Empowering 21st Century Skills: The Impact of Independent Curriculum Modules on Elementary Students

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A B S T R A K

Penelitian ini dilatarbelakangi oleh permasalahan literasi membaca dan keterampilan 4C siswa yang masih tergolong lemah di tingkat sekolah dasar. Literasi membaca dan keterampilan 4C merupakan komponen esensial dalam pendidikan abad ke-21 yang harus dikembangkan melalui proses pembelajaran yang efektif. Penelitian ini bertujuan untuk menganalisis pengaruh modul ajar Kurikulum merdeka terhadap peningkatan literasi membaca dan keterampilan 4C pada siswa kelas IV SD. Penelitian ini menggunakan pendekatan kuantitatif dengan desain eksperimen. Sampel penelitian dipilih menggunakan teknik purposive sampling yang melibatkan 148 siswa kelas IV. Teknik pengumpulan data meliputi tes untuk mengukur literasi membaca dan lembar observasi untuk menilai keterampilan 4C. Uji validitas dan reliabilitas dilakukan untuk memastikan kualitas instrumen. Data dianalisis menggunakan teknik Multivariate Analysis of Variance (MANOVA) untuk menguji hipotesis penelitian. Hasil penelitian menunjukkan bahwa modul ajar Kurikulum merdeka memberikan pengaruh yang signifikan terhadap peningkatan literasi membaca dan keterampilan 4C siswa. Kesimpulannya, penggunaan modul ajar Kurikulum merdeka dalam pembelajaran mampu meningkatkan kemampuan siswa dalam memahami teks serta mengembangkan keterampilan abad ke-21 yang sangat dibutuhkan untuk menghadapi tantangan masa depan.

A B S T R A C T

This study was motivated by the problem of students' weak reading literacy and 4C skills in elementary schools. Reading literacy and 4C skills are essential components of 21st-century education that need to be developed through effective learning processes. The research aims to analyze the effect of the Independent Curriculum teaching modules on improving reading literacy and 4C skills among fourth-grade elementary students. A quantitative approach with an experimental design was employed in this study. The sample consisted of 148 fourth-grade students selected using a purposive sampling technique. Data collection techniques included tests to measure reading literacy and observation sheets to assess 4C skills. Instrument validity and reliability tests were conducted to ensure the quality of the research tools. Data analysis was performed using Multivariate Analysis of Variance (MANOVA) to test the research hypotheses. The results indicate that the Independent Curriculum teaching modules significantly influence the improvement of students' reading literacy and 4C skills. In conclusion, the implementation of the Independent Curriculum teaching modules enhances students' ability to comprehend texts and develop essential 21st-century skills needed to face future challenges.

1. INTRODUCTION

The 2020 Independent Belajar breakthrough program, which is intended for implementation in 2021, is carried out by the Ministry of Education and Culture to improve the quality of learning. The independent curriculum is interpreted as a learning design that provides opportunities for students to learn calmly, relax, have fun, be stress-free, and be pressure-free to show their natural talents (Aransyah et al., 2023; Perdima et al., 2023; Rahayu et al., 2022; Siahaan et al., 2023). This is in line with his opinion state that the independent curriculum comes as an innovation in creating an ideal and happy learning atmosphere (Angyanur et al., 2022; Inayati, 2022). One of the main characteristics of the independent learning curriculum is the focus on essential content to allow sufficient time for in-depth learning of basic competencies such as literacy and numeracy (Almarisi, 2023; Idhartono, 2022; Jojor & Sihotang, 2022). The

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development of student literacy in learning is always carried out in an integrated manner between listening, speaking, reading and writing activities (Budiharto et al., 2018; Faradina, 2017; Priyanti et al., 2022; Yunita Anindya et al., 2019). Reading is one of the most important components in knowing and understanding things. Reading literacy is something that must be owned by humans to be able to continue to develop (Ampuni, 2015; Tahmidaten & Krismanto, 2020). Reading activities need to be familiarized with from an early age. Many things can affect students' ability to read. Therefore, many countries, especially developed and developing countries, have made reading literacy the main agenda of human resource development in order to be able to compete in the modern era (Galenso & Hasan, 2022; Warsihna, 2016). Reading culture is directly proportional to the level of educational progress in a nation. Education is always related to learning activities. Learning is synonymous with reading because, by reading, one's knowledge, attitudes, and skills will increase. By reading frequently, one is able to develop the ability to process knowledge, learn various disciplines, and apply them in life. Research on reading literacy has been conducted by previous study with a survey research method using path analysis (Hakim, 2021). The results revealed that reading literacy has a positive relationship with reading comprehension. It appears that the higher a person's reading literacy, the higher the person's reading comprehension.

Literacy skills in Indonesia are currently still in the low category. This can be seen from the results of the literacy assessment that Indonesia has participated in so far. Central Connecticut State University conducted the World's Most Literate Nations test in early 2017 and showed that Indonesia's literacy skills ranked 60th out of 61 countries participating in the survey (Jatnika, 2019; Suryaman, 2020). Indonesia's reading achievement on the Progress in International Reading Literacy Study (PIRLS) test results in 2011 was 42 out of 45 countries (Hidayah, 2017). This shows that Indonesia's literacy skills are still low and must be given special attention by all relevant parties. Low literacy is also found in grade IV students of SD 29 Pekanbaru; based on a questionnaire given to these students, 45% of students do not like to read. The reading ability of grade IV students is 47% of students who can read fluently, and 53% of students can read but not fluently. The data shows that students' reading skills still tend to be low. In addition, in the previous semester, it was also found that there was a distortion of understanding of literacy; this was indicated by the less than optimal reading literacy skills of students, which can be seen from the recap of semester grades.

Furthermore, to overcome the challenges faced in the current era, adaptive human resources are needed in order to fit the demands of the times. In this context, there are four main skills that are considered crucial, known as the 4Cs. According to previous study the four skills include collaboration, critical thinking and problem solving, communication, and creativity (Santika et al., 2023). The application of 4C skills brings various benefits and positive impacts in the context of education and prepares students to face an ever-evolving world. First, critical thinking enables students to evaluate information in greater depth, develop strong arguments, and make decisions based on rational analysis. Second, effective communication skills are an important foundation in various aspects of life. Students who are able to communicate well can convey their ideas clearly, as well as listen to and understand the perspectives of others. This not only supports academic progress but also prepares students to work in professional environments that require good communication skills. Third, collaboration skills place students in learning experiences that reflect real-world teamwork dynamics. Through joint projects and collaborative tasks, students learn to work together, appreciate each other's roles, and come up with better solutions through the contribution of multiple perspectives. Finally, creativity is key to overcoming challenges and solving problems in innovative ways (Lestari & Hindun, 2024; Vinagre, 2017).

Although recognized as the foundation for facing the demands of the 21st century, in reality, the application of 4C skills in the field is still faced with a number of obstacles. Currently, students face challenges that hinder the development of their 4C skills. First, they often struggle with critical thinking, especially when evaluating information in depth and making decisions based on rational analysis. In addition, effective communication skills are also an obstacle, with many students finding it difficult to convey their ideas clearly and confidently to others. In the context of cooperation, students also face difficulties in collaborating, with many still passive in the group learning process. Finally, another challenge is enhancing creativity, where some students struggle to find innovative solutions. All of these challenges point to the need for special attention in an effort to improve students' 4C skills at the primary level.

To accommodate and optimize students' reading literacy abilities and 4C skills, a platform that supports the learning process is needed, such as the use of independent curriculum teaching modules. Teaching modules are learning tools or learning designs based on the curriculum that are applied with the aim of achieving predetermined competency standards. Teaching modules are documents that contain the objectives, steps, learning media, and assessments needed for one topic based on the flow of the learning objectives (Khikmiyah et al., 2022; Pepin et al., 2017). This is in line with his opinion teaching modules are learning tools in written or printed form that are arranged systematically, contain learning materials,

methods, and learning objectives based on basic competencies or indicators of competency achievement, provide instructions for self-learning activities (self-introduction), and provide opportunities for students to test themselves through practice questions presented in the module (Azka et al., 2019). Apart from being a source of independent learning for students, teaching modules have a key role in helping teachers design their learning (Febriana et al., 2020; Nurmeidina et al., 2020).

In this context, in the independent curriculum teaching module component, there are three crucial terms that cannot be ignored. The three components are meaningful understanding, triggering questions, and study sheets (Setiawan et al., 2022; Yasa et al., 2022). A good module must be organized systematically, interestingly, and clearly (Basuki et al., 2020; Sirate & Ramadhana, 2017). The independent curriculum teaching module to be developed has several advantages for the learning process in the classroom, among others: First, this module can facilitate teachers in teaching. Second, this module can foster student creativity in understanding the subject matter because of its interactive features. Third, this module can accelerate students' understanding of the subject matter. Fourth, this module can increase students' interest in learning because learning is more interactive and fun. Fifth, this teaching module will help students develop reading literacy skills, and, finally, this module can improve the quality of learning in the classroom because the subject matter is more structured and easily accessible. The objectives of this study are to analyze the effect of the independent curriculum teaching module on improving students' reading literacy and 4C skills in grade IV SD. The novelty of this study is testing the effectiveness of the newly implemented Independent Curriculum-based teaching module, especially in the context of reading literacy. Different from the previous curriculum, the Independent Curriculum carries a more flexible and contextual learning principle, allowing students to explore materials according to their interests and learning speed. This study will reveal how this approach affects the development of reading literacy in fourth grade students, which is a new focus in Indonesia.

2. METHOD

The research used in this study was a quasi-experimental study (Sudarsana, 2018). The research design was Pretest-Post-test Control Group Design using experimental class and control class (Fitriyyah & Wulandari, 2019). This research was conducted in Pekanbaru City, Riau Province, with a population of elementary school students. To determine the number of samples, the Slovin formula was used with an error tolerance of 3%, given the large and diverse population size. Sampling was carried out using the cluster random sampling technique, where each element in the group was selected as a sample member. Previously, the instrument was tested for validity and reliability. The content validity of the test instrument was tested using the CVR formula, and its reliability was measured using the Alpha-Cronbach formula. The instrument grids used in this study can be seen in Table 1.

Table 1. Reading Literacy Grid Instrument

Indicator	Sub Indicator	Item Number
Comprehending reading	Understand the story or basic information conveyed in the reading passage	1
	Mention the title of the story and the main character	2
Obtaining information from the reading content	Answer simple questions about the story or information read	3
	Identify keywords and important ideas in the story or information	4
Gaining a lot of knowledge new	Mention interesting facts or details from the story or information	5
	Relate the story or information to existing knowledge	6
Reflecting or narrating the content of the reading	Retelling the story or information using own words	7
	Expressing feelings or opinions about the story or information	8
Making conclusions from the content of the reading	Summarize the message or lesson that can be learned from the story or information	9
	Draw conclusions about the characters, setting, or plot of the story	10
Total		**10**

Table 2. 4C Skills Grid Instrument

No	Aspects	Indicator
1	Critical Thinking Competency	a. Able to think logically and reasonably
		b. Able to solve problems encountered
		c. Able to distinguish between truth and lies
2	Creativity Competency	a. Able to create new ideas and ideas
		b. Able to produce new ideas or works
		c. Able to find new solutions
3	Collaboration Competency	a. Able to work together
		b. Able to adapt
		c. Able to take responsibility
4	Communicate Competency	a. Able to convey ideas to others
		b. Able to accept ideas from others

This study used two different data collection techniques. First, to measure reading literacy, critical thinking, and creativity, the test method was used. Meanwhile, to collect data on communication and collaboration, the study relied on observation sheets (Santoso et al., 2013). After the data were collected, the analysis was conducted using the Multivariate Analysis of Variance (Manova) technique to test the research hypothesis. However, before conducting hypothesis testing, it is necessary to ensure that the data meet two important requirements: normal distribution and homogeneity of variance. To fulfill the requirement of data normality, a normality test was conducted using SPSS 24.00 for Windows with the Kolmogorov-Smirnov statistical test at a significance level of 0.05. Meanwhile, to check the homogeneity of variance, Levene's Test of Equality of Error Variance was conducted. After ensuring that the data met the requirements, hypothesis testing was conducted with Manova. Hypotheses 1, 2, 3, 4, and 5 were tested using the Test of Between Subject Effects with a significance level of F = 5% with the help of SPSS 24.00 for Windows. While hypothesis 6 was tested using Pillae Trace, Wilk Lambda, Hotelling's Trace, and Roy's Largest Root analysis, also with a significance level of F = 5%, If the calculated F significance value is less than 0.05, the null hypothesis is rejected and the alternative hypothesis is accepted.

3. RESULT AND DISCUSSION

Result

The data in this study are grouped into (1) reading literacy skills taught using independent curriculum teaching modules, (2) critical thinking skills taught using independent curriculum teaching modules, (3) creativity skills taught using independent curriculum teaching modules, (4) collaboration skills taught using independent curriculum teaching modules, (5) communication skills taught using independent curriculum teaching modules, (6) reading literacy skills taught without using teaching modules, (7) critical thinking skills taught without using teaching modules, (8) creativity skills taught without using teaching modules, (9) collaboration skills taught without using teaching modules, and (10) communication skills taught without using teaching modules. The results of the data analysis can be seen in Table 3.

Table 3. Recapitulation of Reading Literacy and 4C Skills Score Calculation Results

Descriptive Statistics				
	Class	Mean	Std. Deviation	N
Reading Literacy	Experiment	90.1351	6.46873	74
	Control	84.8919	6.96875	74
Critical thinking	Experiment	83.9730	7.97251	74
	Control	66.8243	9.44683	74
Creativity	Experiment	75.1622	9.86210	74
	Control	60.1622	11.64313	74
Collaboration	Experiment	89.9865	7.47139	74
	Control	73.8108	9.14971	74
Communication	Experiment	84.6622	7.78350	74
	Control	71.5811	7.57430	74

From Table 3, it can be seen that the average reading literacy score for the experimental group is 90.14, while for the control group it is 84.89. The mean value of critical thinking for the experimental group

is 83.97, while for the control group it is 66.82. Then, the average value of creativity for the experimental group was 75.16, while for the control group it was 60.16. Furthermore, the average value of collaboration for the experimental group was 89.99, while for the control group it was 73.81. Finally, the mean value of communication for the experimental group was 84.66, while for the control group it was 71.58. From the data, it can be seen that all components in the experimental group have higher values compared to the control group. The data above can also be seen in Figure 1.
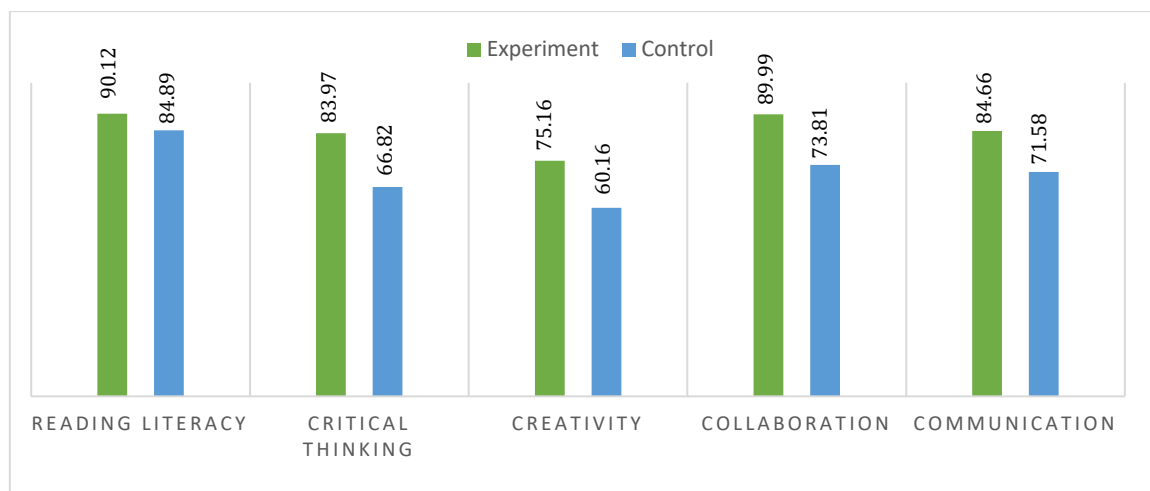

Figure 1. Comparison of Reading Literacy Scores and 4C Skills in Experiment Group and Control Group

Before starting the hypothesis testing, the data on students' reading literacy and 4C skills scores were tested to fulfill the prerequisites, namely the normality test and the homogeneity test. After the complete data was collected, the next step was to analyze the data. The first step is to conduct a data normality test to determine whether the distribution of the data being analyzed is normal, so that it can be used in parametric statistical analysis. The normality test was carried out using the Kolmogorov-Smirnov method, with attention to the Asymp.Sig value. The criterion for accepting normality is that if the significance value of the test results is greater than $\alpha = 0.05$, then the distribution is considered normal. Conversely, if the value is smaller than $\alpha = 0.05$, the distribution is considered abnormal. A summary of the data normality test results can be seen in Table 4.

Table 4. Normality Test Results

Variable	Class	Kolmogorov-Smirnov		
		Statistic	**df**	**Sig.**
Reading Literacy	Experiment	0.103	74	0.051
	Control	0.091	74	0.200
Critical thinking	Experiment	0.092	74	0.200
	Control	0.090	74	0.200
Creativity	Experiment	0.087	74	0.200
	Control	0.083	74	0.200
Collaboration	Experiment	0.100	74	0.062
	Control	0.095	74	0.098
Communication	Experiment	0.098	74	0.073
	Control	0.083	74	0.200

From Table 4, it can be seen that all the significance values of this normality test are greater than $\alpha = 0.05$. Therefore, it can be concluded that the overall data from the control group and the experimental group have a normal distribution. In this study, the variance homogeneity test was conducted to check whether the variance between the experimental group and the control group was homogeneous. The homogeneity of variance test was conducted using Levene's Test of Equality of Error Variance with the help of statistical software such as SPSS. The complete calculation of the homogeneity test of the data distribution is presented in Table 5.

Table 5. Homogeneity Test Results

Variable	F	df1	df2	Sig.
Reading Literacy	0.118	1	146	0.732
Critical thinking	3.046	1	146	0.083
Creativity	1.762	1	146	0.187
Collaboration	2.049	1	146	0.154
Communication	0.310	1	146	0.579

Based on Table 5, the significance value generated for reading literacy is 0.732, for critical thinking it is 0.083, for creativity it is 0.187, for collaboration it is 0.154, and for communication it is 0.579. All of these significance values are greater than 0.05, so it can be concluded that all data between groups are assumed to be the same or homogeneous.

After ensuring that the post-test data from both groups, experimental and control, were normal and homogeneous, the next step was to test the research hypotheses. The results of the analysis of hypotheses 1, 2, 3, 4, and 5 were carried out using the F test of variance through MANOVA analysis using the Test of Between Subject Effects. The significance level test criterion is $\alpha = 5\%$. If the calculated F significance value is less than 0.05, then the null hypothesis will be rejected and the alternative hypothesis accepted. Details of the test calculation can be seen in Table 6.

Table 6. Test of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Reading Literacy	1017.189	1	1017.189	22.502	0.000	0.134
	Critical thinking	10880.818	1	10880.818	142.416	0.000	0.494
	Creativity	8325.000	1	8325.000	71.513	0.000	0.329
	Collaboration	9681.142	1	9681.142	138.759	0.000	0.487
	Communication	6331.243	1	6331.243	107.352	0.000	0.424
Intercept	Reading Literacy	1133475.027	1	1133475.027	25074.663	0.000	0.994
	Critical thinking	841373.520	1	841373.520	11012.484	0.000	0.987
	Creativity	677568.892	1	677568.892	5820.454	0.000	0.976
	Collaboration	992693.520	1	992693.520	14228.200	0.000	0.990
	Communication	903242.189	1	903242.189	15315.292	0.000	0.991
Class	Reading Literacy	1017.189	1	1017.189	22.502	0.000	0.134
	Critical thinking	10880.818	1	10880.818	142.416	0.000	0.494
	Creativity	8325.000	1	8325.000	71.513	0.000	0.329
	Collaboration	9681.142	1	9681.142	138.759	0.000	0.487
	Communication	6331.243	1	6331.243	107.352	0.000	0.424

From the results of data processing listed in Table 6, it can be concluded, the calculated F value is 22.502 with a degree of freedom (df) of 1, and the significance value (sig) is 0.000, which is less than 0.05. This indicates strong significance. Thus, the null hypothesis (Ho) is rejected and the alternative hypothesis (Ha) is accepted. Based on the results of the first hypothesis analysis, it can be concluded that there is an effect of the independent curriculum teaching module on reading literacy.

Second Hypothesis: The calculated F value is 142.416 with a degree of freedom (df) of 1, and the significance value (sig) is 0.000, which is less than 0.05. This indicates strong significance. Thus, the null hypothesis (H_o) is rejected and the alternative hypothesis (H_a) is accepted. Based on the results of the second hypothesis analysis, it can be concluded that there is an effect of the independent curriculum teaching module on critical thinking skills. Third Hypothesis: The calculated F value is 71.513 with a degree of freedom (df) of 1, and the significance value (sig) is 0.000, which is less than 0.05. This indicates strong significance. Thus, the null hypothesis (H_o) is rejected and the alternative hypothesis (H_a) is accepted. Based on the results of the analysis of the third hypothesis, it can be concluded that there is an effect of the independent curriculum teaching module on creativity ability.

Fourth Hypothesis: The calculated F_{value} is 138.759 with a degree of freedom (df) of 1, and the significance value (sig) is 0.000, which is less than 0.05. This indicates strong significance. Thus, the null hypothesis (H_o) is rejected and the alternative hypothesis (H_a) is accepted. Based on the results of the fourth hypothesis analysis, it can be concluded that there is an effect of the independent curriculum teaching module on collaboration. Fifth Hypothesis: The calculated F_{value} is 107.352 with a degree of freedom (df) of 1, and the significance value (sig) is 0.000, which is less than 0.05. This indicates strong significance. Thus,

the null hypothesis (H$_o$) is rejected and the alternative hypothesis (H$_a$) is accepted. Based on the results of the fifth hypothesis analysis, it can be concluded that there is an effect of the independent curriculum teaching module on communication.

Then, for the Sixth Hypothesis, testing was carried out using the F-test through Pillae Trace, Wilk Lambda, Hotelling's Trace, and Roy's Largest Root analysis. The significance level test criterion is α = 5%. If the significance of the calculated F is less than 0.05, the null hypothesis will be rejected and the alternative hypothesis accepted. Details of the test calculations are presented in Table 7.

Table 7. Multivariate Tests Results

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Class	Pillai's Trace	0.826	134.510	5.000	142.000	0.000	0.826
	Wilks' Lambda	0.174	134.510	5.000	142.000	0.000	0.826
	Hotelling's Trace	4.736	134.510	5.000	142.000	0.000	0.826
	Roy's Largest Root	4.736	134.510	5.000	142.000	0.000	0.826

Based on the results listed in Table 7, the study shows that the F values for Pillae Trace (F count = 134.510), Wilk Lambda (F$_{count}$ = 134.510), Hotelling's Trace (F$_{count}$ = 134.510), and Roy's Largest Root (F$_{count}$ = 134.510) all have a significance of 0.000, which is less than 0.05. Therefore, the null hypothesis (Ho) is rejected and the alternative hypothesis (Ha) is accepted. Thus, based on the analysis of the sixth hypothesis, it can be concluded that there is a significant effect of the independent curriculum teaching module on reading literacy skills and 4C skills together. Looking at the data from this study, theoretically, it can be concluded that the independent curriculum teaching module is effective for improving reading literacy skills and 4C skills in the learning process.

Discussion

Based on the findings of the research results, which show a significant effect of the independent curriculum teaching module on reading literacy skills, it can theoretically be concluded that the use of the teaching module is effective in improving reading literacy skills in the learning process. Thus, these results indicate that the use of the independent curriculum teaching module makes a significant contribution to improving the reading literacy skills of elementary school students and can be considered an effective learning approach in the context of improving reading literacy at that level. This is in line with the view of which states that the selected teaching module can provide new knowledge and improve students' reading skills (Pratama, 2016). Other research also underlined the importance of teaching materials or modules in implementing the new curriculum for teachers (Gumono, 2013). Teaching modules have great potential to be an effective tool in helping students develop reading comprehension as well as critical thinking, creativity, and communication skills needed in everyday life (Sopacua et al., 2020; Triana et al., 2023).

The container for students to have these literacy skills requires the right teaching module in accordance with the current curriculum (Angiolini et al., 2020; Muzaki & Mutia, 2023). By using teaching modules that are relevant to the curriculum, students can learn more effectively and purposefully in accordance with the learning objectives that have been set. Curriculum-relevant teaching modules can help provide a clear framework for the learning process, ensure that the material taught is relevant and appropriate to students' needs, and assist educators in planning and implementing learning efficiently. Thus, the selection of appropriate teaching modules according to the current curriculum is an important step in ensuring learners can develop their literacy skills well (Aunio et al., 2016; Purwono, 2018). Thus, the above views substantially support the findings of this study, which show that the selection of independent curriculum teaching modules provides significant benefits in improving students' reading knowledge and skills. The results confirm that the use of this teaching module has had a real positive impact on the learning context. First, the significant improvement in students' reading skills, as indicated by the posttest results, which are consistently higher than the pretest scores, shows the effectiveness of the teaching modules in improving students' literacy (Ibad, 2022; Ningrum et al., 2023). This means that the independent curriculum teaching modules are able to provide learning materials that can be well understood by students, so that they can improve their reading comprehension and skills.

Based on the results of the study, which showed a significant effect of the independent curriculum teaching module on 4C skills (communication, collaboration, critical thinking, and creativity), it can theoretically be concluded that the use of the teaching module is effective in improving these skills in the learning process (Dewi, 2022; Virijai et al., 2022). This shows that the approach adopted in the independent curriculum is able to make a positive contribution to the development of students' skills in the aspects of communication, collaboration, critical thinking, and creativity. Thus, the implementation of the

independent curriculum teaching module can be considered an effective strategy for improving the quality of learning and developing students' skills in accordance with the demands of the times (Dewi, 2022; Ye & Xu, 2023).

An effective learning process should include the 4C skill components, namely critical thinking, collaboration, communication, and creativity. In the implementation of successful teaching and learning activities, the focus must be on the learners, not just the teacher. The use of 4C skills in the learning process requires support in the form of quality teaching materials and in accordance with the needs of students (Nopiani et al., 2023; Wulandari et al., 2023). Teaching materials have a very important role in learning because they are one of the main components that help students achieve learning objectives. With good teaching materials, students can more easily understand learning concepts, practice critical thinking skills, collaborate with classmates, communicate their understanding, and stimulate creativity in solving given tasks and problems. Therefore, the development of teaching materials that are effective and in accordance with the 4C concept is key to improving the quality of learning and developing student abilities. With the teaching module, it is expected that educators can easily present material to students, provide questions that are in accordance with the learning material for evaluation, and increase student literacy. Therefore, the presentation of teaching modules in this independent curriculum must be integrated with 4C skills (Irawan & Mukhlis, 2023; Oktaviah et al., 2023). Thus, it is expected that students will be able to face the challenges of life in the 21st century more prepared and competent.

The use of teaching modules in the independent curriculum has been proven effective in improving students' 4C (collaboration, critical thinking, creativity, and communication) skills. Teaching modules that are well designed in accordance with the principles of the independent curriculum help students develop these skills holistically. Through this teaching module, students are given the opportunity to collaborate in the learning process, encourage them to think critically in solving complex tasks, stimulate their creativity in finding innovative solutions, and improve their communication skills in conveying their ideas and thoughts. In addition, the teaching modules in the independent curriculum can be adapted to the various learning styles of students, allowing them to learn in a more effective way according to their individual needs. Thus, the independent curriculum teaching modules not only help students acquire knowledge but also develop skills that are essential for their success in this modern era. Therefore, the use of teaching modules in an independent curriculum can be considered an effective strategy for improving students' 4C abilities.

4. CONCLUSION

From the analysis of the first to fifth hypotheses, it is concluded that there is a significant effect of the independent curriculum teaching module on reading literacy, critical thinking, creativity, collaboration, and communication skills. High F values with significance values less than 0.05 indicate rejection of the null hypothesis and acceptance of the alternative hypothesis in each hypothesis proposed. This indicates that the independent curriculum teaching module has a strong positive impact on improving students' skills in various aspects of learning. Then, based on the results of the sixth hypothesis analysis, it is concluded that there is a significant effect of the independent curriculum teaching module on reading literacy skills and overall 4C skills. Thus, theoretically, it can be concluded that the independent curriculum teaching module is effective for improving reading literacy skills and 4C skills (communication, collaboration, critical thinking, and creativity) in the learning process. The implication is that educators and policymakers in the field of education can consider the integration of the independent curriculum teaching module in learning designs to strengthen students' literacy and 4C skills to face future challenges more prepared and skilled.

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