

Using critical reflection as formative assessment of learning quality of general English at Nguyen Tat Thanh University

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Abstract

The present study investigates the use of critical reflection as formative assessment of learning outcomes in the context of English as a foreign language. It aims to explore learners' perception of how effective critical reflection is on the learning quality of knowledge and skills outcomes. Data was obtained from a purposeful sample of 113 participants who used critical reflection to assess their own learning quality against lesson learning outcomes. A questionnaire was employed to elicit responses on the learners' experience of using critical reflection as well as self-assessment on their own learning quality. The results from pair samples t-test revealed that the participants' use of critical reflection resulted in differing extents of achievement of knowledge outcomes and skills outcomes. While the findings suggest the helpfulness of the critical reflection as a means of self-assessment, they raised a question of designing critical reflection in a way it is better suited to different types of learning outcomes for optimal implementation in English classrooms.

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1 Introduction

1.1 Background of the Study

Over the recent years, the field of teaching English as a foreign language (EFL) has seen an increasing interest in aligning assessment and learning, commonly referred to as “formative assessment”. Based on the notion of zone of proximal development [1], *formative assessment* (FA) means that teachers are continuously assessing to inform better teaching and more efficient learning [2]. While the role of FA in EFL is well documented, [3] claims that its effectiveness relies not only on the teacher's understanding of assessment, but also on the students. In a similar vein, [4] put forward a comprehensive list of characteristics of FA in higher education, which includes encouraging students to self-monitor progress toward the learning goals, promoting metacognition and reflection, and encouraging them to

take responsibility for their learning. These characteristics manifest themselves in *assessment as learning* (AaL) - a newly emerged subset of assessment for learning. According to [5], AaL emphasizes the role of learners not just as a contributor to the assessment and learning process, but also the linker between them. Accordingly, learners serve as active critical thinkers, make sense of information, relate it to background knowledge, and use it to construct new learning. The idea about AaL has emerged from the active role of learners to regulate their own learning through self-assessment and/or self-reflection within a classroom environment [6]. Accordingly, teachers use FA to help learners “to develop and practice the necessary skills to become critical thinkers who are comfortable with reflection and the critical analysis of their learning.” Despite the importance of learners in formative assessment, many studies in second language (L2)



teaching mainly focused on teachers' perspectives. Formative feedback was implemented for writing by secondary L2 teachers in Norway [7], revealing interesting insights into teachers' perception and understanding of learning, found not to align with formative assessment practices. The researcher also found that the practice of writing assessment was mainly used more in an "assessment of learning" fashion than formative assessment. [8] focused on reflection to gather formative information on students' achieving learning outcomes of a service-learning program. However, the reflection products were then evaluated in terms of critical thinking; hence, it was not explicit how learners perceived the extent to which their learning outcomes were achieved. This approach taken by [8] seemed limited in what [9] results of meta-analysis suggested, that is, formative assessment would be more effective with contribution from learners than relying solely on that initiated by teachers.

Meanwhile, research into critical reflection has gained increasing interest in higher education. For example, [10] explored how effective an App was on healthcare students' levels of critical reflection. The researchers found that the App had an positive effect on the participants' critical evaluation of their learning experience. However, in the field of EFL, few studies have been conducted on the use of reflection for learners to self-assess their own learning progress. Instead, a majority of investigations into reflection tend to fall back on the role of teachers gathering formative information to inform their practice. These studies pay little attention either to learners' perspective or to learning outcomes. Consequently, students may not only have little understanding of how their experiences have influenced them, but also not fully comprehend the specific nature of their own learning process, or the true significance of that learning [11]. As a result, [11] they can only describe outcomes vaguely, such as "I learned a lot from working with community members." Motivated by the characteristics of FA, the present study looks at EFL learners' use of critical reflection as a form of assessment of their own learning quality, that is, learners are to answer the FA questions themselves instead of teachers. As this occurs, learners benefit from taking responsibility for their own learning attempts to investigate critical reflection from the perspective of learners.

[11] proposed the DEAL model for critical reflection to integrate these principles into learners' process of reflection. When designing critical reflection, the researchers began with the end in mind. Specifically, the model begins by identifying desired learning outcomes. It then continued to specify learning goals in terms of assessable learning objectives and proceeded to align them with teaching and learning strategies. However, the DEAL model [11] was applied to *service learning*, which was defined as in [8]:

"Service-learning is a collaborative teaching and learning strategy designed to promote academic enhancement, personal growth, and civic engagement. Students render meaningful service in community settings that present them with experiences related to academic material. Through guided reflection, students individually and in groups-examine their experiences critically and articulate specific learning outcomes, thus enhancing the quality of their learning and of their service."

To fill the research gap in critical reflection as a means of assessment as learning, the present paper takes a further step from the perspective of learners, rather than teachers, aiming to shed light on how learners perceive the own quality of English learning.

1.2 Characteristics of Critical Reflection

As for EFL teaching, critical reflection in the current study has three important characteristics to function effectively as a means of self-assessment. The central research question concerns whether critical reflection as a means for self-assessment makes any difference between knowledge outcomes and skills outcomes.

Firstly, critical reflection as self-assessment needs to have structure. [11] explicitly combined reflection and critical thinking through the notion of Articulated Learnings. According to [11], these seemed to make a natural fit for a course-embedded approach to the assessment of learning outcomes. On the one hand, Articulated Learning contains improvements on learner uses of reflection based on rubrics to evaluate written reflection. Indeed, a process of critical reflection that generates, deepens, and documents learning does not occur automatically; rather, it needs to be carefully and intentionally designed. [12] claims that it is not satisfactory to say "It is time to reflect". The notion of structuredness for reflection is particularly necessary as students tend to be unfamiliar with learning through reflection [13]. For those EFL learners who still lack

experience with learning L2, structure and guidance are needed to help them derive meaningful learning; otherwise, reflection tends to be little more than descriptive accounts of experiences or venting of personal feelings. To avoid these limitations, [11] proposed principles of effective practice across three steps of designing critical reflection in applied learning, i.e. identifying desired learning outcomes, designing reflection based on the determined outcomes, and assessing the outcomes. Critical reflection should also be sensitive to each group for optimal reflecting on each group of outcomes. However, previous studies tended to treat both knowledge outcomes and skill outcomes in the same way, without recognizing subtle differences between knowledge outcomes and skills outcomes.

Secondly, critical reflection needs to be accompanied by feedback. Among various means of AaL, [14] observed that reflection as FA seems to have an instrumental part in promoting feedback uses. Nevertheless, such an observation appears to underestimate the role of reflection as inferior to feedback. In the present study, by contrast, feedback still plays an essential part in learner reflection. Reflection only occurs when a trainer has provided specific feedback. [15] emphasizes that for feedback to be truly effective, it needs to be based on self-monitoring and the recipient of feedback is actively engaged in assessing their own performance, progress, and areas for improvement.

Thirdly, critical reflection needs to allow for elaboration. [11] integrated critical thinking into the DEAL model of reflection to address limitations in previous studies. The element of critical thinking was adopted from [16]. One obvious improvement noted was the need of a rubrics consistent with reflection. However, this critical thinking was applied to the context of service learning, rather than EFL; also, [8] seemed to focus more on whether the students' critical thinking improved than on learning outcomes. Despite its usefulness, the researchers' critical thinking lacked applicability for the present study for two important reasons. First, it was not aimed at addressing differences between outcomes of knowledge and skills targeted by the current paper. Second, asking for elementary-level EFL learners to reason on language learning seems well beyond their reasoning capacities.

In lieu of using [16] critical thinking, this paper relies itself on elaboration [17] to assist learners to deepen their thoughts. This study draws on elaboration for two reasons. On the one hand, elaboration finds itself in line with clarity as part of critical thinking [16], namely, consistently providing examples, illustrating points, defining terms, and/or expressing ideas in other ways. On the other hand, elaboration also lends itself to functional linguistics as intersentential relationships [17], which is more relevant to language learning.

Based on [17], elaboration is divided into *exposition*, *exemplification*, and *clarification*. Exposition occurs when one clause restates the thesis of another in different words, to present it from another point of view. This often involves repetition or synonymy. For example, in “Yeah, I just *hate* it; I just *loathe* it” [17], the second clause exposes the first by the use of synonym *loathe* for *hate*.

Exemplification occurs when one clause becomes more specific about the thesis of another, often citing an actual example. For example, in “We used to have *races* – we used to have *relays*” [17], the latter clause serves as an example for the former with *relays* being a hyponym of *races*. In clarification, one clause clarifies the thesis of another, backing it up with some form of explanation or explanatory comment. Clarification may also be an evaluative comment or involves a shift in positive to negative. For example, “I wasn’t *surprised*, – it was what I had *expected*” [17], the latter clarifies the former with the use of *expected* as an antonym of *surprised*.

In elaboration [17], exposition is accompanied by repetition, synonymy and exemplification is tied with hyponymy and meronymy. Clarification often involves a shift of polarity from positive to negative or vice versa. In the example ‘they weren’t *show animals*; we just had them as *pets*’ [17], it is reasonable that the type of lexical relations most relevant to the shift of polarity is antonymy; for this reason, this study adds antonymy to the framework for clarification to make up for the lack of explicit involvement of antonymy in the original framework.

Overall, the current paper investigates EFL learners’ use critical reflection to determine whether there are differences between knowledge and skills outcomes. Informed by the discussion so far, critical reflection bears three important characteristics, namely, structure, feedback, and elaboration.

2 Research Methods

This study aimed to investigate the use of critical reflection by EFL learners as an assessment tool for learning quality of general English at Nguyen Tat Thanh University (NTTU). The central research question concerns whether critical reflection as a means of self-assessment makes any difference between language knowledge outcomes and language skills outcomes; more specifically, the present study sought to answer the following questions:

1. To what extent does critical reflection help students achieve knowledge-based outcomes?
2. To what extent does critical reflection help students achieve skills-based outcomes?

2.1 Research site

This study was located in the general English program at NTTU. The program was run by the Foreign Languages Center, consisting of six courses, with each corresponding to level A1 to B1 based on Common European framework of reference for languages (CEFR). The present study was based on two classes, namely, an elementary-level class and a pre-intermediate level class, of which 113 students agreed to participate the study. One class consisted of 55 first year students, who were studying English through the course book *Personal Best* targeting at level A2 of proficiency [18]. The other were 58 second-year students, who were aimed at pre-intermediate level of proficiency [19]. The participants were purposefully chosen according to the criterion that they had had significant experience with critical reflection as assessment for learning outcomes. According [20], this purposeful sampling does not ensure generalization of results; however, in this study, the experience with using reflection was essential to make sure that the informants have the capacity to provide meaningful data on the phenomenon under scrutiny.

2.2 Research Tools

2.2.1 Critical Reflection

Informed by [11], the reflection in the present study began by determining specific learning outcomes to individual lessons, as follows:

- Know vocabulary, the grammatical structures and expressions used to describe specific topics.
- Understand the content of documents related to the above issues.

- Apply learned vocabulary, grammatical structures, and expressions to simulated communication situations in the textbook.

The researchers [11] also pointed out the situation in which students may vaguely understand the impact their experiences have had on them but not be completely aware of their own learning, its origins, or its importance. To avoid this phenomenon, the design of critical reflection also took into account of the contextual factors of the immediate research context as well as theoretical foundations laid out in Section 1, namely, structure, feedback, and elaboration.

2.2.2 Questionnaire

To investigate EFL learners' use of critical reflection in the present study, a questionnaire was constructed. Specifically, it was divided into two sections: Section A focused on the participants' experience with using critical reflection and Section B on the extent the learning outcomes were achieved.

Section A, which focused on critical reflection, consisted of nine five-level Likert items numbered from A1 to A9. Item A1 concerned the participants' overall experience with the use of critical reflection. Items A2 and A3 concerned the structure of the reflection based on two groups of learning outcomes: knowledge and skills. Items A4 to A8 focused on how the participants perceived feedback given by the teacher during the use of reflection. Regarding elaboration in reflection, only item A9 was administered as this item comes from linguistics, which would have well been too technical to EFL learners if broke down into further lower levels.

Section B, which centered on the extent of the achievement of learning outcomes, consisted of four items. Items B1 and B2 asked for how the participants to rate their achievement of knowledge outcomes. Meanwhile, items B3 and B4 asked for how the participants to rate their achievement of skills outcomes.

2.3 Procedure of Data Collection

Teachers shared lesson learning goals with learner participants at the beginning of targeted lessons. Critical reflection was implemented at the end of each session in which the participants were required to reflect on the goings and happenings during the lesson and write down the reflection. During the reflection, the participants were introduced, and instructed to write

down reflection on questions structured according to specific lesson learning outcomes.

The critical reflection occurred in three consecutive sessions in groups for the participants to become familiar with using critical reflection. The participants reflected by discussing the questions on the specific lesson learning outcomes in groups for the purpose of getting familiar with critical reflection. Where the participants got stuck, the teacher encouraged them to ask for explanations and clarifications. Afterwards, they were asked to do reflection individually to ensure each participant experienced with using critical reflection.

After a total of five sessions for reflection, the questionnaire was administered to the participants with explanations for difficult terminologies. They were asked to choose from 1 to 5 corresponding to from highly disagree to highly agree.

2.4 Data Analysis

The use of critical reflection as self-assessment was measured through a questionnaire administered at the end of the 12-session period. The results were analyzed using descriptive statistical procedure to provide an overview of the data. Afterwards, the procedure of paired samples t-test was run to compare the mean ratings between knowledge outcomes and skills outcomes.

The quantitative data on the use of critical reflection were analyzed using SPSS 20. Any random missing of responses was excluded from the procedure. The reliability for reflection items was calculated at Cronbach's Alpha 0.731, hence suitable for further analysis to be meaningful. Based on the analysis results, paired samples t-test was run to determine whether there was a statistical difference between the knowledge outcomes and skills outcomes.

3 Results

The aim of the present study was to shed light on the use of critical reflection as a means of self-assessment against learning outcomes. As a result of the data collection, a total of 113 responses (N=113) subjected to statistical analysis. The statistical results provide an overall picture of students' responses to how they perceive their use of reflection to self-assess their achievement of specific lesson outcomes. In this section, the outcomes of the data analysis are presented to address the research questions,

1. To what extent does critical reflection help students achieve knowledge-based outcomes?

2. To what extent does critical reflection help students achieve skills-based outcomes?

However, it is important to provide descriptive statistical data on the use of critical reflection as background for addressing these two questions. Figure 1 presents the overall frequency of critical reflection structured around knowledge outcomes and skills outcomes. The mean for knowledge outcomes was 4.29 and that for skills outcomes was 4.35. Although there was a minor difference between the two categories of outcomes, these figures indicate that the respondents agreed to have used critical reflection to self-assess their learning outcomes in the domains of knowledge and skills.

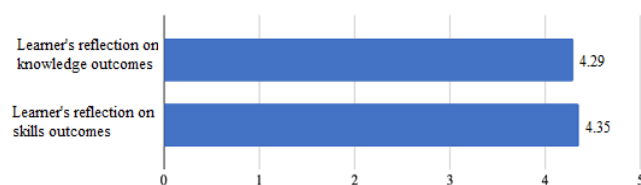


Figure 1 Frequency of learners' reflection on outcomes
As for the feedback provided by the teacher on critical reflection, Figure 2 presents the overall frequency based on three characteristics: structure, feedback, and elaboration. The mean for feedback given by the teacher on content was 4.41. Meanwhile, the mean for feedback on structure was 4.37, also suggesting high agreement over the reception of feedback given by the teacher on this characteristic of reflection. Concerning feedback on elaboration, the mean was 4.27, despite being lower than the other features, still indicates the participants' consensus on receiving feedback on elaborating reflections. The mean suggests that the participants agreed that they got to provide examples, and explanations for their learning reflection.

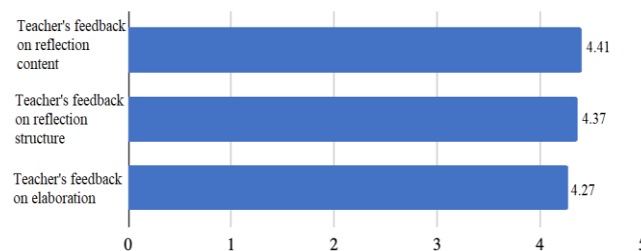


Figure 2 Frequency of teacher's feedback on reflection
The overall frequencies presented so far just describe what learners thought of their reflection and teachers' feedback. Figure 3 and Table 1 are presented below to

directly deal with the research questions of how effective the critical reflection was on learners' achieving learning outcomes.

Figure 3 presents the overall frequency of scores across knowledge outcomes and skills outcomes. The mean scores for vocabulary and grammar outcomes were 4.27 and 4.20, respectively. The figures show that the participants agreed to a high extent that the critical reflection made them master the knowledge outcomes. Similarly, the means were 3.81 and 3.73 for receptive and productive skills, respectively. The figures show that the participants somewhat agreed that the critical reflection made them master skills outcomes but with a lower extent compared with knowledge outcomes.

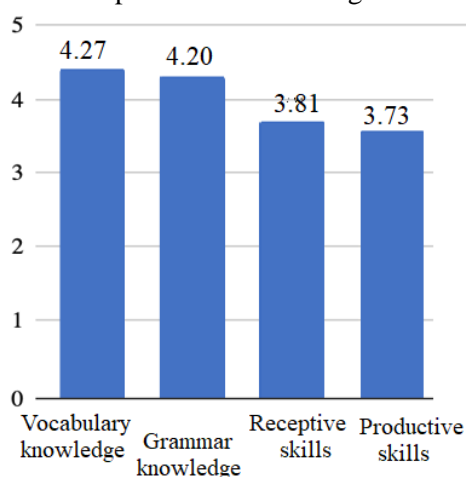


Figure 3 Frequency of knowledge outcomes and skills outcomes

Nevertheless, to determine whether critical reflection makes statistical difference between knowledge and skills outcomes, a paired-samples t-test was conducted. The significance value ($p\text{-value} = 0.00$) and $t = 7.24$, indicate a statistically significant difference between knowledge and skills outcomes. The amount of difference is substantial, with a mean gap of 0.46 points. According to the results, the participants noted that the use of critical reflection was more effective for knowledge-based outcomes than skills-based outcomes.

4 Discussion

This study aims to investigate EFL learners' use of critical reflection to assess their learning outcomes. The results revealed that the participants experienced reflection with structure, and feedback given by the teacher researcher. Also, the participants agreed that

they got to elaborate with examples, and explanations on their learning reflection. Finally, the responses indicated that critical reflection helped the participants recognize their achievement of learning outcomes.

One limitation is the involvement of a small sample size with a lack of detail in considering the quality of reflection. The data was solely restricted to learners' perception in seeking understanding of critical reflection. However, the choice of learners' perspective was not only purposeful but also in line with AaL, which emphasizes "the role of the student, not only as a contributor to the assessment and learning process, but the critical connector between them" [5].

The present study revealed insights into EFL learners' critical reflection as assessment of learning outcomes. First, the participants agreed that critical reflection made them master skills outcomes but with a lower extent than that of knowledge outcomes. The responses indicated that the participants did not think they achieved knowledge and skills outcomes equally.

Notably, this study considered critical reflection to assist EFL learners to evaluate their learning outcomes. This sets the present paper apart from previous studies. For example, [8] kept track of improvement of learners' reflections based on the model of critical thinking [16]. Although feedback and structure were also examined, [8] seemed to focus more on the quality of learners' reflection from the perspective of teachers rather than how learners perceive their critical reflection.

5 Conclusion

The present paper focused on EFL learners' use of critical reflection as self-assessment of learning outcomes. The results indicated that critical reflection helped EFL learners with recognizing knowledge outcomes better than skills outcomes. Based on the results, it appears easier for the learners to remember and understand vocabulary items and grammatical structures. Meanwhile, reflecting on language skills outcomes, whether receptive or productive, was found more challenging, perhaps because language skills are abstract, beyond learners' capacity to reflect on.

Based on the results, future research may carefully consider characteristics of language skills outcomes for critical reflection to be useful for EFL students to assess skills outcomes more effectively. Therefore, attention

should be paid to creating rich and authentic learning environment so that they have materials for critical reflection.

Teachers should consider the usefulness of critical reflection for EFL learners to gauge their achievement of learning outcomes. However, differences between skills and knowledge outcomes need considering in designing reflection questions so that skills outcomes

are more approachable to learners. In addition, teachers need to create learning environment to provide learners with materials for meaningful reflection.

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Sử dụng phương pháp phản chiếu tích cực vào đánh giá thường xuyên chất lượng học đối với chương trình tiếng Anh không chuyên tại Trường Đại học Nguyễn Tất Thành

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Tóm tắt Nghiên cứu này nhằm điều tra việc sử dụng phương pháp phản chiếu tích cực như một hình thức đánh giá thường xuyên kết quả học tập trong bối cảnh tiếng Anh là ngôn ngữ nước ngoài (EFL). Nghiên cứu này tìm hiểu theo quan điểm của người học về tính hiệu quả của phương pháp phản chiếu tích cực đối với chất lượng học tập qua mục tiêu kiến thức và kỹ năng. Dữ liệu được thu thập từ một mẫu mục đích gồm 113 người tham gia sử dụng phản chiếu tích cực để đánh giá chất lượng học tập căn cứ trên kết quả học tập mong đợi của các đơn vị bài học. Bảng hỏi thu thập phản hồi về việc sử dụng phản chiếu tích cực cũng như tự đánh giá chất lượng học tập. Kết quả cho thấy việc sử dụng phản chiếu tích cực dẫn đến mức độ đạt được kết quả học tập khác nhau về kết quả học tập kiến thức và kỹ năng. Trong khi nghiên cứu này cho thấy sự hữu ích của phản chiếu tích cực như một phương tiện tự đánh giá, nó nêu lên câu hỏi về việc thiết kế phản chiếu tích cực một cách phù hợp với từng loại kết quả học tập để sử dụng tối ưu trong việc học tiếng Anh.

Từ khóa Phản chiếu tích cực, đánh giá thường xuyên, mục tiêu học tập, đánh giá chất lượng học tập