



Bridging Language and Knowledge: Exploring Interdisciplinary Themes in English Textbooks

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Abstract

Interdisciplinarity has been a norm in academic reading texts for the purpose of providing exposure to the students in both knowledge and skills across diverse content areas. We find the integration of interdisciplinary texts in our textbooks from primary to tertiary levels. Textbooks play significant role to provide knowledge base by incorporating reading themes from various fields. These texts seem useful to enhance students' content knowledge together with language competencies. Though increasing integration of interdisciplinary is seen in reading themes, only a few studies have examined how well interdisciplinarity is maintained in reading resources, including textbooks for different grades. Specifically, questions remain as to whether the reading themes and related texts are appropriately aligned and whether the textbooks reflect systematic interdisciplinary integration. Aiming at bridging this gap, this article uncovers reading themes and unveils the extent to which interdisciplinary themes are included into the Grade Nine Compulsory English textbook (2076) in Nepal. Following a qualitative research design, the study uses document analysis method. The findings show that the textbook for grade nine students is a good blend of diverse reading themes, including the texts related to culture, health, science and technology, ethics, sports, ecology and entertainment. A purposeful attempt at interdisciplinary integration has been seen in the texts along with the integration of genres such as informational articles, narratives, memoirs, and poems. Despite the interdisciplinarity, inconsistencies have been observed in theme-text relationship. The over-reliance on certain genres, and absence of scaffolding activities for complex texts are noted as the limitations. The study concludes that though the selected textbook reflects a good interdisciplinarity in its contents, improvements are sought in the text choice, texts organizations, text coherence and in practice activities.

Introduction

Textbooks have been perceived as the key learning resources in the teaching and learning process as they provide structured content, organized pedagogy, and a roadmap for classroom instruction (McGrath, 2002; Tomlinson, 2008). In the context of English Language Teaching (ELT), textbooks not only introduce language forms and functions but also present thematic reading materials that expose learners to a variety of real-world issues and academic disciplines (Cunningsworth, 1995). The English language curriculum for secondary education in Nepal (CDC, 2021) emphasizes the inclusion of diverse reading themes to develop language skills and foster broader cognitive growth.

A prominent trend in contemporary pedagogy is the focus on interdisciplinarity, the meaningful integration of knowledge, methods, and perspectives from multiple disciplines to deepen students' understanding and contextualize their learning experiences (Beane, 1997; Drake & Burns, 2004; Klein, 2010). Within educational settings, interdisciplinarity aims to break down traditional subject boundaries, encouraging learners to see connections between language learning and fields such as science, history, environmental studies, ethics, and social sciences (Drake & Reid, 2020; Coyle, Hood, & Marsh, 2010). Interdisciplinary approach is also important to Content and Language Integrated Learning (CLIL). As like the interdisciplinary approach, CLIL also evokes the simultaneous development of subject knowledge and language proficiency.

The integration of interdisciplinary themes in textbooks is desirable for preparing learners to address 21st-century challenges. Learners, at present, are expected to develop problem-solving and decision-making skills,

they should be equipped with knowledge from diverse fields (Jacobs, 1989; Mehisto et al., 2008). Stressing the importance of interdisciplinary texts, Li (2020) argues that for language learners, interdisciplinary reading texts provide linguistic input as well as cognitive engagement, critical thinking opportunities, and real-world relevance.

Textbooks are not just a set of educational contents, they also embed ideological, cultural, and social values (Gray, 2010). When interdisciplinary themes are integrated into reading texts and exercises, textbooks can foster deeper engagement, ethical reasoning, and global awareness. Interdisciplinary reading, therefore, extends beyond thematic diversity; it involves aligning texts and activities with authentic, multi-disciplinary perspectives to enrich student learning (Coffin, 2006; Mehisto et al., 2008). Recent studies have pointed the benefits of interdisciplinary content in ELT textbooks. For instance, Li (2020) notes that collaboration between content and language teachers can significantly enhance learning outcomes. Yet, despite increasing global emphasis on cross-disciplinary learning (Boix Mansilla & Gardner, 2007), research on the presence and quality of interdisciplinary integration in textbooks remains limited, particularly in developing contexts like Nepal. Most existing evaluations have focused on structural elements, representation (Magar, 2018; Napit, 2021), or curriculum-exam alignment (K.C., 2021), with little attention paid to the nature of reading themes and their alignment with interdisciplinary objectives.

In the Nepali context, textbooks remain the primary, often sole resource for teaching and learning due to limited access to supplementary materials (CDC, 2021). The recently introduced Grade Nine Compulsory

English Textbook (2079) named 'ENGLISH GRADE-9' designed to align with the revised Secondary Education Curriculum 2078, features various reading texts categorized under specified thematic areas. However, feedback from teachers and initial classroom observations point to concerns about the coherence, organization, and pedagogical relevance of the reading materials. While the curriculum encourages the use of texts across a range of thematic domains, it remains unclear whether these texts truly represent interdisciplinary integration or are simply grouped under broad themes to fulfill curriculum requirements. Effective interdisciplinarity requires deliberate and meaningful connections between language content and disciplinary knowledge (Klein, 1990). Without such integration, textbooks risk presenting fragmented knowledge that may hinder holistic educational development.

Observing the gap above, this study critically examines the Grade Nine English textbook in terms of its interdisciplinary nature. To be specific, it aims to (i) identify the reading themes included in the textbook, (ii) analyze the degree to which these themes reflect interdisciplinary domains, and (iii) evaluate the alignment between the themes, reading texts, and related exercises. This study also intends to inform future initiatives for the textbook development and curricular decisions by presenting evidence-based implications for strengthening the quality and relevance of diverse contents in ELT materials.

Literature Review

At recent, the role of textbooks has shifted from simply being repositories of linguistic input to becoming versatile tools that form broader educational experiences by including the texts to impart cross-disciplinary knowledge. Modern textbooks

do not simply include grammar rules and vocabulary lists but they serve platforms for developing multiple literacies, including critical thinking, wise reasoning, and global awareness (Tomlinson, 2012; Gray, 2010). Particularly in English as a Foreign Language (EFL) context, the reading themes included in textbooks have determining role in framing students' worldviews and knowledge systems.

Interdisciplinarity has been defined as the integration of ideas, methods, and content from multiple academic disciplines to address complex issues (Klein, 1990). Interdisciplinary approach has increasingly influenced curriculum and material development. Scholars argue that reading texts in ELT textbooks should incorporate content from the fields such as science, history, morality, environmental studies, and culture. Interdisciplinary content has the capacity to enhance deeper understanding and real-world application (Beane, 1997; Cates, 2005). The Content and Language Integrated Learning (CLIL) also inculcate the spirit of integrating knowledge and skills from the different domains to develop language competencies of English as the second or foreign language learners (Coyle, Hood, & Marsh, 2010).

The recent literature in textbook analysis shows the growing relevance of interdisciplinary themes in reading materials. For instance, Kalmus and Autio (2016), in their study of Estonian and Finnish EFL textbooks, found that integrating themes such as human rights, sustainability, and social justice in the textbooks increased greater learner engagement and reflection. Similarly, the study of Aliakbari and Jamalvandi (2020) prevail that Iranian secondary school English textbooks involving topics like environmental sustainability and technological innovation helped develop higher-order thinking skills and motivation among students.

In the same way, the study by Rashid and Rahman (2022), in the South Asian context, found that textbooks developed under competence-based curricula in Bangladesh included thematic readings. The texts over there emphasized civic values, gender equity, and global citizenship. This study explored some inconsistencies in thematic depth and pedagogical treatment, comparing with UNESCO's (2018) call for learner-centered, inclusive, and contextually relevant textbook content.

In the context of Nepal, research in the area of textbook evaluation has focused on curriculum alignment, representation, and inclusivity, with comparatively little attention paid to interdisciplinarity in reading themes. In this regard, K.C. (2021) analyzed the Grade 10 English textbook's alignment with curriculum and examination content but did not explore cross-disciplinary integration. Similarly, Magar (2018) and Napit (2021) studied on cultural and gender representation, respectively, but did not observe the thematic breadth of reading materials. Thus, a significant gap exists in evaluating whether textbooks incorporate interdisciplinary themes aligned with Nepal's Secondary Education Curriculum 2078.

Frameworks for textbook evaluation have increasingly emphasized the importance of critical content analysis. Littlejohn (2011) proposed a three-tier model of representation, action, and reflection, encouraging evaluators to consider the ideological and epistemological underpinnings of textbook content. Gray (2010) similarly called for evaluations that assess not only linguistic appropriateness but also social, cultural, and disciplinary relevance. From this perspective, the analysis of reading themes becomes crucial for understanding how textbooks function as both language learning tools and vehicles for knowledge construction.

Interdisciplinary collaboration between language and content teachers has also been identified as a factor enhancing students' academic success, although such integration remains underdeveloped in many educational settings, including higher education (Li, 2020). Increasingly, textbooks are seen as ideological, cultural, and educational spaces (Canale, 2021). Critical Discourse Studies (CDS) have become a prevalent method in textbook research for revealing embedded ideologies and power structures (Smith & Sheyholislami, 2022).

The integration of reading and writing through content-based models such as CLIL is especially valuable in low-resource contexts. Lucas (2020) explains how children's Picture-books, aligned with curriculum themes, can improve literacy and engagement, mitigating barriers like poverty and negative learner attitudes. Broadly, interdisciplinary literacy expects readers to synthesize ideas across texts and disciplines, framed by contextual and individual factors (Schoor et al., 2022). Multimodal reading can enable students' both visual and cognitive reading if it includes texts and images from diverse areas. Regarding the reading, Mills et al., (2022) state that with the increasing digitization of literacy, reading must now be understood as a multimodal, embodied, and digitally mediated process. Disciplinary literacy expectations also vary across academic fields, necessitating explicit teaching of textual conventions, particularly in STEM education (Hubbard, 2021). So, there is a call to decolonize curricula addressing the need to uncover how interdisciplinarity is understood and practiced across cultural and academic contexts (Shahjahan et al., 2021).

English has been in a dominant role in education from school to university levels in Nepal. It has been in the function of

primary medium for textbooks, curricula, and instructional materials (Khadka, 2024). The spread of Global Englishes (GE) has encouraged a shift toward more inclusive and diversified representations of English, crossing the border of native-speaker norms (Puri, 2021). Reading is not simply a language skill but it is a means of enhancing critical thinking, personality development, and communicative competence (Pandey, 2023). Both the qualitative and quantitative growth has been seen in the expansion of English Language Teaching (ELT) in Nepal. It further strengthens vital role of English in educational practices (Khadka, 2022).

The findings of research work regarding textbook research project broader educational and social changes. Though focused on religious and moral content in the past, textbooks now include multicultural, inclusive, and interdisciplinary themes (Venezky, 1987). However, systematic relationships and careful consistencies between reading texts and their stated themes are essential for pedagogical coherence (Civan & Gülmez, 2024). The textbooks developed and organized around thematic contents include multiple perspectives and those perspectives can encourage critical engagement of the students in multiple issues (Tschida & Buchanan, 2015).

The existing literature indicates that since the 1990s, textbook research has grown significantly. It has incorporated insights from curriculum theory, cultural studies, and book history. In a recent study, Sharma and Basnet (2024) revealed implicit gender biases in authorship, imagery, and text content in the Grade 10 English textbook. Whatever research on reading contents and their relation with the broader themes have been conducted, they have presented textbooks as

key instruments in framing educational policy and cultural knowledge (Munakata, 2012).

Methods and Procedures

A qualitative research design grounded in document and discourse analysis has been followed in this research. The emphasis was put on a systematic and critical analysis of the Grade Nine English Textbook (2079 edition) and the Secondary Education Curriculum (2078) by the Curriculum Development Centre (CDC), Government of Nepal. No primary data was collected through interviews, surveys, or questionnaires in the study. Instead, all insights were solicited from self-directed textual observation and critical analysis of the reading materials.

Using document analysis method, the contents in the textbooks were observed from interdisciplinary perspective and the information on each was analysed in order to see the thematic consistency. According to Bowen (2009), "Document analysis involves a systematic procedure for reviewing or evaluating printed and electronic documents to extract meaning, develop understanding, and gain empirical knowledge" (p.39). This method was suitable to the study if the aim is to examine whether the textbook's reading themes reflect interdisciplinary integration as envisioned in the curriculum.

Besides, the study was further assessed within the discourse analysis tradition. Taking reference of Fairclough's (1995) three-dimensional model of Critical Discourse Analysis (CDA) this study has made description, explanation and interpretation of the thematic texts. Following this framework, at the level of description (textual analysis), vocabulary, grammar, and textual structure has been examined. Similarly, at the level of interpretation (discursive practice), the study

has explained how the texts are produced and interpreted. Finally, at the level of explanation (social practice), an exploration has been made on how the social and ideological implications have been spaced in the textbook.

Purposive sampling strategy was employed in the study which is widely used in qualitative research to select data sources that present rich and relevant information (Palinkas et al., 2015). The textbook of Grade Nine and the Secondary Level Curriculum were selected because of their direct relevance to the research objectives. Being based on McGrath's (2002) evaluative criteria for textbooks and aligned with the curriculum's thematic goals, a document analysis checklist was developed to make a systematic comparison between the themes included in the curriculum and the reading texts selected and organized in the textbook.

The analysis proceeded in three stages. At first, an impressionistic analysis assessed the textbook's layout, structure, and general presentation. Then, a checklist-based analysis systematically compared the curriculum's suggested themes with those actually represented in the textbook. Finally, an in-depth discourse analysis, following Fairclough (1995), investigated the underlying ideological and disciplinary assumptions within the reading texts. Themes were identified and categorized by disciplinary domains such as environmental science, ethics, literature, history, health, and technology. To further support thematic categorization, manual coding was applied to the reading texts. Themes were analyzed and grouped based on subject relevance and conceptual integration. Although Thematic Network Analysis (Attride-Stirling, 2001) typically incorporates both textual and

interview data, in this study it was selectively applied to organize and interpret textual codes into basic, organizing, and global themes, aiding in the identification of interdisciplinary patterns and their pedagogical implications.

Ethical standards in qualitative research were followed throughout the study. Though primary human subjects were not involved, the principles of academic integrity, including proper citation, avoidance of plagiarism, and transparent reporting, were strictly maintained (Creswell & Poth, 2018). The research also engaged in critical self-reflection to minimize personal bias and ensure rigor in the analytical process.

Results and Discussions

This section presents an integrated discussion of the findings from the document and discourse analysis of the Grade Nine Compulsory English Textbook (2079), interpreted through Fairclough's (1995) CDA model. The results are thematically organized into four main areas: (a) thematic coverage, (b) interdisciplinarity and subject integration, (c) textual complexity and genre diversity, and (d) curriculum alignment and pedagogical implications.

Thematic Breadth and Representational Diversity

The textbook depicts a commendable thematic breadth, encompassing 18 major areas prescribed by the Secondary Education Curriculum 2078, including Health and Hygiene, Science and Technology, Ethics and Values, Culture and Civilization, Environment, Games and Sports, and Global Warming and Climate Change. This diversity aligns with the curricular shift toward fostering not just language competence but also broader cognitive and social development (CDC, 2078; Richards, 2001).

From Fairclough's (1995) perspective of discourse as a socially situated practice, the inclusion of such themes serves both descriptive and ideological functions; framing student identities within national and global discourses. This supports Gray's (2010) assertion that textbooks are ideological artifacts that mediate knowledge and values, not just language.

However, while thematic variety is a strength, the representation of some themes lacks depth and balance. Certain domains, such as *Health and Technology*, are featured with concrete, accessible texts (e.g., Telehealth Services, Humanoid Robot Sophia), whereas others like *Ethics or Space Science* are represented by more abstract or loosely connected texts (e.g., Up-Hill under The Earth and Space). Such mismatches weaken thematic coherence and pedagogical clarity, echoing similar inconsistencies found by Rashid & Rahman (2022) in Bangladeshi textbooks under competence-based curricula.

Interdisciplinary Integration: Evidence and Gaps

The most salient outcome of the analysis is the textbook's partial yet notable success in promoting interdisciplinary learning. Several texts effectively bridge linguistic objectives with subject-based knowledge, aligning with the principles of Content and Language Integrated Learning (CLIL) as advocated by Coyle et al. (2010). For example:

The Resistant Moths integrates biology and environmental science. Chasing Ice provides exposure to climate change discourse. The Rautes introduces sociological and anthropological perspectives. JetBlue's Apology raises ethical and business communication concerns.

These instances correlate Beane's (1997) model of integrated curriculum, where content is organized around real-world issues rather than disciplinary silos. Such integration has been shown to improve critical thinking, as found by Kalmus and Autio (2016) and Aliakbari and Jamalvandi (2020), who observed similar effects in EFL contexts in Finland and Iran.

Nonetheless, some interdisciplinary connections appear symbolic or surface-level. Texts like *Madam and Her Madam*, rich in sociopolitical commentary, are not sufficiently contextualized within the theme under which they are placed. Similarly, placing *A Noisy Party under Global Warming and Climate Change* demonstrates a thematic stretch that dilutes both the language and content objectives.

Moreover, the integration often lacks scaffolding to support interdisciplinary comprehension, particularly for abstract topics such as climate science or historical civilization. This contrasts with the curriculum's stated goal of promoting real-life application and critical engagement (CDC, 2078), and with Nation's (2001) emphasis on pre-reading supports for vocabulary and content understanding.

Genre Variety and Textual Complexity

The textbook features a commendable range of genres including informational reports, interviews, biographies, memoirs, drama, essays, and poetry. This multiplicity aligns with Tomlinson's (2012) view that diverse text types enhance learner motivation, provide varied linguistic input, and prepare students for multiple literacy demands. Diversity has been found in the texts, for instance, the texts like *The Diary of a Young Girl* and *The Maya Empire* provided historical

depth and literary richness. However, the texts could be complex to the students as they are linguistically dense or culturally remote. Examples include *Crossing the Bar, a philosophical poem requiring literary sophistication*, and *ADBI Profile, a technical exposition with institutional jargon*.

These findings parallel those of Nunan (2004), who warned of the threads of including overly complex texts without adequate linguistic preparation. Moreover, overuse of expository and report genres in certain units was flagged as monotonous and cognitively taxing by some students, confirming Hedge's (2000) assertion that repeated factual genres can reduce engagement.

Curriculum Alignment and Pedagogical Coherence

A core objective of this study was to assess the alignment between the textbook and the curriculum. Analysis revealed that most texts are thematically linked to the curricular domains; however, there are critical inconsistencies. For example:

Under Global Warming and Climate Change, texts like A Noisy Party deviate from the expected environmental discourse.

Up-Hill under The Earth and Space appears disconnected in both literal and metaphorical interpretation.

Some themes, such as Transportation and Communication, lack coherent text representation altogether.

These inconsistencies breach the principles of Outcome-Based Education (Spady, 1994), which requires a direct connection between content, learning outcomes, and assessment. As Littlejohn (2011) emphasized, textbook content must reflect intentional design that

links representation, learner action, and critical reflection.

Further, Fairclough's (1995) third dimension: 'explanation' reveals ideological tensions: texts on gender, ethnicity, or political resistance (e.g., *Madam and Her Madam, The Diary of a Young Girl*) are included without critical pedagogical framing. This reflects what Smith and Sheyholislami (2022) warn against the uncritical embedding of ideologically loaded texts without facilitating critical discourse.

The findings of the study corroborate literature that emphasizes the evolving role of EFL textbooks in advancing critical, interdisciplinary, and contextual literacies (Canale, 2021; Lucas, 2020). The strengths of the textbook reflect international best practices in CLIL and thematic instruction (Coyle et al., 2010), while the shortcomings echo persistent issues in developing countries, misalignment, symbolic content inclusion, and lack of editorial consistency (Rashid & Rahman, 2022; UNESCO, 2018).

The analysis also admits that interdisciplinarity, when purposefully integrated, enhances learner engagement, fosters holistic understanding, and prepares students for complex real-world challenges (Schoor et al., 2022). However, without strong editorial design, teacher preparation, and scaffolding mechanisms, such integration risks becoming superficial.

Conclusion and Implications

The results and the discussion of the study enabled me to conclude that the Grade Nine English Textbook (2079) demonstrates a commendable effort to integrate interdisciplinary themes and provide authentic reading materials that support

students' linguistic, cognitive, and critical development. The textbook presents a broad range of topics, covering health, science, ethics, environment, and social issues through thirty-six reading texts of varied genres including narratives, poems, memoirs, and informational articles. These selections collectively promote global awareness and cross-disciplinary thinking among learners.

However, several limitations diminish the effectiveness of the textbook. Notable inconsistencies between the assigned themes and the actual content of some texts, for example, the misalignment of "Up-Hill" with "The Earth and Space" theme and the unrelatedness of "A Noisy Party" to climate concerns raise concerns about thematic coherence. Additionally, some texts are abstract and linguistically dense, lacking adequate scaffolding for students from remote and under-resourced contexts.

These findings point to several practicable implications for enhancing interdisciplinary and inclusive language education. At the policy level, it is essential that textbook developers ensure thematic coherence and content appropriateness by aligning texts with curriculum goals and scrutinizing them to the diverse linguistic and geographic backgrounds of learners. Reducing the number of reading texts would enable more meaningful engagement within limited instructional time. Pedagogically, teachers require adequate preparation and training to deliver interdisciplinary content and support students through effective scaffolding strategies such as pre- and post-reading tasks and vocabulary-building activities. Institutional support from school management and educational supervisors is equally important to provide time, resources, and autonomy for teachers to implement these

approaches. At the learner level, students should be actively encouraged to make interdisciplinary connections, think critically, and participate in knowledge construction.