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Effects of Formative Tests and Communicative Grammar Instruction on EFL Students' Oral Response Ability

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Abstract

This study investigates the effect of formative exams and communicative grammar teaching strategies on the students' oral response-ability. This research had a 2x2 factorial experimental design where 80 third-year university students were assigned using multistage cluster probability random sampling. The data were analyzed using a two-way covariance analysis (ANCOVA) to test the research hypotheses. The study outcomes demonstrated that students taught with constructive formative tests had higher achievement than those receiving the selective formative examination. The result indicated that deductive learning with concept maps was more effective in improving students' ability of communicative competence compared to inductive learning. Additionally, this study found that students taught with deductive grammar instructional strategy accompanied by English concept maps demonstrated higher achievement in communicative competence than those taught with inductive grammar instructional strategy in the group of students treated with the selective formative test. Deductive learning procedures with concept maps had positive impacts from the inductive strategy to the student capacity to

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respond orally among students who were given constructive formative examinations. Notably, the effectiveness of various sub-instructional tactics and sub-formative test combinations on students' verbal response capacity varied. Thus, English teachers must create formative examinations by considering constructive formative tests. Based on the research findings, recommendations for how teachers can improve students' oral-response ability by adopting appropriate assessments using more deductive learning are discussed.

Keywords: Communicative grammar instructional strategy, formative tests, oral response ability, prior knowledge.

1. INTRODUCTION

Learning English in Indonesian schools and higher education institutions dates back to the country's early history before its independence. However, Indonesian students have yet to develop adequate English proficiency. Numerous studies, including those by [Saukah \(2003\)](#) and [Lamb \(2004, 2007\)](#), have shown that despite being exposed to the language for a long time, Indonesian students lack proficiency in English. Several studies and relevant literature suggest that several factors contributed to the lack of English competence: first, the form of assessment used (objective/selective test) does not motivate students to learn ([Brown, 2005](#); [Gardner, 2014](#); [Harlen & Crick, 2003](#)), nor does it align with EFL learning objectives, i.e., communicative competence ([Abedi, 2010](#); [Harlen & Crick, 2003](#)). Second, communicative English learning today ignores the learning of the grammatical structure of the language ([Ahmed, 2013](#); [Cook, 2013](#); [Leech & Svartvik, 2003](#); [Li & Song, 2007](#)). Third, the limited time for English classes contributes to the lack of speaking competence ([Marcellino, 2015](#)). Fourth, English in Indonesia is considered a foreign language rather than a second language ([Alrajafi, 2021](#)). Fifth, some English lecturers and teachers lack the necessary English competence to teach effectively.

Those factors are interesting to research, but due to the limited scope, this study focuses primarily on learning assessment and strategy, two of the most significant obstacles to students' success in learning English. Assessment is critical because it determines the learning trajectory and should be well-designed. Lecturers are encouraged to consider both constructive and selective formats when constructing a specific type of evaluation, such as a formative test for an EFL lesson. Various studies have shown that formative assessment positively impacts learning, as evidenced by [Harlen's \(2005\)](#) and [Yin's et al. \(2008\)](#) findings. Additionally, [Chen et al. \(2009\)](#) discovered that constructive response tests had a greater influence on student learning outcomes than multiple-choice examinations.

Regarding English learning techniques, [Chang \(2011\)](#) concluded that the grammar-translation method is more effective in improving learners' learning confidence and motivation than the communicative approach, as also discovered by [Lin \(2007\)](#) and [Kaharuddin \(2018\)](#). [Aqel \(2013\)](#) stated that the Grammar-Translation method is an important teaching methodology that teachers should adapt to teach English as a second language. The researchers highlighted its advantages. First, it is an applicable method and easy to apply. Second, the first intellectual act the learners

can use when they feel unable to express themselves in the target language is interpreting by native language, and that is precisely the core of this method.

The current study investigates the effect of formative tests and communicative grammar learning strategies on students' verbal response ability while controlling for students' prior knowledge. To guide this research, several research questions that helped us understand the effect of formative assessment and communicative grammar teaching strategies on students' oral response ability were formulated:

1. Was there any difference in verbal response abilities between students given a constructive response formative test and those given a selective response formative test?
2. Was there any difference in verbal response abilities between students receiving a deductive communicative grammar learning strategy with concept maps and those receiving an inductive communicative grammar learning strategy?
3. Was there any interaction effect between formative test types and communicative grammar learning strategies on students' ability to respond verbally?
4. In the group of students taught with a deductive communicative grammar learning strategy with concept maps, was there any difference in the ability to respond orally between the students given a constructive formative test and those given a selective formative test?
5. In the group taught with an inductive communicative grammar learning strategy, was there any difference in the ability to respond orally between the students given a constructive formative test and those given a selective formative test?
6. In the group of students given a constructive formative test, was there any difference in the ability to respond orally between the students taught with a deductive communicative learning strategy with concept maps and those taught with an inductive communicative grammar learning strategy?
7. In the group of students given a selective formative test, was there any difference in the ability to respond orally between the students taught with a deductive communicative learning strategy with concept maps and those taught with an inductive communicative grammar learning strategy?

2. LITERATURE REVIEWS

2.1 Formative Test

Formative tests are assessment activities conducted during the course of a teaching curriculum. Many experts believe these tests can improve the quality of student learning process and outcomes (Chappuis & Stiggins, 2002; DuFour & Eaker, 2009; Gibbs, 2010; Nicol & Macfarlane-Dick, 2006; Rust, 2002). Formative assessments, just like the summative test approach, can be categorized into two broad groups, i.e. selected response items and constructed response items (Adams & Wieman, 2011; Popham, 2003; Scheerens et al., 2003; Shuhidan et al., 2010). On the one hand, selective tests may consist of multiple-choice, true-false, matching, binary choice, structured observation, and survey questions. Multiple-choice exams are the most common (Haladyna, 2012). The original multiple-choice exam is also frequently used for evaluating English language proficiency. Since its inception in 1964, the

paper-based TOEFL has been an example of a multiple-choice competency test (Sulistyo, 2009; Kelly, 2021).

In contrast, constructive examinations may include sentence completion, short response, essay, anecdotal observation, unstructured interviews, papers, and reports. Among the most recent conceptions are authentic assessment, performance assessment (display, presentation), portfolio assessment, and student self-assessment (Brindley, 2001; Falchikov, 2013; McMillan, 2007; Struyven et al., 2003). A performance assessment is an evaluation method that requires students to demonstrate their competence in the areas being assessed (Brown & Knight, 2012; Mislevy & Knowles, 2002; Nicol & Macfarlane-Dick, 2006; Sadler, 2010).

According to Mislevy and Knowles (2002), Gibbs and Simpson (2005), Abedi and Gándara (2006), Dunbar et al. (2006), and Gibbs (2010), when assessing English learning outcomes, performance assessment is the most suitable method to use as it enables the evaluation of student's language performance and competencies. Lilien et al. (2002) and Johnson et al. (2008) classify performance evaluations into two main categories: product and performance.

2.2 Communicative Grammar Learning Strategy

Unlike at the beginning of the birth of the communicative language teaching approach, the experts now recognize the importance of teaching grammar in foreign language learning, as explained by Debata (2013) and Wang (2010). Boroujeni (2012) concluded that L2 learners' need to learn grammar is now a well-established fact. What has remained controversial is how to teach grammar to help L2 learners acquire it. In the communicative approach, grammar is taught to improve grammar knowledge and enhance communication skills.

2.2.1 Inductive communicative grammar learning strategy

There are two main strategies (deductive and inductive) for teaching English grammar structures (Ellis, 2006; Farrell & Lim, 2005). An inductive communicative grammar learning strategy presents new grammatical structures to students in a real-world context. Task-Based Learning (TBL) is a language learning technique that employs an inductive strategy.

2.2.2 Deductive communicative grammar learning strategy with concept maps

Widodo (2006) says that the deductive method derives from the notion that deductive reasoning is general to specific. The deductive method is a conventional way of approaching the materials, in which information about the target language and its rules is presented at the outset of class, followed by examples. Using the deductive method to teach grammar, teachers explain the grammar rules clearly, and students can easily understand the content of the rules (Huang, 2023). With a deductive communicative grammar learning strategy, a grammatical structure is first introduced to students, and then they apply it. The learning techniques that use this strategy include the Presentation, Practice, and Production (PPP) technique (Criado, 2013). Despite criticism from experts, the PPP technique remains a favorite and effective technique for teaching English (Sha, 2009). In addition, SEE TEFL, an institution

engaged in training lecturers as English teachers in Thailand, claims their interest in using PPP techniques (“PPP TEFL teaching methodology”, 2014). The steps in the PPP technique include presentation, practice, and production. Research conducted by Farwis et al. (2021) shows that learning grammar using a deductive approach is more effective than an inductive counterpart. Huang (2023) also found that the traditional deductive method is still the primary grammar teaching method for more complex grammar.

Concept maps are highly effective in many lessons (Gopal, 2002; Novak & Cañas, 2006) and can also be applied to grammar learning. As Novak and Cañas (2006) described, concept maps are graphical tools that organize and present knowledge, facilitating meaningful learning.

2.3 Communicative Competence

The introduction of the construct of communicative competence in discussions of second or foreign language proficiency dates back to the early 1970s (Savignon, 2017). Canales and Swain (1980) have also provided insight into communicative competence. According to them, the theory of ability or basic communication skills that underpins the communicative language teaching approach emphasizes the minimum level of communication skills needed to communicate in situations involving the target language, including accuracy, discourse rules, and grammatical precision. These abilities include several competencies. First, grammatical competence encompasses vocabulary, word formation, sentence construction, pronunciation, spelling, and semantics; reading comprehension; and writing comprehension. Second, sociolinguistic competence pertains to the appropriateness of utterances in the context of the language studied, encompassing knowledge of when to express something in accordance with the social environment. For example, the two statements below convey the same meaning, but one is more acceptable given the context: “May I have some water?” compared to “Give me some water!”. Third, discourse competence involves connecting grammatical forms and meanings to construct language in various genres. Finally, strategic competence involves using verbal and non-verbal communication techniques to overcome communication barriers.

Shakhsi Dastgahian (2021) found that despite teachers’ practical attempts to implement changes, their strong beliefs in the importance of accuracy, reinforced by their students’ low English proficiency, continued to guide lessons with an initial focus on explicit grammar teaching to develop oral communicative competence. In a recent study, Munchar et al. (2021) investigated the effectiveness of the communicative approach to language learning. The results indicated a statistically significant improvement in students’ communicative ability. Moreover, the students preferred the communicative approach in the ESL classroom as it promoted peer teaching and learning and allowed for autonomous learning at a comfortable pace. These findings suggest that the communicative approach should be extensively incorporated into classrooms to enhance teaching and learning. However, teachers reported challenges in implementing the approach due to time constraints.

Savignon (2008) shares a similar viewpoint and identifies four facets of communication competencies. To foster communicative competence, communicative language instruction includes the following characteristics: 1) emphasizing the

importance of providing opportunities for students to use the language creatively and authentically; 2) focusing more on meaning than form or structure; 3) ensuring that learning is relevant to students' needs; 4) incorporating tasks as a key part of the learning process; and 5) adapting teaching to the language functions people typically perform, such as inviting, apologizing, greeting, and interrupting. In addition to linguistic competence, students must also understand the culture of the language speakers to become proficient. Although there are varying conceptions of communicative language instruction, [Richards and Rodgers \(2014\)](#) proposed three generally accepted concepts: 1) learners acquire a language through conversation; 2) authentic and meaningful communication is essential, and 3) the meaningfulness principle states that language is best learned when it is meaningful to the learner.

3. METHOD

3.1 Research Design

This study utilized a 2x2 factorial quasi-experimental design conducted at the Language Development Center of UIN Imam Bonjol Padang in West Sumatra, Indonesia. Multiple independent variables were used in this study, including formative test (A) - constructive (A1) and selective (A2), communicative grammar learning strategies (B) - deductive with concept maps (B1), and inductive (B2). The dependent variable was verbal response capacity (Y), and the covariate variable was the student's prior knowledge (X).

3.2 Participants

A total of 1813 Imam Bonjol State Islamic University sophomore students participated in this study. They were divided into 52 study groups, consisting of 3 intermediate-level groups and 49 basic-level groups. The participants were recruited using a multistage cluster random sampling technique ([Balnaves & Caputi, 2001](#)), in a total of 80 students were divided into four groups, each consisting of 20 participants.

Group I (A1B1) received a formative constructive response test and a deductive grammar-learning strategy using concept maps. Group II (A1B2) received a formative constructive response test and an inductive communicative grammar learning strategy. Group III (A2B1) received a formative selective response test and a deductive communicative grammar learning strategy with concept maps. Finally, Group IV (A2B2) received a formative selective response test and an inductive communicative grammar learning strategy.

3.3 Instrument

Assessments based on the English course syllabus for the first semester were administered to measure the students' communicative proficiency. The first exam assessed oral answers with 25 items and a multiple-choice test with 40 items. From October to December, a study was conducted with students enrolled in the odd semester, involving ten treatments lasting 100 minutes each (10 x 100 minutes). The data was analyzed using a two-by-two factorial analytic approach, and preliminary

tests were conducted for normality, linearity, regression linearity, regression effect significance, and line regression alignment.

3.4 Data Collection

This study involves the use of the following variables: independent variable (A), moderator variable (B), dependent variable (Y), and control variables (X). The independent variable (A), which is the formative test, is classified into two types: constructive response formative test (A1) and selective response formative test (A2). The moderator variable (B), which is the communicative grammar learning strategy, is divided into two types: deductive using concept maps (B1) and inductive (B2).

This study collected the following data: 1) Students' English learning outcomes or, more particularly, data on students' ability to respond orally to stimuli that are graphically displayed on the LCD screen with the use of PowerPoint after they had attended an English I course or received a research treatment (Y). 2) Students' initial English abilities or skills before enrolling in English Language I or receiving the research intervention (X) were determined by administering a multiple-choice test with a selective response instrument.

Students who served as research participants provided initial ability data (variable X) and data on English learning outcomes in the form of students' ability to reply verbally to presented stimuli (variable Y).

3.5 Data Analysis

This study employs both descriptive and inferential statistics for data analysis. The analysis is based on two types of data: 1) students' initial ability in English and 2) students' verbal response ability after exposure to a formative test and a communicative grammar learning technique.

3.5.1 Descriptive analysis approaches

The purpose of descriptive analysis is to provide a summary of statistical values that reflect the ability to answer orally based on the form aspects of formative exams and communicative grammar learning methodologies or in tabular form according to treatment groups. The data are shown by: a) frequency distribution list, b) histogram, c) mean, d) mode, e) median, f) standard deviation, and g) theoretical range in descriptive analysis.

3.5.2 Prerequisite test for inferential analysis

Prior to further data analysis, a prerequisite analysis test was conducted, which included: a) normality test, b) homogeneity test, c) covariate regression linearity test of (X) on the dependent variable (Y), d) significance test of the regression effect, and e) regression line alignment test.

3.5.3 Methods of inferential analysis

The inferential analysis in this study utilized the two-way ANCOVA. Two-way covariance analysis was employed to evaluate changes in the average verbal response ability parameters of all groups of students, which were produced through formative testing and communicative grammar learning methodologies while adjusting for students' baseline skills. Two-way covariance analysis was used to achieve the following objectives: a) examine differences in verbal response abilities for all groups of students based on the form factors of the formative test; b) examine differences in the ability to respond verbally for all groups of students based on the form factors of communicative grammar learning strategies; and c) examine the interaction effect of form factors of formative tests and strategies of learning communicative grammar on the ability to respond to spoken language. The four testing procedures were conducted after controlling for initial abilities, which served as covariates whose effects were statistically controlled. This ensured that the parameters tested in covariance analysis (ANCOVA) were the difference in the adjusted means or the difference in the homogeneous regression constants.

4. RESULTS AND DISCUSSION

Before conducting a hypothesis test, a requirements analysis was performed. The results indicate that the research findings fit the criteria for an inferential test.

4.1 Result

4.1.1 Testing the main effect hypothesis

The results are presented in the following table based on the ANCOVA calculation.

Table 1. Results of tests of between-subjects effects.

Source	Type III sum of squares	df	Mean square	F	Sig.	Partial eta squared
Corrected Model	2451.250 ^a	4	612.812	47.955	0.000	.719
Intercept	1808.646	1	1808.646	141.533	0.000	0.654
A	58.229	1	58.229	4.557	0.036	0.057
B	452.397	1	452.397	35.402	0.000	0.321
X	1394.361	1	1394.361	109.114	0.000	0.593
A * B	536.003	1	536.003	41.944	0.000	0.359
Error	958.420	75	12.779			
Total	386224.120	80				
Corrected Total	3409.670	79				

a. R Squared = 0.719 (Adjusted R Squared = 0.704)

a. Hypothesis 1

The first objective of this research was to find out the difference in verbal response abilities between students given a constructive response formative test and those given a selective response formative test based on these hypotheses:

$$H_0: \mu^*_{A1} \leq \mu^*_{A2}$$

$$H_1: \mu^*_{A1} > \mu^*_{A2}$$

Table 1 shows that the p-value of verbal response abilities between students who took the constructive and selective formative test was 0.036, lower than 0.05. It indicates a significant difference between students who took constructive and selective formative tests. It suggests that students who took constructive formative exams outperformed in oral than selective tests.

b. Hypothesis 2

The second objective of this research was to determine the difference in verbal response abilities between students receiving a Deductive Communicative Grammar Learning Strategy with Concept Maps and those receiving an Inductive Communicative Grammar Learning Strategy, based on these hypotheses:

$$H_0: \mu^*_{B1} \leq \mu^*_{B2}$$

$$H_1: \mu^*_{B1} > \mu^*_{B2}$$

Table 1 shows the p-value of verbal response abilities between students who received a deductive communicative grammar learning strategy with concept maps and an inductive communicative grammar learning strategy was 0.000, which is lower than 0.05. It indicates a significant difference between students who received a deductive communicative grammar learning strategy with concept maps and an inductive communicative grammar learning strategy. It means that students who were given the deductive communicative grammar learning method using concept maps outperformed those with an inductive communicative grammar learning strategy.

c. Hypothesis 3

This research also aimed to find out the interaction effect between formative test types and Communicative Grammar Learning Strategies on students' ability, based on these hypotheses:

$$H_0: (A \times B)_{ij} = 0; \text{ for all } i \text{ and } j$$

$$H_1: (A \times B)_{ij} \neq 0; \text{ for all } i \text{ and } j$$

Table 1 shows the interaction effect between formative test types and communicative grammar learning strategies on students' ability, as reflected in A*B. The p-value of this interaction was 0.000. It indicates an interaction between the formative test and the communicative grammar teaching method. It means that formative tests can be boosted by providing communicative grammar learning strategies on students' abilities.

4.1.2 Testing simple effect hypothesis

Table 2 shows the statistical calculations for research questions 4 and 5. The hypotheses were tested using the GLM Univariate procedure with a design of X, A, A*B. The results are presented in Table 2.

Table 2. T-test statistics on average parameters of students' ability to respond orally (Y) between all levels of learning strategy factor (B) for each level of formative test factor (A) by controlling prior ability (X).

Parameter	B	Std. error	t	Sig.	95% Confidence interval		Partial eta squared	Noncent. parameter	Observed power ^a
					Lower bound	Upper bound			
Intercept	36.314	3.338	10.880	0.000	29.665	42.963	0.612	10.880	1.000
X	0.897	0.086	10.446	0.000	0.726	1.068	0.593	10.446	1.000
[B=1]	-0.383	1.162	-0.329	0.743	-2.697	1.932	0.001	0.329	0.062
[B=2]	0 ^b	.	.	.	.	.	.	.	.
[A=1] * [B=1]	6.937	1.132	6.127	0.000	4.682	9.193	0.334	6.127	1.000
[A=1] * [B=2]	-3.519	1.142	-3.082	0.003	-5.793	-1.244	0.112	3.082	0.860
[A=2] * [B=1]	0 ^b	.	.	.	.	.	.	.	.
[A=2] * [B=2]	0 ^b	.	.	.	.	.	.	.	.

a. Computed using alpha = 0.05
b. This parameter is set to zero because it is redundant.

a. Hypothesis 4

Another objective of the present study was to find out the difference in the ability to respond orally between the students given a constructive formative test and those given a selective formative test, based on these hypotheses:

$$H_0 : \mu^*_{A1B1} \leq \mu^*_{A2B1}$$

$$H_1 : \mu^*_{A1B1} > \mu^*_{A2B1}$$

Based on the results of hypothesis testing in Table 2, the p-value for A1*B1 was 0.000, which was lower than 0.050, and thus H_0 was rejected. This result indicates a significant difference in the ability to respond verbally between the group of students who were given a constructive formative test and those who were given a selective formative test.

b. Hypothesis 5

The research was also to find out the difference in the ability to respond orally in Inductive Communicative Grammar Learning Strategy between the students given a constructive formative test and those given a selective formative test, based on these hypotheses:

$$H_0 : \mu^*_{A1B2} \geq \mu^*_{A2B2}$$

$$H_1 : \mu^*_{A1B2} < \mu^*_{A2B2}$$

Table 2 shows that the p-value for A1*B2 was 0.003, lower than 0.050. Hence, H_0 was rejected, and it suggests that in the group of students who were given an

inductive communicative grammar learning strategy, there were significant differences in the ability to respond verbally between the group of students who were given a constructive formative test and the group of students who were given a selective formative test.

Table 3 presents the statistical calculations for research questions 6 and 7. The results of hypothesis testing using GLM univariate procedure with the design X, B, A * B:

Table 3. T-test statistics on average parameters of students' ability to respond orally (Y) between all levels of formative test factor (A) for each level of learning strategy factor (B) by controlling prior ability (X)

Parameter	B	Std. error	t	Sig.	95% Confidence interval		Partial eta squared	Noncent. parameter	Observed power ^a
					Lower bound	Upper bound			
Intercept	36.314	3.338	10.880	0.000	29.665	42.963	0.612	10.880	1.000
X	0.897	0.086	10.446	0.000	0.726	1.068	0.593	10.446	1.000
[A=1]	-3.519	1.142	-3.082	0.003	-5.793	-1.244	0.112	3.082	0.860
[A=2]	0 ^b	.	.	.	.	.	.	.	.
[A=1] * [B=1]	10.073	1.131	8.905	0.000	7.820	12.327	0.514	8.905	1.000
[A=1] * [B=2]	0 ^b	.	.	.	.	.	.	.	.
[A=2] * [B=1]	-0.383	1.162	-0.329	0.743	-2.697	1.932	0.001	0.329	0.062
[A=2] * [B=2]	0 ^b	.	.	.	.	.	.	.	.

a. Computed using alpha = 0.05
b. This parameter is set to zero because it is redundant.

c. Hypothesis 6

The sixth objective of this research was to determine the difference in the ability to respond orally in the group of students given a constructive formative test between the students taught with a Deductive Communicative Learning Strategy with Concept Maps and those taught with an Inductive Communicative Grammar Learning Strategy, based on these hypotheses:

$$H_0 : \mu^*_{A1B1} \leq \mu^*_{A1B2}$$

$$H_1 : \mu^*_{A1B1} > \mu^*_{A1B2}$$

The analysis results in Table 3 indicate that the p-value for A1*B1 was 0.000, which was lower than 0.050. Thus, H_0 was rejected, which infers that in the group of students who were given a constructive formative test, there were differences in the ability to respond verbally between groups of students who were given a deductive communicative grammar learning strategy with concept maps and the groups of students who were given an inductive communicative grammar learning strategy.

d. Hypothesis 7

Finally, this study aimed to find out the difference in the ability to respond orally in the group of students given a selective formative test between the students taught with a Deductive Communicative Learning Strategy with Concept Maps and those taught with an Inductive Communicative Grammar Learning Strategy, based on these hypotheses:

$$H_0 : \mu^*_{A2B1} \geq \mu^*_{A2B2}$$

$$H_1 : \mu^*_{A2B1} < \mu^*_{A2B2}$$

The analysis results in Table 3 show that the p-value for A2*B1 was 0.743, which is higher than 0.050, and thus H_0 was accepted. Therefore, it can be concluded that in the group of students who were given a selective formative test, there was no difference in the ability to respond verbally between the group of students who were given a deductive communicative grammar learning strategy with concept maps and the group of students who were given inductive communicative grammar learning strategy.

4.2 Discussion

The results of the study indicate that the students taught with the constructive response formative test demonstrated a higher ability to respond orally than those given the selective response formative test, as also found by [Arrasmith et al. \(1984\)](#) and [Hogan and Murphy \(2007\)](#). Because constructive response formative tests align with English learning objectives of communicative ability, their use leads to better effectiveness of English learning outcomes than selective formative tests. It is essential to ensure that the evaluation methods employed are appropriate for the learning objectives as outlined by [Gibbs and Simpson \(2005\)](#), [Woytek \(2005\)](#), and [Gibbs \(2010\)](#).

It was also found that students taught using a deductive communicative grammar learning strategy with concept maps had a higher verbal response ability than those taught using an inductive communicative grammar learning strategy. The result of this present study was in line with that of [Farwis et al. \(2021\)](#), who found that deductive grammar learning strategies significantly impacted student learning outcomes, which was also observed in this study. Even though deductive communicative grammar learning strategies are often considered conventional learning strategies based on research findings from experts, they are still effective in saving time and catering to students as adults who possess analytical and synthetic skills ([Badilla & Chacón, 2013](#)). This is because deductive grammar learning is a more direct teaching technique.

Moreover, the results show an interaction effect between the formative test types and the communicative grammar learning strategies on the ability to respond verbally. The dependency of formative assessment and learning strategies on the ability for an oral response was due to this interaction effect. In other words, when communicative grammar learning was implemented, different combinations of sub-learning procedures and sub-formative tests resulted in diverse learning outcomes.

For the fourth research hypothesis, the analysis result reveals that in the group of students who were given deductive communicative grammar learning strategies with concept maps, the verbal response ability of the group of students who were given constructive formative tests was higher than the group of students who were given selective formative tests. This difference in learning outcomes occurred because, in grammar learning with deductive strategies, students were told how to construct sentences according to the grammar rules that students were expected to master. The activities during the teaching and learning process were then strengthened by giving formative tests whose forms align with the learning process. Moreover, the form of the final test was aligned with the two aspects mentioned earlier: the learning process and

formative tests. In other words, what was done to the group that was given this constructive formative test was that the learning process, formative tests, and summative tests were all complements of one another. The importance of conformity between these three activities was raised by Biggs (2003). A teacher's job is to create a learning environment that supports the appropriate learning activities to achieve the desired learning outcomes. The key is that all components in the teaching system - the curriculum and its intended outcomes, the teaching methods used, and the assessment tasks - are aligned. The learning process in the group that received a selective formative test was not the same as that in the group given a constructive test. Even though these two groups of students were given the same learning strategy, namely a deductive communicative grammar learning strategy with concept maps, the selective formative tests they took at the end of each learning process did not support what they got during the learning process.

Selective tests in formative tests did not encourage students to deep learn as much as those who were given constructive tests. One of the weaknesses of selective tests is that they do not motivate students (Cruzan & Kaluszka, 2010). Traditional assessments, including paper-based assessments, such as multiple choice, true/ false, and short answers, provide little motivation for the student, which often results in rote memorization of the material to achieve the desired results on the test.

Based on the fifth research hypothesis, the analysis result shows that in the group of students who were given inductive communicative grammar learning strategies, the ability to respond verbally among students who were given constructive formative tests was lower than those receiving selective formative tests after controlling their initial abilities. The fact or verbal response ability found in the group of students who were given an inductive communicative grammar learning strategy was inversely proportional to the verbal response ability found in the group of students who were given a deductive grammar learning strategy with a concept map.

In the group of students who were given a deductive communicative grammar learning strategy with a concept map, the learning outcomes of the higher oral response ability were obtained by the group of students who were given a constructive formative test. Meanwhile, at that time, in the group of students who were given an inductive communicative grammar learning strategy, the higher results of learning the ability to respond to speech were obtained by a group of students who were given a selective formative test.

The logical explanation is that students taught with inductive grammar learning strategies were not taught explicitly how to construct sentences during the learning process. Students taught with this strategy were exposed to a lot of language input. The learning process in this group allowed various kinds of daily communication transaction models that students needed. Exposure to many language inputs and various communication transactions made the students in the selective formative test group obtain higher learning outcomes than those given constructive formative tests.

The importance of language input was explained by Bahrani et al. (2014), that is many internal and external factors influence SLA, one of which is the language input that learners receive, which is an external factor that plays a fundamental role in SLA. The important role of language input is also stated by Krashen (1992). He underlined the importance of language input in acquiring a second language.

Due to a large number of language inputs and appropriate final test material and limited to the language input provided during the teaching and learning process, the

students who were given selective formative tests had better learning outcomes than those who received constructive formative tests. Giving constructive formative tests to students who were given constructive formative tests did not have a positive impact. The importance of providing a lot of language inputs in the process of learning English was put forward by many experts, such as [Gilakjani \(2016\)](#). In addition, giving constructive formative tests to this group did not have a positive impact. However, this present study was in contrast with [Nassaji and Fotos \(2004\)](#), who found it detrimental in nature, disrupting students' understanding and disturbing them while completing the final test. Ultimately, it resulted in low learning outcomes in their ability to respond verbally.

For the sixth research hypothesis, the analysis result states that in the group of students who were given a constructive formative test, the group of students who were given a communicative grammar learning strategy with concept maps had a better ability to respond verbally than those who were given an inductive communicative grammar learning strategy. The findings also explained logically that in deductive communicative grammar learning with concept maps, students were taught explicitly how to construct sentences using sentence patterns (grammar rules) that students had to master with this learning. What students did during the learning process was then strengthened by formative tests synched with activities during learning. In addition, the form of the test given at the end of the treatment in this study was in line with the learning process and constructive formative tests. Meanwhile, the opposite happened to the students given inductive grammar learning strategies. They were not explicitly taught how to construct sentences. Giving constructive formative tests to this group of students did not help their understanding; on the contrary, it was detrimental and disrupted their understanding, as revealed by [Borg \(2003\)](#) and [Nassaji and Fotos \(2004\)](#).

Finally, for the seventh research hypothesis, the result of the study shows that in the group of students who were given a selective formative test, the ability to respond verbally among the group of students who were given a communicative grammar learning strategy with concept maps was the same as the group of students who were given an inductive communicative grammar learning strategy by controlling initial abilities. This result was predicted because a previous study also found that there was no significant difference in learning outcomes between groups of students taught with an inductive approach and those taught with a deductive approach ([Negahdaripour & Amirhassemi, 2016](#)). The inductive approach, in other words, has the same effect as the deductive approach in teaching grammar. A significant difference between the group of students taught using an inductive approach and those taught using a deductive approach was observable in their proficiency. The students taught with a deductive approach had higher learning outcomes (proficiency) than those taught with an inductive approach.

5. CONCLUSION

This study found that formative constructive assessments improved students' ability in an oral response more than selective formative exams. Compared to inductive learning, deductive learning with concept maps improved students' ability to respond more effectively. The effectiveness of various sub-instructional tactics and sub-

formative test combinations on students' verbal response ability varied. In groups of students given concept maps and deductive learning strategy, constructive formative tests contributed to better oral answer skills than selected formative tests. In groups of students given inductive learning strategies, selective formative tests were more effective than constructive formative tests on students' verbal ability to respond. In groups of students who were given constructive formative examinations, deductive learning strategies with concept maps were more effective than the inductive strategy in terms of students' ability to respond orally. Finally, in the groups receiving selective formative examinations, inductive approaches did not improve verbal responses more significantly than deductive ones.

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