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Integrating Scientific and Popular Article Literacy into the School Operational Curriculum

A case study at Shafta High School Surabaya

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Abstract

This study examines how scientific and popular article literacy is integrated into the operational curriculum of Shafta High School Surabaya. The study was conducted in response to the need to strengthen students' academic literacy, scientific reasoning, and ability to communicate academic ideas in accessible language. A qualitative descriptive design was employed. Data were collected through semi-structured interviews, classroom observations, and document analysis. The participants were selected purposively and consisted of school leaders, curriculum managers, Indonesian language and civics teachers, and students in grades XI and XII who had participated in scientific writing activities. The data were analyzed using thematic analysis through transcription, coding, categorization, theme development, and interpretation. The findings show that scientific writing has been included in the school's operational curriculum, particularly in Indonesian language and civics subjects. However, its integration remains implicit, fragmented, and dependent on individual teacher initiatives. Popular article writing has not yet been systematically connected with scientific writing, causing students to experience difficulties in adapting scientific ideas into simple, communicative, and public-oriented language. This study concludes that integrating scientific and popular article literacy requires clearer curriculum planning, teacher training, project-based learning, structured writing modules, and assessment rubrics that measure both scientific reasoning and communicative clarity.

Keywords: *Curriculum Management, Popular Article, Popular Literacy, Scientific Article, Scientific Literacy, Secondary Education*

Introduction

Scientific literacy is an essential competence in contemporary education because students are increasingly required to understand, evaluate, and communicate knowledge in both academic and public contexts. The OECD [1] defines scientific literacy as the ability to explain phenomena scientifically, construct and evaluate scientific inquiry, and interpret scientific data and evidence critically. This definition indicates that scientific literacy is not limited to knowing scientific facts, but also includes reasoning, evidence-based judgment, and responsible communication.

Reading literacy also plays a central role in students' academic development. Mullis and Martin [2] explain that reading literacy involves understanding, using, and reflecting on written language to achieve goals, develop knowledge, and participate in society. In the school context, this competence is highly relevant because students need to read different types of texts, including informational, scientific,

argumentative, and public-oriented texts. Therefore, the ability to distinguish scientific articles from popular articles becomes an important part of literacy education.

A scientific article is generally characterized by systematic structure, methodological rigor, objective argumentation, evidence-based reasoning, and academic referencing. Swales [3] emphasizes that academic texts are shaped by genre conventions, rhetorical structures, and communicative purposes within specific discourse communities. Hyland [4] further argues that academic writing is not merely a technical activity but a social and rhetorical practice that requires writers to understand audience, purpose, evidence, and disciplinary conventions.

In contrast, popular articles present ideas in more accessible, contextual, and reader-oriented language. Popular articles are important because they function as a bridge between scientific knowledge and public understanding. Norris and Phillips [5] argue that science cannot be separated from literacy because scientific knowledge is constructed, communicated, and evaluated through language. Similarly, Lemke [6] explains that learning science also means learning how to talk, write, interpret, and communicate within scientific discourse. Thus, students who understand both scientific and popular writing can develop academic discipline as well as communicative flexibility.

However, integrating scientific and popular article literacy into school curricula remains a challenge. Many learning activities still emphasize final writing products rather than the thinking process behind writing. Graham and Perin [7] show that effective writing instruction requires explicit strategies, summarization, collaborative writing, goal setting, and feedback. Graham and Hebert [8] also demonstrate that writing can strengthen reading comprehension when students are guided to write about texts, summarize ideas, and organize information meaningfully. These findings indicate that writing instruction should be treated as a process of thinking, not merely as a final assignment.

In secondary education, literacy should also be embedded across disciplines. Shanahan and Shanahan [9] argue that disciplinary literacy must become a focus in middle and secondary school settings because students need to learn how knowledge is read, written, and communicated differently across subject areas. Moje [10] also emphasizes that disciplinary literacy helps students participate in knowledge construction by understanding how each field uses language, evidence, and argumentation. This perspective is relevant to scientific and popular article literacy because students need to understand not only text structure but also how scientific ideas can be communicated within academic and public contexts.

In Indonesia, the development of Kurikulum Operasional Satuan Pendidikan encourages schools to design contextual curricula based on the characteristics of students, schools, and local needs. The Ministry of Education, Culture, Research, and Technology [11] states that school operational curriculum development includes school-characteristic analysis, vision and mission formulation, learning organization, learning planning, assessment, evaluation, and professional development. This policy framework provides opportunities for schools to integrate scientific and popular article literacy into learning activities more systematically.

Preliminary observations at Shafta High School Surabaya indicate that scientific writing skills have been introduced in several subjects, especially Indonesian language and civics. However, the

integration of scientific and popular article literacy has not yet been designed as a systematic curriculum program. Scientific writing activities are still frequently implemented as assignments, competitions, or extracurricular activities, rather than as a continuous part of classroom learning. This condition raises an important curriculum management issue: how are scientific and popular article literacy integrated into the school's operational curriculum, and what factors support or hinder the implementation of this integration?

Based on this problem, the present study aims to describe the integration of scientific and popular article literacy in the operational curriculum of Shafta High School Surabaya. Specifically, the study focuses on curriculum planning, classroom implementation, evaluation practices, and challenges faced by school leaders, teachers, and students. The contribution of this study lies in offering a school-level curriculum perspective on how scientific and popular literacy can be strengthened through explicit planning, teacher facilitation, project-based learning, and formative assessment.

Methods

A. Research Design

This study used a qualitative descriptive approach. This design was chosen because the study aimed to describe and interpret real practices of curriculum management related to the integration of scientific and popular article literacy at Shafta High School Surabaya. Creswell and Creswell [12] explain that qualitative research is appropriate for exploring and understanding meanings that individuals or groups assign to social or educational problems. Merriam and Tisdell [13] also state that qualitative research is suitable when researchers seek to understand how people interpret experiences, construct meanings, and make sense of educational practices.

The study did not seek to test a hypothesis or measure the statistical effectiveness of an intervention. Instead, it focused on describing curriculum integration in its natural context. This design was considered appropriate because the research problem required detailed information about participants' perspectives, teaching practices, curriculum documents, and classroom realities.

B. Research Setting

The research was conducted at Shafta High School Surabaya. This school was selected because it has implemented scientific writing activities in several subjects and has encouraged students to participate in literacy-related academic activities. The setting was relevant for examining how scientific and popular article literacy was embedded in the school's operational curriculum, known as the Kurikulum Operasional Satuan Pendidikan.

C. Participants and Sampling Criteria

The participants were selected using purposive sampling. Patton [14] explains that purposive sampling is appropriate in qualitative inquiry when participants are selected because they can provide rich and relevant information about the phenomenon being studied. In this study, participants were selected based on their roles, experiences, and direct involvement in curriculum planning or scientific writing activities.

The participants consisted of four groups. First, school leaders and curriculum managers were selected because they were responsible for curriculum planning, supervision, and policy direction. This group included the principal, vice principal for curriculum, and coordinating teacher. Second, subject teachers were selected because they were directly involved in teaching writing, literacy, argumentation, and analytical skills. The teachers included Indonesian language and civics teachers. Third, students from grades XI and XII were selected because they had participated in scientific writing activities, classroom writing assignments, or literacy projects. Fourth, curriculum documents and students' writing products were included as non-human data sources to strengthen the analysis.

The sampling criteria were as follows: participants had direct experience with curriculum planning or literacy instruction; participants were involved in or had experienced scientific writing learning activities; and participants were willing to provide information through interviews, observations, or document sharing. Students were selected to represent different levels of writing ability and classroom participation so that the data reflected varied learning experiences.

D. Data Collection Techniques

Data were collected through semi-structured interviews, classroom observations, and document analysis. These three techniques were used to obtain a comprehensive understanding of curriculum integration from different sources. Bowen [15] states that document analysis is useful in qualitative research because documents provide contextual information and can be used to corroborate evidence from interviews and observations. Yin [16] also emphasizes that case-based educational inquiry benefits from multiple sources of evidence because triangulation strengthens the credibility of interpretation.

The first technique was semi-structured interviews. Interviews were conducted with the principal, vice principal for curriculum, coordinating teacher, Indonesian language and civics teachers, and selected students. The interview questions focused on curriculum planning, learning implementation, teacher support, student difficulties, assessment practices, and the relationship between scientific and popular article literacy.

The second technique was classroom observation. Observations were conducted during learning activities related to writing, discussion, and literacy tasks. The researcher observed how teachers introduced scientific writing, how students responded to writing assignments, whether students were guided to distinguish scientific and popular writing, and how feedback was provided during the learning process.

The third technique was document analysis. The researcher analyzed the school operational curriculum, syllabus, lesson plans, teaching materials, assessment rubrics, and samples of students' writing. Document analysis was used to identify whether scientific and popular article literacy had been explicitly written in learning outcomes, learning activities, and assessment standards. It was also used to compare curriculum documents with classroom implementation.

E. Data Analysis

The data were analyzed using thematic analysis. Braun and Clarke [17] explain that thematic analysis is a method for identifying, analyzing, and reporting patterns or themes within qualitative data.

The analysis in this study consisted of five stages: data organization, coding, categorization, theme development, and interpretation.

The first stage was data organization. Interview recordings, observation notes, and curriculum documents were organized based on data source and research focus. Interview data were transcribed, while observation and document data were summarized in analytical notes. The second stage was coding. The researcher coded the data based on recurring ideas related to curriculum planning, implementation, teacher facilitation, student difficulties, assessment practices, and integration of scientific and popular writing.

The third stage was categorization. Similar codes were grouped into broader categories, such as curriculum planning, classroom implementation, assessment practices, teacher support, and student writing difficulties. The fourth stage was theme development. The categories were synthesized into major themes: implicit integration of scientific writing in the curriculum; limited connection between scientific and popular writing; variation in teacher implementation; assessment focused more on final products than writing processes; and the need for institutional support. The fifth stage was interpretation. The themes were interpreted using curriculum management and literacy education perspectives.

To strengthen credibility, the researcher used triangulation by comparing interview data, observation findings, and curriculum documents. Miles, Huberman, and Saldaña [18] emphasize that qualitative data analysis requires data condensation, data display, and conclusion drawing or verification. Lincoln and Guba [19] further explain that qualitative trustworthiness can be strengthened through credibility, transferability, dependability, and confirmability. In this study, verification was conducted by comparing different data sources and confirming important interpretations with selected participants.

Results

A. Integration of scientific and popular article literacy in the operational curriculum

The analysis of the school operational curriculum shows that scientific writing skills have been included in several learning outcomes, particularly in Indonesian language and civics subjects. In the Indonesian language curriculum, students are expected to write simple scientific texts, while in civics they are encouraged to analyze social issues and present arguments. These learning outcomes indicate that the school has already provided a foundation for literacy development.

However, the integration remains implicit. Scientific writing has not yet been formulated as a core literacy competency that must be systematically mastered by all students. The curriculum documents do not clearly explain the stages of scientific writing, the criteria for evaluating scientific reasoning, or the relationship between scientific and popular article writing. This condition indicates a gap between curriculum intention and curriculum implementation.

Popular article writing is also not explicitly connected with scientific writing, even though both forms of writing are important for developing students' academic and public communication skills. The findings indicate that students are generally introduced to scientific writing as a formal academic task.

They are asked to follow certain writing formats, but they are not always guided to understand how scientific ideas can be transformed into popular articles. Consequently, students tend to focus on structure and format rather than argument quality, audience awareness, and communicative clarity.

B. Curriculum planning management

Interviews with the school leaders and curriculum managers show that curriculum planning at Shafta High School Surabaya follows the principles of the Independent Curriculum, which provides flexibility for contextual and student-centered learning. This is consistent with the national guidance on school operational curriculum development, which emphasizes contextual curriculum planning based on school characteristics and student needs [11].

Nevertheless, the school has not yet developed a specific policy or program for integrating scientific and popular article literacy across subjects. Planning is still general and has not been supported by structured modules, teacher guidelines, or integrated assessment rubrics. Teachers are given freedom to design learning activities, but this freedom has not always been accompanied by systematic institutional support.

The findings also show that teacher training related to scientific writing pedagogy remains limited. Some teachers have attempted to use project-based learning or writing assignments, but the quality and consistency of implementation vary across classrooms. This indicates that curriculum planning still depends heavily on individual teacher initiative rather than a coordinated school-level literacy program. This condition is consistent with Fullan's [20] view that educational change requires not only formal policy but also capacity building, shared understanding, and sustained support for teachers.

C. Implementation of scientific and popular writing learning

The implementation of scientific writing instruction varies among teachers. Some teachers use lectures and individual assignments by providing examples of scientific papers and asking students to imitate the format. This approach helps students recognize basic structure, but it does not sufficiently develop scientific reasoning, argument construction, data interpretation, or the ability to communicate ideas to different audiences.

Other teachers have begun to apply project-based learning. Krajcik and Blumenfeld [21] explain that project-based learning enables students to investigate meaningful problems, construct knowledge, collaborate, and produce learning products through inquiry-based activities. Bell [22] also emphasizes that project-based learning can promote inquiry, independence, collaboration, and real-world problem solving. In the observed classes, students were encouraged to choose topics, collect simple data, write reports, and present their findings. This approach increased student participation and provided opportunities for more meaningful writing experiences.

However, project-based learning and peer review are not yet implemented consistently. Teachers face several challenges, including limited instructional time, lack of writing guides, absence of standardized rubrics, and varying student readiness. Students who have stronger literacy habits are able to adapt more quickly, while others struggle with formal language, argument development, and organizing ideas. The findings also show that students have not been systematically trained to convert

scientific writing into popular articles. As a result, their ability to communicate scientific ideas to non-specialist audiences remains limited.

D. Evaluation and monitoring

Evaluation of students' scientific writing is still mostly focused on final products. Teachers assess content, structure, and language use, but the assessment does not consistently measure scientific thinking processes, originality of ideas, argumentation quality, source use, or communicative adaptation. Students often receive grades without sufficient formative feedback that could help them improve their writing.

Black and Wiliam [23] argue that formative assessment can improve learning because feedback helps students understand their current performance and what they need to do next. Hattie and Timperley [24] further explain that effective feedback should answer three questions: where the learner is going, how the learner is going, and where the learner should go next. In the context of this study, formative feedback is important because writing competence develops through planning, drafting, revising, and reflecting, not merely through final submission.

At the school management level, curriculum monitoring is still administrative. Monitoring activities focus on lesson plan completion, learning reports, and grade documentation. There is no specific evaluation mechanism to assess whether scientific and popular article literacy has been effectively integrated into learning. The absence of comprehensive rubrics and reflective teacher discussions limits the school's ability to improve literacy instruction continuously.

Discussion

A. Curriculum integration must be explicit and systematic

The findings show that scientific writing has been included in the school curriculum, but its integration remains implicit and fragmented. This condition indicates that curriculum documents alone are not sufficient to ensure meaningful literacy development. Scientific and popular article literacy must be explicitly formulated in learning outcomes, teaching strategies, learning materials, and assessment rubrics.

This finding is aligned with the principle that school operational curriculum should be developed based on school characteristics, student needs, learning organization, assessment, and professional development [11]. Tyler [25] argues that curriculum development requires clear educational objectives, relevant learning experiences, organized learning activities, and evaluation. Taba [26] also emphasizes that curriculum development should begin with diagnosis of needs, formulation of objectives, selection and organization of content, selection of learning experiences, and evaluation. In the case of Shafta High School Surabaya, scientific writing has been mentioned in learning outcomes, yet the pathway for achieving this competence has not been systematically designed.

Therefore, curriculum integration should involve clearer mapping of competencies. Scientific article literacy should include understanding structure, methodology, evidence, argumentation, and source use. Popular article literacy should include audience awareness, communicative language, contextual

relevance, and public engagement. Integrating both competencies can help students understand scientific knowledge and communicate it more effectively.

B. The findings should be interpreted within secondary education

This study is based on data collected from a high school context. Therefore, the findings should be interpreted as implications for secondary education curriculum management, not higher education curriculum development. This clarification is important because the research context determines the scope of conclusions and recommendations.

Shanahan and Shanahan [9] emphasize that disciplinary literacy is highly relevant in secondary education because students need to learn how different disciplines use language, evidence, and reasoning. Moje [10] also argues that disciplinary literacy should help students access, question, and participate in disciplinary knowledge practices. The findings of this study show that high school students require structured support to develop scientific reasoning and popular communication skills. These needs are different from those of university students, who may already have more advanced academic writing experience.

Therefore, the relevance of the findings lies in strengthening school-level curriculum design. Shafta High School Surabaya needs to develop a literacy program that connects scientific writing with popular communication. Such a program can help students not only produce scientific assignments but also explain academic ideas in simpler and more meaningful language.

C. Teacher facilitation is central to literacy development

The study shows that teachers play a decisive role in the success of scientific and popular literacy integration. When teachers only provide examples and ask students to imitate scientific formats, students tend to focus on technical structure. However, when teachers use project-based learning, peer review, discussion, and feedback, students have more opportunities to develop deeper writing competence.

Hyland [4] emphasizes that writing instruction should involve meaningful tasks, feedback, revision, and audience awareness. Graham and Perin [7] also show that writing improves when students receive explicit strategy instruction, opportunities for collaboration, and structured feedback. This perspective is relevant to the findings because students need continuous guidance to understand how ideas are developed, how evidence is used, and how academic concepts can be adapted for public communication.

Therefore, teacher professional development is necessary. Teachers need training in scientific writing pedagogy, popular writing strategies, formative feedback, assessment rubrics, and project-based learning. Without teacher capacity building, curriculum integration will remain dependent on individual initiatives and will not become a consistent school culture.

D. Evaluation must shift from product-oriented to process-oriented assessment

The findings indicate that evaluation still focuses on the final writing product. This approach is not sufficient because writing is a process involving planning, drafting, revising, reasoning, and communicating. If students are assessed only through final products, teachers may overlook important aspects such as originality, argument development, evidence use, and clarity of communication.

Black and Wiliam [23] show that formative assessment and feedback are important for improving student learning. Hattie and Timperley [24] also emphasize that feedback is effective when it helps learners understand goals, current performance, and next steps. In the context of scientific and popular writing, formative assessment should guide students through each stage of writing. For scientific writing, rubrics should include problem formulation, evidence use, logical argumentation, source credibility, and writing structure. For popular writing, rubrics should include clarity, readability, audience relevance, contextual examples, and communicative style.

A process-oriented evaluation model would allow students to receive feedback at different stages of writing. This would help them improve not only their final texts but also their thinking processes. Such evaluation is essential for building scientific literacy and communication competence.

E. Project-based and contextual learning can bridge scientific and popular writing

The integration of scientific and popular article literacy requires learning activities that connect academic concepts with real-life issues. Krajcik and Blumenfeld [21] explain that project-based learning supports inquiry, collaboration, and meaningful knowledge construction. Bell [22] further states that project-based learning can help students develop independence, communication, and real-world problem-solving skills. This approach is relevant for integrating scientific and popular writing because students can investigate real issues, write scientific reports, and then transform their findings into popular articles.

In the context of Shafta High School Surabaya, project-based learning has begun to appear in some classes, but it has not yet become a consistent practice. Therefore, the school needs to design cross-subject projects involving Indonesian language, civics, sociology, science, or other relevant subjects. For example, students may investigate environmental problems, school culture, digital behavior, or social issues, then write both a simple scientific report and a popular article for public readers.

This model can strengthen students' critical thinking, writing competence, social awareness, and communication skills. More importantly, it can help students understand that scientific knowledge is not only produced for academic purposes but also needs to be communicated responsibly to society.

F. Curriculum management requires continuous improvement

The findings also show that the integration of scientific and popular article literacy requires a continuous improvement cycle. Curriculum planning, implementation, monitoring, and evaluation should not be treated as separate administrative activities. Instead, they should form an interconnected process that supports sustainable literacy development.

Wiggins and McTighe [27] argue that curriculum design should begin with desired learning results and then align assessment evidence and learning experiences. This backward design perspective is relevant for Shafta High School Surabaya because the school needs to begin by defining the expected literacy outcomes, then designing assessment rubrics and learning activities that support those outcomes. By doing so, scientific and popular article literacy can be integrated more coherently into curriculum practice.

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Conclusion and Implications

Based on the findings at Shafta High School Surabaya, it can be concluded that scientific writing skills have been integrated into the school operational curriculum, but the integration remains general, implicit, and not yet systematically connected with popular article literacy. Scientific writing is found in several learning outcomes and classroom activities, particularly in Indonesian language and civics subjects. However, the curriculum has not yet provided structured guidance on writing stages, assessment standards, cross-subject integration, or the transformation of scientific ideas into popular language.

The implementation of scientific writing instruction is still uneven across classes. Some teachers have begun using project-based learning and peer review, but these practices remain dependent on individual teacher initiative. Students are generally able to recognize the formal structure of scientific writing, but many still experience difficulties in developing arguments, using evidence, organizing ideas, and adapting scientific concepts into communicative popular articles. Evaluation practices also remain focused on final products rather than the learning process, scientific reasoning, and communicative clarity.

These findings imply that Shafta High School Surabaya needs to strengthen curriculum management in several ways. First, the school should explicitly integrate scientific and popular article literacy into curriculum documents, learning outcomes, teaching modules, and assessment rubrics. Second, teachers need continuous professional development in scientific writing pedagogy, popular writing strategies, project-based learning, and formative feedback. Third, the school should develop cross-subject literacy projects that require students to produce both scientific and popular texts based on real-life issues. Fourth, evaluation should shift from product-oriented assessment to process-oriented assessment that values planning, reasoning, drafting, revising, and communication. Fifth, curriculum planning should follow an aligned design in which objectives, assessment, learning activities, and teacher support are connected systematically [25], [27].

The conclusion of this study is limited to the context of Shafta High School Surabaya. Therefore, the findings should not be generalized directly to higher education institutions. Future research may examine similar integration models in other secondary schools or compare the implementation of scientific and popular article literacy across different educational levels. Further studies may also develop and test structured learning modules to evaluate their impact on students' scientific reasoning, writing quality, and public communication skills.

References

[1] OECD, "PISA 2025 science framework," Paris, France, 2025. [Online]. Available: https://pisa-framework.oecd.org/science-2025/. [Accessed: Aug. 27, 2026].

[2] I. V. S. Mullis and M. O. Martin, Eds., *PIRLS 2021 Assessment Frameworks*. Chestnut Hill, MA, USA: TIMSS & PIRLS International Study Center, Boston College, 2019. [Online]. Available: https://pirls2021.org/frameworks/. [Accessed: Aug. 27, 2026].

[3] J. M. Swales, *Genre Analysis: English in Academic and Research Settings*. Cambridge, U.K.: Cambridge University Press, 1990.

[4] K. Hyland, *Second Language Writing*, 2nd ed. Cambridge, U.K.: Cambridge University Press, 2019.
[5] S. P. Norris and L. M. Phillips, "How literacy in its fundamental sense is central to scientific literacy," *Sci. Educ.*, vol. 87, no. 2, pp. 224–240, Mar. 2003, doi: 10.1002/sce.10066.
[6] J. L. Lemke, *Talking Science: Language, Learning, and Values*. Norwood, NJ, USA: Ablex Publishing, 1990.
[7] S. Graham and D. Perin, *Writing Next: Effective Strategies to Improve Writing of Adolescents in Middle and High Schools—A Report to Carnegie Corporation of New York*. Washington, DC, USA: Alliance for Excellent Education, 2007.
[8] S. Graham and M. Hebert, *Writing to Read: Evidence for How Writing Can Improve Reading—A Report from Carnegie Corporation of New York*. Washington, DC, USA: Alliance for Excellent Education, 2010.
[9] T. Shanahan and C. Shanahan, "Teaching disciplinary literacy to adolescents: Rethinking content-area literacy," *Harvard Educ. Rev.*, vol. 78, no. 1, pp. 40–59, Apr. 2008, doi: 10.17763/haer.78.1.v62444321p602101.
[10] E. B. Moje, "Foregrounding the disciplines in secondary literacy teaching and learning: A call for change," *J. Adolesc. Adult Lit.*, vol. 52, no. 2, pp. 96–107, Oct. 2008, doi: 10.1598/JAAL.52.2.1.
[11] Badan Standar, Kurikulum, dan Asesmen Pendidikan, *Panduan Pengembangan Kurikulum Operasional di Satuan Pendidikan*. Jakarta, Indonesia: Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi, 2022. [Online]. Available: https://repositori.kemendikdasmen.go.id/26058/. [Accessed: Aug. 27, 2026].
[12] J. W. Creswell and J. D. Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, 5th ed. Thousand Oaks, CA, USA: SAGE Publications, 2018.
[13] S. B. Merriam and E. J. Tisdell, *Qualitative Research: A Guide to Design and Implementation*, 4th ed. San Francisco, CA, USA: Jossey-Bass, 2016.
[14] M. Q. Patton, *Qualitative Research & Evaluation Methods: Integrating Theory and Practice*, 4th ed. Thousand Oaks, CA, USA: SAGE Publications, 2015.
[15] G. A. Bowen, "Document analysis as a qualitative research method," *Qual. Res. J.*, vol. 9, no. 2, pp. 27–40, 2009, doi: 10.3316/QRJ0902027.
[16] R. K. Yin, *Case Study Research and Applications: Design and Methods*, 6th ed. Thousand Oaks, CA, USA: SAGE Publications, 2018.
[17] V. Braun and V. Clarke, "Using thematic analysis in psychology," *Qual. Res. Psychol.*, vol. 3, no. 2, pp. 77–101, 2006, doi: 10.1191/1478088706qp063oa.
[18] M. B. Miles, A. M. Huberman, and J. Saldaña, *Qualitative Data Analysis: A Methods Sourcebook*, 3rd ed. Thousand Oaks, CA, USA: SAGE Publications, 2014.
[19] Y. S. Lincoln and E. G. Guba, *Naturalistic Inquiry*. Beverly Hills, CA, USA: SAGE Publications, 1985.
[20] M. Fullan, *The New Meaning of Educational Change*, 5th ed. New York, NY, USA: Teachers College Press, 2016.
[21] J. S. Krajcik and P. C. Blumenfeld, "Project-based learning," in *The Cambridge Handbook of the Learning Sciences*, R. K. Sawyer, Ed. Cambridge, U.K.: Cambridge University Press, 2006, pp. 317–334, doi: 10.1017/CBO9780511816833.020.
[22] S. Bell, "Project-based learning for the 21st century: Skills for the future," *Clearing House: J. Educ. Strategies Issues Ideas*, vol. 83, no. 2, pp. 39–43, 2010, doi: 10.1080/00098650903505415.
[23] P. Black and D. Wiliam, "Assessment and classroom learning," *Assessment Educ.: Princ., Policy Pract.*, vol. 5, no. 1, pp. 7–74, 1998, doi: 10.1080/0969595980050102.
[24] J. Hattie and H. Timperley, "The power of feedback," *Rev. Educ. Res.*, vol. 77, no. 1, pp. 81–112, Mar. 2007, doi: 10.3102/003465430298487.

[25] R. W. Tyler, *Basic Principles of Curriculum and Instruction*. Chicago, IL, USA: University of Chicago Press, 1949.
[26] H. Taba, *Curriculum Development: Theory and Practice*. New York, NY, USA: Harcourt, Brace & World, 1962.
[27] G. Wiggins and J. McTighe, *Understanding by Design*, expanded 2nd ed. Alexandria, VA, USA: Association for Supervision and Curriculum Development, 2005.

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