



Investigating the Integration of Collaborative Skills and Microlearning-based English Reading Materials for Seventh Graders

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Abstract

Collaborative skills are one of the 21st-century skills that must be practiced for seventh graders in English reading materials because they are helpful in accomplishing the learning goals as the characteristics of *Kurikulum Merdeka Belajar*. However, collaborative skills have not been fully integrated into the English reading materials from the previous curriculum. Moreover, microlearning is the trend of learning method that appears in the English reading materials. This study focused on collaborative skills and microlearning in the reading activities from the English reading materials because the previous studies only focused on collaborative strategies. Thus, this study aimed to investigate the integration of collaborative skills and microlearning-based English reading materials for seventh graders. Content analysis was employed as the method of this study. The English reading materials were analyzed using a collaborative skills framework by The Cambridge Life Competencies and microlearning descriptors by Allela. The findings revealed 5 chapters consisting of 3 to 4 units, and only 4 chapters integrate with collaborative skills, there are seven indicators of collaborative skills (CS); CS 1, CS 4, CS 5, CS 6, CS 7, CS 8, and CS 10. Furthermore, seven components of microlearning (ML) are found in the English reading materials, and they are ML 3, ML 4, ML 5, ML 6, ML 7, ML8, and ML10. In brief, this enhanced understanding will help to improve projections on the outcomes of integrating microlearning and collaborative abilities with other 21st-century skills into English reading materials, leading to a more thorough integration.

Keywords: collaborative skills, micro-learning, reading skills, seventh graders

Introduction

In the 21st century, students must possess proficient skills in three key categories: learning skills, literacy skills, and life skills, in order to meet the demands placed upon them. For instance, students must acquire mastery in critical thinking, creativity, cooperation, and communication as integral components of their learning skills. Students should utilize these talents in their study materials as they will have a beneficial impact on their capacity for growth. Ahonen & Kinnunen (2014) stated that integrating 21st-century skills into teaching methods

and assessment could enhance student motivation and enjoyment of education. Larson & Miller (2012) considered it imperative to instruct students in 21st-century skills, which must not be overlooked or treated lightly due to the rapid pace of global change. Therefore, educators must equip their students with the necessary tools to thrive in the future society and workforce. In addition, Kay & Greenhill (2010) stated that 21st-century abilities are linked to five standards: content knowledge, core subjects, interdisciplinary themes, deep understanding knowledge, real-world data, and multiple assessments of proficiency. The education system has been supported by 21st-century talents, and their importance can be applied to the process of learning. The *Pancasila Profile of Kurikulum Merdeka Belajar*, in addition to promoting collaborative abilities, emphasizes two key elements: sharing and caring. The concept of collaborative skills is based on the premise that by learning from each other and sharing knowledge, no learner is left isolated during learning activities. Collaborative skills encompass a variety of essential qualities for a student's personal growth, such as interpersonal communication, problem-solving, organization, group-building, and self-evaluation. Based on this rationale, it can be deduced that the existing educational framework is in immediate need of fostering collaborative skills. These skills are essential for students to effectively navigate the requirements of the modern educational system, which emphasizes cooperation, mutual understanding, respect, responsibility, and complete tolerance. Hence, it is crucial to incorporate 21st-century abilities into the learning materials, particularly for the enhancement of the reading content.

Seventh-graders are required to enhance their reading proficiency as part of their English curriculum. According to Perfetti (2001), reading skill is an individual's position that indicates their level of reading proficiency. According to Bojovic (2010), reading is a cognitive ability that individuals can use to establish a connection with written material. According to her, Grabe (1991) stated that reading skills encompass comprehension of formal discourse structure, content and world background, automatic recognition abilities, vocabulary and structural knowledge, synthesis and evaluation procedures, metacognitive awareness, and skill monitoring. They struggle to cultivate their reading skills due to the requirement of a substantial lexicon to comprehend the content presented in the English textbook. There are two distinct categories of English language proficiency: passive skills and active skills. Passive skills encompass the ability to listen and comprehend written text, whereas active skills involve the ability to talk and write. Before effectively utilizing English, the learner must first comprehend the learning context with these four competencies. In addition, Nunan (2003) states that the acquisition and comprehension of new knowledge are facilitated by the development of listening and reading abilities. The core skills of idea generation, active listening, and critical reading are fundamental to the learning process since they enable individuals to cultivate creativity and enhance productivity. Nunan (2003) asserts that speaking and writing abilities enable individuals to articulate thoughts or emotions through oral or written means. In summary, proficiency in the English language necessitates a thorough grasp of passive abilities, such as reading comprehension. Furthermore, *Kurikulum Merdeka Belajar* offers a diverse range of English reading materials that include topics such as family, school environment, adolescent life, and worldwide challenges. Students were educated on literary materials of cultural and social aspects of life. Consequently, the reading materials designed for seventh-graders remain broad, requiring English teachers to enhance them with focused and precise themes through the use of microlearning. In addition, microlearning effectively sustains high levels of engagement by utilizing diverse media to captivate individuals. Furthermore, by utilizing personal mobile devices and programs, learners can acquire knowledge at their preferred speed and location.

Currently, young students in Indonesia must receive specialized training in developing collaborative abilities, which are considered essential in the 21st century. Proficiency in cooperation can assist individuals in fulfilling their responsibilities as learners, and the ability to collaborate can engage people in attaining educational objectives. According to Septikasari & Frasandy (2018), collaborative skills refer to the ability of students to effectively cooperate and engage with each other in a group setting, to achieve shared learning outcomes. This process is facilitated by teachers, who provide guidance and support both within and outside the classroom. Seventh-graders must possess collaborative skills to enhance their English reading skills since these skills can foster shared achievements. According to Redhana (2019), collaboration entails the ability to work efficiently and impartially with various team members, demonstrating adaptability and a readiness to make concessions to accomplish the objective. It also involves being receptive to input from all team members while engaging in collaborative endeavors. Consequently, significant acquisition of knowledge occurs, and students will appreciate the contributions made by their peers as members of a group. In addition, the teaching materials necessitate collaboration abilities since they facilitate the creation of a collaborative environment, fostering teacher-student engagement in the teaching and learning process. Dewi et al (2020) extracted a portion of Bosworth's work from 1994. Interpersonal, group, dispute resolution, inquiry, and presenting skills are all instances of collaborative skills predominantly exhibited in educational resources. However, the development of collaborative skills is given less emphasis in the training materials. Seventh-graders studying English are advised to develop their collaboration abilities. They can enhance these skills by practicing English reading materials, which will also better prepare them for the next level of learning through microlearning.

In the present era, technology plays a crucial role in the process of acquiring proficiency in the English language. Teachers have the opportunity to enhance their English proficiency, while students can freely acquire and refine their language abilities via the use of technology. Gilakjani (2017) demonstrated that technology offers abundant resources and communication avenues for educators and learners to augment their language instruction and acquisition. Abraham et al. (2022) argue that the use of ICT tools in English language instruction is crucial for enhancing professional competence by aligning with English language abilities. Microlearning is an educational technique that focuses on providing brief and concise learning experiences, often in conjunction with technology. Allela (2021) defined microlearning as the method of acquiring knowledge through structured and concise modules and brief learning activities. Mohammed et al. (2018) examined microlearning as concise units of knowledge delivered through e-learning. Microlearning is an instructional approach that utilizes technology to provide concise and compact educational material.

Furthermore, the learning objectives and activities do not adequately encompass the essential abilities required in the 21st century. To effectively include collaborative skills in reading materials, English teachers must tailor their development to meet the specific needs of their students. Additionally, the reading materials should be linked to a microlearning-based approach. Consult the *Kurikulum Merdeka Belajar*, which centers on one of the aspects of *Pancasila*, namely *bergotong-royong* (partnership). Hence, the reading skills objectives in *Kurikulum Merdeka Belajar* involve the identification and assessment of the central concept derived from various texts and can be accomplished through the utilization of collaborative skills to facilitate learners' collective efforts toward achieving reading proficiency.

Several research have been undertaken on the topic of collaborative skills. Yusof et al (2022) found that online learning involves a significant amount of interpersonal, peer learning, and collaborative activities that contribute to knowledge generation. The three abilities of peer learning, collaborative skills, and knowledge construction are positively correlated as

indicators of educational values. The results suggest that a well-designed online learning session that promotes group engagement can offer significant educational advantages. Lestari and Anugerahwati (2022) conducted a study that concluded that collaborative strategic reading (CSR) improves students' reading comprehension when they work together in small, dynamic groups. While its primary usage is in explanatory paragraphs, it can also be employed in diverse texts, concise functional printed materials, and rehearsals. In addition, the implementation of collaborative strategic reading proved beneficial in enhancing students' knowledge acquisition to comprehend the reading materials. The notes were utilized to generate text-specific inquiries, engage in a brainstorming session to assess students' existing knowledge on the topic, anticipate the information they needed to acquire from the passage, and subsequently reflect on and articulate a noteworthy insight gained from the text. Alternatively, CSR might serve as a way to instruct reading comprehension. Prior studies mostly concentrated on integrating technology into the broader context of collaboration, with a specific emphasis on using collaborative strategies to support reading instruction. Kiili et al. (2012) enhanced comprehension in collaborative online reading by identifying five distinct profiles: co-constructors, collaborators, blenders, individually oriented readers, and silent readers. While several kids favored working independently, others demonstrated greater proficiency in collaborative work. In a study conducted by Jin et al. (2019), a three-stage effective teaching strategy for collaborative academic reading was reported. The results indicated that the students effectively collaborated to create shared understanding in the second phase, adjusted their understanding at the third level, and subsequently prepared themselves for collaboration in the first phase.

Based on the aforementioned findings, it can be inferred that the frequency of collaboration skills integrated into reading materials is lower compared to collaborative reading activities. This study aimed to address the deficiency in prior research, which focused solely on creating reading materials using microlearning and including collaborative abilities. The novelty of the current study was to support collaborative skills found in the reading materials because collaborative skills are one of the characteristics in *Pancasila* Profiles, and this study used The Cambridge Life Competencies Framework for identifying collaborative skills, as well as the Microlearning Framework by Allela. Moreover, the objective of this study was to examine the integration of collaborative skills and microlearning-based English reading materials for seventh graders.

Reading Skills

Reading is the most essential ability that must be understood and applied. Reading is the cognitive skill of comprehending written material, which consists of several semantic interpretations contained within a collection of phrases. Reading allows the reader to process written content in their brain, resulting in the production of meaningful information. In addition, Brown (2000) referenced Clarke & Silberstein's (1977) discovery that reading is primarily a non-visual process, and the reader supplements the information presented on the page. Furthermore, readers achieve comprehension by categorizing ideas that are previously stored in their minds, so extending the stimulus beyond its visual representation. Reading is the cognitive process of comprehending written material by visual or tactile perception, which is then encoded in the brain's memory and subsequently interpreted with intention.

According to Pearson & Hoffman (2011), reading is a crucial skill that is cultivated through several approaches. The initial guideline is to engage in reading within an environment that promotes literacy. Consequently, it is imperative to promote reading in educational settings such as libraries, schools, and homes that possess an abundance of books. The second principle is that reading is a process of constructing meaning. This approach emphasizes the imperative nature of reading comprehension as the ultimate objective of reading. Mere word decoding is

insufficient; readers must also comprehend the significance and context of the content they are perusing. The third principle is that reading is a communal discipline. Reading is a communal pursuit that is enjoyed by numerous individuals. This concept highlights the significance of reading as a collective endeavor, as readers gain knowledge from one another and engage in discussions about different works. The fourth premise states that reading is a process of development. This idea acknowledges that readers' reading abilities enhance with time and that achieving proficiency in reading requires a range of approaches and skills. The sixth concept is reading for balance. This approach highlights the importance of achieving equilibrium in multiple aspects of reading, such as phonics, fluency, vocabulary, and comprehension. It is imperative to combine these talents to offer a comprehensive reading experience. The sixth point is that reading is a strategic process. This theory acknowledges that reading encompasses more than mere word recognition; it necessitates the application of critical thinking and interpretation. Reading is a social activity that takes place in many situations, and teachers may help students become engaged participants in the reading process by understanding this concept. The concept of reading as a developmental process recognizes that reading abilities progress gradually and are impacted by factors such as cultural heritage, motivation, and cognitive ability. This notion is crucial in facilitating children's reading progress and creating educational environments that cater to the unique traits of learners. The notion of reading as balance underscores the need for educators to aid students in cultivating an equilibrium between reading for enjoyment and reading for scholastic objectives. This idea underscores the importance of fostering a reading culture that encourages both academic achievement and personal growth. The concept of reading as a strategic activity underscores the significance of students cultivating reading techniques that facilitate their assimilation and utilization of information from the text.

Furthermore, according to Voinalovych (2014), the acquisition of reading skills is crucial for students to achieve high levels of success in their academic and professional endeavors. Promoting pupils' regular and extensive reading is crucial for enhancing their reading proficiency. Merely requiring students to read is insufficient; it is also crucial that they have a genuine interest in the material they are reading. Active readers are more inclined to comprehend and retain written content. One effective strategy to actively include children in their reading is to prompt them to respond to the text. Students can actively participate by critically analyzing their comprehension of the content, inquiring about any uncertainties, and establishing correlations with their encounters and prior knowledge. Forecasting is a crucial element of the act of interpreting written text. Proficient readers generate anticipations of forthcoming events by drawing upon their existing knowledge and the textual information at hand. This not only fosters student engagement with the reading material but also enhances their understanding of the book. Teachers could encourage students to make predictions by asking open-ended questions regarding the text or having them make reasonable guesses about the next move of a character. This can be a fun and participatory technique to keep kids interested in their reading. Good teachers make extensive use of reading texts. They adopt a range of approaches to improve kids' reading experiences. They may, for example, apply graphic organizers to assist kids in organizing their thoughts and creating connections between different areas of the text. They may also deploy discussion openers to motivate students. From the ideas above, the principles of teaching reading are rarely applied by the teachers. Some of them are not exposed explicitly by the teacher whereas they are essential to accomplish the aims of the reading.

Reading is a fundamental component of information flow from one person to another. Everyone has a different motivation for reading, but it usually has to do with learning more or finding out more. Besides, the real objective of reading is to enlarge the reader's intellectual

universe through this communication, not just simply engage oneself with it. Therefore, the objective of reading encourages the readers to increase textual comprehension, develop a larger background, expand language skills (vocabulary, grammar), and establish logical thinking.

Reading Activities

Harmer (2012) recommended reading activities that teachers must develop. The exercises involve 1) jigsaw reading, 2) information gap, 3) transfer information, 4) multiple choice test, and 5) follow-up tasks: discussion, summary, and language components explanation. Next, Ur (1991) proposed eleven reading exercises that would be good for practicing. The activities are 1) pre-question, 2) do-it-yourself questions, 3) provide a title, 4) summarize, 5) continue the story, 6) forecasting the storyline of the story, 7) fill the gap in the text, 8) discovering the flaws in the text, 9) comparing the texts/topics, 10) reacting the text (discussion), and 11) representing the material (illustrating the text, coloring, marking a map, and recording the events). To sum up, there is an abundance of reading activities that can be made by the teachers for the learners to increase their reading skills and reading comprehension when the reading materials have met good qualities.

Collaborative Skills

Collaboration is one of the 21st-century skills that must be planned and prepared for learners. They assist the learners to perform jointly and accomplish their shared goal(s). They can lead to successful things, including skills and competency for tackling 21st-century issues. Jalmo et al. (2019) underlined that collaborative skills make cooperation an interactive structure constructed in such a way as to facilitate the joint effort to attain common goals. They have evolved into necessary talents for reaching that goal. Furthermore, learners can practice collaboration abilities by tying them to learning materials and activities. To conclude, collaborative abilities can be learned by the learners through the learning materials and activities for enhancing their 21st-century talents by working together and reaping mutual benefits efficiently.

Collaborative skills affect the mutual ability of individuals who can be united to work together with others with whom they have the same objectives to generate effective results. Collaborative skills are the ability to participate in each activity to establish relationships with others via mutual respect and teamwork to reach the same aim (Rahmawati et al., 2019; Sari et al., 2018). While collaboration skills are an important part of lifelong learning, collaboration skills are also crucial since their indications reflect impersonal abilities, cooperation skills to achieve common goals, and a powerful role in a group (Dewi et al., 2020; Marzano, 2009). Thus, collaboration abilities are injected based on comparable aims by a group of people who will work together and build an efficacious project.

Collaborative abilities also encompass the perspective and the interests of the individual because such components arise in different settings. Pramudita et al. (2021) underlined that collaborative abilities encourage individuals to work together effectively, appreciate the team, and demonstrate a willingness to accept the viewpoints of others. Saenab et al. (2019) also highlighted that collaboration abilities are vital for creating a good learning process and are also necessary for the job. Lee et al, (2015) pointed out that collaborative skills are a form of social contact and a learning process that teaches members of groups how to be active and helpful in problem-solving. Therefore, collaborative skills can be learned by a group that has a similar aim, but the group must respect others' points of view to reach the shared goal.

Collaborative Skills Framework

Collaborative skills have a framework that helps users understand what they need to know to build their competency. The framework will inform the user how to interact effectively in groups by actively participating in group activities, listening to others, sharing tasks, and resolving conflicts. Based on The Cambridge Life Competencies Framework for Collaboration (2020), collaboration has four core elements, as described below:

1. The ability to actively participate in group activities by assuming a variety of roles, to share one's ideas with others freely, and to show a willingness to explain one's contributions when necessary are all examples of taking personal responsibility for one's contribution to a group task.

2. Promoting good group interaction demands a learner's capacity to pay close attention to others and accept their viewpoints, even when they differ from their own. Thus, students may work in groups efficiently, offer helpful feedback, as well as present their solutions and thoughts in a way that improves the group's completion of the assignment. Additionally, it comprises teams building efficient collaboration tactics and supporting one another.

3. The ability to distinguish tasks and subtasks in a group activity and properly divide them among group members is referred to as "managing the sharing of tasks in a group activity."

4. A learner's capacity to monitor the group's progress toward its objectives is connected to working toward task completion. This can require examining several choices and points of view during a group activity and identifying the best option for resolving the assignment. It also requires recognizing and effectively resolving difficulties that can happen throughout the task.

Table 1. The Cambridge Life Competencies Framework Collaboration (2020)

Core Areas	Components	Example Can Do Statements
Taking personal responsibility for own contribution to a group task	Taking on different roles	Makes relevant suggestions based on the current topic of conversation.
	Actively contributing to ask	Volunteers to take on a specific role.
Encouraging effective group interaction	Listening and responding respectfully	Respectfully waits for their turn to speak.
	Establishing ways of working together	Sets expectations of how long each group member should take on their task.
	Engaging and supporting others	Helps other students put their ideas across (e.g. by rephrasing their ideas or giving examples)
Managing the sharing of tasks in a group activity	Agreeing what needs to be done	Clearly explains the requirements of the task, asking other students for clarification when necessary.
	Managing the distribution of tasks	Delegates to other students politely and respectfully
Working towards task completion	Ensuring progress towards a goal	Encourages other students to stay on task.
	Identifying issues and challenges	Identifies the reasons for disagreement.
	Resolving issues	Encourages other students to agree on a solution after a negotiation.

However, the collaborative framework's elaboration seems difficult. It needs succinct points that represent the key information about the collaboration framework inside the components of the core areas. The table above describes the collaboration framework. It gives the actions inside the core components that imply further evidence and various relevant expressions at the secondary level. In addition, seventh-graders are at the earlier level of secondary, which means they passed the elementary one if they had already exercised teamwork in learning before. Overall, essential areas and their components of the collaboration skills will be integrated into the reading activities, especially they will be exposed in the selected reading stages by delivering the modified 'can do' statements as the reading instructions in the reading material scripts.

Microlearning

Microlearning is a learning approach that comprises a tiny course of short learning topics and assignments. Hug (2010) was acknowledged by Semingson, et al. (2015), yet microlearning is a much more recent notion that might have something to do with the theme of mobile learning. Microlearning, according to Allela (2021), is the process of learning using condensed, thoroughly thought-out modules and quick learning tasks. Additionally, she noted that targeted learning pieces, also known as microlearning, are typically no longer than seven minutes and ought to last no more than two to five minutes. Major & Calandrino (2018) defined the term "microlearning" which also refers to any pedagogy that encourages learning in small bursts and may be supported across several platforms. Throughout this time in the classroom, it should help the student to reach a given target or goal. Microlearning is focused on small-unit learning that helps students to finish a task quickly and efficiently. It can be distributed through podcasts, infographics, interactive films, interactive PDFs, animations, and many more media.

Next, microlearning descriptors should be applied when producing materials with a microlearning focus to improve efficient teaching and learning in the classroom or other contexts. The descriptions of microlearning presented by various specialists are mentioned below. However, these descriptions must be used in line with the criteria of the pupils' proficiency. Scholars have varied aspects and descriptors of microlearning. However, the writer shortened the descriptors to design and develop learning materials successfully and the descriptions are presented in the table below.

Table 2. Adopted Microlearning Descriptor by Allela (2021); De Gagne et al (2019); and Hug (2010)

Aspects	Descriptors
Learning Materials	• The materials are broken down into small units with specific topics. • The materials are focused on a single objective. • The duration of the materials is from 2-10 minutes. • The materials are easy to access and understand. • The materials are using electronic media and the internet. • The learning media are video, self-paced e-learning, visuals, podcasts or audio, and messaging with short durations.
Learning Activity	• Work individually, in pairs, and groups in any place. • Assessment: small quizzes, review content, and other short activities. • Assignment.

Therefore, microlearning descriptors show the specific criteria that assist the user in mastering pedagogy competencies.

Method

This study employed content analysis because it aimed to investigate the integration of collaborative skills and microlearning-based English reading materials for seventh graders. According to Schreier (2012), qualitative content analysis is one of the numerous qualitative methodologies available for evaluating data and understanding its importance. In addition, Stemler (2021) asserted that analyzing trends and patterns in texts can be a benefit of content analysis.

This study used the reading instructions that indicated collaborative skills, and microlearning descriptors as the data. Furthermore, the data were analyzed by using the collaborative skills framework by The Cambridge Life Competencies Framework (2020) and microlearning descriptors by Allela (2021), De Gagne et al (2019), and Hug (2010). To ease the investigation, this study displayed the framework and descriptors using codes in the table below.

Table 3. The Cambridge Life Competencies Framework Collaboration (2020)

Core Areas	Components	Example Can Do Statements	Code of Collaboration Skills (CS)
Taking personal responsibility for own contribution to a group task	Taking on different roles	Makes relevant suggestions based on the current topic of conversation.	CS 1
	Actively contributing to ask	Volunteers to take on a specific role.	CS 2
Encouraging effective group interaction	Listening and responding respectfully	Respectfully waits for their turn to speak.	CS 3
	Establishing ways of working together	Sets expectations of how long each group member should take on their task.	CS 4
	Engaging and supporting others	Helps other students put their ideas across (e.g. by rephrasing their ideas or giving examples)	CS 5
Managing the sharing of tasks in a group activity	Agreeing what needs to be done	Clearly explains the requirements of the task, asking other students for clarification when necessary.	CS 6
	Managing the distribution of tasks	Delegates to other students politely and respectfully	CS 7
Working towards task completion	Ensuring progress towards a goal	Encourages other students to stay on task.	CS 8
	Identifying issues and challenges	Identifies the reasons for disagreement.	CS 9
	Resolving issues	Encourages other students to agree on a solution after a negotiation.	CS 10

Conversely, fostering collaborative skills in the language classroom facilitates the growth of not only linguistic abilities but also essential teamwork and personal development

attributes. Students who are motivated to collaborate will provide mutual assistance and achieve their educational objectives. This fosters genuine and authentic conversation. As students see the significance of their contributions to their team and foster connections by supporting each other's academic development, their self-esteem may increase. In addition, the work explores the subject collaboratively, enhancing the story by attentively questioning each other's perspectives, and refining the language through iterative crafting, resulting in a multifaceted tapestry of argument. Collaborators exchange conflicting ideas; they vie to steer the narrative in individual directions that undermine and complicate it; they create a fragmented composition. Consequently, the ability to work together on reading activities provides a chance to enhance additional skills.

Table 4. Adopted Microlearning Descriptors by Allela (2021); De Gagne et al (2019); and Hug (2010)

Microlearning Aspects	Indicators	Code of Microlearning (ML)
Learning Materials	- The materials are broken down into a single topic (small unit)	ML 1
	- The materials are designed for a short time (2-5 minutes, Allela, 2021; few seconds to 15 minutes, De Gagne 2019)	ML 2
	- The materials contents are provided at the moment of need	ML 3
	- The materials are based on the school's curriculum	ML 4
	- The materials are broken down into certain skills	ML 5
	- The materials make use of technology	ML 6
	- The materials are incorporated with a variety of media	ML 7
Learning Styles	- Students are involved in the learning process	ML 8
	- Students spend little time learning the materials	ML 9
	- Assessment: writing assessment, peer and group assessment, review content, and other short activities.	ML 10

The table above displays ten classifications that cover the areas of instructional materials and learning styles. These codes serve as research instruments for assessing the extent of microlearning in the existing English reading materials.

Results and Discussions

The findings of this study are illustrated in the following tables. These tables showed collaborative skills and microlearning that were found in the English reading activities and English reading materials of seventh graders and the English book entitled English for Nusantara.

Table 5. An Overview of Collaborative Skills in the Existing English Reading Instructions in English for Nusantara Book (2022)

Book's Chapter	Book's Unit	Collaborative skills indicators found	Phrases or words or sentences	Justification
1	2	CS1, CS4	Instruksi pada Buku Siswa: b. Work with a classmate to complete Worksheet 1.15. Instruksi untuk guru: Guru meminta peserta didik mengisi Worksheet 1.15 sesuai dengan teks dan gambar sebelumnya. Bahasa guru: "Now, take a look at Worksheet 1.15. Please work with your friend to complete worksheet 1.15 based on the pictures and descriptions above." section 4: reading	In Unit 2 of Chapter 1, Section 4, the reading states the collaborative skills. The instruction refers to working together and contributing to the establishment of working together for an assignment.
	2	CS1, CS2, CS3, CS7	Enrichment: Miming and Guessing a Hobby Instruksi pada Buku Siswa: a. Think of a kind of hobby. Act it out. b. Let your friends guess your hobby. Instruksi untuk guru: 1. Guru meminta peserta didik untuk memikirkan salah satu hobi. 2. Guru meminta peserta didik untuk memperagakan hobi mereka tersebut. 3. Guru meminta peserta didik yang lain untuk menebak hobi yang sedang diperagakan oleh salah satu peserta didik. Bahasa guru: section 6: your turn: reading	In Unit 2 of Chapter 1, Section 6, your turn reading states the collaborative skills. The instruction refers to asking a person to guess another person's hobby by listening and responding respectfully. It also refers to helping other people express their ideas.
2	2	CS1, CS5, CS6, CS8	Section 3 – Reading Instruksi pada Buku Siswa: a. Discuss with a friend. Read the shopping list. Guess what kind of cake Monita is making. Instruksi untuk guru: Guru meminta peserta didik untuk membaca daftar belanjaan Monita dan menebak kue apa yang akan Monita buat berdasarkan daftar belanjanya. Bahasa guru: "Here's Monita's shopping list. What should Monita buy?" "From what Monita bought, can you guess what she will make with those ingredients?"	In Unit 2 of Chapter 2, Section 3, the reading states collaborative skills. The instruction refers to contributing to each other by expressing and agreeing on their ideas to encourage the discussion.

Book's Chapter	Book's Unit	Collaborative skills indicators found	Phrases or words or sentences	Justification
	2	CS1, CS4, CS5, CS8, CS10	Section 4 – Your Turn: Reading Instruksi pada Buku Siswa: Work with a classmate. Mind map the texts below. See the Wordbox. Instruksi untuk guru: 1. Guru meminta peserta didik untuk membaca teks yang tersedia tentang dua makanan favorit. 2. Guru meminta peserta didik untuk mengisi semantic web sesuai dengan teks yang telah dibaca. Bahasa guru: <i>"Please read both of the text and do the task in Worksheet 2.16 with your group. Answer all the bubbles based on the second text which talk about rujak. As for the example, you can see the previous bubbles that have been answered for you."</i> 	In Unit 2 of Chapter 2, Section 4, your turn reading states collaborative skills. The instruction refers to working together by supporting and encouraging others to stay and encourage the task.
	3	CS1, CS5, CS6, CS8	Instruksi pada Buku Siswa: b. Work with a friend and answer the following questions. Instruksi untuk guru: Guru meminta peserta didik untuk mengisi Worksheet 2.21 dengan temannya. Bahasa guru: <i>"Please work in pairs and answer the questions on the Worksheet 2.21."</i> Instruksi pada Buku Siswa: c. Discuss with your friend to write the cooking steps. Instruksi untuk guru: 1. Guru meminta peserta didik untuk membuka Worksheet 2.23. 2. Guru meminta peserta didik untuk menuliskan langkah langkah membuat bubur instan. Bahasa guru: <i>"After you and your friend answer the Worksheet 2.22, you have to write the steps on how to make an instant bubur. Write the steps of making instant bubur on the Worksheet 2.23."</i> Section 3: reading	In Unit 3 of Chapter 2, Section 3, the reading states collaborative skills. The instruction refers to sharing ideas with others by agreeing on the ideas for completing the task.
3	2	CS1, CS4	Instruksi pada Buku Siswa: d. Work with your friend. Put a check mark in the table below based on the text above. Instruksi untuk guru: 1. Guru meminta peserta didik untuk berdiskusi dengan temannya untuk melengkapi tabel pada Worksheet 3.14. 2. Peserta didik diminta untuk membaca kembali teks 'Let's Clean Up!'. Sebagai contoh, pada paragraf 1, kalimat ke 2 berisi informasi bahwa seluruh anggota keluarga Pak Rahmasyah membereskan tempat tidur mereka setiap hari, maka pada tabel, peserta didik dapat memberikan tanda centang pada semua kolom hari yang tersedia. Section 2: reading	In Unit 2 of Chapter 3, Section 2, the reading states collaborative skills. The instruction refers to cooperating and making a contribution to the development of teamwork for a task.
4	1	CS1, CS4, CS5, CS8, CS10	Instruksi pada Buku Siswa: c. Work in a group of four. Practice describing your class schedule based on the following situations. 1) Every week you have Maths on Monday and Wednesday. 2) You have English on Tuesday at 10:20 and on Thursday at 08:40. 3) You don't have Guidance and Counselling on Thursday. You have it on Friday. Instruksi untuk guru: 1. Guru meminta peserta didik untuk bekerja dalam kelompok yang terdiri dari empat orang untuk mendeskripsikan jadwal kelas secara bergantian sesuai dengan situasi yang sudah disediakan. Section 6: language focus	In Unit 1 of Chapter 4, Section 6 the language focus states collaborative skills. The instruction speaks about collaborating through supporting and motivating others to continue and advance the endeavor.

Book's Chapter	Book's Unit	Collaborative skills indicators found	Phrases or words or sentences	Justification
5	2	No data found	Section 5 – Reading Instruksi pada Buku Siswa: a. Read the text 'SMP Merdeka Basketball Club'. SMP Merdeka Basketball Club Galang joins an extracurricular activity this semester. He is in SMP Merdeka basketball club. The name of the club is Eagle Merdeka Basketball. Their first uniform is red and their second uniform is white. The mascot of the team is an eagle. More than 30 students are in the club. The members of the club always practice once a week with their coach. The coach calls the members of the club as eagles. The eagles always practice on Wednesdays at 3 PM at the school yard. Eagle Merdeka Basketball club will join a tournament next month in Banjarbaru. They are looking for new players to join the tournament from seventh grader students. The selection for the new players is next week. Instruksi pada Buku Siswa: b. Choose the correct answer based on the text 'SMP Merdeka Basketball Club'.	-
		No data found	Section 6 – Your Turn: Reading Instruksi pada Buku Siswa: a. Read the text 'Pipit Likes Pencak Silat'. See the Wordbox. 242 Buku Panduan Guru English for Nusantara untuk SMP/MTs Kelas VII Instruksi untuk guru: Guru meminta peserta didik membaca dan memahami teks. Bantuan memahami teks diberikan seminimal mungkin.	-

The data indicates that among the 5 chapters consisting of 3 to 4 units, only 4 chapters incorporate English reading materials together with collaboration abilities. CS 1, CS 2, CS 3, CS 4, and CS 7 are the main signs that dominate Chapter 1 and Unit 2. In the next sections, specifically Chapter 2 and Unit 2, the courses CS 1, CS 4, CS 5, CS 6, CS 8, and CS 10 are mentioned. In Chapter 3 and Unit 2, two indications are present: CS 1 and CS 4. In Chapter 4 and Unit 1, there are only five indicators: CS 1, CS 4, CS 5, CS 8, and CS 10. In Chapter 5 of the 3 units, the reading materials do not include any evidence of collaborative skills. Furthermore, the primary reading activities are designed to promote group interaction, provide effective task sharing within the group, and successfully manage work to achieve the reading activity goals. Furthermore, the most commonly observed signs are CS 1 and CS 4, whereas the indicators for the highest level of collaboration skills are CS 5, CS 6, CS 7, CS 8, and CS 10. In summary, there are a total of 4 chapters, each consisting of 7 lessons, that incorporate collaborative abilities.

Furthermore, the aforementioned reading assignments, which include collaborative abilities, highlight the fundamental principles of sharing and caring. The core principle

underlying collaborative skills is to ensure that every student is actively engaged and supported during learning activities, without any student being left isolated. This is achieved through mutual learning and knowledge exchange. Furthermore, the development of a student's character relies on a range of attributes referred to as collaborative skills, including the ability to engage in interpersonal communication, problem-solving proficiency, organizational and group-building aptitude, and the ability to engage in self-evaluation. This argument proposes that the existing educational model is in urgent need of developing collaborative abilities by prioritizing collaboration with mutual understanding, respect, accountability, and full tolerance. These talents can help pupils fulfill the demands of the 21st-century educational system.

Besides, this section examines the evaluation of microlearning elements in the current English reading materials. Additionally, the concept of microlearning is discussed in the works of Allela (2021), De Gagne (2019), and Hug (2014). Table 6 presents data about the microlearning elements of the current English reading materials.

Table 6. An Overview of Microlearning in the Existing English Reading Materials in English for Nusantara Book (2022)

Microlearn ing Aspects	Microlearning Indicators	Code	Data	Justification
Learning Materials	The materials are broken down into a single topic (small unit)	ML 1	No data found	-
	The materials are designed for a short time (2-5 minutes, Allela, 2021; few seconds to 15 minutes, De Gagne 2019)	ML 2	No data found	-
	The materials contents are provided at the moment of need	ML 3	Instruksi untuk guru: 1. Peserta didik akan diajak mempelajari kosakata mengenai kebiasaan belajar yang efektif dengan bantuan gambar. 2. Peserta didik mengidentifikasi karakter Monita yang memiliki kebiasaan belajar yang efektif. Setelah memahami kosakata terkait, peserta didik melengkapi teks tentang Monita. 3. Peserta didik secara implisit belajar mengenai struktur teks deskriptif melalui teks tentang kebiasaan belajar Monita.	Based on the instruction, the activity claims that students' learning habits are relevant to their daily routines.
	The materials are based on the school's curriculum	ML4	Section 6 – Your Turn: Reading Instruksi pada Buku Siswa: a. Read about Pak Edo's Hobby. See the Wordbox. Pak Edo's Hobby Pak Edo's hobby is cycling. He goes cycling every morning. Pak Edo always wears a helmet, a t-shirt, shorts, and shoes when he goes cycling. He never forgets to bring his bottle. Pak Edo sometimes goes cycling with his wife and children. They ride their bicycles together on weekends. Their favorite place for cycling is the park. They like cycling at the park because the air is very fresh. Pak Edo likes cycling because it can make him healthy. Cycling makes immune cells more active. Cycling is also good for the environment because it does not release pollution.	Based on the instruction, the material is derived from the curriculum (KMB), which discusses people's hobbies.

Microlearn ing Aspects	Microlearning Indicators	Code	Data	Justification																																																												
	The materials are broken down into certain skills	ML 5	Scope and Sequence <table><thead><tr><th>Functions</th><th>Language Features</th><th>Listening</th><th>Speaking</th><th>Reading</th><th>Writing</th></tr></thead><tbody><tr><td colspan="6">Chapter 0. The Beginning</td></tr><tr><td>Learn alphabets, numbers, time, family members, colors, and simple instructions to use in context.</td><td>Preposition: in, on with dates</td><td>Listen to alphabets, numbers, time, family members, colors, and simple instructions in context</td><td>Say alphabets, numbers, time, family members, colors, and simple instructions in context</td><td>Read and spell alphabets, numbers, time, family members, colors, and simple instructions in context</td><td>Write alphabets, numbers, time, family members, colors, and simple instructions in context</td></tr><tr><td colspan="6">Chapter 1. About Me</td></tr><tr><td colspan="6">Unit 1. Golang from Kalimantan</td></tr><tr><td>Greet people and say goodbye</td><td>Verbs: be affirmative, negative, interrogative, short answers</td><td>Listen to monologues and conversations for introducing one's self and others</td><td>Practice and demonstrate a monologue and a conversation for introducing one's self and others</td><td>Read a text for specific information about personal identity</td><td>Write specific information about personal identity</td></tr><tr><td colspan="6">Unit 2. I Love Fishing</td></tr><tr><td>Introduce one's self and other people</td><td>Vocabulary: name, age, school, address, hobby, and sibling</td><td></td><td>Do a survey to ask for and give personal information</td><td></td><td></td></tr><tr><td>Introduce others</td><td>Verbs: be affirmative, negative, interrogative, short answers, use pronoun: singular and plural</td><td>Listen to monologues and dialogues about describing hobbies</td><td>Practice and demonstrate the expressions learned in context</td><td>Read descriptions in context</td><td>Write specific information based on the spoken and written texts</td></tr><tr><td>Describe hobbies</td><td>Vocabulary: name, hobby, frequency, tools</td><td></td><td></td><td></td><td></td></tr></tbody></table>	Functions	Language Features	Listening	Speaking	Reading	Writing	Chapter 0. The Beginning						Learn alphabets, numbers, time, family members, colors, and simple instructions to use in context.	Preposition: in, on with dates	Listen to alphabets, numbers, time, family members, colors, and simple instructions in context	Say alphabets, numbers, time, family members, colors, and simple instructions in context	Read and spell alphabets, numbers, time, family members, colors, and simple instructions in context	Write alphabets, numbers, time, family members, colors, and simple instructions in context	Chapter 1. About Me						Unit 1. Golang from Kalimantan						Greet people and say goodbye	Verbs: be affirmative, negative, interrogative, short answers	Listen to monologues and conversations for introducing one's self and others	Practice and demonstrate a monologue and a conversation for introducing one's self and others	Read a text for specific information about personal identity	Write specific information about personal identity	Unit 2. I Love Fishing						Introduce one's self and other people	Vocabulary: name, age, school, address, hobby, and sibling		Do a survey to ask for and give personal information			Introduce others	Verbs: be affirmative, negative, interrogative, short answers, use pronoun: singular and plural	Listen to monologues and dialogues about describing hobbies	Practice and demonstrate the expressions learned in context	Read descriptions in context	Write specific information based on the spoken and written texts	Describe hobbies	Vocabulary: name, hobby, frequency, tools					Based on the table, certain skills are introduced earlier. There are 5 skills, language focus (vocabulary or grammar), listening, speaking, reading, and writing.
Functions	Language Features	Listening	Speaking	Reading	Writing																																																											
Chapter 0. The Beginning																																																																
Learn alphabets, numbers, time, family members, colors, and simple instructions to use in context.	Preposition: in, on with dates	Listen to alphabets, numbers, time, family members, colors, and simple instructions in context	Say alphabets, numbers, time, family members, colors, and simple instructions in context	Read and spell alphabets, numbers, time, family members, colors, and simple instructions in context	Write alphabets, numbers, time, family members, colors, and simple instructions in context																																																											
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Describe hobbies	Vocabulary: name, hobby, frequency, tools																																																															
	The materials make use of technology	ML 6	Worksheet Link Audio Link	Two QR codes were found in the English for Nusantara textbook. Besides, some links refer to certain skills as learning sources.																																																												

Microlearn ing Aspects	Microlearning Indicators	Code	Data	Justification
	The materials are incorporated with a variety of media	ML 7	Section 6 – Your Turn: Reading and Viewing Instruksi pada Buku Siswa: a. Ibu Ayu asks her students to make an infographic to show their learning tips. Here are the infographics made by Galang and Andre. Read their infographics. See the Wordbox. Instruksi untuk guru: Guru meminta Peserta didik untuk mencermati dan membaca dua buah infografik yang disajikan. Guru juga dapat mengajak peserta didik untuk mendiskusikan kata-kata sulit yang ditemukan pada kedua infografik tersebut. Enrichment: Making Poster for School Event Instruksi untuk guru: 1. Pada bagian ini, guru meminta peserta didik untuk bekerja dalam kelompok. 2. Guru dapat memberikan instruksi secara bertahap. bahasa guru: "Let's make a poster for a school event."	Based on the pictures besides, the media are only mentioned not displayed. The media are infographics and posters.
Learning Styles	Students are involved in the learning process	ML 8	Instruksi pada Buku Siswa: c. Work in a group of four. Practice describing your class schedule based on the following situations. 1) Every week you have Maths on Monday and Wednesday. 2) You have English on Tuesday at 10:20 and on Thursday at 08:40. 3) You don't have Guidance and Counselling on Thursday. You have it on Friday.	Some activities and instructions require the students to participate in learning activities.
	Students spend little time to learn the materials	ML 9	No data found	-

Microlearn ing Aspects	Microlearning Indicators	Code	Data	Justification																				
	Assessment: writing assessment, peer and group assessment, review content, and other short activities.	ML 10	Instruksi pada Buku Siswa: b. Work with a classmate to complete Worksheet 1.15. Instruksi untuk guru: Guru meminta peserta didik mengisi Worksheet 1.15 sesuai dengan teks dan gambar sebelumnya. Bahasa guru: <i>"Now, take a look at Worksheet 1.15. Please work with your friend to complete worksheet 1.15 based on the pictures and descriptions above."</i> Jawaban Worksheet 1.15 <table><tr><th>Name</th><th>Hobby</th><th>Frequency</th><th>Tools Needed</th></tr><tr><td>Galang</td><td>Fishing</td><td>Once a week</td><td>Fishing rod, bucket, and a fishing net</td></tr><tr><td>Monita</td><td>Reading novels</td><td>Twice a week</td><td>Novels</td></tr><tr><td>Andre</td><td>Mobile gaming</td><td>Every weekend</td><td>Smart phone and internet connection</td></tr><tr><td>Ibu Posma and Sinta</td><td>Playing badminton</td><td>Sunday morning</td><td>Rackets and shuttlecock</td></tr></table>	Name	Hobby	Frequency	Tools Needed	Galang	Fishing	Once a week	Fishing rod, bucket, and a fishing net	Monita	Reading novels	Twice a week	Novels	Andre	Mobile gaming	Every weekend	Smart phone and internet connection	Ibu Posma and Sinta	Playing badminton	Sunday morning	Rackets and shuttlecock	From the figure, it represents a pair assessment that instructs the students to review the content.
Name	Hobby	Frequency	Tools Needed																					
Galang	Fishing	Once a week	Fishing rod, bucket, and a fishing net																					
Monita	Reading novels	Twice a week	Novels																					
Andre	Mobile gaming	Every weekend	Smart phone and internet connection																					
Ibu Posma and Sinta	Playing badminton	Sunday morning	Rackets and shuttlecock																					

The analysis revealed that the English reading materials from the textbook were incorporated into various microlearning components. These components included providing the material when it is needed (ML3), using curriculum-based resources (ML4), breaking down the material into specific skills (ML5), utilizing technology (ML6), incorporating different types of media (ML7), involving students in the learning process (ML9), peer and group assessment, and reviewing content (ML10). Nevertheless, the materials are divided into discrete topics (referred to as small units) (ML1), the materials are specifically tailored for a brief duration (ML2), and students allocate minimal time to acquire knowledge from the resources (ML9). Ultimately, the English reading materials from the English for Nusantara textbook have been combined with seven specific components of microlearning: ML3, ML4, ML5, ML6, ML7, ML8, and ML10.

The ML3 sign asserts that materials are supplied when they are required, and the instruction acknowledges that students' learning habits are connected to their everyday schedule. Evidence has shown that it is beneficial to engage students in discussions on learning habits using English reading materials. Furthermore, the ML4 signal specifies that the contents are derived from the school's curriculum, specifically known as Kurikulum Merdeka Belajar. The school's curriculum primarily focuses on topics related to identity, family, and the school's surroundings. The ML5 indicator categorizes the materials based on specific talents and comprehensively organizes them. As this research specifically targets English reading skills, the materials also cover language-related subjects such as grammar and vocabulary. In addition, the ML6 signal indicates that the materials utilize technology, while the ML7 indicator highlights that the materials are integrated with various forms of media. These two signs suggest that certain English reading materials and activities are developed utilizing commonly used media formats like infographics, posters, and figures, and are also technology-driven, incorporating elements like QR Codes. The ML8 indicator and ML10 are connected to students' engagement in the learning process and evaluation of their learning. This is achieved through group discussions that focus on reviewing the content of English reading materials.

The examination of microlearning in the English reading materials of seventh-graders must be expanded to include ten indicators to account for the three missing indications. Meaningful English reading materials can be created by incorporating subtopics, minimizing learning time, and utilizing diverse interactive technologies for both the materials and activities. Hence, the author utilized the information obtained from the demand analysis as a

blueprint for creating the scripts and constructing learning objects for the English reading materials based on micro-learning, which incorporated collaborative capabilities.

Moreover, the reading exercise instructions, which are divided into four chapters and seven modules, showcase the collaborative skills analysis as per The Cambridge Life Competencies Framework. The reading activities incorporated various elements of collaborative skills, including CS 1 (actively contributing to a task), CS 2 (assuming different roles), CS 3 (listening and responding respectfully), CS 4 (establishing collaborative methods), CS 5 (engaging and supporting others), CS 6 (reaching consensus on tasks), CS 7 (managing task allocation), CS 8 (ensuring progress towards a goal), and CS 10 (resolving conflicts). However, CS 9 (identifying issues and challenges) was not addressed in the reading activities. In CS 1, CS 2, CS 3, and CS 4, the reading activities involve collaborative exercises where students are prompted to speculate and deliberate about certain subjects, such as interests and schedules. Subsequently, CS 5, CS 6, CS 7, CS 8, and CS 10 are showcased as tools for overseeing and collaborating in reading exercises, such as guiding pupils to engage in discussions to generate a mind map. The existing English reading materials incorporate collaborative skills features, which are then emphasized in the reading training. The present study's findings align with the research conducted by Septikasari & Frasandy (2018), which indicated that collaborative skills refer to the aptitude of students to effectively cooperate in group settings, facilitating shared learning through social interaction. This collaboration is monitored by teachers, both within and beyond the classroom environment. Yusof et al. (2022) highlighted that engaging in collaborative activities that contribute to knowledge development, a significant aspect of group participation might yield valuable educational advantages. However, Lestari & Anugerahwati (2022) argued that the use of collaborative strategy in reading comprehension entails the formation of small, dynamic groups. They emphasized that collaborative strategic reading serves as a valuable alternative approach to teaching reading comprehension. The collaborative skills analysis conducted in the reading instructions revealed nine components (CS 1, CS 2, CS 3, CS 4, CS 5, CS 6, CS 7, CS 8, and CS 10). These skills, along with findings from two prior research, aim to enhance reading activities for both teachers and students.

Similarly, the assessment of microlearning indicators based on the available English reading resources revealed a total of seven indications. They were present in the reading activities and materials. The reading activities in microlearning are indicated by ML 3 (providing resources as needed), ML 4 (materials aligned with the curriculum), ML 8 (student engagement in the learning process), and ML 10 (peer and group evaluation activities). Conversely, ML 5 (materials are divided into specific skills), ML 6 (materials utilize technology), and ML 7 (materials include different media) are incorporated into the reading materials. Remarkably, this study revealed that the microlearning indicators are largely addressed in the current English reading materials found in the English for Nusantara textbook, except for three indicators (ML 1, ML 2, and ML 9) which are not incorporated. This study corroborated Gilakjani's (2017) discovery that technology offers a plethora of resources and communication avenues for educators and learners to enhance language instruction and acquisition. His views supported the utilization of technology, namely ML 6 (materials employing technology). In line with this, Abraham et al. (2022) depicted English language competency and the use of ICT technologies for English instruction as crucial factors in developing professional expertise. Choiriyah, Mayuni, and Dhieni (2022) have verified that the combination of multimedia-based learning and audio-visual learning can be advantageous for learners by enhancing the interaction between instructional technology and material. This study has demonstrated the use of over three media platforms to present reading materials that are technology-based. The outcome of microlearning analysis is ultimately included in the reading

activities and materials. Three relevant research have documented the impact of technology and media on the teaching and learning process.

Conclusion

This study focused on investigating the integration of collaborative skills and microlearning-based English reading materials for seventh graders. The existing English reading materials come from English for Nusantara which was created based on Kurikulum Merdeka Belajar. Besides, this study revealed two major findings related to collaborative skills in the English reading activities and microlearning in the English reading materials.

The study revealed that among the 5 chapters consisting of 3 to 4 units, only 4 chapters used English reading materials with collaborative abilities, totaling 7 units. The markers CS 1, CS 2, CS 3, CS 4, and CS 7 are the most prevalent in Chapter 1 and Unit 2. In Chapter 2 and Units 2 and 3, the following courses are referenced: CS 1, CS 4, CS 5, CS 6, CS 8, and CS 10. CS 1 and CS 4 are located in Chapter 3 and Unit 2, but Chapter 4 and Unit 1 contain only five indicators: CS 1, CS 4, CS 5, CS 8, and CS 10. Chapter 5 from the first three modules does not provide any proof of collaborative skills. The most significant signals of collaborative skills were observed at CS 5, CS 6, CS 7, CS 8, and CS 10, while the most commonly occurring markers were CS 1 and CS 4. There are a total of four chapters, each consisting of seven modules, which encompass collaboration skills.

In addition, the seven components of microlearning (ML3, ML4, ML5, ML6, ML7, ML8, and ML10) have been integrated with the existing English reading materials found in the English for Nusantara textbook. In summary, the textbook contains four chapters, each consisting of seven lessons that aim to enhance collaboration skills and incorporate seven features of microlearning characteristics.

This newfound comprehension will aid in improving predictions on the effects of incorporating collaborative skills and microlearning, as well as other 21st-century skills, into English reading materials, resulting in a more comprehensive integration of the descriptors. Consequently, the writer urged prospective scholars to conduct further investigations into other courses about these themes.

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