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The CLIL (Content Language Integrated Learning) Approach to Speaking Skills with Aspects of Content, Communication, Cognition, and Culture as Digital Transformation Towards Deep Learning for Industry Revolution 5.0 Era.

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Abstract

This study aims to enhance speaking skills through the Content and Language Integrated Learning (CLIL) approach, encompassing the aspects of Content, Communication, Cognition, and Culture, to improve the speaking abilities of Tadris students at the State Islamic University Fatmawati Sukarno and the State Islamic Institute of Islam Curup Bengkulu. Data were analyzed using a mixed-method (qualitative and quantitative), with qualitative data collected through triangulation methods based on the Huberman and Miles theory. This theory explains qualitative data analysis involving three main steps: data collection, data reduction, data presentation, and conclusion verification. Triangulation was conducted through observation, interviews, and documentation. The analysis results using the Huberman and Miles model indicate that ideal teaching of speaking skills with the CLIL approach must integrate the four aspects of CLIL, based on global realities (trending topics), which can support the development of Deep Learning known as the 6C: character, citizenship, collaboration, communication, creativity, and critical thinking. It effectively enhances students' speaking abilities, where teaching can be conducted by collaborating with digital technology. Overall, the CLIL approach can serve as a reference for teaching speaking skills in the English Tadris environment in Bengkulu. Quantitative analysis using Randomized Solomon Four Group Design and ANOVA shows a significant effect of the CLIL approach, evidenced by F_calculated > F_table (37.276 > 2.74 and 4.08), proving that teaching with the CLIL approach has an impact and demonstrates a significant improvement in students' English speaking skills after employing the CLIL approach.

Keywords**:** CLIL, Deep Learning, Digital Transformation, Randomized Solomon Four Group Design

Introduction,

Digital globalization as a modern civilization brings global changes where the humanistic role of individuals must adapt to the developments in digital AI (Artificial Intelligence). This development certainly has a significant correlation with the advancement of human communication skills through various Artificial Intelligence applications. As stated by Durgaprasad (2024), AI enhances human intelligence by improving decision-making, problem-solving, and creativity, especially in education and health sectors. To understand all aspects of AI intelligence, humans are required to communicate well in English, as English serves largely as the Lingua Franca. Therefore, proficiency in spoken English plays an important role in mastering digital technology.

The 5.0 industrial revolution is a manifestation of digital technology, where this industrial revolution has four demands: humans should possess Creativity, Critical Thinking, Communication, and Collaboration skills. The enhancement of these skills relies heavily on human resources, with education playing a crucial role from primary to higher education levels. At the higher education level, there is still a low understanding among students regarding their ability to implement the industrial revolution effectively. Many students are still unaware of the importance of this revolution, especially in building communication with the global world and technology, particularly AI. Building this communication requires not just good thinking skills but also the ability to communicate effectively in English. However, the reality shows that English communication proficiency is often limited to passive understanding. According to the EF EPI 2023 research, which involved 2.2 million test participants from 113 countries and regions, it provides in-depth insights into English proficiency worldwide. The assessment index shows that the English language score for the Indonesian population is 469. Of the total test participants, about 55 percent are women, with ages ranging from 18 to 60 years, and an average age of 26.

The government policy regarding the role of English as a Foreign Language rather than a Second Language also has a significant social impact on the desire to master English communication. The development of the Indonesian language on the global stage significantly affects English communication development, as seen with the recognition of Indonesian as an official language on November 20, 2023, by the United Nations, which is among the ten official languages of the UNESCO General Conference, alongside six UN languages: English, French, Arabic, Chinese, Russian, and Spanish, as well as four other UNESCO member languages: Hindi, Italian, Portuguese, and Indonesian. Thus, Indonesian is recognized as the 10th official language of the UNESCO General Conference.On November 21, 2023, in Paris, France, the Government of the Republic of Indonesia proposed Indonesian to become an official language at the UNESCO General Conference. This effort is part of the implementation of Article 44 Paragraph (1) of Law Number 24 of 2009 concerning the Flag, Language, and State Symbols, as well as the National Anthem, which states that the government aims to enhance the function of Indonesian as an international language gradually and sustainably. Therefore, English proficiency is considered a crucial element for mastering the language, as the strengthening of Indonesian as an international language certainly provides many benefits for Indonesia itself, leading to the phenomenon among students that English is viewed merely as a supplementary language since Indonesian is already recognized internationally. From an academic perspective, many English teaching systems have

yet to implement digital-based teaching methods due to limited facilities available on campus, such as unstable networks, which disrupt the desired access process. As stated by Diaz, Hrastinski and Norström (2024), during teacher education programs, students are expected to develop the digital competencies necessary for their future roles as teachers. An important aspect of this competency involves integrating digital devices into educational activities. An inappropriate teaching approach that only serves as a trial will result in a lack of targeted teaching achievements, and the teaching material, which remains static, should be dynamic so that the material taught, especially speaking skills, can adapt to digital advancements, making it more challenging and engaging to discuss. This digital mindset is a response to digital technology that can motivate students to meet their learning needs.

This opinion is supported by Cilalı, Michou, and Daumiller (2024), emphasizing the important role of mindset and teaching motivation in promoting a learning environment that supports needs. The teaching materials for speaking are only compilations, meaning they are not based on needs analyses, resulting in a lack of uniformity in speaking materials and no clear indicators to achieve the desired speaking targets. The development of speaking skills that focuses solely on memorization rather than contextual understanding leads many students to speak based only on what they have memorized, but they are unable to articulate their thoughts due to limitations in their memorized content.

Meanwhile, speaking skills require a comprehensive understanding of constructing correct and appropriate sentences so that they are easily understood by interlocutors. Therefore, active interaction must also be integrated with technology; however, in reality, many students engage in speaking skill learning with minimal active interaction, resulting in communication that is merely a memorization of dialogues rather than creating their own sentences. This phenomenon is also a factor hindering students' understanding of speaking skills, necessitating teaching methods that are tailored to the learning environment.

Based on the views of Rodríguez, Vera, and Calderón (2024), the communicative approach is emphasized as the main teaching method to develop speaking skills in English. This study highlights the importance of balancing methodological strategies with motivational elements to effectively enhance students' communicative competence and oral expression. Speaking skills go beyond mere communication; at certain levels, a deeper mastery of language is needed, requiring sentence construction that leads to more elegant language, such as discussions in international forums. Well-structured speaking with the right style and structure will reflect an individual's intelligence in speaking.

Thus, academically, the speaking skills taught in universities should adhere to innovative and flexible teaching approaches that can adapt to digital developments in the current 5.0 industrial revolution era. The transformation of approaches that continues to evolve and can be applied today is CLIL (Content Language Integrated Learning), focusing on four aspects: Content, Communication, Cognition, and Culture. According to Coyle, Hood, and Marsh (2010), the successful CLIL curriculum must include the following elements: Content: Advances in knowledge, skills, and understanding related to specific elements of the designated curriculum; Communication: Using language to learn while learning to use language; Cognition: Developing thinking skills that connect concept formation (abstract and concrete), understanding, and language; Culture: Exposure to alternative perspectives and shared understandings that deepen awareness of others and oneself.

The CLIL program with these four main aspects is certainly well correlated with the development of the 5.0 industrial revolution, thus integrating these two elements creates deep learning. This teaching system focuses on achieving the 6Cs: Character, Citizenship, Collaboration, Communication, Creativity, and Critical Thinking. This transformation is a complex process of forming a teaching system that is expected to become modern pedagogy capable of addressing global issues currently faced. This opinion is expressed by McClelland and Botvinick (2024), stating that deep learning involves artificial neural networks with multiple layers, reflecting the functions of the human brain. Deep learning surpasses human capabilities across various domains, offering insights into human memory and learning processes. This view is also supported by Elbashbishy (2024), stating that deep learning in education refers to transferring knowledge to new situations, enhancing collaboration skills through project-based learning, and effectively preparing students for college and career readiness. Based on various phenomena occurring and developing today, the author is interested in writing about "The CLIL (Content Language Integrated Learning) Approach in Speaking Skills with Aspects of Content, Communication, Cognition, and Culture as a Digital Transformation towards Deep Learning for the Industry Revolution 5.0 Era."

Research Methodology,

This research aims to discover the influence of the Content and Language Integrated Learning (CLIL) approach, encompassing the aspects of Content, Communication, Cognition, and Culture, to enhance the speaking skills of Tadris students at Fatmawati Sukarno State Islamic University in Bengkulu. According to Creswell (2022), data is analyzed using a mixed-method approach (qualitative and quantitative), employing a Sequential Exploratory design where qualitative data collection and analysis are conducted first to explore the phenomenon. Qualitative data is gathered through triangulation methods based on the theory of Huberman and Miles. This theory explains qualitative data analysis involving three main steps: data collection, data reduction, data presentation, and conclusion verification. Triangulation is conducted through observation, interviews, and documentation.

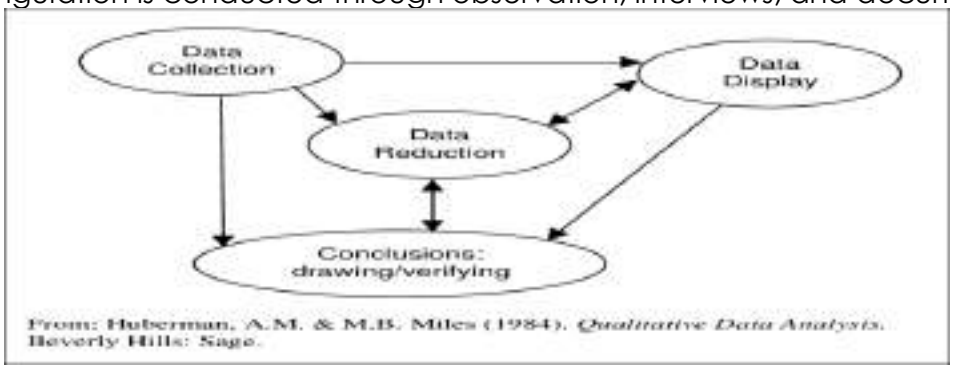

Figure 1: Qualitative Analysis Theory of Hubberman and Miles

Quantitative Analysis with True Experiment Using the Randomized Solomon Four Group Design based on the opinion of Borg, Walter, and Mereith D. Gall (2006). The total population consists of 72 students from the English Education Department at Fatmawati Sukarno State Islamic University in Bengkulu and the State Institute of Islamic Religion Curup in Bengkulu Province, with Group A consisting of 18 students, Group B consisting of 18 students, Group C consisting of 18 students, and Group D also consisting of 18 students.

Table 1: Solomon Four Group Experiment Design

GROUP	PRETEST	TREATMENT	POSTEST
A	**X_1**	**T**	**X_3**
B	**X_2**	**_**	**X_4**
C	**0**	**T**	**X_5**
D	**0**	**_**	**X_6**

Description:

- **T** = Treatment/Learning with speaking skills using the CLIL approach, which includes four aspects: Content, Communication, Cognition, and Culture.
- **X** = Test Score
- **0** = No Treatment Given (pretest)
- **-** = No Treatment Given (treatment/Learning with speaking skills using the CLIL approach)

Data collection was conducted after performing the experiment (Somekh, B., & Van Welie, R. J. 2023) that data collection techniques are systematic methods used to gather information or evidence to answer research questions. This was followed by calculating the pretest and posttest scores for groups A and B and calculating the posttest scores for groups C and D. The normality of all posttest and pretest data was assessed, followed by data analysis using ANOVA to determine the effectiveness of speaking skills with a CLIL approach. To support the experimental results, this research also utilized a validity test questionnaire consisting of 290 items, which was tried out on 30 students from UIN FAS. The results after the try-out reduced the number of valid items from 290 to 148. An item is considered valid if it reaches a significance level of Sig. (2-tailed) < 0.005. (DeVellis, R. F. 2022) Instrument validity ensures that the measurement tool is consistent and accurate in measuring what it is supposed to measure. This is important to avoid measurement errors that can lead to bias in research results. (Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. 2022) Instrument validity allows researchers to accurately interpret research data. The valid items are detailed as follows: the valid items from the aspects of Content, Communication, Cognition, and Culture amount to 148 items that will be used for the research. Then, the reliability of all the items that have been tried out is determined. According to (Schatzberg, A. F., & Nail, J. K. 2022), reliability refers to the consistency and stability of scores produced by a measurement tool. A reliable measurement tool produces consistent scores for the same individual, regardless of factors that may influence measurement results. An important aspect for instrument development is conducting a difficulty level test for the items. The difficulty level of an item is calculated by dividing the number of students who answered correctly on a specific item by the total number of students who took the test. The general formula is:

$$p = \frac{Rh+Ri}{Nh+Ni} \text{ X } 100\ \%$$

Where:

- (P =) difficulty level in percent
- (Nh =) number of participants in the high score group
- (Rh =) number of correct answers in the high score group
- (Ni =) number of participants in the low score group
- (Ri =) number of correct answers in the low score group

To evaluate instruments in research, a Differential Power Test is an important method for the development of evaluation instruments. Generally, 27% of students with the highest scores and 27% with the lowest scores are taken as samples for differential power analysis. The differential power is calculated by subtracting the proportion of participants from the lower group who answered one item correctly from the proportion of participants from the upper group who answered correctly. The general formula is:

DP = (U - L) / N
Where:
DP = Discriminative Power of the Question.
U = The number of correct answers from the high-scoring test participants
L = The number of correct answers from the low-scoring test participants
N = The number of students in each group (27%)

The obtained data is analyzed by meeting the conditions for the analysis requirement, namely the normality test. The normality test is used to determine whether a variable is normal or not. According to (Avram, C and Măruşteri, M 2022), the normality of the data can indicate a distribution resembling a normal (Gaussian) distribution. Calculate the pretest and posttest scores for groups A and B and calculate the posttest scores for groups C and D. Compute the normality of all posttest and pretest data, followed by hypothesis testing based on the fundamental concept of hypotheses, namely:

- Null Hypothesis (H_0): This is the initial statement indicating that there is no significant difference or relationship between the variables being studied.
- Alternative Hypothesis (H_1): This is a statement that contradicts the null hypothesis. This hypothesis states that there is a significant difference or relationship.

Findings and Discussion,

Findings

The results of this research were analyzed using both qualitative and quantitative methods (Mixed-method), with qualitative analysis conducted first, followed by quantitative data analysis.

A. Qualitative Results

Based on observations considering the 4 aspects of CLIL (Content and Language Integrated Learning):1. Content: Instructors selected relevant, up-to-date academic content that meets students' needs to encourage the development of English language skills. Strategies for integrating language and academic content included activities such as storytelling, discussions, and film analysis, allowing students to understand material while enhancing their language skills. Content assessment was conducted to ensure the difficulty level matched students' abilities through activities like descriptions, debates, and presentations.2. Communication: Instructors

motivated students to communicate in English by creating a supportive learning environment and using interactive activities like group discussions and presentations. Communicative activities involved students sharing experiences, giving opinions, and discussing current events to boost confidence and speaking skills. Oral communication was assessed based on fluency, structural clarity, and interaction effectiveness. 3. Cognition: The CLIL approach aids students in developing critical thinking skills through analysis, debates, and self-reflection activities. Instructors connected language learning with real-world concepts through activities like object descriptions, argument development, and project presentations. CLIL encouraged students to solve academic problems using English skills, such as giving instructions or comparing perspectives. 4. Culture: Instructors introduced global cultural perspectives through relevant materials and activities like storytelling and film analysis. Students were trained to appreciate cultural diversity through discussions on cultural norms in debates, public speaking, and job interviews. Instructors addressed sensitive cultural issues by creating an inclusive classroom atmosphere and encouraging respect for differences. Interviews conducted with students revealed several key findings regarding English speaking skills learning through the CLIL approach: Content Aspect: Understanding Material: A small number of students could identify the main topics and concepts from the studied material. Many struggled to provide real-life examples of these concepts. Relevance to Field of Study: Many students were unaware of the relevance of the material to their fields, especially in practical contexts like personal narratives, object descriptions, and discussions. Connecting Prior Knowledge: Students had difficulty linking new material to existing knowledge, although some expressed challenges with specific sections. New Terms: A small number of students could identify and explain new vocabulary, indicating some vocabulary enhancement. Communication Aspect: Speaking Confidence: Students' confidence levels when speaking in class varied based on experience and mastery of the material. Communication Strategies: Students often used body language and other strategies, like rephrasing for clarity, to ensure understanding. Response to Criticism: Many students struggled to respond constructively to criticism and suggestions, indicating a need for more practice in critical discussions. Technology Use: A small number of students utilized language learning apps to improve speaking and listening skills. Cognition Aspect: Information Organization: Students did not demonstrate the ability to organize new information using techniques like note-taking and diagramming. Critical Thinking Skills: Many students lacked the ability to analyze complex texts and materials, develop arguments, and connect ideas across various topics. Learning Method Evaluation: Students were largely unaware of the importance of reflection and often did not discuss with peers to deepen understanding. Error Management: Only a few students could identify errors in critical thinking and apply specific strategies for correction. Culture Aspect: Intercultural Understanding: English language learning helped students understand norms, traditions, and cultural perspectives from other countries. Cultural Adjustment: Many students struggled to adapt to different cultural norms during communication. Cultural Misunderstandings: Some students shared experiences of cultural misunderstandings that taught them valuable lessons in cross-cultural adaptation. Media Influence: English-language films, music, and literature played a significant role in deepening their understanding of culture. Based on the interviews, both students and instructors expressed a strong need for speaking lessons using the CLIL approach, which encompasses the four aspects of Content, Communication, Cognition, and Culture to enhance English speaking skills.

B. Quantitative Results

Results of the Effectiveness Test of Speaking Skills using the CLIL Approach The testing of the effects on Speaking Skills with the CLIL approach, which includes four aspects: Content, Communication, Cognition, and Culture, was conducted through an experiment using the Solomon Four Group Model. The overall description of the average post-test scores and the standard deviation of the experimental results for each group is as follows:

Table 1: Statistical Description of Post-test Scores for Each Topic

Group	Speaking Skill with CLIL		Speaking Skill with CLIL		Speaking Skill with CLIL	
Experiment	Mean	SD	Mean	SD	Mean	SD
Pretest (A)	**57,889**	**12,9621**	**60,181**	**17,2332**	**65,694**	**9.2277**
Non-Pretest (C)	**72,500**	**7,8591**	**76,667**	**8,7026**	**72,361**	**6,0920**
Control						
Pretest (B)	**52,639**	**15,2786**	**55,417**	**12,8695**	**63,056**	**6,9428**
Non-Pretest (D)	**52,361**	**8,0656**	**52,917**	**7,3390**	**51,667**	**7,1229**

Description:

A = Group given a pretest, treatment, and posttest
B = Group given only a pretest and posttest
C = Group given treatment and only a posttest
D = Group given only a posttest

The statistical data in the table above indicates that the average posttest scores for all groups that received treatment in Speaking skills with the CLIL approach (Group A and C) are higher compared to all control groups that did not receive the treatment in Speaking skills with the CLIL approach (Group B and D). Simply put, the effect of the treatment (Speaking skills with the CLIL approach) can be determined by comparing the average posttest scores achieved by each experimental group (Group A and C) with the control groups (Group B and D).To find significant differences in posttest scores that reflect the impact of learning Speaking skills with the CLIL approach, the data obtained from each learning activity is analyzed using a two-way ANOVA formula. Additionally, to meet the statistical testing requirements using ANOVA, a normality test must first be conducted on the data to be analyzed. The normality test uses the Shapiro-Wilk formula, as there are 4 groups: Group A (given Pretest, treatment, and posttest), Group B (given Pretest and posttest only), Group C (given treatment and posttest only), and Group D (given only posttest). Each group consists of 18 students, resulting in a total of 72 students. Since the number of students in each group is 18, which is less than 50, the Shapiro-Wilk table will be referenced to determine whether the data is normally distributed or not.

a. Results of Normality Test on Speaking Skill with CLIL Approach
Based on the results of the normality calculation of speaking skills using the CLIL approach, which includes four aspects: Content, Communication, Cognition, and Culture, can be shown in the normality table below:

Table 2: Normality Test of Speaking Skill with CLIL

Tests of Normality							
		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Kelas	Statistic	df	Sig.	Statistic	df	Sig.
"Use of the CLIL approach"	Pretest A	.139	18	.200*	.938	18	.264
	Posttest A	.150	18	.200*	.897	18	.050
	Pretest B	.191	18	.082	.913	18	.097
	Posttest B	.176	18	.148	.913	18	.098
	Posttest C	.180	18	.126	.945	18	.350
	Posttest D	.163	18	.200*	.922	18	.141
*. This is a lower bound of the true significance.							
a. Lilliefors Significance Correction							

The Normality Test table above can be interpreted that a significance level ≥ a (0.05) means the data is normally distributed, and if the significance level < a (0.05), then the data is not normally distributed. Based on the data, it shows that Pretest A has a significance level of 0.264 ≥ a (0.05), indicating that it is normally distributed. Posttest A has a significance level of 0.050 ≥ a (0.050), so the data is still considered normally distributed. Pretest B has a significance level of 0.097 ≥ a (0.050), meaning the data is normally distributed. Posttest B has a significance level of 0.098 ≥ a (0.050), so the data is normally distributed. Posttest C has a significance level of 0.350 ≥ a (0.050), indicating that the data is normally distributed. Finally, Posttest D has a significance level of 0.141 ≥ a (0.050), so overall, the data is normally distributed.

Discussion

ANOVA Test for Speaking Skill with CLIL

a. Statistical Description of Posttest Scores from the First Experiment with Two-Way ANOVA.

Table 3: Statistical Description of Posttest Scores

Statistics		A_1	A_2	$\sum b$
B_1	N	18	18	36
	$\sum X$	1397,5	1492,5	2890
	$\bar{X}$	77,6388	82,9166	80,277
B_2	N	18	18	36
	$\sum X$	1305	942,5	2247,5
	$\bar{X}$	72,5	52,3611	62,43055

∑K	N	36	36	72
	∑ X	2702,5	2435	5137,5
	$\bar{X}$	75,0694	67,63885	

Based on the data above, it can be explained that A1 B1 is the group that was given a pre-test and taught speaking skills using the CLIL approach. A2 B2 is the group that received a pre-test but was not taught using the CLIL approach. A1 B2 is the group that did not receive a pre-test and was taught using speaking skills with the CLIL approach. Meanwhile, A2 B2 is the group that did not receive any pre-test treatment and was not taught using the CLIL approach. The results of the ANOVA data calculation show that the total sum of squares (JK(T)) reaches 14786.72, the sum of squares between groups (JK(AK)) reaches 9634.288, and the sum of squares within groups (JK(DK)) reaches 5152.432. The complete results of the calculations are illustrated in the table below:

Table 3: ANOVA Results for Speaking with CLIL

N0	Mean	SDK (SD^2)	DS	Degrees of Freedom (DB)			Mean Square (MS)		Coefficient of Variation
				DB total	DB between groups	DB in group	MK group	MK In Group	
1	77,6388	114,354	10,693	71	3	68	3211,429	75,771	42,383
2	82,9166	52,37	7,236						
3	72,5	58,33	7,637						
4	52,3611	61,45	7,839						

Based on the table above, it can be interpreted as follows: (SD1^2 = 114.354), (SD2^2 = 52.37), (SD3^2 = 58.33), (SD4^2 = 61.45). Then, the standard deviations are calculated as follows: (SD1 = 10.693), (SD2 = 7.236), (SD3 = 7.637), (SD4 = 7.839). Following this, the total degrees of freedom (DB) are determined to be 71, with between-group degrees of freedom at 3 and within-group degrees of freedom at 68. The mean square between groups is (3211.429) and the mean square within groups is (75.771). The variance coefficient (F between groups) is (42.83).

Table 3: Two-Way ANOVA of the First Experiment speaking skill with CLIL

Variance	sum of squares	**DB**	Mean Square	**Fvalue**	**F_{table}**	
the sum of squares	9634,288	3	3211,429	**42,383**	**α = 0,05**	**α= 0,01**

between groups						
the sum of squares within groups	5152,432	68	75,771		**2,74**	**4,08**
Total	14,786,72	71				

The results of the above analysis indicate that the calculated F-value (F-hitung) is greater than the table F-value (F-tabel) at the significance level of 0.05, specifically 42.383 > 2.74 and 4.08 for the variance sources between groups. Thus, the teaching of speaking skills using the CLIL approach has a significant impact.

Conclusion and Suggestion

Qualitatively, teaching with the CLIL (Content and Language Integrated Learning) approach, which includes four aspects: Content, Communication, Cognition, and Culture, has a positive impact on improving speaking skills among English Education students at Fatmawati Sukarno State Islamic University in Bengkulu and State Islamic Institute of Curup in Bengkulu Province. The CLIL approach contributes to the development of current Deep Learning teaching, known as the 6 Cs: Character, Citizenship, Collaboration, Communication, Creativity, and Critical Thinking. This teaching of speaking skills can also be supported by integrating the use of current digital technology, which can provide very positive support for enhancing English speaking abilities. Based on the two-way ANOVA calculations, it can be concluded that there is no rejection of the post-test scores across all groups. This indicates that there is a significant difference in the average post-test scores among the groups. Thus, based on the data interpretation, it can be concluded that the F-value table for DB = 3: 68 indicates an F-value (0.05 or 5%) = 2.74 and the F-value between groups is 42.383; since Fhit < F table, the teaching of speaking skills using the CLIL approach has a very significant influence. Therefore, from this analysis, it can be concluded that:

1. Learning speaking skills with the CLIL approach, which includes the four aspects: Content, Communication, Cognition, and Culture, significantly affects the improvement of average learning scores in the experimental group.
2. Learning speaking skills using the CLIL approach, which encompasses the four aspects: Content, Communication, Cognition, and Culture, greatly influences the improvement of average learning scores even without prior post-tests given to the students.
3. Learning speaking skills with the CLIL approach which includes four aspects, namely content, communication, cognition, and culture can certainly support global competence applied to Deep learning which is known as 6C, namely character, citizenship, collaboration, communication, creativity and critical thinking and can also develop good English speaking skills in entering the era of the industrial revolution 5.0. currently.

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