

CHAPTER 1

INTRODUCTION

1.1. Background of the Study

In today's quickly changing educational setting, literacy is no longer defined as the ability to read and write in printed text. However, in response to the needs of the 21st century, literacy has grown into a more comprehensive process of meaning-making. People need to develop abilities over specific skills to live in a globalized and interconnected world. Students are now expected to use a variety of communication forms, including digital, visual, and other multimodal texts, to interpret and create meaning (Andriyati et al., 2025). This shift is particularly important in higher education because students frequently interact with complex digital platforms, multimedia content, and interactive interfaces. In these kinds of contexts, multiliterate people are crucial in promoting critical thinking and enhancing academic achievement. Therefore, to assist students in navigating and using a variety of communication modes in today's environment, modern teaching methods need to adopt a multiliteracies approach (Wang & Li, 2022). This approach is important because it shifts the learning process to the active building of knowledge, where students are encouraged to collaboratively engage with a variety of digital and cultural resources to solve difficult issues, rather than only being passive students (Huot et al., 2025).

Content-Based Instruction (CBI) is a pedagogical approach that integrates language learning with meaningful subject matter and content learning (Wesche, 2012). In CBI, students use the target language as a means of accessing and

engaging with new information and meaningful academic subject matter (Zhang et al., 2024). Research on CBI in English as a Foreign Language (EFL) contexts has also highlighted its relevance to language teaching and learning, particularly in integrating language development with subject-matter learning (Kışlal & Ünal Gezer, 2021). Current Issues and Policies in Education (CIaPiE) is a content course that engages students with current educational issues and policies. In this context, CBI provides a relevant pedagogical framework for integrating English language learning with academic content related to educational issues and policies.

Learning subject matter through a foreign language may place additional cognitive demands on learners, as students need to process both the target language and the subject content during the learning process (Roussel et al., 2017). In content-based foreign language instruction, learners may also experience cognitive challenges and dissonance as they engage with subject matter through a foreign language (Li & Zhang, 2023). These cognitive demands may become more pronounced when learners encounter complex and abstract content that requires substantial cognitive processing (Hindriana et al., 2026). Similarly, research including undergraduate students has shown that task complexity and task difficulty can increase cognitive load, which may subsequently affect students' knowledge retention (Yulianto et al., 2025). In the context of the present study, this issue is particularly relevant because Current Issues and Policies in Education (CIaPiE) requires students to engage with complex educational issues and policies through academic sources, such as journal articles, policy documents, and analytical texts. Taken together, these findings suggest that learning complex academic content through English may place considerable cognitive demands on students,

highlighting the need for appropriate instructional support to facilitate their engagement with complex content.

Possible way to support students in dealing with cognitive demands of complex academic content is through the use of multimodal and visual learning materials. Through the integration of various modes of meaning-making, including written language, visual representations, and audio (Cope & Kalantzis, 2015), multimodal learning materials can give learners different ways to access, understand, and make meaning from content. However, the use of multiple modes should also consider the limited processing capacity of each mode (Mayer, 2022). This approach is particularly relevant to Content-Based Instruction (CBI), in which learners are expected to learn subject matter while also developing and using target language (Wesche, 2012). However, this combination of learning subject matter and developing and using the target language can create cognitive challenges for English as a Foreign Language (EFL) learners (Li & Zhang, 2023).

Previous studies have examined the pedagogical value of multimodal and visual resources in language and content-related learning. Savić (2020), for instance, discusses the development of visual literacy through multimodal texts in CBI involving young language learners. The chapter emphasizes the contribution of visual images and multimodal texts to learners' capacity to understand and create meaning within increasingly multimodal communication contexts, while also outlining pedagogical approaches for fostering visual literacy alongside foreign or second language communication skills. In a similar vein, Istikomah and Wahyudin (2025) explored the integration of CBI and multimodal texts to improve the reading comprehension of eleventh-grade EFL learners. Their findings showed a significant

improvement in students' reading comprehension after the intervention, accompanied by positive perceptions of multimodal texts in relation to engagement, motivation, and relevance. Nevertheless, the study also reported that the use of multimodal texts did not completely prevent boredom and that some materials were not sufficiently related to students' experiences, suggesting the importance of appropriate material selection and instructional scaffolding. Moving to a higher education context, Simbolon and Febrianti (2020) investigated the selection of YouTube videos as instructional materials for a Maritime English course at a vocational university in which English language teaching was implemented through a CBI approach. Their analysis indicated that several factors, including language, visual elements, sound, video length, sequencing, learners' English proficiency, and curriculum requirements, need to be considered when selecting multimodal video materials for content-related learning. Collectively, these studies highlight the relevance and potential of multimodal and visual resources for supporting language and content-related learning across various educational settings. However, existing research has tended to emphasize the development of visual literacy, the effectiveness of multimodal texts in reading instruction, or the selection of existing multimodal video resources, rather than the systematic design of multimodal visual learning materials specifically intended to support learners in engaging with complex academic content in university-level content courses. Therefore, further research is needed to address the systematic design of multimodal visual learning materials that can offer appropriate instructional support to learners facing the combined demands of complex academic content and learning through a foreign language.

To address this gap, the present study focuses on designing multimodal visual learning materials for Current Issues and Policies in Education (CIaPiE), a university-level content course. The materials are designed based on an analysis of students' target needs and learning needs, ensuring that they are responsive to how students prefer to engage with the course content. The design is grounded in the Multiliteracies framework, which provides a foundation for engaging students in meaning-making through multiple modes of communication. Visual Thinking Strategies (VTS) is incorporated as an instructional approach to guide students in observing, interpreting, discussing, and constructing meaning from visual texts. Through the integration of needs-based design, the Multiliteracies framework, and VTS, this study aims to provide instructional support for students engaging with complex academic content in a Content-Based Instruction context. The study also examines the extent to which the designed materials meet the established quality criteria for multimodal visual learning materials.

1.2. Research Question

1. What target needs and learning needs do students have for multimodal visual learning materials in a content course?
2. How are multimodal visual learning materials for Content-Based Instruction in a content course designed to promote students' multiteracies?
3. To what extent do the designed multimodal visual learning materials meet the quality criteria for multimodal visual learning materials?

1.3. Research Objectives

1. To identify the target needs and learning needs of students for multimodal visual learning materials in a content course.
2. To describe how multimodal visual learning materials for Content-Based Instruction in a content course are designed to promote students' multiliteracies.
3. To examine the quality of the designed multimodal visual learning materials based on established criteria.

1.4. Scope and Limitation of the Study

1. The study is specifically focused on the Current Issues and Policies in Education (CIaPiE) course within an English Language Education program, so the results may not be directly generalized to all content-based subjects.
2. The design is limited to multimodal visual text (short video, short documentary, comics strips, and social media post), and the materials based on selected topics of the CIaPiE course.

1.5. Significance of the Study

Theoretically, by incorporating multimodal visual learning materials into its design, this study expands on previous research on Content-Based Instruction (CBI) and adds to the discussion about multiliteracies in higher education contexts.

Practically, both lecturers and students gain from this study. It gives lecturers a verified, ready-to-use multimodal learning material for the Current Issues and Policies in Education (CIaPiE) course that meets the demands of 21st -

century learning. The products are meant to increase students' engagement and knowledge in content-based learning settings.

1.6. State of the Art and Novelty

Literacy in contemporary education is increasingly viewed not as a passive ability, but as an active process of meaning-making through multimodal texts (Huot et al., 2025). This shift has led several studies within Content-Based Instruction (CBI) to explore how multimodal and visual resources can support language and content-related learning. In one such study, Savić (2020) looks at how visual literacy develops through multimodal texts in CBI, focusing on how young language learners come to comprehend and produce meaning from visual materials. A related line of work by Istikomah and Wahyudin (2025) investigates multimodal texts in CBI more directly in relation to reading, finding that these texts supported students' reading comprehension and engagement. Higher education is addressed by Simbolon and Febrianti (2020), whose study on selecting YouTube videos for a Maritime English course points to factors such as language, visual elements, video length, and curriculum requirements as important considerations when choosing multimodal video materials for content-related learning. Across these different CBI contexts, the studies together point to one consistent finding: multimodal and visual resources hold real value for language and content-related learning.

However, these studies have tended to focus on visual literacy development, reading comprehension outcomes, or the selection of existing video resources, rather than the systematic design of new instructional materials for complex academic content in university-level CBI courses. Savić (2020) focuses on visual

literacy development among young language learners, while Istikomah and Wahyudin (2025) examine the use of multimodal texts in relation to reading comprehension and engagement. Simbolon and Febrianti (2020), in turn, focus on selecting suitable YouTube videos as multimodal learning resources for a Maritime English course. Taken together, these studies highlight different contributions of multimodal resources in CBI, while leaving room for further research on the systematic design of multimodal visual learning materials specifically intended to support learners in engaging with complex academic content in university-level CBI courses (Savić, 2020; Istikomah & Wahyudin, 2025; Simbolon & Febrianti, 2020).

This research addresses this gap by designing multimodal visual learning materials for the ClaPiE course based on students' identified target needs and learning needs. The design integrates the multiliteracies framework, structured through its four learning sequences, situated practice, overt instruction, critical framing, and transformed practice, to guide students' progression from initial observation toward the independent application of their understanding (Cope & Kalantzis, 2015). Visual Thinking Strategies (VTS) is incorporated across the four learning sequences: guided VTS prompts scaffold students' observation, interpretation, and discussion in the first three sequences, while in transformed practice, students develop and present their own VTS-based material as an independent application of what they have learned (Housen & Yenawine, 2018). The designed materials incorporate various multimodal visual resources, including short videos, documentaries, comic strips, and social media posts, to support students' engagement with complex academic content, and their quality was further

examined through expert validation based on established criteria of content, instructional design, language, assessment, and practicality. Thus, the novelty of this study lies in the systematic design of multimodal visual learning materials that respond to learners' needs, integrate multiliteracies and VTS, and are validated for their quality within a university-level CBI content course.

