, Z., Mustofa, M., Ubaidillah, M. F., & Namaziandost, E. (2023). Emancipating SLA Findings to Inform EFL Textbooks: A Look at Indonesian School English Textbooks. *Asia-Pacific Education Researcher*, *32*(2). https://doi.org/10.1007/s40299-022-00642-9

Tampubolon, D. (2018). Students' Perception on the Discovery Learning Strategy on Learning

Reading Comprehension at the English Teaching Study Program Christian University of Indonesia. *JET (Journal of English Teaching)*, *3*(1). https://doi.org/10.33541/jet.v3i1.698

Taub, M., Sawyer, R., Smith, A., Rowe, J., Azevedo, R., & Lester, J. (2020). The agency effect: The impact of student agency on learning, emotions, and problem-solving behaviors in a game-based learning environment. *Computers and Education*, *147*. https://doi.org/10.1016/j.compedu.2019.103781

Winarni, E. W., Hambali, D., & Purwandari, E. P. (2020). Analysis of language and scientific literacy skills for 4th grade elementary school students through discovery learning and ict media. *International Journal of Instruction*, *13*(2). https://doi.org/10.29333/iji.2020.13215a

Anggraini, R. W. (2020). The Discovery Learning in Teaching Writing Skill in Junior High School. *Global Expert: Jurnal Bahasa Dan Sastra*, *8*(2). https://doi.org/10.36982/jge.v8i2.1016

Arianti, R., & Ningsih, A. R. (2019). Discovery Learning,Teks Laporan Application Of Discovery Learning Model In Interpreting Text Oral Results Of Observation Results In Class X Students Ipa.2 State 1st High School. *JURNAL PENDIDIKAN ROKANIA*, *4*(2). https://doi.org/10.37728/jpr.v4i2.210

Aslimah, N., & Nikmah, A. (2020). The Implementation of Discovery Learning in Teaching Writing Recount Text: The Case

12th Grade Student of 01 Batealit Vocational High School, Jepara. *Britania Journal of English Teaching*.

Budianto, L., Azmi, M., & Putera, A. A. (2021). The implementation of digital storytelling using discovery learning in EFL listening class: middle school students' and teachers' voices. *Journal on English as a Foreign Language*, *11*(2). https://doi.org/10.23971/jefl.v11i2.3036

Dikilitaş, K., & Yayli, D. (2018). Teachers' professional identity development through action research. *ELT Journal*, *72*(4). https://doi.org/10.1093/elt/ccy027

Djurayeva, Y., Kayumova, G., & Orazova, F. (2020). APPLYING INDEPENDENT EDUCATION IN FOREIGN LANGUAGE CLASSES AND ITS PROBLEMS. *European Journal of Research and Reflection in Educational Sciences*, *8*(10).

Dörnyei, Z. (2019). Psychology and Language Learning: The Past, the Present and the Future. *Journal for the Psychology of Language Learning*, *1*(1). https://doi.org/10.52598/jpll/1/1/3

Fahmi, Setiadi, I., Elmawati, D., & Sunardi. (2019). Discovery Learning Method for Training Critical Thinking Skills of Students. *European Journal of Education Studies* , *6*(3).

Ismayanti, E., & Kholiq, A. (2020). AN ANALYSIS OF STUDENTS' DIFFICULTIES IN WRITING DESCRIPTIVE TEXT. *E-LINK JOURNAL*, *7*(1). https://doi.org/10.30736/ej.v7i1.260

Kari, D. S., Ayub, S., & Verawati, N. N. S. P. (2022). The Validity of the Discovery Learning Model to Improve Students Creative Thinking Skills. *Prisma Sains : Jurnal Pengkajian Ilmu Dan Pembelajaran Matematika Dan IPA IKIP Mataram*, *10*(2). https://doi.org/10.33394/j-ps.v10i2.4720

Koto, I. (2020). Teaching and Learning Science Using YouTube Videos and Discovery Learning in Primary School. *Mimbar Sekolah Dasar*, *7*(1). https://doi.org/10.17509/mimbar-sd.v7i1.22504

Krisdianata, Y. Y., & Kuswandono, P. (2022). ENHANCING VOCATIONAL HIGH SCHOOL STUDENTS' READING SKILLS USING JEOPARDY GAMES. *Language Literacy: Journal of Linguistics, Literature, and Language Teaching*, *6*(2). https://doi.org/10.30743/ll.v6i2.6171

Krisdianata, Y. Y., & Teda Ena, O. (2022). Investigating EFL vocational high school students' speaking perception through Instagram vlog. *Journal of English Educational Study (JEES)*, *5*, 93–102.

Kurniawati, E., Oktradiksa, A., & Shalikhah, N. D. (2021). DISCOVERY LEARNING MODEL FOR IMPROVING THE STUDENTS' CRITICAL THINKING SKILLS: A NARRATIVE REVIEW. *Al-Bidayah : Jurnal Pendidikan Dasar Islam*, *13*(2). https://doi.org/10.14421/al-bidayah.v13i2.691

Lestariningsih, E. D., Wijayatiningsih, T. D., Uswatun Khasanah, D. R. A., & Setiawan, A. (2022). Developing Online Learning Media Using Task Based Language Teaching and Android Video on Writing Action Research Proposal. *Language Circle: Journal of Language and Literature*, *16*(2). https://doi.org/10.15294/lc.v16i2.34242

Linuwih, E. R., & Winardi, Y. K. (2020). Improving students' writing skill using a mobile learning application. *JURNAL BASIS*, *7*(2), 281–290. https://doi.org/10.33884/basisupb.v7i2.2433

Loughran, J. (2019). Pedagogical reasoning: the foundation of the professional knowledge of teaching. *Teachers and Teaching: Theory and Practice*, *25*(5). https://doi.org/10.1080/13540602.2019.1633294

Lumentut, Y., & Lengkoan, F. (2021). THE RELATIONSHIPS OF PSYCHOLINGUISTICS IN ACQUISITION AND LANGUAGE LEARNING. *Journal of English Culture, Language, Literature and Education*, *9*(1). https://doi.org/10.53682/eclue.v9i1.1894

Meesuk, P., Sramoon, B., & Wongrugsa, A. (2020). Classroom action research-based instruction: The sustainable teacher professional development strategy. *Journal of Teacher Education for Sustainability*, *22*(1), 98–110. https://doi.org/10.2478/jtes-2020-0008

Muliati, M., & Syam, U. (2020). PROMOTING DISCOVERY LEARNING METHOD FOR EFL STUDENTS IN READING COMPREHENSION. *EXPOSURE : JURNAL PENDIDIKAN BAHASA INGGRIS*, *9*(2). https://doi.org/10.26618/exposure.v9i2.4083

Ozdem-Yilmaz, Y., & Bilican, K. (2020). *Discovery Learning—Jerome Bruner*. https://doi.org/10.1007/978-3-030-43620-9_13

Permatasari, A., & Yuliasri, I. (2020). Errors Made by Vocational School Students in Translating Analytical Exposition Text. *Language Circle: Journal of Language and Literature*, *14*(2). https://doi.org/10.15294/lc.v14i2.23628

Priyatmojo, A. S., Widhiyanto, W., & Suprapti, S. (2022). English Podcast as Media for English Language Learning: A Case of Higher Education in the Pandemic Situation. *Language Circle: Journal of Language and Literature*, *16*(2). https://doi.org/10.15294/lc.v16i2.36352

Purnamasari, A., & Argawati, N. O. (2020). THE USE DISCOVERY LEARNING METHOD IN TEACHING WRITING RECOUNT TEXT TO THE TENTH GRADE OF SMAN NGAMPRAH. *PROJECT (Professional Journal of English Education)*, *3*(4). https://doi.org/10.22460/project.v3i4.p470-476

Razaq, Y., & Muzkiyah, N. (2022). the Impact of Using Discovery Learning on Efl Students' Writing Skill. *Indonesian Journal of Research and Educational Review*, *1*(3).

Simamora, R. E., Saragih, S., & Hasratuddin, H. (2018). Improving Students' Mathematical Problem Solving Ability and Self-Efficacy through Guided Discovery Learning in Local Culture Context. *International Electronic Journal of Mathematics Education*, *14*(1). https://doi.org/10.12973/iejme/3966

Simanjuntak, M. B., Suseno, M., Setiadi, S., Lustyantie, N., & Barus, I. R. G. R. G. (2022). Integration of Curricula (Curriculum 2013 and Cambridge Curriculum for Junior High School Level in Three Subjects) in Pandemic Situation. *Ideas: Jurnal Pendidikan, Sosial, Dan Budaya*, *8*(1). https://doi.org/10.32884/ideas.v8i1.615

Sinaga, R. R. F., & Pustika, R. (2021). EXPLORING STUDENTS' ATTITUDE TOWARDS ENGLISH ONLINE LEARNING USING MOODLE DURING COVID-19 PANDEMIC AT SMK YADIKA BANDARLAMPUNG. *Journal of English Language Teaching and Learning*, *2*(1). https://doi.org/10.33365/jeltl.v2i1.850

Suhendi, A., Purwarno, P., & Chairani, S. (2021). Constructivism-based teaching and learning in Indonesian education. *KnE Social Sciences*. https://doi.org/10.18502/kss.v5i4.8668

Supriyatno, T., Susilawati, S., & Hassan, A. (2020). E-learning development in improving students' critical thinking ability. *Cypriot Journal of Educational Sciences*, *15*(5). https://doi.org/10.18844/CJES.V15I5.5173

Syairofi, A., Mujahid, Z., Mustofa, M., Ubaidillah, M. F., & Namaziandost, E. (2023). Emancipating SLA Findings to Inform EFL Textbooks: A Look at Indonesian School English Textbooks. *Asia-Pacific Education Researcher*, *32*(2). https://doi.org/10.1007/s40299-022-00642-9

Tampubolon, D. (2018). Students' Perception on the Discovery Learning Strategy on Learning

Reading Comprehension at the English Teaching Study Program Christian University of Indonesia. *JET (Journal of English Teaching)*, *3*(1). https://doi.org/10.33541/jet.v3i1.698

Taub, M., Sawyer, R., Smith, A., Rowe, J., Azevedo, R., & Lester, J. (2020). The agency effect: The impact of student agency on learning, emotions, and problem-solving behaviors in a game-based learning environment. *Computers and Education*, *147*. https://doi.org/10.1016/j.compedu.2019.103781

Winarni, E. W., Hambali, D., & Purwandari, E. P. (2020). Analysis of language and scientific literacy skills for 4th grade elementary school students through discovery learning and ict media. *International Journal of Instruction*, *13*(2). https://doi.org/10.29333/iji.2020.13215a