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Authentic Text Integration Using Scientific Literature Strategy in Developing Integrative Thinking and Integrated Process Skills of Grade 8 Learners

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Abstract*—This study investigated the integration of authentic scientific texts using a scientific literature strategy and its relationship with the integrative thinking and effect on integrated process skills of learners at Sampaloc National High School during the School Year 2025–2026. Contemporary science education emphasizes higher-order thinking, interdisciplinary understanding, and authentic inquiry; however, classroom instruction often remains focused on content recall rather than authentic engagement with scientific practices. By looking at whether the usage of actual scientific texts may bridge literacy and science education and improve learners' cognitive and procedural skills at the junior high school level, this research filled a vacuum. The study employed a quantitative, descriptive research design. Respondents consisted of 55 purposively selected Grade 8 learners. Data were gathered using a researcher-developed survey questionnaire. The instruments were validated by experts and pilot-tested for reliability. Descriptive statistics, Pearson correlation analysis, and multiple regression analysis were used to analyze the data. Findings revealed that authentic text integration in terms of content-rich materials, disciplinary focus, integration with instructional goals, and scaffolded support was implemented at a very high level. Learners' integrative thinking was likewise rated very high. Learners demonstrated a generally very satisfactory level of integrated process skills in making predictions, formulating hypotheses, drawing conclusions, and communicating results. Results further indicated a significant relationship between authentic text integration and all dimensions of integrative thinking. However, authentic text integration showed no significant effect on most integrated process skills, except for communicating results when texts were aligned with instructional goals. Based on the findings, the null hypothesis stating that there is no significant relationship between authentic text integration and learners' integrative thinking was rejected. Conversely, the null hypothesis stating that authentic text integration has no significant effect on learners' integrated process skills was generally accepted, with the exception of communicating results. These findings suggest that authentic scientific texts are effective in enhancing learners' integrative thinking, while improvement in integrated process skills requires more deliberate and goal-aligned instructional design. It is recommended that teachers purposefully align authentic scientific texts with instructional objectives and performance-based tasks, particularly those requiring communication of results. School heads may strengthen instructional supervision and professional development focused on literacy-integrated science teaching. Curriculum developers may embed scaffolded, inquiry-oriented authentic texts in science curricula. Future researchers may explore experimental or longitudinal approaches to further examine how sustained authentic text integration influences both cognitive and procedural science skills.*

***Keywords*—** *Authentic text integration; scientific literature strategy; integrative thinking; integrated process skills; science education.*

I. INTRODUCTION

Contemporary science education increasingly emphasizes not only the acquisition of content knowledge but also the development of students' ability to think across disciplines and engage in the cognitive and procedural practices of science. This includes cultivating integrative thinking and integrated process skills, which are essential for preparing learners to address the demands of authentic, real-world problems.

Integrative thinking is a decision-making approach that enables learners to navigate complex choices by seeking innovative solutions that blend elements from multiple, and sometimes conflicting, perspectives. Rather than being confined to limited alternatives, integrative thinkers strive to generate new possibilities that more effectively resolve issues and promote deeper understanding. In the context of education, it also refers to learners' capacity to synthesize knowledge, apply reasoning approaches, and draw on diverse disciplinary perspectives in order to create well-reasoned solutions to multifaceted problems.

In addition to this, is the development of integrated science process skills, which allow students to view science not merely as a collection of facts but as a systematic way of knowing and understanding the natural world. These skills serve as the foundation of scientific inquiry.

One instructional approach to strengthen both integrative thinking and process skills is the integration of authentic scientific texts into classroom learning. Authentic texts expose students to the language, structures, reasoning patterns, and evidence-based practices employed by scientists, thereby making the practices of science visible and accessible. This approach not only familiarizes students with authentic science discourse but also encourages critical engagement with evidence and inquiry-based reasoning.

Building on these perspectives, the present study explores the relationship of authentic text integration using scientific literature strategies on the development of learners' integrative thinking and integrated process skills. This study further seeks to contribute to bridging the gap between literacy and science education while providing evidence-based recommendations

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for middle school science curricula that aim to cultivate critical, reflective, and inquiry-oriented learners.

1.1 Statement of the Problem

Problem/s which were addressed by the research

This study sought to investigate the authentic text integration using scientific literature strategies and learners' integrative thinking and integrated process skills.

Specifically, the study addressed the following questions.

1. What is the level of authentic text integration using Scientific Literature Strategy in terms of:
   1.1 Content-rich materials,
   1.2 Disciplinary focus,
   1.3 Integration with instructional goals, and
   1.4 Scaffolded support?
2. What is the level of integrative thinking of Grade 8 learners in terms of:
   2.1 Own thinking reflection,
   2.2 Cross-disciplinary knowledge application,
   2.3 New insight generation, and
   2.4 Information synthesis?
3. What is the level of integrated process skills of learners in terms of the Performance Task:
   3.1 Making predictions,
   3.2 Formulating hypotheses,
   3.3 Drawing conclusions, and
   3.4 Communicating results?
4. Is there a significant relationship between the authentic text integration using Scientific Literature Strategy and integrative thinking of Grade 8 Learners?
5. Significant effect between the Scientific literature strategy and integrated process skills of grade 8 learners?

II. Methodology

The study employed a quantitative, descriptive research design. Respondents consisted of 55 purposively selected Grade 8 learners. Data were gathered using a researcher-developed survey questionnaire. The instruments were validated by experts and pilot-tested for reliability. Descriptive statistics, Pearson correlation analysis, and multiple regression analysis were used to analyze the data.

III. Results and Discussion

This part presents, analyzes, and interprets the data gathered to answer the research questions of the study. The presentation of findings is organized according to the sequence of the Statement of the Problem, beginning with the level of authentic text integration, followed by learners' integrative thinking, integrated process skills, and the relationships among the variables. To ensure clarity and coherence, the results are presented through tables supported by systematic discussion. Each table is introduced with a brief overview, followed by an analysis of the results, interpretation of the findings, implications and insights derived from the data, and support from related studies. This structured approach allows for a comprehensive examination of the extent to which authentic scientific texts influence learners' cognitive and procedural skills in science education.

Level of Authentic Text Integration

The first section focuses on the level of authentic text integration as perceived by the learners in terms of content-rich materials, disciplinary focus, integration with instructional goals, and scaffolded support. This section establishes the instructional context in which learners engaged with authentic scientific literature and serves as the basis for understanding subsequent findings related to integrative thinking and integrated process skills.

The level of Authentic Text Integration is revealed in the following table, measured using mean and standard deviation.

Table 1. Level Authentic Text Integration in terms of Content-Rich Materials

Statement In authentic text integration my teacher used Scientific texts that...	Mean	SD	Remarks
…contains detailed information.	4.60	0.56	Always
taken from accurate and trustworthy articles or sources.	4.65	0.52	Always
…include real-life examples from scientific studies.	4.60	0.56	Always
…explains concepts in a clear and in-depth manner.	4.60	0.60	Always
…show how scientific ideas are applied in everyday life	4.53	0.54	Always
Weighted Mean	4.60		
SD	0.55		
Verbal Interpretation	Very High		

Table 1 presents the level of authentic text integration in terms of content-rich materials, as reflected in the respondents' ratings of teachers' use of scientific texts that are detailed, accurate, relevant, and meaningful.

Among the five indicators, the statement "taken from accurate and trustworthy articles or sources" obtained the highest mean (M = 4.65, SD = 0.52), indicating consistently strong use of credible scientific literature. This was followed by "contains detailed information," "include real-life examples from scientific studies," and "explains concepts in a clear and in-depth manner," which all recorded equal high means (M = 4.60). The lowest mean, though still interpreted as very high, was obtained by "show how scientific ideas are applied in everyday life" (M = 4.53, SD = 0.54). The overall weighted mean of 4.60 with a standard deviation of 0.55 reflects a uniformly high level of implementation across all indicators. The very high verbal interpretation indicates that teachers consistently integrate scientific texts that are accurate, detailed, and conceptually rich. Learners are regularly exposed to scientific literature that not only explains concepts thoroughly but also connects ideas to real-world contexts. This suggests that content-rich materials are a central feature of classroom instruction, enabling students to engage meaningfully with scientific concepts beyond surface-level understanding.

The findings imply that the effective use of content-rich authentic texts supports learners' comprehension, relevance-building, and engagement in science learning. Exposure to accurate and detailed scientific materials promotes deeper conceptual understanding and facilitates connections between scientific knowledge and everyday applications. This practice contributes to a more meaningful

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learning experience and lays a strong foundation for higher-order thinking and inquiry-based learning.

Table 2 presents the level of authentic text integration in terms of disciplinary focus.

Table 2. Level Authentic Text Integration in terms of Disciplinary Focus

Statement In authentic text integration my teacher used Scientific texts that...	Mean	SD	Remarks
…texts are related to the specific Science topic we are studying.	4.80	0.40	Always
…highlights important Science concepts in the lesson.	4.55	0.54	Always
…help me understand scientific terms and vocabulary	4.58	0.60	Always
…show how scientists investigate and explain ideas.	4.44	0.63	Always
…support the learning standards and competencies in science.	4.64	0.52	Always
Weighted Mean	4.60		
SD	0.55		
Verbal Interpretation	Very High		

Among the indicators, the statement "texts are related to the specific Science topic we are studying" achieved the highest mean score (M = 4.80, SD = 0.40), indicating very consistent alignment of instructional texts with lesson topics. This was followed by "support the learning standards and competencies in Science" (M = 4.64, SD = 0.52) and "help me understand scientific terms and vocabulary" (M = 4.58, SD = 0.60). The indicators "highlights important Science concepts in the lesson" (M = 4.55, SD = 0.54) and "show how scientists investigate and explain ideas" (M = 4.44, SD = 0.63) registered the lowest means, though both remained within the very high level. The overall weighted mean of 4.60 with a standard deviation of 0.55 reflects a consistently high degree of disciplinary alignment across all indicators.

The very high verbal interpretation indicates that authentic scientific texts used in instruction are strongly aligned with disciplinary content, concepts, and competencies. Learners are regularly exposed to materials that emphasize science-specific language, practices, and standards, allowing them to engage meaningfully with the discipline not only in terms of content but also in how scientific knowledge is constructed and communicated.

These findings suggest that strong disciplinary focus in authentic text integration supports learners' academic mastery by helping them understand scientific terminology, conceptual structures, and investigative practices. The consistent alignment of texts with learning standards and classroom topics enhances instructional coherence and ensures that literacy practices directly reinforce core science competencies, thereby strengthening learners' disciplinary literacy.

Table 3 presents the level of authentic text integration in terms of integration with instructional goals.

Among the indicators, "support the learning objectives of the lesson" obtained the highest mean (M = 4.73, SD = 0.53), indicating a very strong alignment between authentic texts and lesson objectives. This was followed by "help me develop the required Science competencies" (M = 4.58, SD = 0.60) and "texts help me better understand the topic" (M = 4.56, SD = 0.66). The indicators "clearly connects the texts to the lesson goals" (M = 4.49, SD = 0.63) and "help me achieve the expected learning outcomes" (M = 4.44, SD = 0.74) recorded the lowest means, although they still fell within the very high range. The overall weighted mean of 4.56 and a standard deviation of 0.64 reflects consistently strong instructional alignment across all indicators.

Table 3. Level Authentic Text Integration in terms of Integration with Instructional Goals

Statement In authentic text integration my teacher used Scientific texts that...	Mean	SD	Remarks
…support the learning objectives of the lesson.	4.73	0.53	Always
…help me develop the required Science competencies.	4.58	0.60	Always
…clearly connects the texts to the lesson goals.	4.49	0.63	Always
…help me achieve the expected learning outcomes.	4.44	0.74	Always
…texts help me better understand the topic.	4.56	0.66	Always
Weighted Mean	4.56		
SD	0.64		
Verbal Interpretation	Very High		

The very high verbal interpretation suggests that authentic scientific texts are purposefully selected and used to support instructional goals. Learners perceive a clear connection between the texts used in class and the intended objectives, competencies, and outcomes of the lesson. This indicates that authentic text integration is not incidental but deliberately aligned with curriculum expectations and lesson purposes.

These findings imply that integrating authentic texts with instructional goals promotes purposeful, coherent, and outcomes-based learning in science instruction. When scientific texts are explicitly aligned with lesson objectives, learners are better guided toward achieving targeted competencies and are more likely to understand not only the content but also the purpose of learning activities. Such alignment helps learners recognize the relevance of texts to what they are expected to know and do, thereby supporting deeper comprehension and sustained engagement. Moreover, clear instructional alignment strengthens coherence across lesson activities, assessments, and learning outcomes, ensuring that authentic texts are used not merely as supplementary materials but as integral components of instruction. As a result, authentic text integration becomes a more effective pedagogical strategy that supports both conceptual understanding and the intentional development of higher-order

Table 4 presents the level of authentic text integration in terms of scaffolded support.

Among the indicators, "encourage us to make connection between Science and other subjects/disciplines" obtained the highest mean (M = 4.64, SD = 0.59), indicating strong support for interdisciplinary connections. This was followed by "help us see the relevance of what we are learning" and "foster collaboration and allow us to share diverse perspectives on scientific topics," both with equal means (M = 4.56). The indicator "prompted us to analyze the materials to enhance our understanding on the subject" recorded a slightly lower mean (M = 4.49, SD = 0.57), while "require us to conduct further research, fostering a sense of curiosity and exploration"

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obtained the lowest mean (M = 4.35, SD = 0.65). Despite this, all indicators remained within the very high range. The overall weighted mean of 4.52 with a standard deviation of 0.59 indicates consistently strong scaffolded support across instructional practices.

Table 4. Level Authentic Text Integration in terms of Scaffolded Support

Statement In authentic text integration my teacher used Scientific texts that...	Mean	SD	Remarks
…prompted us to analyze the materials to enhance our understanding on the subject.	4.49	0.57	Always
…help us see the relevance of what we are learning.	4.56	0.50	Always
…foster collaboration and allow us to share diverse perspective on scientific topics.	4.56	0.63	Always
…encourage us to make connection between science and other subject/ disciplines (Math, Social Studies, English...)	4.64	0.59	Always
…require us to conduct further research, fostering a sense of curiosity and exploration.	4.35	0.65	Always
Weighted Mean	4.52		
SD	0.59		
Verbal Interpretation	Very High		

The very high verbal interpretation suggests that teachers consistently provide instructional scaffolds that guide learners' engagement with authentic scientific texts. These supports help learners analyze content, recognize relevance, collaborate with peers, and connect scientific ideas across disciplines. The findings indicate that scaffolded support is an integral component of authentic text integration in the classroom.

These results imply that effective scaffolded support enhances learners' ability to process complex scientific texts, make meaningful connections, and gradually develop independence in learning. By encouraging analysis, collaboration, and further inquiry, scaffolding supports deeper comprehension and nurtures curiosity and exploration—essential elements in developing higher-order thinking and inquiry skills in science education.

Level of Learners' Integrative Thinking

In this study, the level of Learners' Integrative Thinking in terms of Own Thinking Reflection, Cross-Disciplinary Knowledge Application, New Insight Generation, and Information Synthesis.

The level of Learners' Integrative Thinking is revealed in the following table, which shows the statement, mean, standard deviation, remarks, and verbal interpretation.

The level of Learners' Integrative Thinking in terms of Own Thinking Reflection

Table 5 presents the level of learners' integrative thinking in terms of own thinking reflection.

Among the indicators, "recognize when my first understanding of the topic was incomplete or incorrect" obtained the highest mean (M = 4.53, SD = 0.60), indicating a strong capacity for metacognitive awareness among learners. This was followed by "think about what I learned after reading scientific texts" (M = 4.44, SD = 0.71), and both "express my own understanding of the concepts presented" and "compare what I already know with what I learned from the text" which yielded equal means (M = 4.42). The indicator "examine if the new information changes my previous ideas" recorded the lowest mean (M = 4.24, SD = 0.74), although it still fell within the very high range. The overall weighted mean of 4.41 with a standard deviation of 0.68 indicates consistently strong reflective thinking across all indicators.

Table 5. Level of Learners' Integrative Thinking in terms of Own Thinking Reflection

Statement Through my teacher implementation of Authentic Text Integration. I can…	Mean	SD	Remarks
…think about what I learned after reading scientific texts	4.44	0.71	Always
…examine if the new information changes my previous ideas	4.24	0.74	Always
…express my own understanding of the concepts presented	4.42	0.71	Always
…recognize when my first understanding of the topic was incomplete or incorrect.	4.53	0.60	Always
…compare what I already know with what I learned from the text.	4.42	0.63	Always
Weighted Mean	4.41		
SD	0.68		
Verbal Interpretation	Very High		

The very high verbal interpretation suggests that learners actively engage in reflective thinking when interacting with authentic scientific texts. Students demonstrate an ability to examine their understanding, identify misconceptions, and integrate new information with prior knowledge. This indicates that authentic text integration supports learners' metacognitive processes, enabling them to monitor and regulate their own learning more effectively.

These findings imply that authentic text integration fosters learners' reflective thinking, which is essential for deeper learning and conceptual change. When learners are encouraged to reflect on how new information reshapes their understanding, they become more active and self-aware participants in the learning process. Such reflective practices support the development of integrative thinking by enabling learners to evaluate knowledge, refine ideas, and generate meaningful insights from scientific texts.

Table 6. Learners' Integrative Thinking in terms of, Cross-Disciplinary Knowledge Application

Statement Through my teacher implementation of Authentic Text Integration. I can…	Mean	SD	Remarks
…connect Science concepts with ideas from other subjects.	4.60	0.53	Always
…use knowledge from other subjects to explain scientific ideas.	4.51	0.60	Always
…relate scientific information to social, environmental, or technological issues.	4.45	0.69	Always
…combine ideas from different subjects to form a better explanation.	4.49	0.63	Always
…use communication skills (speaking or writing) to clearly explain scientific ideas.	4.78	0.54	Always
Weighted Mean	4.57		
SD	0.61		
Verbal Interpretation	Very High		

Table 6 presents the level of learners' integrative thinking in terms of cross-disciplinary knowledge application.

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Among the indicators, "use communication skills (speaking or writing) to clearly explain scientific ideas" registered the highest mean (M = 4.78, SD = 0.54), indicating a very strong ability to articulate scientific understanding through language across disciplines. This was followed by "connect Science concepts with ideas from other subjects" (M = 4.60, SD = 0.53) and "use knowledge from other subjects to explain scientific ideas" (M = 4.51, SD = 0.60). The indicator "combine ideas from different subjects to form a better explanation" obtained a mean of 4.49 (SD = 0.63), while "relate scientific information to social, environmental, or technological issues" recorded the lowest mean (M = 4.45, SD = 0.69). Despite these variations, all indicators fell within the very high range. The overall weighted mean of 4.57 with a standard deviation of 0.61 indicates consistently strong cross-disciplinary knowledge application among learners.

The very high verbal interpretation suggests that learners are highly capable of integrating knowledge from multiple disciplines when learning science. Students do not view scientific concepts in isolation; instead, they actively draw upon language, social, environmental, and technological perspectives to explain and deepen their understanding of scientific ideas. This demonstrates that authentic text integration supports learners in applying interdisciplinary thinking during science learning.

These findings imply that authentic text integration promotes holistic learning by encouraging learners to bridge science with other subject areas. The ability to communicate scientific ideas clearly and connect them with broader contexts enhances comprehension and supports deeper meaning-making. Such cross-disciplinary engagement reflects higher-order integrative thinking and prepares learners to address complex, real-world problems that require knowledge from multiple fields.

Table 7. Level of Learners' Integrative Thinking in terms of New Insight Generation

Statement Through my teacher implementation of Authentic Text Integration. I can…	Mean	SD	Remarks
…form new ideas after reading scientific texts.	4.42	0.66	Always
…suggest different explanations based on evidence from the text.	4.56	0.60	Always
…think of possible solutions to problems presented in the text	4.49	0.69	Always
…combine what I already know with new information to create new ideas	4.47	0.57	Always
…ask new questions after reading the text.	4.47	0.60	Always
Weighted Mean	4.48		
SD	0.62		
Verbal Interpretation	Very High		

Table 7 presents the level of learners' integrative thinking in terms of new insight generation, as demonstrated by their ability to create new ideas, generate alternative explanations, propose solutions, and formulate questions after engaging with authentic scientific texts.

Among the indicators, "suggest different explanations based on evidence from the text" obtained the highest mean (M = 4.56, SD = 0.60), indicating a strong tendency among learners to evaluate evidence and generate multiple perspectives. This was followed by "think of possible solutions to problems presented in the text" (M = 4.49, SD = 0.69). The indicators "combine what I already know with new information to create new ideas" and "ask new questions after reading the text" yielded equal means (M = 4.47), reflecting consistent engagement in idea construction and inquiry. The indicator "form new ideas after reading scientific texts" recorded the lowest mean (M = 4.42, SD = 0.66), though it still fell within the very high range. The overall weighted mean of 4.48 with a standard deviation of 0.62 indicates a consistently high level of new insight generation across all indicators.

The very high verbal interpretation suggests that learners are able to generate new insights when interacting with authentic scientific texts. Students not only understand information presented in the texts but also analyze evidence, propose explanations, and formulate novel ideas and questions. This indicates that authentic text integration effectively supports creative and analytical thinking processes central to integrative thinking.

These findings imply that exposure to authentic scientific literature fosters learners' capacity for creativity, inquiry, and problem-solving. Encouraging students to suggest explanations, ask questions, and combine prior knowledge with new information promotes deeper engagement and knowledge construction. Such practices are essential for developing higher-order thinking skills and preparing learners to approach complex scientific problems innovatively.

Table 8. Level of Learners' Integrative Thinking in terms of Information Synthesis

Statement Through my teacher implementation of Authentic Text Integration. I can…	Mean	SD	Remarks
…combine information from different scientific texts to understand a topic better.	4.58	0.60	Always
…organize ideas from different sources into one clear explanation.	4.47	0.69	Always
…use evidence from scientific texts to support my answers.	4.56	0.63	Always
…summarize key ideas from different texts clearly and briefly.	4.51	0.63	Always
…connect information from scientific texts to topics I previously learned.	4.64	0.59	Always
Weighted Mean	4.55		
SD	0.63		
Verbal Interpretation	Very High		

Table 8 presents the level of learners' integrative thinking in terms of information synthesis.

Among the indicators, "connect information from scientific texts to topics I previously learned" obtained the highest mean (M = 4.64, SD = 0.59), indicating strong ability to link new information with prior knowledge. This was followed by "combine information from different scientific texts to understand a topic better" (M = 4.58, SD = 0.60) and "use evidence from scientific texts to support my answers" (M = 4.56, SD = 0.63). The indicators "summarize key ideas from different texts clearly and briefly" (M = 4.51, SD = 0.63) and "organize ideas from different sources into one clear explanation" (M = 4.47, SD = 0.69) recorded the lowest

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means, although they still fell within the very high range. The overall weighted mean of 4.55 with a standard deviation of 0.63 indicates consistently strong information synthesis skills among learners.

The very high verbal interpretation suggests that learners are highly capable of synthesizing information when engaging with authentic scientific texts. Students effectively combine ideas from multiple sources, organize information coherently, and use evidence to support their understanding. This indicates that authentic text integration supports learners' ability to process complex information and construct meaningful, well-structured knowledge.

These findings imply that information synthesis is a well-developed component of learners' integrative thinking. The ability to connect new content with prior learning, summarize key ideas, and organize information into coherent explanations supports deeper comprehension and critical thinking. Such skills are essential in science learning, where learners are required to analyze multiple sources of information and draw evidence-based conclusions.

Level of Learners' Integrated Process Skills

In this study, the level of Learners' Integrated Process Skills Learners' Integrated Process Skills in terms of Performance Task (Rubrics) through Making predictions, Formulating hypotheses, Drawing conclusions, and Communicating results

The level of Learners' Integrated Process Skills Learners' Integrated Process Skills is revealed in the following table, which shows the raw score, frequency, percentage, mean, standard deviation, and verbal interpretation.

Table 9. Level of Learners' Integrated Process Skills in terms of Making Predictions

Scale	(f)	(%)	Descriptive Equivalent
90 – 100	14	25.50	Outstanding
85 – 89	13	23.60	Very Satisfactory
80 – 84	25	45.50	Satisfactory
75 – 79	2	3.60	Fairly Satisfactory
Below 75	1	1.80	Did Not Meet Expectations
Total	55	100.00	

Mean= 86.35; SD=5.54 VI= Very Satisfactory

Table 9 presents the level of learners' integrated process skills in terms of making predictions.

The distribution of scores shows that the largest proportion of learners fell within the Satisfactory range (80–84), with 25 learners (45.50%). This was followed by learners who obtained Outstanding scores (90–100), comprising 14 learners (25.50%), and those who achieved a Very Satisfactory level (85–89), with 13 learners (23.60%). Only two learners (3.60%) were rated Fairly Satisfactory (75–79), while one learner (1.80%) fell under Did Not Meet Expectations. The computed mean score of 86.35 with a standard deviation of 5.54 corresponds to a Very Satisfactory level of performance. The results indicate that the majority of learners demonstrated satisfactory to outstanding performance in making predictions. The overall mean score reflects that learners generally possess the ability to analyze given data, recognize patterns, and anticipate outcomes based on evidence presented in the task. While a small number of learners showed lower performance levels, the overall trend suggests a strong foundation in predictive reasoning.

These findings imply that learners have developed essential scientific skills related to prediction-making, which is a key component of integrated process skills. The ability to make informed predictions reflects learners' capacity to apply prior knowledge, interpret information, and engage in higher-order thinking. The results further suggest that instructional strategies incorporating authentic texts and integrative learning activities support learners in developing analytical and predictive skills necessary for scientific inquiry.

Table 10. Level of Learners' Integrated Process Skills in terms of Formulating Hypotheses

Scale	(f)	(%)	Descriptive Equivalent
90 – 100	7	12.70	Outstanding
85 – 89	10	18.20	Very Satisfactory
80 – 84	34	61.80	Satisfactory
75 – 79	3	5.50	Fairly Satisfactory
Below 75	1	1.80	Did Not Meet Expectations
Total	55	100.00	

Mean= 84.65; SD=5.15 VI= Very Satisfactory

Table 10 presents the level of learners' integrated process skills in terms of formulating hypotheses.

The distribution of scores indicates that the majority of learners were rated Satisfactory (80–84), with 34 learners (61.80%). This was followed by Very Satisfactory performance (85–89), attained by 10 learners (18.20%), and Outstanding performance (90–100), achieved by 7 learners (12.70%). A small number of learners obtained Fairly Satisfactory scores (75–79), with 3 learners (5.50%), while one learner (1.80%) fell under Did Not Meet Expectations. The computed mean score of 84.65 with a standard deviation of 5.15 corresponds to a Very Satisfactory level of performance.

The results indicate that most learners demonstrate satisfactory to very satisfactory ability in formulating hypotheses. The overall mean suggests that learners are generally capable of proposing logical assumptions and relating prior knowledge to given situations. While a few learners exhibited lower performance, the overall distribution reflects a sound foundational understanding of hypothesis construction.

These findings imply that learners possess developing yet adequate skills in hypothesis formulation, an essential component of scientific inquiry. The ability to construct hypotheses indicates learners' engagement in critical and analytical thinking, as well as their capacity to generate testable explanations based on evidence. The results further suggest that instructional approaches integrating authentic texts support learners in strengthening this important scientific process skill.

Table 11 presents the level of learners' integrated process skills in terms of drawing conclusions.

The score distribution indicates that the majority of learners were rated Satisfactory (80–84), with 31 learners (56.40%). This was followed by Very Satisfactory performance (85–89), achieved by 10 learners (18.20%), and

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Outstanding performance (90–100), attained by 9 learners (16.40%). A smaller number of learners obtained Fairly Satisfactory ratings (75–79), with 4 learners (7.30%), while one learner (1.80%) was classified under Did Not Meet Expectations. The computed mean score of 84.58 with a standard deviation of 5.41 corresponds to a Very Satisfactory level of performance.

Table 11. Level of Learners' Integrated Process Skills in terms of Drawing Conclusions

Scale	(f)	(%)	Descriptive Equivalent
90 – 100	9	16.40	Outstanding
85 – 89	10	18.20	Very Satisfactory
80 – 84	31	56.40	Satisfactory
75 – 79	4	7.30	Fairly Satisfactory
Below 75	1	1.80	Did Not Meet Expectations
Total	55	100.00	

Mean= 84.58; SD=5.41; VI= Very Satisfactory

The results indicate that most learners demonstrate satisfactory to very satisfactory ability in drawing conclusions. The overall mean reflects learners' general capacity to interpret findings, connect evidence to ideas, and derive logical conclusions from given data. Although a few learners exhibited lower performance levels, the overall distribution suggests a solid foundation in this integrated process skill.

These findings imply that learners possess developing yet reliable skills in drawing conclusions, which is essential in scientific reasoning and inquiry. The ability to form sound conclusions reflects learners' analytical thinking and their capacity to synthesize information gathered from investigations or texts. The results suggest that instructional strategies incorporating authentic texts and integrative learning experiences support learners in strengthening their reasoning and interpretation skills.

Table 12. Level of Learners' Integrated Process Skills in terms of Communicating Results

Scale	(f)	(%)	Descriptive Equivalent
90 – 100	11	20.00	Outstanding
85 – 89	14	25.50	Very Satisfactory
80 – 84	22	40.00	Satisfactory
75 – 79	4	7.30	Fairly Satisfactory
Below 75	4	7.30	Did Not Meet Expectations
Total	55	100.00	

Mean= 84.65; SD=6.00; VI= Very Satisfactory

Table 12 presents the level of learners' integrated process skills in terms of communicating results.

The distribution of scores indicates that most learners performed at the Satisfactory level (80–84), with 22 learners (40.00%). This was followed by Very Satisfactory performance (85–89), attained by 14 learners (25.50%), and Outstanding performance (90–100), achieved by 11 learners (20.00%). A smaller number of learners fell under the Fairly Satisfactory category (75–79), with 4 learners (7.30%), while another 4 learners (7.30%) were classified as Did Not Meet Expectations. The computed mean score of 84.65 with a standard deviation of 6.00 corresponds to a Very Satisfactory level of performance.

The results indicate that learners generally demonstrate satisfactory to very satisfactory ability in communicating scientific results. The overall mean suggests that most learners are capable of organizing ideas, explaining findings, and presenting information in a structured manner. However, the presence of learners in the lower performance categories indicates variability in communication skills among the respondents.

These findings imply that while learners have a solid foundation in communicating scientific results, continued instructional support is necessary to further strengthen clarity, coherence, and accuracy in presentation. Effective communication of results is a critical component of scientific inquiry, as it allows learners to articulate understanding, justify conclusions, and share findings meaningfully. Integrative and authentic learning experiences appear to support the development of these skills, though targeted interventions may be needed for learners who struggle with communication tasks.

Significant Relationship between the Authentic Text Integration and the Learners' Integrative Thinking

The Authentic Text Integration refers to Content-Rich Materials, Disciplinary Focus, Integration with Instructional Goals, and Scaffolded Support. Meanwhile, the Learners' Integrative Thinking refers to Own Thinking Reflection, Cross-Disciplinary Knowledge Application, New Insight Generation, and Information Synthesis.

Table 13 shows the Significant Relationship between the Authentic Text Integration and the Learners' Integrative Thinking.

Table 13. Significant Relationship between the Authentic Text Integration and the Learners' Integrative Thinking

Authentic Text Integration		Learners' Integrative Thinking: Own Thinking Reflection	Cross-Disciplinary Knowledge Application	New Insight Generation	Information Synthesis
Content-Rich Materials	Pearson Correlation	0.527*	0.299*	0.370*	0.409*
	Sig. (2-tailed)	0.000	0.027	0.005	0.002
	N	55	55	55	55
Disciplinary Focus	Pearson Correlation	0.443*	0.231*	0.323*	0.294*
	Sig. (2-tailed)	0.001	0.090	0.016	0.029
	N	55	55	55	55
Integration with Instructional Goals	Pearson Correlation	0.646*	0.354*	0.496*	0.533*
	Sig. (2-tailed)	0.000	0.008	0.000	0.000
	N	55	55	55	55
Scaffolded Support	Pearson Correlation	0.501*	0.459*	0.395*	0.438*
	Sig. (2-tailed)	0.000	0.000	0.003	0.001
	N	55	55	55	55

Table 13 shows the significant relationship between authentic text integration and learners' integrative thinking. The results reveal that content-rich materials have a significant

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relationship with learners' own thinking reflection, cross-disciplinary knowledge application, new insight generation, and information synthesis. Similarly, disciplinary focus shows a significant relationship with most areas of integrative thinking, particularly in enhancing learners' reflection, generation of insights, and synthesis of information.

Furthermore, integration with instructional goals demonstrates a strong and significant relationship across all dimensions of learners' integrative thinking. This indicates that aligning authentic texts with lesson objectives greatly contributes to learners' ability to reflect, connect ideas across disciplines, generate new insights, and synthesize information. Likewise, scaffolded support shows a significant relationship with all areas of integrative thinking, highlighting the importance of guided instruction, structured support, and feedback in helping learners process and understand complex texts.

Overall, the results indicate that authentic text integration is significantly related to learners' integrative thinking. This means that the null hypothesis stating that there is no significant relationship between authentic text integration and learners' integrative thinking is rejected.

In summary, the findings demonstrate that the effective use of authentic texts through rich content, clear disciplinary alignment, connection to instructional goals, and adequate scaffolding enhances learners' ability to think reflectively, integrate knowledge across disciplines, generate new ideas, and synthesize information. This implies that authentic text integration plays a vital role in developing higher-order thinking skills among learners.

The incorporation of literary works into the class is another effective strategy for improving critical thinking. Qunduzkhon (2024) stated that literary texts offer students rich possibilities to explore complex themes, character motivations and moral dilemmas, which all require a critical commitment. Thanks to discussions and written reflections on such texts, students are encouraged to articulate their thoughts and develop personal interpretations, leading to a deeper self-reflection. This is aligned with the results of Liu et al. (2023), which demonstrated that technology-based writing contexts, when integrated into authentic materials, create environments conducive to in-depth reflection and critical discourse among EFL learners. Their study highlights the role of peer assessment in this process, suggesting that collaborative learning can amplify the advantages of the use of authentic texts by allowing students to criticize and learn from each other.

Significant Effect between the Authentic Text Integration on the Learners' Integrated Process Skills

In this study, the Authentic Text Integration refers to Content-Rich Materials, Disciplinary Focus, Integration with Instructional Goals, and Scaffolded Support. Meanwhile, the Learners' Integrated Process Skills Learners' Integrated Process Skills in terms of Performance Task (Rubrics) through Making predictions, Formulating hypotheses, Drawing conclusions, and Communicating Results

The Significant Effect between the Authentic Text Integration on the Learners' Integrated Process Skills is revealed in the following table, which shows the Multiple Regression Analysis using t-Test, with the computed t-value (t-cal), p-value, number of observations or respondents, and critical t-value (t-crit) or constant.

Table 14 shows the Significant Effect between the Authentic Text Integration on the Learners' Integrated Process Skills.

Table 14. Significant Effect between the Authentic Text Integration on the Learners' Integrated Process Skills

Authentic Text Integration	Learners' Integrated Process Skills in terms of Performance Task (Rubrics)	Making Predictions	Formulating Hypotheses	Drawing Conclusions	Communicating Results
Content-Rich Materials	t-value	-0.633	0.135	-0.053	0.646
	Sig. (2-tailed)	0.529	0.893	0.958	0.521
	N	55	55	55	55
Disciplinary Focus	t-value	0.675	0.412	1.382	1.200
	Sig. (2-tailed)	0.503	0.682	0.173	0.236
	N	55	55	55	55
Integration with Instructional Goals	t-value	0.639	-0.431	0.232	2.635*
	Sig. (2-tailed)	0.526	0.668	0.817	0.011
	N	55	55	55	55
Scaffolded Support	t-value	1.683	1.760	0.167	1.503
	Sig. (2-tailed)	0.098	0.084	0.868	0.139
	N	55	55	55	55

Table 14 shows the significant effect between authentic text integration and learners' integrated process skills in terms of making predictions, formulating hypotheses, drawing conclusions, and communicating results. The results reveal that content-rich materials, disciplinary focus, and scaffolded support do not show a significant effect on learners' integrated process skills across all areas, as indicated by the statistical results.

However, integration with instructional goals shows a significant effect on learners' ability in communicating results. This indicates that when authentic texts are aligned with instructional objectives, learners are better able to organize, present, and communicate their findings effectively.

Overall, the results indicate that authentic text integration does not significantly affect learners' integrated process skills in most areas, except for communicating results under integration with instructional goals. Therefore, the null hypothesis stating that there is no significant effect between authentic text integration and learners' integrated process skills is accepted, except in the aspect of communicating results where it is rejected.

In summary, the findings reveal that while authentic text integration enhances learners' understanding and thinking skills, its direct effect on integrated process skills may depend

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on how well it is aligned with instructional goals. This implies that purposeful alignment of authentic materials with lesson objectives is essential in improving learners' ability to effectively communicate their outputs.

The integration of authentic texts within educational practices has gained significant attention as a method to improve students to transfer knowledge in various disciplines. The use of genuine texts not only exposes students to applications of the real world of their learning, but also encourages the cognitive, motivational and contextual dimensions that positively influence learning results.

Several studies illustrate the multifaceted benefits of this approach. Crist, Duncan and Bianchi (2017) revealed how the incorporation of interdisciplinary education together with a Wiki research project effectively compromised undergraduate students in the development of vital skills such as informational literacy and critical thinking. These commitments require students to synthesize information from various fields, improve their cognitive flexibility and allow them to navigate complex problems.

IV. Conclusion and Recommendations

The results revealed a significant relationship between authentic text integration and all dimensions of learners' integrative thinking, including own thinking reflection, cross-disciplinary knowledge application, new insight generation, and information synthesis. Thus, the hypothesis is rejected this indicates that the use of authentic scientific texts significantly contributes to the development of learners' higher-order cognitive skills by encouraging reflection, synthesis, and the integration of knowledge across disciplines.

The findings showed that authentic text integration did not significantly affect most integrated process skills, namely making predictions, formulating hypotheses, and drawing conclusions. However, a significant effect was observed on learners' ability to communicate results when authentic texts were intentionally aligned with instructional goals leading to the acceptance of the hypothesis. This suggests that authentic text integration alone may not directly enhance all performance-based science process skills unless it is purposefully designed and aligned with specific instructional objectives.

Based on the drawn conclusions resulted to the following recommendations:

Curriculum developers may enhance curriculum guides by embedding authentic literacy-in-science tasks that extend beyond comprehension toward inquiry and application, especially those that model scientific investigation, interdisciplinary connections, and scaffolded research activities. Including exemplar texts with inquiry prompts and integration guides may address gaps identified in learners' integrative and process-oriented skills.

School heads may strengthen instructional supervision and professional development by focusing on improving teachers' use of authentic texts that connect scientific ideas to everyday life, explicitly model how scientists investigate and explain concepts, and encourage learner-initiated research. Targeted in-service trainings and observation tools may be implemented to emphasize inquiry-based instruction and learner-centered use of scientific literature.

Teachers may design learning tasks that intentionally promote reflective thinking, real-world contextualization, and inquiry extension, particularly by helping learners examine changes in prior ideas, relate science concepts to social or technological issues, and generate new questions after reading authentic texts. Aligning authentic texts with performance tasks that require explanation and communication may further strengthen inquiry-based learning.

Students may actively engage in reflective and inquiry-based practices by examining how new scientific information reshapes prior understanding, asking follow-up questions beyond assigned texts, and exploring additional sources to deepen inquiry. Strengthening these practices may help learners move from understanding content to constructing and communicating scientific knowledge meaningfully.

Future researchers may investigate instructional strategies that enhance inquiry extension, reflective change, and real-world contextualization in authentic text integration, such as structured inquiry cycles, extended research tasks, or targeted teacher facilitation approaches. Longitudinal or experimental studies may further determine how sustained authentic text use influences the development of integrated process skills.

Reference

[1]. Crist, Duncan, and Bianchi (2017) Incorporation of Cross-Disciplinary Teaching and a Wiki Research Project to Engage Undergraduate Students' to Develop Information Literacy, Critical Thinking, and Communication Skills https://ift.onlinelibrary.wiley.com/doi/abs/10.1111/1541-4329.12111

[2]. Liu et al. (2023) Engaging EFL students' critical thinking tendency and in-depth reflection in technology-based writing contexts: A peer assessment-incorporated automatic evaluation approach https://link.springer.com/article/10.1007/s10639-023-11697-6

[3]. Qunduzkhon (2024) Integrating Literary Works In The Classroom To Enhance Critical Thinking Skills https://cyberleninka.ru/article/n/integrating-literary-works-in-the-classroom-to-enhance-critical-thinking-skills

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