

# **Service Learning in Business Program to Develop Critical Thinking in Language Skills**

**Elli Setiyo Wahyuni**  
**Universitas Negeri Surabaya**

**Slamet Setiawan\***  
**Universitas Negeri Surabaya**

**Syafi'ul Anam**  
**Universitas Negeri Surabaya**

*Improving critical thinking through writing and speaking skills is innovative integrated learning to improve knowledge and specific learning outcome. Students in the business program are expected to be critical thinkers in giving business solutions in written and spoken forms. This study applies service learning in contextual teaching and learning (CTL) by conducting real-world business practice. It uses qualitative and quantitative research methods from observation, interview, and statistical data analysis. The result indicates that writing and speaking contribute to the student's critical thinking. Service learning provides practices in writing business solution that involves critical thinking. Students can fluently explain in meaningful responses during question-and-answer sessions and provide suitable argumentation. Both quantitative and qualitative analyses show that writing and speaking skills give useful impacts on critical thinking to prepare students for future careers. The lecturer's instruction is suggested as the guideline to do business community service so that the project will be beneficial for business society. The study recommends language skills and critical thinking be included in the business curriculum.*

*Keywords: critical thinking, writing, speaking, service learning*

## **INTRODUCTION**

Critical thinking must be taught in higher education using suitable techniques according to competence. There is general agreement that critical thinking is necessary to enhance accomplishment and deepen understanding across different disciplines and it is an essential educational life skill (Zandvakili et al., 2019; Yanchar et al., 2008). In line with this, critical thinking is useful for teaching and learning approaches as creativity and new perspective will be added to students' life (Karakoc, 2016). Therefore, it is very important to consider critical thinking in speaking skills. There are two suggestions to have effective critical thought, namely communicating reasoning, and developing complexity in speaking topics from different points of view (Wagner, 2019). These steps support the approach to speaking fluently with critical thinking.

EFL learners in higher education are targeted to master critical thinking in speaking. It is a fact that critical thinking can be taught using certain teaching techniques (Mehta & Al-Mahrooqi, 2015; Cargas et al., 2017). The lecturer's task is finding a suitable speaking method to achieve the goal. This study will use several practical ways of speaking for the business program. Students will be trained to develop an issue related to business context and investigate some reasons that show their critical thoughts. Developing critical thinking in business must be related to the output for workplace benefit (Morrison, 2017). In this case, the students have background knowledge in business that motivates them to speak and use critical thinking in their reasoning.

It is important to prepare the students' knowledge of essay writing. Writing activity triggers critical thoughts before speaking. Writing helps students to memorize ideas, reasons, and useful information (Neff-Lippman, 2011; Nejmaoui, 2018). In this phase, the capability to speak will improve from written notes to spoken form. In this study, writing and speaking are competencies that are used to have critical ideas in business problems. In detail, the lecturer will apply contextual teaching and learning (CTL) for writing and speaking skills because this teaching technique can answer the need for business real-world practices. CTL relates the targeted skill and the real-situation application (Sears, 2003). Because critical thinking should be embedded in the process, students must be involved in every process. They are not only knowing theoretically but also applying business knowledge. A previous study on CTL has revealed that self-regulated behaviors promote autonomy, academic achievement, and positive values (Geduld, 2017). Concerning this, CTL promotes independent learning so that students have a chance to develop their critical thinking. A study shows that CTL enhances students' critical thinking in their writing performance (Nasrun, 2014). One of the approaches in CTL is service learning to implement it (Berns & Erickson, 2001).

Service learning in CTL is expected to create critical thinkers in applying knowledge to real life in the community (Mitchell & Rost-Banik, 2020). Furthermore, a study includes service learning in the curriculum and the result indicates that students have more involvement in school and community activities, as well as the language skills program (Russell, 2015). Therefore, the use of service learning will be effective in writing and speaking when the target is creating critical thinkers. Because service learning engages the students in a business situation. Students will get a lot of information from businessmen, write the findings, and present them in spoken form. Thus, language skills are practiced in terms of writing and speaking competencies. However, the most important goal is how to develop students' critical thinking during service learning, and language practice. This refers to the strategies for providing reasoning, and complexity in different topics of writing and speaking (Wagner, 2019). For this reason, the teaching technique offers instructions in a project for community services, finds the problem in a business real situation, writes their opinion or solution to overcome the problem, and makes the presentation of business invention.

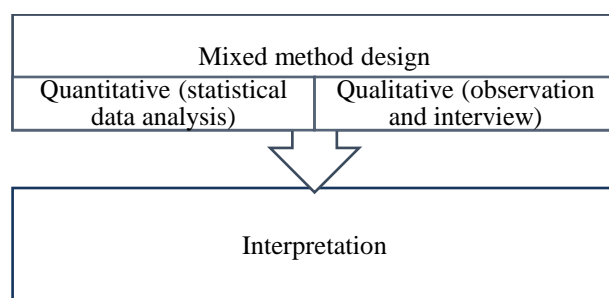
Developing critical thinking is proven to make students become problem solvers and creative thinkers (Prayogi et al., 2022; Dahl et al., 2018; Piergiovanni, 2014). Some findings show critical thinking in business curriculum answers the need of workplace requirements of job seekers (Mahdi et al., 2020; Morrison, 2017). It can be concluded that critical thinking should be taught by lecturers and mastered by students in higher education to prepare for the real-world workforce. To deal with the demand in business and industry, this study tries to find out the following research questions. (1). Do writing and speaking skills contribute to the student's critical thinking? (2). How is the implementation of teaching techniques using service learning in the business program?

## **METHOD**

This is a mixed-method research design that applies qualitative and quantitative in a single study to have depth integration in data findings (Olaghere, 2022; Hollstein, 2014). Multiple regression is used to know whether writing and speaking skills have contributed to critical thinking. Observation and interview are used as cross-checking data to get comprehensive findings (Gibson, 2017), and it will explain the process of teaching techniques in service learning to enhance critical thinking in business writing and speaking. Finally, the findings from both research designs will promote suggestions for future

studies. Above all, the business administration study program in one of the universities in Indonesia is used as the analysis. Thirty-six students conduct service learning in the business program. Students are given a writing project that analyses business practice, and find problems, and solution. Whereas, a speaking project contains a presentation to provide business inventions to enhance creativity and critical thinking. The results of writing and speaking competencies will be analyzed using multiple regression. It is used to predict the relationship between a dependent variable and several independent variables (Pallant & Pallant, 2020). Writing project (X1) and speaking project (X2) are the dependent variables, meanwhile, critical thinking is the independent variable (Y). Furthermore, the study uses inter-rater reliability and content validity to measure the valid results. For qualitative analysis, the observation will be seen from the process of teaching and learning, whereas, the interview is given to the students to know their opinion related to language skills improvement and critical thinking. The results of quantitative and qualitative data are compared to be interpreted for the findings and conclusion (Chako, 2017). In brief, the mixed method design can be seen in the following figure.

**FIGURE 1**  
**A TRIANGULATION MIXED-METHOD DESIGN**



Realizing critical thinking is compulsory for students’ academic achievement, the study tries to investigate the relationship between writing and speaking skills in improving critical thinking. The analysis provides the following results related to the statistical analysis between language skills, inter-rater reliability, content validity, observation, and interview result.

**THE RELATIONSHIP BETWEEN WRITING, SPEAKING, AND CRITICAL THINKING**

The study aims to answer whether writing and speaking skills contribute to the student’s critical thinking achievement. The language skills are analyzed using the following statistical data analysis.

**TABLE 1**  
**STATISTICAL ANALYSIS**

<b>Language skills</b>	<b>F</b>	<b>Sig.</b>	<b>R square</b>	<b>t</b>
<b>Critical thinking</b>	153.599	.000	.867 (86%)	
<b>Writing</b>				5.448
<b>Speaking</b>				4.503

The results of the analysis in Table 1 presented above allow us to answer the research question on searching to what extent writing and speaking projects contribute to the student’s critical thinking. To find out how much of this overall data is explained, the total of R Square is .867 (86%). This is a statistically significant contribution, as indicated by the Sig. F change value is .000 (less than .05). In line with this, the ANOVA table indicates that the variables as a whole are significant because F generates 153.599 ( $p > F$

table 2.758). So, the study proves that writing and speaking skills have a strong positive contribution to critical thinking. Meanwhile, to examine whether each independent variable correlates with the dependent variable, a t-test is used. The significance of writing skills on students' critical thinking is .000 (less than .05). t-test generates 5.448 indicating a significant correlation between writing skills on the student's critical thinking ( $p > t$  table 1.676). The significance of speaking skills on students' critical thinking is .000 (less than .05). t-test generates 4.503 ( $p > t$  table 1.676) which is significantly correlated. Overall, each independent variable contributes significantly to the student's critical thinking. In line with this, it is proven that critical thinking can be improved and taught to students' learning achievement (Zandvakili et al., 2019; Pu & Evans, 2019; Piergiovanni, 2014; Mehta & Al-Mahrooqi, 2015).

**TABLE 2**  
**INTER-RATER RELIABILITY**

<b>Language skills</b>	<b>Value</b>	<b>Approx. Sig.</b>
<b>Writing</b>	.750	.000
<b>Speaking</b>	.680	.000
<b>Critical thinking</b>	.677	.000

The effectiveness of two language skills can be measured using inter-rater reliability. It is defined as the measurement of the extent to which data collectors allocate the same score to the same variables (McHugh, 2012). Two evaluators grade the students' work in writing, speaking, and critical thinking. The results are analyzed using inter-rater reliability to find out the degree of agreement among evaluators. Table 2 describes the values of inter-rater reliability that show a moderate level of agreement with Sig. .000 ( $p < .05$ ). When the value of Kappa generates .60 - .79, the level of agreement is moderate. It can be concluded that the grading results indicate reliability measurement. In line with this, a study of inter-rater reliability in scoring technique indicates that evaluators depend on the number of levels in the rubric and when the agreement ratings vary from .40 and .75, represent the fair agreement (Jonsson & Svingby, 2007). Moreover, content validity is used to produce valid results in the data used. In this study, the method and measurement have been validated by the expert. To support the finding, research on content validity uses expert adjustment (Cho et al., 2006).

## QUALITATIVE ANALYSIS

The study uses qualitative data analysis through observation and interviews to know the application of service learning to develop students' critical thinking in writing and speaking skills. Table 3 shows the observation result from the teaching technique to conduct service learning.

Table 3 shows the information from observation results about service-learning implementation that can be used in the business curriculum. Service learning should be managed by determining the language skill and the activities of the students. In teaching writing, there are four steps including problem identification, brainstorming, gathering resources, and decision-making. All steps are followed by detailed instructions that students must follow during learning in the business real-situation. Overall, a writing project provides activities that use critical thinking, such as concluding literary works and writing suggestions. This finding has proven that critical thinking is needed in essay writing (Ng, 2017; Preiss et al., 2013). In the speaking project, students are asked to participate in a presentation. At this level, students should perform the business problem, solution, innovation, and suggestion with critical thinking. The speaking performance expresses the way of thinking in the advanced stage that the explanation has a meaningful context and it must be acceptable for business application. Thus, speaking with critical thinking has impacted students' fluency and confidence (Albino, 2017; Wagner, 2019).

**TABLE 3**  
**THE SERVICE-LEARNING IMPLEMENTATION**

<b>Language skills</b>	<b>Learning outcome</b>	<b>Service learning in CTL</b>	<b>The instructions</b>
<b>Writing</b>	Critical thinking	– Identifying the business problem.	– Students do a direct observation in a business community by interviewing the businessmen and preparing note-taking.
		– Determining key issues in business problems.	– Students conclude the important problems in business implementation.
		– Brainstorming some solutions.	– Students discuss the solution in the group.
		– Collecting the data from various resources to find the business solution.	– Students find solutions from business practitioners, researchers, books, articles, and social media.
		– Determining suitable business solutions.	– Students make the writing project by discussing and writing the final solutions including the innovation and the decision-making to pro-mote suggestions.
<b>Speaking</b>	Critical thinking	– Presenting the writing project	– Students explain the business problem, solution, innovation, and suggestion.
		– Providing suitable answers to the participants' questions	– Students answer the questions using critical thinking.

Service learning gives a real practice that students learn business knowledge and language skills. Therefore, it is integrated learning in an interdisciplinary program when the curriculum should cover the main subject and the additional competencies. The result of observation shows how service learning is conducted for its main purpose. Business writing contains the identification of the business problem, and the student's role is to give solutions through writing analysis and the way of critical thinking. This contribution is part of service learning for the business community. Here, the students have an impact on society and get their learning improvement in language skills. To fulfill this purpose, the teaching technique in service learning must give valuable instructions that include critical thinking in each activity. Table 3 shows a general overview of service learning that can be applied with creative methods and activities based on the learning output of the curriculum. However, the main focus of service learning is to use real-world practice to fulfill the need for critical thinking improvement. The observation indicates that learning from real situations must be provided. It means that the lecturer as the facilitator guides students to follow the instruction so that the learning process fulfills the service-learning goal. Therefore, the facilitator sets the instruction based on learning competence. In this phase, writing and speaking are two skills mastered by students, and the real-life situation is in the business context. In line with this, the previous study has revealed that real-world practice supports critical thinking outcomes in each language learning (Franco et al., 2017; Bosco & Ferns, 2014; Ozverir & Herrington, 2011).

**TABLE 4**  
**QUESTIONS IN THE INTERVIEW TO SHOW CRITICAL THINKING**

<b>Language skills</b>	<b>Questions</b>
<b>Writing</b>	How do you identify the problem or current issue related to the business topic? What do you know about that topic? How do you use your prior knowledge to write your idea in written form? What is the learning strategy to enrich your knowledge related to the topic? Do you read from various resources before writing? How do you solve the problem related to business topics? How do you put your prior knowledge, idea, or opinion into written form? How do you provide evidence and arguments related to the business topic? How do you provide solutions and suggestions in written form?
<b>Speaking</b>	How do you use your prior knowledge to explain, and business problem? How do you give a suitable answer to the questions? What are the resources that you use to support your explanation? How do the students provide meaningful suggestions?

Table 4 indicates the questions that aimed to trigger the students' critical thinking in both writing and speaking skills. The questions ask about some areas of how students use their critical thoughts and prior knowledge to give explanations, business solutions, and suggestions. The content in question is related to the writing and speaking skills that students have in business community observation so that it will be known the critical thinking aspects for improvement in terms of writing and speaking. It is shown that the experiences of business community services can enhance the understanding of the business practice. Thus, students know directly how to handle the problem, and what solutions should be given. They instantly train critical thought while learning independently in the business community. Students learn from businessmen and know how to act or what to do. From this experience, they have prior knowledge of business writing projects. It means that students will find an easy to put ideas and opinions into written form. Service learning in CTL means practicing in real-world situations. The business community in the coastal area is one learning setting for students to do observation, find the business problem, and learn from the business society. This finding is in line with the previous study on cultivating critical thinking in the business curriculum that which is an essential skill for students to face work demands (Braun, 2004; Bloch & Spataro, 2014; Chan, 2014).

Overall, students have the opportunity to use critical thinking in writing. The instructions ask students to describe specified knowledge from real experiences. The project reinforces students' critical thinking by using prior knowledge, information from some resources, and real-world practices in the business community. It is proven that critical thinking should be integrated with students' knowledge and it can be used for interdisciplinary learning programs. Writing project related to business knowledge is a competence that should be mastered by students in higher education in facing future careers. Students who have improved critical thinking skills can show the ability to write meaningfully which is beneficial for future employment. Therefore, critical thinking should be integrated into teaching.

The result of the interview indicates that students develop not only language skills but also the ability to find the appropriate solution, suggestions, and innovations for business practice. In this phase, students autonomously use critical thought in writing because they will determine and decide the solution as problem solvers. Furthermore, the ability to provide an example to prove data finding and opinion reinforce critical thinking. It is also supported by specific arguments from the students to give reasonable judgment as the result of the critical thinking process in the mind. Thus, critical thinking is an ideal output in educational curricula to prepare students for real-world contexts (Karakoc, 2016; Hitchcock, 2017). At this point, it can be said that service-learning means providing or helping the business community to realize the problems and assisting them with some solutions for the business's future benefit. Because students practice this business knowledge in the coastal area community, they can contribute to the people surrounding it in the

form of knowledge through students' writing and opinion that can be used for business implementation. Above all, Students' critical thoughts can be used as input for business improvement.

Critical thinking in students' speaking project gives a beneficial impact on fluency and confidence for each student. It also challenges the students to use critical thinking when questions and answers are conveyed. Through discussion, the students who have a business presentation will be forced to think critically in providing the appropriate answer. Service learning in CTL gives real experiences to learn business practice so that students will fluently explain the business knowledge according to the real-world context. It is a beneficial effect on CTL implementation. Students do not learn writing and speaking theoretically but language skills practically. Furthermore, students are also trained to make meaningful explanations to represent their critical thinking and progressive knowledge. Overall, the learning target has reached the expected output because students become more confident, speak fluently, and use critical thinking to make meaningful responses.

Writing and speaking projects are in the form of service learning. Students serve the business community as problem solvers by giving solutions to overcome the business problem which can be seen in their essay. In addition, students can communicate their ideas with businessmen. Based on students' interview results, meaningful and beneficial suggestions can be made and it is useful for the business community. It means that service learning is applied successfully if the business curriculum includes real-world learning, critical thinking, and language skills in one program to prepare autonomous characters and critical thinkers. The interview result also indicates that all of the students in the business program actively participate in service learning. They join the learning program enthusiastically because learning is not conducted traditionally in the classroom, but students learn and know directly from business practices.

As the main purpose is to improve critical thinking, writing and speaking skills have impacted critical thinking improvement. Writing project practices how to construct students' knowledge into written form based on guided instruction which triggers critical thought. In line with this, previous research proves that writing conveys not only knowledge but also cognitive ability (MacArthur & Graham, 2016; Afshar et al., 2017). Whereas, a speaking project reinforces prior knowledge to be spoken into a meaningful business solution. Above all, students know how to think critically and speak meaningfully. Critical thinking creates learners to reach learning achievement beyond the curriculum outcome (Smith, 2003; Nold, 2017). Based on the statistical analysis, writing and speaking skills contribute to the student's critical thinking. When it is connected to the result of observation and interview, it reveals that teaching technique in service-learning supports the writing and speaking skills to be implemented for aiming students to use critical thinking. As the result, both language skills contribute positively to the student's critical thinking. Interview data has shown that all of the students can perform well in writing and speaking projects. It means that students can write and speak with critical thinking.

This study uses a mixed-method research design and reveals integrated findings which are both quantitative and qualitative results. Data analysis in observation shows teachers' teaching technique in service learning that applies writing and speaking skills. Even though the learning system can't be very independent, the lecturer as the facilitator will give guidance and instructions because students will be involved in the business community, and it is very important to prepare them with sufficient business knowledge and suitable instructions. For this reason, students must be encouraged to follow the institution's curriculum. Service learning uses some instructions that should be implemented when students learn from a business real-world context. As the result, the service-learning technique has impacted students' learning achievement in writing and speaking skills. Students perform well in constructing sentences because they have real experiences that become knowledge in written form. Service learning also trains students to speak bravely and fluently. This business learning supports the ability to talk and present the findings because the instructions in service learning involve critical thinking to get the solution as the problem solver. Meanwhile, quantitative analysis proves writing and speaking skills help students to use critical thinking because service learning engages critical thought in each activity. It can be seen that writing and speaking skills contribute significantly to critical thinking.

The demand for authentic learning material is compulsory in higher education. Students require critical thinking skills for the future workplace. This skill is needed for writing and speaking because job seeker

prefers employee who can write and speak fluently. Therefore, the business curriculum should answer this phenomenon and includes language skills, as well as critical thinking in the learning output. However, it shouldn't be only a learning target. There's always a real application from the educator or facilitator to realize an integrated learning method in the teaching technique. Therefore, business real-world practices can be offered to the students to have the authentic experience of business knowledge in writing business solutions and speaking meaningful thoughts of business analysis. Furthermore, service learning in CTL can be used in teaching techniques because the facilitator needs to provide instructions so that students will know what to observe and do in the business situation. Finally, critical thinking will be reinforced significantly during the students' learning activities of writing and speaking skills.

## CONCLUSION

The study of critical thinking in language skills is beneficial for the students in the business study program. They not only improve in terms of business knowledge but also practice critical thinking in writing and speaking skills. It can be concluded that students will be encouraged to use critical thinking when they are involved in real-world business practice. The service learning provides some activities to make students engaged in business community services by writing business solutions and presenting some innovations and suggestions for business practitioners in coping with the business problem. That is the form of service learning that students do which is useful for society. There are many beneficial aspects for the students, such as improving writing, speaking abilities, and thinking critically. As the facilitator, the lecturer can have innovative learning to have an authentic assessment and learning process. For the business community, it will be a positive value to be helped by others in solving business problems. Finally, future research also gets the benefit of experimenting with service learning for the other specific language skills according to the curriculum and learning output that has been set.

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