

CHAPTER II

LITERATURE REVIEW

2.1. Theoretical Framework

2.1.1. Developing

a. Definition of Developing

Development in the context of research and development (R&D) is a methodical process that seeks to create new goods, processes, or techniques via extensive investigation and testing. Creswell & Poth (2020) emphasize that development research is a complex and dynamic process, which requires a deep understanding of user needs as well as the application of appropriate research methods. With a systematic and iterative approach, development research can lead to innovative and effective products and services.

Kusmaryani & Ramli (2023) say the process of creating a new product, new body of knowledge about an existing process, or both is known as research and development, or R&D. The new knowledge produced by this systematic creative process is subsequently used to develop new materials or completely new products, as well as to improve and modify ones that already exist. To overcome the challenges, the field of education must advance, and research is the best approach to achieve this. Research and development initiatives can support the advancement of current teaching methods, learning materials, curriculum, and evaluation frameworks. Thus, innovation is the outcome of research that leads to advancement.

It is clear from the aforementioned reasons that development in the context of R&D is a necessary procedure to produce pertinent and useful educational solutions. R&D facilitates innovation in learning materials, instructional strategies, and evaluations to satisfy the needs of students through a methodical and iterative process. R&D lays the groundwork for the creation of superior and sustainable learning by fusing educational

theory with experimentation, particularly in improving students' language proficiency and character development.

b. Purpose of Developing

In the framework of research and development (R&D), development's primary objective is to provide goods or techniques that can enhance learning efficacy and cater to the individual needs of students. This includes the creation of more creative and up-to-date teaching strategies, curricula, and learning aids in the field of education. Gutterman (2023) defines the purpose of Research and Development (R&D) is to enhance a company's knowledge base and facilitate the creation, acquisition, and integration of innovations into products and processes. Furthermore, according to Donna Hess (2021), development aims to adapt learning to students' needs and characters. This entails determining students' needs thoroughly and then creating learning that can meet those needs in R&D. The items or techniques created by R&D are evaluated and improved until they provide the best results, which can improve the overall standard of the learning process. Transforming theory into tried-and-true practice is another goal of R&D. To ascertain whether the generated items or procedures fulfill the intended goals, this entails conducting direct field experiments, trials, and evaluation of the outcomes. This enables teachers to address different obstacles that students encounter when learning English and to create materials that are more tailored to the students' local context and culture (Andy & Yang, 2023).

Furthermore, R&D aims to produce products or methods that not only function technically but also have a positive impact on the personal development of students. In the context of character development through English learning, the products developed aim to build positive character traits, such as cooperation, discipline, and responsibility, through various language learning activities that are specifically designed (Qian et al., 2021).

Overall, development in the context of R&D aims to produce creative, pertinent, and flexible answers to the learning requirements of students.

Through the use of pertinent and interesting English teaching materials, the research aims to help students develop their character patterns while also strengthening their skills.

c. Developing Based on Students' Needs Analysis

The technique used in research and development to tailor products or procedures to the unique traits, interests, and difficulties that students face is called "student needs-based development." The methodical process of identifying, assessing, and understanding a need or problem is called needs analysis. Dewi & Amariah (2023) define needs analysis as an approach that collects data on the learning needs of students or target groups so that solutions can be created with their actual circumstances in mind.

Student academic performance is just one aspect of needs analysis; other elements that influence learning include motivation, strengths and weaknesses, and social and emotional variables. To better understand what is needed in a learning context, Apolonio (2021) says that needs analysis involves gathering information from a variety of sources, including student interviews, surveys, classroom observations and the study of relevant documents. R&D-based development can thus yield resources that meet the needs of students and facilitate the attainment of more successful learning outcomes in terms of both academic performance and student character (Maimun & Jannah, 2023). Additionally, Agustina & Sinaga (2023) stress that R&D can guarantee that the products developed will meet the actual obstacles faced by students, whether they are connected to motivation, interests, or difficulties they encounter during the learning process, by doing need analysis.

A crucial first step in the growth of education is need analysis, particularly when it comes to research and development. The creation of instructional materials or strategies might be more focused and successful in assisting students in reaching their learning objectives if the needs of the students are thoroughly understood. Learning outcomes and student

character development can be enhanced by using need analysis in research and development to create more inclusive, responsive, and relevant learning resources.

2.1.2. ADDIE Model

a. Definition of ADDIE Model

ADDIE model provides a systematic and versatile framework for designing effective instructional materials and programs that align with students' needs and desired outcomes. As Winda et al., (2024) emphasize, its iterative nature allows for continuous feedback and improvement, making it adaptable to various educational contexts, including both traditional classrooms and digital environments. Vieyra & González (2022) further stress that the model is learner-centered and outcome-oriented, ensuring that instructional strategies are tailored to meet the needs of the students. According to Jabaay et al., (2020) the model's structured approach ensures that each stage: Analysis, Design, Development, Implementation, and Evaluation, aligns with the goals of both educators and learners, maximizing the efficiency of the learning process.

Dousay & Stefaniak (2022) also highlight that the model's flexibility allows it to be applied across a variety of subjects and educational settings, making it relevant for diverse student populations. The emphasis on iterative development and feedback not only helps design instructional materials but also ensures continuous improvement, maintaining the quality and relevance of the content throughout the learning cycle. This adaptability makes ADDIE model a widely recognized and valuable tool for creating instructional materials that can be effectively implemented in a variety of educational contexts.

In conclusion, ADDIE model offers a comprehensive and adaptable framework for instructional design, aligning educational goals with students' needs and ensuring the creation of effective and engaging learning experiences. In this study, which focused on developing a Nias

culture-based English textbook to enrich students' 21st century skills, ADDIE model guides the creation of well-structured and culturally integrated teaching materials. By applying this model, the design process is continuously refined to ensure that the instructional materials not only meet academic and curriculum requirements but also embed local cultural values and enrich critical thinking, creativity, communication, and collaboration among vocational high school students.

b. Stages of ADDIE Model

ADDIE model consists of five interrelated stages, each with specific objectives and activities:

1. Analysis

This stage involves identifying the learners' needs, goals, and challenges. It includes conducting need analysis to understand the target audience, the learning environment, and the desired outcomes. According to Kusmaryani & Ramli (2023), the analysis phase lays the foundation for the entire instructional design process by ensuring a clear understanding of the learning objectives and constraints.

2. Design

The design phase focuses on creating a detailed plan for a product. This includes setting objectives, defining assessment criteria, and designing activities. Dousay & Stefaniak (2022) suggest that the design stage ensures alignment between objectives, content, and evaluation methods to achieve coherence in instructional delivery.

3. Development

In the development stage, instructional materials and activities are created based on the design plan. This may involve creating multimedia content, lesson plans, or assessment tools. Kusmaryani & Ramli (2023) state that during this phase, prototypes may be developed and tested to ensure that the materials meet quality standards and are effective in facilitating learning.

4. Implementation

This phase involves delivering the instructional materials to the target audience. Implementation includes setting up the learning environment, delivering content, and providing support to learners. According to Winda et al., (2024), careful monitoring during this stage is crucial to identify any issues and ensure a smooth delivery process.

5. Evaluation

The final stage, evaluation, assesses the effectiveness of the instructional materials and the learning outcomes. This includes formative evaluation during the development process and summative evaluation after implementation. Jabaay et al., (2020) emphasize that the evaluation phase provides valuable feedback for refining instructional materials and processes to improve future iterations.

ADDIE model consists of five interrelated stages: Analysis, Design, Development, Implementation, and Evaluation. Through these five stages, the Nias culture-based English teaching guide that was designed did not only meet students' academic needs but also integrated local cultural values and enrich 21st century skills. The iterative process of ADDIE ensured that the teaching guide was effective, practical, and feasible, making a significant impact on students' mastery of critical thinking, creativity, communication, and collaboration in English language learning.

2.1.3. Testing

a. Definition of Testing

Testing refers to the process of evaluating a product to determine its practicality, feasibility and effectiveness in meeting its intended purpose. According to Cianfrone (2021), product testing is essential for identifying any flaws or areas for improvement before the product is fully launched or implemented. It involves both technical aspects, such as ease of use and accessibility, and educational aspects, like the alignment with learning goals.

In a similar vein, Lee et al., (2022) explain that product testing involves evaluating how well the instructional product functions in real-world conditions. This type of testing provides critical feedback on whether the materials are achieving their intended educational goals. For example, in the context of English teaching materials, testing would help assess whether the materials enhance students' understanding of English while also fostering the development of positive character traits.

Product testing also evaluates the students' engagement with the materials and how well the materials support their learning process. Zhang & Ma (2023) argue that product testing should not be limited to just assessing the instructional content. It should also evaluate the design of the materials, including how interactive or engaging they are, and whether the format (e.g., print or digital) is appropriate for the target audience. This ensures that all components of the instructional materials are optimized for effectiveness.

So, product testing plays a pivotal role in ensuring that instructional materials for English language learning not only meet educational standards but also support cultural awareness and the mastery of 21st century skills. Through rigorous testing, the researcher refined the teaching guides to maximize their effectiveness and usability.

b. Types of Testing and Product Evaluation

There are several types of testing and evaluation methods used to assess the effectiveness of product. Formative testing, conducted during the development phase, gathers feedback on early versions of the materials through pilot tests, focus groups, and surveys. Its goal is to identify issues and make necessary adjustments before full implementation, ensuring that the materials are effective, engaging, and aligned with learning objectives (Haladyna, 2022). Summative testing, on the other hand, occurs after the materials have been implemented and assesses their overall effectiveness in achieving learning goals. It typically includes assessments of student performance and final

evaluations to measure the impact of the materials on student learning (Evermeld & Andala, 2023).

Usability testing is especially important for products, focusing on how easy and intuitive the materials are for students to use. This type of testing evaluates aspects such as navigation, accessibility, and interactivity, ensuring that students can engage with the materials without encountering technical barriers (Indriasari, 2020).

Performance-based testing assesses how well students can apply the skills and knowledge they have learned in practical scenarios. This method is useful for evaluating students' ability to transfer learning into real-world contexts, such as through projects, presentations, or problem-solving tasks (Winter, 2023). Peer review involves other educators or experts reviewing the instructional materials to provide an external perspective on their quality and effectiveness. This process helps uncover any biases, gaps, or areas for improvement that might not be visible through student feedback alone (Rezai et al., 2022). In addition, product evaluation in educational research often includes three main aspects: feasibility, practicality, and effectiveness. Feasibility refers to whether the product can be realistically implemented considering available resources, time, and institutional support (Kemman & Velde, 2021). Practicality assesses how easy the product is to use for teachers and students in real classroom settings, including clarity of instructions, completeness of components, and user satisfaction (Fauzi & Habibah, 2025). Effectiveness measures the extent to which the product achieves its intended learning objectives, often through improvements in test scores, engagement, and skill mastery (Agasisti et al., 2022).

These various testing methods offer valuable insights into various aspects of the effectiveness of learning materials. For this research, summative testing (post-test) was the primary evaluation method, allowing for ongoing feedback during development and a final assessment of the success of the materials in achieving learning outcomes. Summative testing is conducted at the end of a learning unit or

chapter to measure the extent to which students have achieved the learning objectives. In the context of this study, the evaluation process also integrates feasibility, practicality, and effectiveness to provide a comprehensive understanding of how feasible the product works in practice whether it can be implemented effectively, used efficiently, and produce significant improvements in student learning outcomes.

c. Multiple Choice Test

As stated by Brown (2023), multiple-choice tests serve as an efficient and reliable assessment tool in educational settings. This is primarily because they offer objective scoring, which minimizes the possibility of examiner bias, and enable educators to assess a broad range of learning content within a relatively short amount of time. In addition, multiple-choice tests are practical for both large-scale standardized testing and classroom-based assessments, making them a versatile choice for language educators. Moreover, Hughes (2019) highlights that when multiple-choice items are thoughtfully and carefully constructed, they can go beyond assessing mere recall of information. These items can effectively evaluate students' comprehension skills, depth of vocabulary knowledge, and even higher-order thinking abilities such as analysis, inference, and application. This makes multiple-choice testing not only a convenient format but also a powerful tool for measuring various cognitive levels in language learning.

Overall, both scholars underline that the quality and design of the test items play a crucial role in ensuring the validity and effectiveness of multiple-choice assessments, particularly in the context of language education.

2.1.4. Culture

a. Definition of Culture

Culture is a dynamic and evolving concept that plays a crucial role in shaping how individuals perceive and interact with the world. According to Kitayama & Salvador (2024), culture can be seen as a dynamic system of values, practices, and meanings that are shared and transmitted

through social interactions within a community. This system is not static but constantly evolves through the ongoing interactions among individuals. As people in a community engage with one another, they continually shape and redefine their cultural understanding, ensuring that culture remains adaptable and responsive to change. In line with this, Koloi-Keaikitse et al., (2024) emphasize that culture encompasses shared beliefs, practices, norms, and artifacts that define a group, shaping both their identity and social interactions. These elements, both tangible and intangible, guide how individuals within a community identify with one another and engage with the broader world. The values and norms embedded in culture provide a framework for understanding social dynamics and influence how group members relate to others, reinforcing a sense of belonging and cohesion within the community.

Extends this view by asserting that culture is the lens through which individuals perceive and understand the world. She argues that culture encompasses not only language but also traditions and social practices, all of which define the identity of a community. Through this cultural lens, individuals process their experiences and interactions in ways that are shaped by the customs and values of their group. Language, in particular, serves as a key tool for conveying and reinforcing cultural understanding, guiding how people communicate and interpret their environment.

Naik et al., (2023) deepen this perspective by describing culture as a living system of meanings and practices that evolve over time, reflecting the historical context and social dynamics of a group. Culture is always adapting to new challenges and changes, allowing individuals within a community to respond to shifting social, political, and historical conditions. This continuous evolution ensures that culture remains relevant and responsive to the needs of the community, influencing how people interpret new experiences and navigate their world. Karlik (2023) reinforces these ideas by defining culture as an intricate system that is interwoven with language. This system encompasses values, beliefs, and

contexts that shape both the use and meaning of language. Culture not only reflects a way of life but also actively molds how individuals communicate and perceive the world around them. By influencing language and interpretation, culture provides a dynamic framework that enriches human interaction and deepens our understanding of societal norms and global perspectives.

In conclusion, the perspectives of these scholars collectively illustrate that culture is a complex, evolving system that significantly shapes both individual identity and societal interaction. Whether through social interactions, shared beliefs, or historical contexts, culture influences how we communicate, interpret, and understand the world. Language, as both a product and vehicle of culture, plays an essential role in shaping human experience, underlining the profound connection between culture, language, and identity.

b. Nias Culture

In terms of culture, Nias is one of the ethnic groups that has a long history of oral literary traditions, especially folklore, which is passed down from generation to generation. This tradition is an important component of the local knowledge of the Nias people and plays a role in maintaining their cultural identity. Realizing the importance of preserving this tradition, the Nias people work hard to maintain their ancestral heritage so that it does not become extinct. This view is reinforced by Setianingrum et al., (2023) who state that local wisdom, as a traditional heritage that includes knowledge, perspectives, values, beliefs and cultural practices, must be transmitted from one generation to the next. Although derived from local traditions, the values contained in local wisdom have universal relevance. Therefore, the customs and traditions maintained by the people of a particular region endure as a lasting legacy that determines their cultural continuity and identity.

Interest in Nias oral traditions also came from outsiders, especially Europeans. German missionaries who arrived on Nias Island in 1865 showed great interest in the local culture. According to Telaumbanua and

Humel (2015) in Hulu et al., (2024), these missionaries researched various aspects of Nias culture, such as customs, indigenous religion, language and literature. This research aimed to support their educational and missionary activities. One notable example is the research of Hulu et al., (2024) who collected “hoho,” a type of traditional Nias poetry that tells important stories, such as the story of Sirao who is considered the ancestor of the Nias people.

The documentation of Nias oral traditions and their publication in scientific journals makes a significant contribution to the preservation and understanding of Nias culture at a global level. Through this process, character education values contained in Nias folktales can be identified and promoted. In addition to supporting literary education, these values play an important role as a framework for the individual and collective growth of Nias society.

c. Culture and Language Learning

English language learning has become crucial in our increasingly globalized world, where English serves as the primary global communication language. English language competency greatly improves students' academic and career prospects by providing more chances for global networking, research, and collaboration, claimed by (Hossain, 2024). According to Bagea (2023), the interconnection between language and culture is profound, significantly impacting language acquisition and proficiency. Understanding cultural context enhances linguistic skills, motivation, and communication effectiveness.

Developing true linguistic competence now requires not just grammatical knowledge but also cultural understanding, including the social norms, values, and customs of English-speaking communities. According to Asrifan & Dewi (2024), language learning objectives go beyond linguistic competency to include intercultural competence. This approach aligns with the need for holistic language education that prepares students to navigate cultural diversity effectively. Intercultural competence equips educators with tools to address various cultural

dynamics, enabling students to comprehend and appreciate multiple cultural perspectives. By integrating cultural elements into instruction, teachers foster empathy, open-mindedness, and the ability to communicate across diverse global contexts, transforming language learning into a journey of cultural exploration and understanding.

2.1.5. Textbooks

a. Definition of Textbooks

According to Setiani (2020), textbook is one type of teaching material used in the learning process. Textbooks have special characteristics, such as being compiled briefly, well organized, and dense in the delivery of material. Textbooks aim to provide core information relevant to learning competencies. The structure of textbooks usually follows the curriculum and is systematic, making it easier for students to understand the concepts taught. Concise and clear presentation helps teachers and students to achieve learning objectives effectively.

In Indonesia, based on the Minister of Education regulation no. 2 of 2008, textbooks are mandatory reference books for use in primary, secondary and tertiary schools. The use of textbooks has various advantages, including providing a systematic structure and syllabus for learning programs, helping to standardize teaching so that students in different classes receive similar content, and maintaining the quality of the material presented. Textbooks also provide diverse learning resources, such as workbooks, CDs, and videos, which make the learning process more interesting and efficient. In addition, textbooks can provide an effective language model for teachers who are not native English speakers and serve as a training tool for teachers who have limited experience.

According to Sari (2019), textbooks are printed materials that are published and used as sources and guides in the learning process in schools or other educational institutions. Textbooks serve as an important medium in teaching, providing materials, exercises, and references for

students and teachers. Textbooks usually cover various types of materials, including textbooks, workbooks, and other subject books, designed to help students gain a clear understanding of the subject being studied. Textbooks are expected to fulfill the competency standards set out in the curriculum, as well as assist in the development of students' skills and knowledge.

The conclusion highlights that textbooks are more than just printed materials; they are strategic educational tools that support systematic learning, maintain educational standards, and provide comprehensive guidance for both teachers and students.

b. Disadvantages and Advantages of Textbooks

According to Aprilia & Ambarwati (2023), textbooks have a number of advantages and disadvantages that should be considered. The main advantage of textbooks lies in their compliance with the standards set by the National Education Standards Agency (BSNP), such as the accuracy of the material, the use of clear language, and relevance to student development. The presentation of the material is made interesting and interactive through colorful illustrations that can attract students' attention, while supporting the development of speaking, writing, listening, and reading skills. The activities designed in this book encourage students to be more independent, innovative, and motivated in learning. However, in addition to these advantages, there are some weaknesses that need to be improved. The physical quality of the book can still be improved to make it more durable and comfortable to use. In addition, some materials need to be reviewed to make them more accurate and relevant to the current curriculum. Additional learning activities also need improvement to better support an effective and interesting learning process. On the other hand, some of the materials are considered less reflective of the context of students' daily lives, which may affect their understanding and application of the materials in real situations.

Setiani (2020), also explains that textbooks have various advantages in learning. It provides a systematic structure and syllabus, helps standardize teaching, and ensures quality materials according to learning principles. In addition, textbooks offer diverse learning resources such as workbooks, CDs, and videos, and support teachers with effective language models and practical training. Its attractive visual design also increases students' interest. However, there are disadvantages such as inauthentic language, distortion of content, and materials that do not reflect students' needs. Teachers' reliance on textbooks can reduce creativity, while the high cost is a financial burden.

In this case, textbooks are educational resources that have a strategic role in the learning process, with the ability to meet national education standards and design interactive content that supports student skill development. Despite their advantages in providing systematic and engaging material, textbooks also face challenges such as contextual limitations, potential content distortion and the risk of declining teacher creativity. Therefore, continuous evaluation is needed to optimize the function of textbooks as effective and qualified learning media.

c. Criteria a Good Textbook

A good textbook has certain criteria that serve as a reference for assessing its suitability. These criteria not only emphasize academic aspects but also take into account national values, language comprehension, attractive design, and the integration of local culture. These four aspects complement each other, enabling the textbook to function not only as a learning resource but also as a tool for developing 21st century skills and instilling cultural identity in students.

In terms of material, textbooks must be in line with the values of Pancasila and free from discriminatory, pornographic, violent, or hateful content. The content must also be in line with national curriculum standards so that it is relevant to current educational objectives. Additionally, the content of the textbook should be contextual, relevant to the students' environment and real-life experiences, and present

interactive learning materials to encourage students to think critically, creatively, communicatively, and collaboratively. Coherence between sections is also important to ensure the textbook is well-structured and easy to understand (BSAKP, 2022).

In term of language, a good textbook should use simple, precise sentences that adhere to standard language rules. The language used should be communicative so that the message to be conveyed can be clearly understood by students. In addition, dialogical and interactive language is needed to motivate students and encourage their critical thinking skills. The language level should also be adjusted to the age and cognitive abilities of the students, while maintaining consistency in the use of terms, symbols, and icons to avoid confusion (Aprilia & Ambarwati, 2023).

In terms of design, textbooks should have visual appeal that can attract students' attention. The layout and organization of the book's content must be clear, systematic, and easy to follow. The use of color, typography, illustrations, and visuals should support understanding of the material, not just be decorative. The book cover design should also be informative, featuring key elements such as the title, author, and publisher, and effectively representing the book's content in a communicative manner. With the right design, textbooks will be more comfortable to use in the learning process (BSAKP, 2022).

In terms of culture, textbooks are expected to reflect local culture, traditions, and values that are alive in the students' communities. The book should be sensitive to cultural diversity and free from bias or discrimination. The use of examples, illustrations, and learning activities should be relevant to the cultural context of the students, while also promoting tolerance, cooperation, and appreciation for differences. Furthermore, textbooks also serve to strengthen national identity and national character values through the integration of culture into the content and activities of the learning process (Huang & Song, 2024).

In conclusion, a good textbook is one that contains material in line with the curriculum and Pancasila values, uses clear, communicative language appropriate for the age of the students, is supported by an attractive and easy-to-understand design, and is able to reflect local culture and instill national character values. By fulfilling these criteria, textbooks become not only a source of learning, but also a means of shaping students' skills, attitudes, and identities.

2.1.6. 21st Century Skills

a. Definition of 21st Century Skills

According to Joynes et al., (2019) The phrase "21st Century Skills" encompasses a broad range of professional attributes and skill sets, including: creativity, critical thinking, divergent thinking, teamwork (especially in diverse groups), autonomy at work, developed cognitive and interpersonal skills, social and civic competences, responsible national and global citizenship, interdependence awareness, acceptance and understanding of diversity, recognition and development of personal attributes, use of interactive tools, communication in both local and foreign languages, initiative and entrepreneurship, leadership, accountability, and physical well-being.

21st Century Skills refer to a broad set of knowledge, abilities, and character traits required for individuals to thrive in the modern world (Washington, 2020). These skills encompass competencies beyond traditional academic knowledge, focusing instead on fostering capabilities that enable individuals to adapt, innovate. Among the most critical components of these skills are critical thinking, creativity, communication and collaboration. These elements are essential for individuals to succeed in the knowledge-driven and technology-dominated global economy. The emergence of 21st Century Skills is driven by the rapidly evolving challenges in education, the workplace, and society as a whole, necessitating a focus on holistic and dynamic learning outcomes.

In conclusion, 21st Century Skills, framework emphasizes the "4C's" including critical thinking, creativity, communication, collaboration are essential for preparing students to succeed in the modern world. By fostering these skills, educators can prepare students to adapt to the challenges of the 21st century, participate effectively in a globalized society, and thrive in a rapidly changing technological landscape.

b. Characteristics of 21st Century Skills

21st Century Skills are defined by key attributes that prepare individuals to succeed in a rapidly changing, technology-driven global environment. These characteristics include:

1. **Critical Thinking:** The ability to analyze, evaluate, and solve complex problems through logical reasoning and evidence-based approaches. Critical thinking fosters independent decision-making and adaptability in various contexts (Buranova & Rakhmonova, 2024).
2. **Creativity:** The capacity to generate innovative ideas, think divergently, and develop original solutions. Creativity is vital for addressing challenges in dynamic and evolving environments (Anaktototy, 2023).
3. **Communication:** The ability to articulate thoughts and ideas clearly and effectively across different platforms and cultural contexts. This includes both verbal and non-verbal communication, as well as proficiency in local and global languages (Rao, 2019).
4. **Collaboration:** The skill of working effectively in diverse teams, leveraging collective intelligence, and building strong interpersonal relationships to achieve common goals. Collaboration fosters inclusivity and respect for diversity (Kvellestad et al., 2021).

These characteristics are interconnected and collectively enable individuals to adapt, innovate, and contribute meaningfully to society. By embedding these traits into education and professional practices, individuals are better equipped to meet the demands of the 21st century.

c. Criteria of 21st Century Skills

According to Ummel (2024), the criteria for identifying and developing 21st Century Skills lie in their relevance, applicability, and universality. To qualify as essential 21st Century Skills, they must address real-world challenges, be interdisciplinary, and be universally valuable across various industries and contexts. For example, critical thinking allows individuals to evaluate information, identify logical connections, and make reasoned decisions in any field. Creativity drives innovation, enabling individuals to think outside the box and generate unique solutions to problems.

According to Ali (2024), Communication and collaboration are critical in fostering teamwork and ensuring mutual understanding, especially in multicultural and global workspaces. Digital literacy ensures individuals are equipped to access, interpret, and create information in a digital format, a necessity in nearly every profession today. The universal applicability of these skills is also supported by their inclusion in international education frameworks, making them relevant globally while adaptable to local contexts.

Another important criterion is measurability, effective 21st Century Skills must be observable and assessable through performance-based tasks, ensuring that educators can provide meaningful feedback and track progress. Inclusivity and equity are equally important, ensuring that students from diverse backgrounds have equal access to skill development opportunities.

d. Process of 21st Century Skills

The process of acquiring the 4C's of 21st Century Skills—Critical Thinking, Creativity, Communication, and Collaboration—involves a structured approach that fosters the development of these competencies in real-world contexts. This process emphasizes active participation, teamwork, and practical application, ensuring learners are well-equipped to meet modern challenges.

It begins with activities that stimulate critical thinking, such as problem-solving tasks, debates, and case studies (Rusmin & Misrahayu, 2024). Learners are encouraged to analyze information, evaluate evidence, and draw logical conclusions. These practices train individuals to approach problems systematically and make reasoned decisions in complex scenarios. Critical thinking is foundational, as it supports effective problem-solving and informed decision-making across various domains.

Anaktototy (2023) says creativity is cultivated through opportunities for innovation and exploration. Learners are provided with open-ended challenges, brainstorming sessions, and design-thinking exercises that encourage them to think divergently and generate novel ideas. Artistic and creative projects, as well as interdisciplinary tasks, allow students to stretch their imagination and develop unique approaches to solving problems. Creativity not only fosters innovation but also builds adaptability by enabling learners to think flexibly in rapidly changing environments.

Communication plays a crucial role in the process, as it ensures that learners can articulate their thoughts clearly and effectively (Ali 2024). Through activities like presentations, group discussions, and role-plays, students practice expressing ideas in both verbal and written forms. Communication tasks are often designed to mirror real-life situations, allowing learners to develop confidence and clarity in conveying their ideas to diverse audiences. This competency also includes active listening, which is essential for understanding others and engaging in meaningful exchanges.

Collaboration emphasizes teamwork and the ability to work effectively with others toward a shared goal. Kvellestad et al. (2021) argue learners engage in group projects, cooperative learning activities, and peer-led tasks that require them to negotiate, compromise, and manage conflicts. These experiences promote interpersonal skills such as empathy, respect, and accountability, which are critical for successful

collaboration. Working in diverse teams also prepares learners to navigate multicultural and global environments, fostering inclusivity and adaptability.

Together, the 4C's are developed through a dynamic process of practice, feedback, and real-world application. This approach ensures that individuals are not only proficient in these skills but also prepared to contribute meaningfully to a rapidly evolving society. By integrating the 4C's into education and professional development, learners gain the tools needed to innovate, communicate, and collaborate effectively in the 21st century.

e. Textbooks Indicators Based on 4C's

A text that embodies critical thinking, collaboration, communication, and creativity often referred to as the "4 Cs" exhibits specific characteristics in each area, fostering meaningful engagement and skill development. For critical thinking, the text should demonstrate analytical depth by evaluating various perspectives and underlying assumptions. It must be evidence-based, with well-supported arguments that establish logical connections between ideas. Additionally, the content should focus on problem-solving, identifying challenges, and proposing well-reasoned solutions (Stanikzai, 2023).

In terms of collaboration, the text reflects diverse inputs and shared responsibilities, often evident in co-authorship or multi-stakeholder contributions. It should harmonize multiple perspectives, indicating effective teamwork, and present a coordinated structure that demonstrates collaborative planning and consensus-building among contributors (Thornhill-Miller et al., 2023).

For communication, the text must prioritize clarity and coherence to ensure the intended message is easily understood by the target audience. An engaging style is essential, using an appropriate tone to maintain reader interest. Interactive elements, such as prompts, questions, or activities, can further enhance engagement and encourage active participation in the learning process (Thornhill-Miller et al., 2023).

Lastly, creativity in a text is characterized by originality and the presentation of unique ideas or innovative approaches to common topics. The structure of the content may utilize unconventional formats or storytelling techniques to enhance the reader's understanding and experience. Furthermore, the material should stimulate the audience, inspiring them to think differently, explore new concepts, and apply these ideas in novel ways (Isnaini et al., 2023).

By integrating these characteristics, a text becomes a valuable tool in fostering 21st century skills, enabling learners to think critically, work collaboratively, communicate effectively, and express creativity in a manner that aligns with the demands of modern education and professional contexts.

f. Teaching Developed Nias Culture-Based English Textbook versus Teaching Students' Textbook

In the experimental class, teaching was conducted using English textbooks based on Nias culture. The strategy used was Problem-Based Learning (PBL), in which students were divided into groups to solve problems or tasks related to Nias culture. Through this group work, 21st-century skills such as communication, collaboration, critical thinking, and creativity (4C) can be developed more effectively. Hung (2022) emphasizes that PBL is one of the most effective learning models for developing higher-order thinking skills and collaborative skills.

In the control class, the learning steps also applied PBL by forming student groups, but the resources used were regular textbooks that did not focus on local culture. Although students still discussed and collaborated in completing tasks, the material used tended to be general in nature. Gay (2023) states that the integration of local culture in learning is very important to make the material more meaningful for students, while Banks (2021) emphasizes that without cultural context, learning can lose its connection to students' lives.

It can be concluded that the main difference between teaching in the experimental class and the control class lies in the teaching materials

used. The experimental class used English textbooks based on Nias culture so that learning was more contextual to the students' lives, while the control class used regular textbooks that were more general in nature.

2.1.7. Curriculum

In the context of Indonesia's educational framework, particularly under the "*Kurikulum Merdeka*" (Independent Curriculum), three pivotal components are emphasized: *Capaian Pembelajaran* (CP), *Tujuan Pembelajaran* (TP), and *Alur Tujuan Pembelajaran* (ATP). These elements collectively guide the teaching and learning processes to achieve desired educational outcomes (Akbar et al., 2023).

Capaian Pembelajaran (CP), or Learning Outcomes, delineate the competencies students are expected to attain at the conclusion of a learning period. According to the Indonesian Ministry of Education, CP serves as a benchmark for both educators and learners, ensuring that the educational objectives are met effectively. *Tujuan Pembelajaran* (TP), or Learning Objectives, are specific goals set for individual lessons or units, derived from the broader CP. These objectives provide clear direction for instructional activities, enabling teachers to design lessons that systematically lead students toward achieving the CP. The formulation of TP involves breaking down the CP into manageable and measurable targets that can be addressed within a particular timeframe.

Alur Tujuan Pembelajaran (ATP), or Learning Objectives Flow, refers to the sequential arrangement of TP over a specified period, such as a semester or academic year. This structured flow ensures a coherent progression of learning, allowing students to build upon previously acquired knowledge and skills systematically. The ATP serves as a roadmap for educators to plan and implement instructional strategies that align with the overarching CP (Guru Merdeka, 2023).

The integration of CP, TP, and ATP within the *Kurikulum Merdeka* underscores a shift towards a more flexible and student-centered approach to education in Indonesia. By clearly defining learning outcomes and systematically organizing learning objectives, this

curriculum framework aims to foster critical thinking, creativity, and independence among students. As noted by educational experts, such structured planning not only enhances the effectiveness of teaching but also empowers students to take an active role in their learning journey.

a. Integrating Culture and 21st Century Skills in the Kurikulum Merdeka Framework

The integration of *Capaian Pembelajaran* (CP), *Tujuan Pembelajaran* (TP), and *Alur Tujuan Pembelajaran* (ATP) in the context of the *Kurikulum Merdeka* is a strategic framework to develop 21st century skills while preserving and promoting cultural values. This curriculum framework allows for flexibility in incorporating local culture and fostering critical competencies such as critical thinking, creativity, communication, and collaboration which are essential for success in the modern world.

➤ **Culture Integration**

The *Kurikulum Merdeka* encourages the embedding of local cultural elements into the learning process. By integrating culture, students gain a deeper appreciation of their heritage, enabling them to build a strong sense of identity and pride in their traditions. For instance, the CP outlines learning outcomes that include understanding and reflecting on cultural diversity. In alignment with TP, specific goals such as storytelling, project-based learning on local traditions, and creating cultural artifacts allow students to explore and represent their culture creatively. The ATP provides a structured flow for these activities, ensuring that cultural themes are woven seamlessly across subjects and grade levels.

According to Vargas et al., (2024), the integration of cultural content in curriculum design promotes intercultural competence, helping students to not only appreciate their own culture but also engage with others' cultures in a globalized world. This aligns with 21st century demands where cultural awareness and adaptability are key for thriving in diverse settings.

➤ **21st Century Skills**

The curriculum supports the development of 21st century skills through its CP, TP, and ATP frameworks. For instance:

1. **Critical Thinking:** CP emphasizes problem-solving and reflective thinking about cultural and societal issues. TP translates this into activities like analyzing historical events or evaluating the impact of cultural practices, while ATP ensures a gradual complexity in these tasks across grade levels.
2. **Creativity:** The framework fosters creativity by incorporating activities such as designing traditional crafts, writing modern adaptations of folktales, and creating multimedia presentations based on cultural heritage. These activities encourage innovative thinking while staying rooted in cultural contexts.
3. **Collaboration:** Students are encouraged to work in teams to research, present, and celebrate local culture. For example, group projects on cultural festivals or collaborative storytelling sessions can be structured within the ATP to promote teamwork and interpersonal skills.
4. **Communication:** Through culturally contextualized lessons, students practice effective communication by sharing cultural narratives, explaining traditional practices to diverse audiences, or participating in debates on cultural preservation. The curriculum's emphasis on local culture provides rich, relatable content for students to develop these skills.

➤ **Connection between Culture and 21st Century Skills**

The *Kurikulum Merdeka*'s emphasis on integrating culture aligns with global education trends that prioritize contextual learning. As highlighted by UNESCO (2022), education systems must prepare learners to be globally competent while being deeply rooted in their local identities. By embedding cultural heritage in the CP, TP, and ATP, students not only gain academic knowledge but also the skills necessary to navigate and contribute to a globalized society.

This fusion of cultural content with 21st century skills helps learners become critical thinkers and creative problem-solvers who can collaborate and communicate effectively. Additionally, by experiencing the richness of their cultural heritage, students develop a global perspective that allows them to respect and value diversity while contributing to their communities and the broader world.

In conclusion, the *Kurikulum Merdeka*, through its CP, TP, and ATP, effectively integrates culture and 21st century skills. It empowers students to celebrate their local heritage while equipping them with the competencies needed for success in a rapidly changing and interconnected world. By fostering a blend of tradition and modernity, this curriculum paves the way for holistic and future-ready education.

2.2.Relevant Research

Several studies have shown the importance of developing culturally relevant English textbooks, especially in vocational education. Handayani & Aprilliandari (2022), in a study entitled “Developing a Bangka Belitung Cultural-Based English Textbook for Tourism Vocational high school students”, found that existing teaching materials often lack local cultural content and focus more on low-level thinking skills. This is considered to be less supportive of the development of students' critical and Creative skills. This research emphasizes the need for local culture-based textbooks to create more relevant and meaningful learning.

Similar research was conducted by Inderawati et al., (2021) entitled “Needs Analysis of Vocational High School Textbook to Local Culture Materials and the 21st Century Competencies”. This study focused on vocational high school students in Palembang and showed that they need English teaching materials that are integrated with local culture and technology. In addition, the materials should be relevant to the students' field of study to support meaningful and contextualized learning. However, this study emphasizes more on analyzing students' needs through quantitative and qualitative methods rather than on developing

the final product in the form of a textbook. This is one of the differences compared to recent research, which directly focuses on developing teaching materials based on Nias culture.

In addition, Adlis et al., (2022), in a study entitled “Improving Students' Reading Skills in Understanding English Texts Using Culture-Based Text Teaching Materials”, found that the use of local culture-based teaching materials can significantly improve students' reading skills. This study also shows that local culture-based teaching materials can improve students' activeness, participation, and learning outcomes.

It can be concluded that the development of local culture-based English teaching materials has an important role in creating relevant, contextual, and meaningful learning, especially in vocational education. The integration of local culture in textbooks not only helps preserve local cultural values but also improves students' critical thinking, creative, and reading skills. In addition, these teaching materials are able to support the mastery of 21st century competencies, make learning more interesting and effective, and meet the needs of students according to their local context.

2.3. Conceptual Framework

Related to the basic competencies to be achieved in learning English material, especially about texts: based on the results of interviews and observations of researcher at SMK Negeri 1 O'o'u, English learning in schools still uses general teaching materials. This is a concern, especially for the Nias region itself which will slowly lose its identity and culture which are the characteristics of local wisdom in Nias. As a result, students are less motivated to learn and participate in maintaining and preserving the existing culture. This causes teachers and students to be less than optimal in carrying out learning activities in accordance with the objectives of the curriculum. Therefore, researcher wants to develop Nias culture-based English textbooks to solve this problem by considering relevant research and theories. It can be read extensively in the following outline.

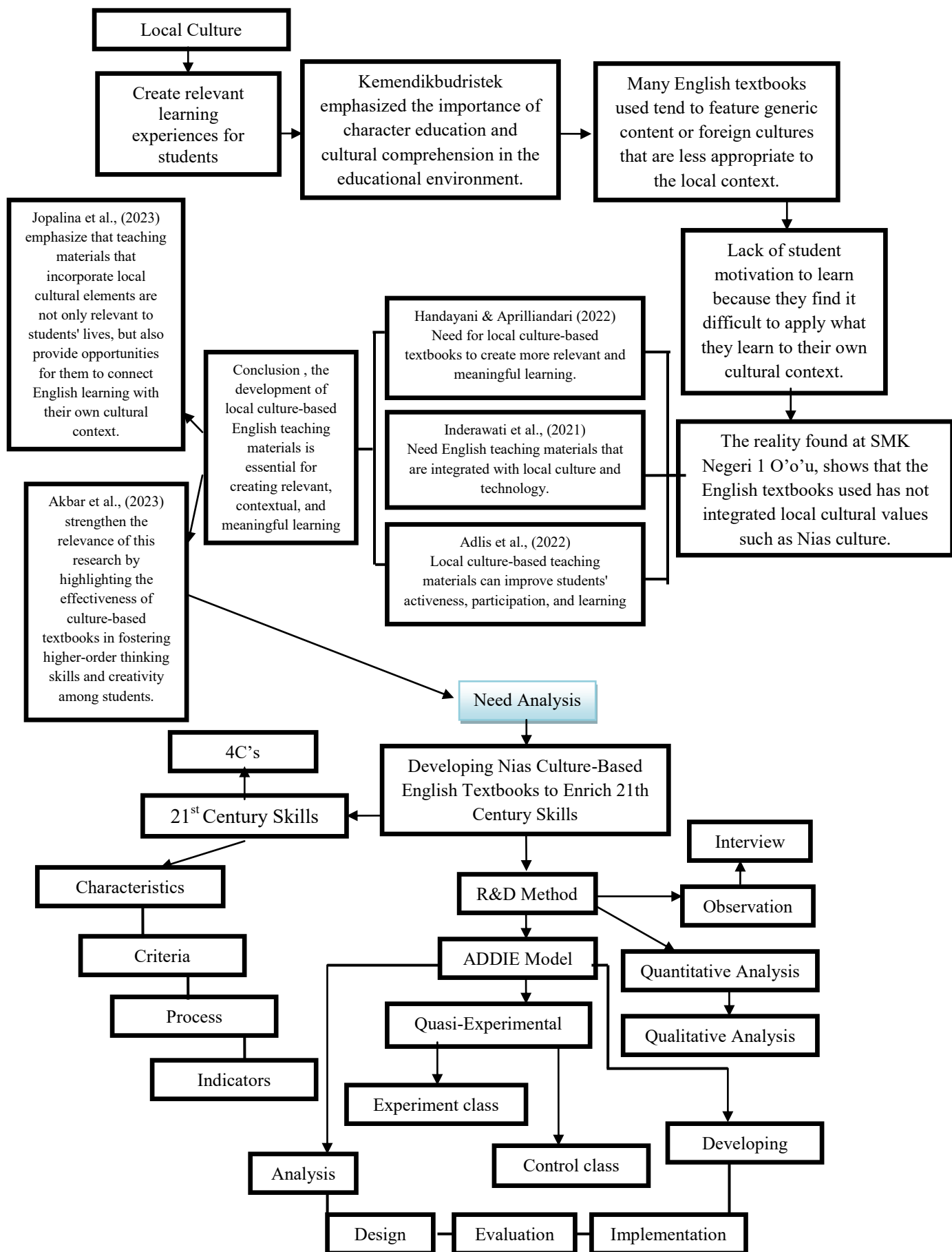


Figure 2.1 Conceptual Framework