



Research article

Evaluation of pedagogical impact of Business English textbooks on teaching critical thinking skills



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ABSTRACT

One goal of undergraduate courses in Business English is teaching critical thinking, but this goal has been hindered by disagreement over how to teach those skills. Many textbooks pay insufficient attention to critical thinking skills. It remains unclear how effective existing textbooks are in helping teachers teach these skills. In this article, we report on a study which uses the Knowledge Process framework to qualitatively and quantitatively evaluate five textbooks in the *Market Leader* series. The presence of four knowledge processes in the textbooks is examined to see how effective the distribution of those processes is in teaching critical thinking skills. Although four knowledge processes are found in the textbooks, there is an imbalance among sub-processes, which leads to lack of scaffolding for teaching critical thinking skills. It is thus recommended that textbook developers and teachers design a sequence of scaffolded tasks to help teach critical thinking skills.

1. Introduction

Critical thinking is valuable for Business English learners because it “involves not only possessing strong oral and written communication competencies but also being adept at applying them in a rhetorically sensitive way to various situations and discourse communities, using ever-changing technologies effectively, wisely, and strategically” (Bloch & Spataro, 2014, p. 250). According to the Foundation for Young Australians (FYA), employees will spend 41% more time at work on critical thinking and judgment in 2030 (FYA, 2017). As such, it is crucial to ensure, in teaching Business English, the development of learners’ English communication skills and critical thinking skills as well (Amaral, 2014; Education 2030, 2018; Leutner, 2014; Norlis et al., 2018). However, this goal has been impeded because Business English textbooks emphasize “the acquisition of professional-oriented topics and terminology” (Karapetian, 2020, p. 717) and give insufficient attention to critical thinking skills, which makes “determining how to teach the skills an ongoing dilemma” (Geissler et al., 2012, p. 2).

Textbooks are fundamental in shaping the pedagogical framework of teachers (Lebrun et al., 2002), and should not only provide a body of knowledge, but also help teachers construct tasks for learners and determine what is to be assessed, what content is to be taught, and the pace and timing of teaching (Koustourakis and Zacharos, 2011). In this

sense, Business English textbooks can play an important role in empowering teachers to deal with the problem about how to teach critical thinking skills. Accordingly, it is necessary to evaluate pedagogical impact of these textbooks on teaching critical thinking skills. Relatively little attention has been paid to this topic, and it remains unclear how effective existing textbooks are in imparting critical thinking skills.

To help solve this problem, this study adopts the Knowledge Process (KP) framework (Kalantzis and Cope, 2012) as a tool for Business English textbook evaluation to discover what pedagogical guidance for teaching critical thinking skills is provided. KP framework consists of four knowledge processes: experiencing, conceptualizing, analyzing, and applying, which “represent epistemological orientations, four ways of knowing, four ‘takes’ on the meaning of meanings that will provide learners with multifaceted ways of reading the world” (Cope and Kalantzis, 2000, p. 241). For instance, experiencing is a way to engage learners in familiar or new experiences to make meaning. Pre-reading and oral opinion tasks in the textbooks are typical examples. KP framework can “be used in a diagnostic sense for analyzing existing literacy teaching materials to identify the ways in which learners are encouraged to make meanings” (Rowland et al., 2014, p. 140). KP analysis is used to provide knowledge about the pedagogical impact of these processes on teaching critical thinking.

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2. Knowledge process (KP) framework

Critical thinking refers to analysis, evaluation, and synthesis of relevant information for decision-making (Ennis, 1993; Ghanizadeh, 2017; Putra et al., 2021). It consists of skills like “analyzing arguments, claims or evidence; judging or evaluating arguments; making decisions or problem-solving; drawing conclusions using a variety of standard reasoning patterns such as induction and deduction; predicting; reasoning verbally; interpreting and explaining; identifying assumptions; defining terms; asking questions for clarification” (Davies, 2014, cited in Karapetian, 2020, p. 718). Critical thinking skills can be developed by prompting learners to “interrogate and assimilate the ideas, discourses and perspectives that texts convey” (Rowland, 2015, pp. 261–262). One approach to developing critical thinking skills is multiliteracies pedagogy, which cultivates “critical and cultural understanding of language, literacy, and communication” (Kern, 2000, p. 134).

KP framework is informed by multiliteracies pedagogy. Its four processes (experiencing, conceptualizing, analyzing and applying) can each be further divided into two subprocesses as displayed in Table 1.

It is important to note that four knowledge processes are also identified in theories such as Bloom’s Taxonomy of Educational Objectives and Kolb’s experiential learning (Cope and Kalantzis, 2009; Kalantzis and Cope, 2005). For example, Experiencing the Known, in which learners draw upon personal knowledge and prior experience when working with texts, is aligned with the cognitive process of “remembering” in Bloom’s revised taxonomy (Anderson et al., 2001) and the stage of concrete experience in Kolb’s cycle of experiential learning. Davies (2014) points out that Bloom’s revised taxonomy “can be seen in terms of a forerunner of a cognitive approach to critical thinking” (p. 53). Such comparisons offer further evidence to justify the view that each subprocess and the entire KP framework exert a significant pedagogical impact on teaching critical thinking.

From a multiliteracies standpoint, “using KP framework as an analytical, diagnostic lens can reveal which knowledge processes are being targeted, in what percentage, and whether inconsistencies or imbalance exist” (Rowland et al., 2014, p. 148). Its four knowledge processes are “not a pedagogy in the singular, but a kind of meta-pedagogy, a schema against which any possible pedagogy can be mapped” (Kalantzis and Cope, 2005, p. 87). This makes the KP framework appropriate for “analyzing existing language and literacy teaching/learning materials even if those materials have not been designed in accordance with multiliteracies pedagogy” (Rowland et al., 2014, p. 262).

3. Studies on Business English textbook evaluation

The literature review reveals evaluations of Business English textbooks based on various criteria. Čepón (2004) pointed out that objective categories are easier for Business English teachers to adopt in textbook evaluation activities than subjective categories. She emphasized the importance of intuition and experienced teachers’ insights in

textbook evaluation (2008). Chan (2009) proposed a holistic evaluative framework with a six-step model that includes pedagogical aspects and discourse features of Business English. Romanowski (2016) proposed checklists for Business English textbook evaluation regarding the content, methodology, and other aspects. Hu and Chen (2020) proposed a multiple variable comprehensive evaluation method and propose an evaluation system that includes real-time, sharing, and circulating. Guo and He (2020) offered a comprehensive evaluation method that uses a needs analysis model, a present situation analysis model, and textbook evaluation criteria created by McDonough and Shaw (1993).

In contrast with holistic evaluation, other scholars focus on particular aspects of Business English textbooks for empirical evaluation. Sznajder (2010) chose the metaphors in a published Business English textbook as the evaluation object. Based on findings from a specialized corpus of business journal articles, she investigated the frequency of textbook metaphors in the corpus and found a low percentage of metaphors that are used in real business communication. Hsu (2011) examined the amount of lexical coverage needed for comprehending higher-level Business English textbooks, based on two corpora for English textbooks of business core courses and business research articles. Findings showed that 95% lexical coverage of a business textbook comprises the most frequent 3,500-word families and 5,000-word families, plus proper nouns. Goktepe (2015) proposed four knowledge dimensions which overlap with the cognitive processes of the Bloom’s revised taxonomy. Based on them, he analyzed the coverage of language and cognitive skills in two Business English textbooks. Findings revealed that *Market Leader* had more potential than *Business Result Pre-intermediate* to enable highly-motivated learners to improve their English competencies. Alemi et al. (2021) evaluated the task types in these two textbooks using Nunan’s taxonomy of tasks and concluded that linguistic tasks are the most common while creative tasks are least common.

The studies above, especially those conducted by Goktepe and Alemi et al. consider critical thinking skills when determining evaluation criteria. They have contributed to a better understanding of how the textbooks under study have helped develop learners’ critical thinking skills. However, they lack the detail needed to prove how effectively the texts support teaching critical thinking. As such, it is difficult for Business English practitioners, including textbook developers and teachers, to explore effective teaching of critical thinking, although there is a consensus that critical thinking skills can, in fact, be effectively taught and learned (Calma and Davies, 2021). To enrich pedagogical understanding of the use of Business English textbooks for teaching critical thinking skill, this study examines how effectively the textbooks support critical thinking by exploring the distribution of the four knowledge processes in the textbooks. Two main research questions are addressed:

- What knowledge processes do the Business English textbooks target and how?
- To what extent are the textbooks pedagogically effective in teaching critical thinking skills?

Table 1. Knowledge processes and sub-processes.

Knowledge process	Knowledge sub-process	Epistemology	Learners’ actions in the sub-process:
Experiencing	the Known	Identification	Drawing upon and articulating personal knowledge and familiar, lived experiences
	the New	Empiricism	Immersing in and reflecting on new situations and information
Conceptualizing	by Naming	Categorization	Defining and abstracting individual concepts from textbook content
	with Theory	Schematization	Mapping the relationships between concepts to achieve a schematic overview of a topic
Analyzing	Functionally	Functionalism	Examining the way that ideas and information are connected in the topic
	Critically	Interpretation	Accounting for the human perspectives, interests, and motives behind ideas and information
Applying	Appropriately	Pragmatism	Testing their understandings of topic content by producing something conventional
	Creatively	Innovation	Recombining the conventions they have studied to create something hybrid or transgressive

(Source: Based upon Kalantzis and Cope, 2005, 73–74; Rowland et al., 2014, 11–13; Cope and Kalantzis 2015, 24).

4. Methodology

The study uses mixed-methods: quantitative investigation and qualitative content analysis based on the KP framework. The study attempts first to demonstrate numerically the coverage of different knowledge processes in the textbooks and then offer insight into the pedagogical effect of these processes on the cultivation of critical thinking.

4.1. Materials

The data for the study is found in five textbooks of the *Market Leader* series (Yan¹, 2020) which are widely used by students in majors related to economics, such as Business English, international trade, and international finance, in their English courses for business purposes in various undergraduate universities and vocational colleges in China. *Market Leader*, introduced and adapted by China's Higher Education Press, is a combination of two international Business English teaching materials, *Market Leader* series and *Powerhouse* series. While this study examines that situation in China, it still provides insights into the pedagogical effects of *Market Leader* series on teaching critical thinking in other cultural environments. Moreover, this study, along with previous studies (see Goktepe, 2015) that have explored *Market Leader*'s cultivation on learners' language and cognitive skills, will enrich the pedagogical understanding of how to better develop Business English textbooks for varied education settings. In addition, Wen-Cheng et al. (2011) suggest selecting a textbook that has been published within the past ten years.

4.2. Data analysis

The *Market Leader* series contains five textbooks, ranging from the elementary to the advanced level. Each textbook has 12 units, each of which has six sections: starting up, vocabulary, listening, reading, skills, and case study¹. Each section is divided into a series of tasks. The knowledge sub-process required by a task can be judged by "looking for evidence in any instructions, in the task structures and procedures indicated by the instruction sentence" (Rowland et al., 2014, p. 263). Accordingly, the instruction sentence of each task was adopted as the unit of analysis (Littlejohn, 2011). An example of an instruction sentence and its analysis are below.

Littlejohn (1998) describes the nature of instruction sentence analysis to provide a more fine-grained analysis of the pedagogical assumptions that underpin the tasks in the textbooks. Here a "sentence" is not analyzed for its grammatical content, but rather in its semantic content. Instruction D (Ins D) in the following example has one sentence that is the unit of analysis.

Example 1.

[D] Over to you.

Some say that good sales people are born and that it's impossible to train others to become good sales people. What do you think? Give your reasons.

(Ins D in Unit 3, Book II, p. 28).

Ins D has three grammatical sentences in terms of punctuation marks, but semantically, Ins D, as a whole, aims to describe a complete teaching task. Hence, in this study, Ins D is considered a single sentence. The five textbooks of *Market Leader* have 1,920 instruction sentences.

A coding scheme (Jarho, 2017, pp. 38–39), constructed in accordance with the KP framework, was adopted for quantitative investigation (See Table 2).

Based on the coding scheme, data analysis shows the presence of subprocesses of Experiencing the Known (EK) and Applying Critically (Acri) in Example 1 by identifying the terms of "think" and "reasons"

respectively in Ins D. Then, data for each subprocess were examined further to determine the variables present in each subprocess. "What do you think?" shows the variables of Ek1 (personal or prior knowledge of sales people training) and Ek3 (students' own viewpoints on sales people training), while "Give your reasons" shows the variables of ACri2 (considering the topic from different points of views) and ACri4 (debating the topic among students).

The coding scheme has 33 variables. All are binary (0, absence; 1, presence). If the variable is present in a sentence, it is marked 1, otherwise 0. Frequencies and percentages of variables appear in Table 3.

The study uses content analysis as its qualitative method. Widely used in language studies, content analysis seeks to analyze texts and other data through classification, tabulation, and evaluation (Anderson, 2007). Content analysis currently has three approaches, that is, conventional, directed, and summative. They all tend to interpret meaning from the content of text data (Hsieh and Shannon, 2005). The present study uses summative content analysis to go beyond word counts and explore the latent content of each instruction sentence to supplement and complement the quantitative data. In this analysis, every instruction sentence was described in terms of task objectives, topic, content, and procedures, and then analyzed by exploring the implications of the implementation of each task and sequence of tasks in teaching. Example 1 illustrates this. Ins D shows the presence of EK1, Ek3, ACri2 and ACri4 quantitatively, but examining the context (turn to Example 4) shows that the purpose of ACri2 and ACri4 (debate on sales people training) cannot be achieved because previous sections do not provide enough lexical storage and idea inspiration for learners.

The two methods were integrated during the interpretation phase of the study.

5. Findings and discussion

This section begins with quantitative findings showing the frequency and percentage of four knowledge processes presented in the five textbooks. The pedagogical assumptions of the instruction sentences are then analyzed qualitatively to show how the sub-processes embodied in the instruction sentences affect teaching critical thinking.

5.1. Distribution of the four knowledge processes in the five textbooks

Table 3 shows the distribution of the knowledge processes represented in 1,920 instruction sentences in five textbooks of *Market Leader*. It indicates that Experiencing (EK + EN) is most frequent, followed by Analyzing (AF + ACri) and Conceptualizing (CN + CT), while Applying (AA + Acre) is most infrequent and emerges superficially in the organization of tasks. These findings are discussed in greater depth below.

5.1.1. Full engagement of experiencing (experiencing the knowing + Experiencing the New) in the textbooks

The investigations of instruction sentences show that Experiencing (42.21 per cent) is the most frequently embodied knowledge process in the textbooks. Emphasis on learners and their experiences indicates that the textbooks are "process-oriented and learner-centered" (Kalantzis and Cope, 2012, p. 366) with a focus on learners' interests and motivations. It reveals the intention of textbook developers to enhance the learning experience and make it more meaningful by providing "a link between what is already known and what will be experienced" (Yelland et al., 2008, p. 202).

When designing experiential learning tasks, textbook developers must discover how to provide learners with experiences that will help them understand workplace practices. Some workplace practices are familiar to learners, thus the textbook developers engage learners in these practices by emphasizing their personal or prior knowledge of the subject (EK1) and their own viewpoints or feelings (EK3), so that learners can combine their prior knowledge with new information to form their

¹ Note: Textbook 5 combines the sections of starting up, vocabulary and listening into one section "Listening and discussion".

Table 2. The coding scheme used in material evaluation.

KNOWLEDGE PROCESS	VARIABLES
EXPERIENCING THE KNOWN (EK)	<ul style="list-style-type: none"> • referring to or describing: <ul style="list-style-type: none"> <input type="checkbox"/> personal or prior knowledge of the subject (EK1) <input type="checkbox"/> familiar, lived experiences (EK2) <input type="checkbox"/> own viewpoints or feelings (EK3) <input type="checkbox"/> own interests (EK4)
EXPERIENCING THE NEW (EN)	<ul style="list-style-type: none"> • engaging in and considering new situations, experiences, information and/or texts (EN1) • finding new sources of information, for example conducting interviews, going online (EN2)
CONCEPTUALIZING BY NAMING (CN)	<ul style="list-style-type: none"> • finding concepts (CN1) • defining concepts (CN2) • collecting concepts or important terms (CN3) • classification of concepts or individual textual properties (CN4) • realizing distinctions of similarity and difference (CN5)
CONCEPTUALIZING WITH THEORY (CT)	<ul style="list-style-type: none"> • discovering the relationships between concepts and possibly forming a schematic overview of the topic (CT1) • assembling concepts into interpretative frameworks (CT2) • understanding of textual structures or sequences (CT3) • making generalizations of concept (CT4)
ANALYZING FUNCTIONALLY (AF)	<ul style="list-style-type: none"> • examining texts and their functioning, for example <ul style="list-style-type: none"> <input type="checkbox"/> how different techniques are used for different effects (AF1) <input type="checkbox"/> how ideas and information are used (AF2) • discussing and/or explaining a topic (AF3) • reasoning (AF4) • drawing conclusions (AF5) • summarizing (AF6) • analyzing logical and/or textual connections (AF7) • understanding of causes and effects (AF8)
ANALYZING CRITICALLY (ACri)	<ul style="list-style-type: none"> • realizing the interests, different points of view and motives behind texts, ideas and/or information (ACri1) • considering the topic from different points of view (ACri2) • evaluating the reliability of information (ACri3) • debating a topic (ACri4)
APPLYING APPROPRIATELY (AA)	<ul style="list-style-type: none"> • producing something conventional or predictable that is in keeping with the unit’s topic (AA1) • choosing a topic and explaining about it (AA2) • producing text or an equivalent in another form in a specific genre (AA3)
APPLYING CREATIVELY <input type="checkbox"/> ACre <input type="checkbox"/>	<ul style="list-style-type: none"> • creating something unconventional, hybrid or transgressive based on what has been studied in class (ACre1) • transforming for example text into another form or genre (ACre2) • being active in a creative form (ACre3)

Note: Any instruction sentence may include two or more knowledge sub-processes.

individualized knowledge. The following instruction sentence under the topic “communication” illustrates this [Yelland et al.,2008](#).

Example 2.

STARTING UP [A] Think of a good communicator you know. Explain why he/she is good at communicating.

(Ins A in Unit 1, Book IV, p. 8).

“Communication” is familiar to learners, so Ins A in Example 2 involves them in an Experiencing the known (EK) task, to think of a good

communicator they know (EK1), and describe the person’s strengths in communication (EK3).

There are still many workplace practices unfamiliar to learners. With regard to these new workplace practices, learners must “encounter new information, situation, texts, data” ([Cope and Kalantzis, 2009, p. 185](#); [Rowland, 2015, p. 261](#)) and find it difficult to understand the topics. To solve the problem, textbook developers help learners make sense of the topic and related terminology; therefore, they may choose a brief,

Table 3. Frequencies and percentages of variables in Instruction Sentences.

Variable	Frequency	Percent %	Variable	Frequency	Percent %	Variable	Frequency	Percent %
EK1	310	7.74	CT1	33	0.82	ACri1	31	0.77
EK2	50	1.25	CT2	28	0.7	ACri2	110	2.75
EK3	370	9.24	CT3	47	1.17	ACri3	5	0.12
EK4	8	0.2	CT4	7	0.17	ACri4	85	2.12
EN1	925	23.11	AF1	115	2.87	AA1	181	4.52
EN2	27	0.67	AF2	106	2.64	AA2	100	2.5
CN1	32	0.8	AF3	272	6.79	AA3	102	2.5
CN2	125	3.12	AF4	100	2.5	Acre1	6	0.15
CN3	563	14.06	AF5	3	0.07	Acre2	5	0.12
CN4	53	1.32	AF6	75	1.87	Acre3	0	0
CN5	53	1.32	AF7	60	1.5			
			AF8	16	0.4			

Note: Average percentage of EK:18.43%; Average percentage of EN:23.78%; Average percentage of CN:20.62%; Average percentage of CT: 2.86%; Average percentage of AF: 18.64%; Average percentage of ACri:5.76%; Average percentage of AA:9.52%; Average percentage of Acre: 0.27%.

engaging piece of informational text (EN1), with a certain amount of academic vocabulary as a scaffold for understanding the topic and terminology, and even intensive academic vocabulary instruction. Although learners may find it hard to read the text, there is still something in the text that relates to their experience, so that it is “at least meaningful in the first instance” (Cope and Kalantzis, 2009, p. 185). Below is an instruction sentence under the unit topic of “managing people”.

Example 3.

STARTING UP [A] What qualities and skills should a good manager have? Choose the six most important from the list. Discuss your ideas with a partner.

To be a good manager you need to:

1 be an expert	7 make suggestions
2 like people	8 judge people’s abilities
3 focus on tasks, not people	9 plan ahead
4 enjoy working with others	10 be good with numbers
5 give orders	11 make good presentations
6 listen to others	12 be older than your staff
(Ins A in Unit 10, Book II, p. 110)	

Compared with “communication”, the topic of “managing people” is relatively new from the learners’ perspective; as a result, Ins A in Example 3 is an Experiencing the New (EN 1) task by providing a “list” (key item categorized as EN1) of the qualities and skills for managing people, engaging learners in a new text that has many familiar elements like “listen to others” and “make suggestions” as well. These act as a bridge from something new to something familiar and anchor new learning on managing people.

5.1.2. High engagement of conceptualizing (conceptualizing by Naming + conceptualizing with theory) and analyzing (Analyzing Functionally + analyzing critically) in the textbooks

After Experiencing, Conceptualizing (23.48 per cent) and Analyzing (24.4 per cent) are frequently found in the textbooks. Business English graduates are supposed to transfer knowledge and skills from their studies to a future workplace, including business knowledge, communication and critical thinking skills. This means that understanding the workplace is not enough; instead, they need “systematic, analytic, and conscious understanding” (, p. 25 New London Group, 1996). Conceptualizing and analyzing must be emphasized in developing Business English textbooks, since they help achieve comprehensive understanding of how language and ideas are mutually constructed. In other words, they “sensitize learners to the complex linkages between textual features, rhetorical functions, and reasoning processes” (Kern, 2000, p. 54) represented in the Business English texts. For example.

Example 4 (Abbreviated).

READING 2 Closing the sale.

[B] Match the expressions 1–6 from paragraphs 1 and 2 with their definitions a)-f)

1...	a) deciding how likely it is that someone will buy something
	b)...
	d) someone whose job is to buy goods and service for an organization
5 qualification process	e)...
6 purchasing director	

[C] Which one of these statements about the whole article is true?

- 1 Sales people always have to be threatened before they go out and close a sale.

- 2 Qualification and using the final closing script are two key stages in the sales process.
- 3 Sales to companies always have to be authorized by the purchasing manager.

[D] Over to you

Some say that good sales people are born and that it’s impossible to train others to become good sales people. What do you think? Give your reasons.

(Ins B – Ins D in Unit 3, Book II, p. 28).

There are four tasks together in the section of Reading 2 and two of them, Ins B and Ins C, are Conceptualizing by Naming (CN2+CN3) and Analyzing Functionally (AF5+AF6) tasks respectively. The key terms “match” and “definitions” in Ins B were categorized as CN 2 (defining concepts) and CN3 (collecting concepts), and “one statement”, “whole article” and “true” were categorized as AF5 (drawing conclusions) and AF6 (summarizing) for Ins C. They help learners build concepts on the nature of selling and explore ideas about how selling actually works by explaining the elements of selling (see Ins B) and what to do when closing a sale (see Ins C). Defining concepts like qualification process and purchasing director is helpful in understanding the statements in Ins C and determining which one is true. In light of these points, we can find that Ins B and Ins C cohere “in a sequential manner building from simpler to the more complex skills” (de Silva Joyce and Feez, 2015, p. 14), through which language study and text analysis are fully integrated.

The knowledge process “analyzing” helps learners systematically and critically examine information in a particular social and cultural context. Learners must analyze texts functionally and critically, determining “causes and effects” (AF8), “logical and textual connections” (AF7) in the texts and “their and other people’s perspectives” (Acri2) concerning the text. Another example.

Example 5.

READING 1 Three great ideas.

[B] Work in groups of three. Make quick notes in answer to the questions below about your article.

Student A: Read Article 1 on the opposite page.

Student B: Read Article 2....

Student C: Read Article 3....

Questions	Who needs translators?	Safer cycling	Going for gold
1 What is the great/unusual idea?			
2 What problem does the ideas solve?			
3 Which markets are mentioned in relation to this idea?			
4 In terms of time, at what stage of development is the idea?			

[C] Ask your partners the four questions in Exercise B and make notes on what they say.

- [D] Discuss these questions in pairs
- 1 which of the ideas do you find the most interesting? Why?
 - 2 Which ideas do you think will be the most profitable?
 - 3 Which idea will reach the most markets?
 - 4 Can you think of any problems any of the ideas might have?

(READING 1 in Unit 4, Book II, p. 44).

To answer the questions in Ins B, learners must connect the purposes of three articles (Who needs translators? Safer cycling, and Going for gold) to

the approaches they are constructed and how language is used to serve their purposes. Specifically, they must first explore these texts (EN) to understand the messages and ideas expressed (CN). Then they continue to interrogate and exploit the texts from their own stance while making notes (AF). This task (EN + CN + AF) fosters learners' critical thinking as they consider what ideas are and how they affect society and gain an understanding of the role of great ideas in social development.

5.1.3. Superficial engagement of applying (applying appropriately + applying creatively) in the textbooks

Table 3 indicates that Applying appears less frequently (9.79 percent) than other sub-processes in the textbooks. Because there is insufficient usage, AA (9.52 percent) and Acre (0.27 percent) are addressed in instruction sentences and corresponding task performance on a more superficial level.

The case study section in the textbooks allows learners to practice the language and communication skills they have learned in the previous sections of the unit (See Preface in the textbook). It is especially designed to serve the goal of applying process. An example is the case study of "Al-Munir Hotel and Spa Group" (Unit 3, Book IV). It contains reading, listening, and role-play discussion tasks, helping learners deepen their understanding about building relationships with customers and demonstrate what they have learned by using the vocabulary, lexis, and sentences in the previous sections of the unit.

Example 6 (Abbreviated).

[Task] Work in small groups. You are members of either the Guest Relations or Marketing Department.

- 1 Prepare for the meeting by discussing each item on the agenda. One of you should lead the discussion and note down your ideas. (Agenda).

1. How can the Al-Munir Group make guests feel 'special' and 'highly valued'?
2. What can the group do to a) reward loyal customers, and b) persuade guests who have stayed once to return?
3. What can be done to make staff more motivated and customer-oriented in their approach to their work?
4. ...

(Task of Case Study in Unit 3, Book IV, p. 31).

The role-play (head/members of the Guest Relations or Market Department) in Example 6 offers a chance for learners to make thoughtful and creative connections between expression, understanding, and reasoning to present ideas and thoughts in a convincing way (Gordon and Thomas, 2018). According to the results of customer satisfaction surveys, "service", "staff" and "information" get below average scores, which was justified by Hamdi, who said that guests often mentioned that they were not made to feel "special" and "highly valued". As a result, learners deepen their understanding about the importance of customer relationship management and begin thinking about how to make guests feel "special" and "highly valued". To express their viewpoints, learners can use expressions like "we need to be friends with customers", "we need to build trust with customers", "we should pay attention to use of customers' names" and "external appearances matter a lot," and so on. All these expressions appear in the previous sections and can be applied appropriately (AA) here. In this way, learners' oral communication skills and business-specific subject matter knowledge are improved simultaneously.

The third item ("What can be done to make staff more motivated and customer-orientated in their approach to their work?") is a superficial AA task that allows students to discuss motivating staff. Although staff motivation is suggested by customers to the Al-Munir Group, motivating staff is not explained in the previous sections of the unit or the background information of the case. Learners will then find it difficult to discuss staff motivation appropriately because they lack a sequence of

scaffolded tasks designed to promote their comprehension. Additionally, as an Acre task, the role-play discussion cannot be implemented sufficiently either. Role-play leads learners to become "aware of the complex webs, rather than isolated strands, of meaning in human communication" (Kern, 2000, p. 46). Accordingly, it requires learners to use logic and reason rather than merely the free expression of opinion when discussing the agenda (Hitchcock, 2018). Learners should determine what the of the Guest Relations or Market Department will think of the items on the agenda and how to express opinions. Lacking a sequence of scaffolded tasks makes it hard to think critically and apply creatively in discussion.

5.2. Pedagogical impact of the distribution among the four knowledge processes on teaching critical thinking

Based on the distribution of the knowledge processes displayed in Table 3, we find an imbalance between sub-processes. The percentages of CT, ACri, and Acre are much lower than those of the other sub-processes. This results in a weak pedagogical impact on teaching critical thinking skills for these sub-processes.

The balance found here does not necessarily mean that all four knowledge processes must have equal coverage. The sub-processes EK, EN, and CN are pervasive because the primary interest of the textbook developers is in communicative competencies and experiential learning. This is stated in the preface to the *Market Leader* series (See Preface in the textbook). To this end, five textbooks do quite well in introducing a new topic by using Experiencing the Known as a lead-in task. They are then able to encourage learners to participate in the new information (EN) required by the topic in a series of ways. They also design learning tasks that require conceptualizing by naming (CN) when they create contexts for learners to identify and name new concepts that contribute to their knowledge of the topic. In this way, the prominence of EK, EN, and CN benefits learners in the development of English communicative competencies and provides a good starting point for teaching critical thinking skills. However, they do not systematically incorporate the other sub-processes, so that the textbooks are short of scaffolding for teaching critical thinking skills. Compare Examples 4 and 5:

In Example 4, Ins D is an Acri task, followed by CN and AF tasks. There is no CT task. Conceptualizing with theory (CT) is a key process in achieving a deep understanding of the topic through generalizing information from concrete to abstract (Rowland, 2015). Without this process, when learners are asked to discuss whether it is possible to train others to become good sales people, since good sales people are born, they cannot interact with the text and ideas or see the connections between training and closing a sale. As a result, they cannot produce new knowledge about what qualifies a good sales person for critical analysis in Ins D.

In contrast, Ins D in Example 5 engages students in a sequence of CT, AF, and Acri sub-processes. Questions 1, 2, and 3 focus on CT. Learners are supposed to make their own theory about how ideas are interesting and profitable enough to reach the market and make a choice based on their theory. Deepening understanding means that learners move from particular to general, and concrete to abstract. Question 4 is an Acri task and as a concluding question, would require that learners integrate their previous language study and text analysis to answer the question. Learners must first analyze the structure of the text and try to mimic its framework in order to discuss the problems of any of the ideas. As a result, they are prepared to answer Question 4 by going through the full knowledge process from Conceptualizing to Analyzing.

Combining the above comparison and analysis of discussion on the third item ("What can be done to make staff more motivated and customer-orientated in their approach to their work?") in Example 6, we may conclude that the imbalance between sub-processes leads to the lack of a sequence of scaffolded tasks to help learners master the case content more thoroughly with critical thinking. This is not helpful for China's Business English learners because "language or even performance in

language is not their sole concern” (Zhang, 2017, p. 6). Their ultimate goal is to “become composite-type English talents equipped with the knowledge, skills, and language required for the world of international business” (Zhang, 2017, p. 6).

6. Conclusion and recommendations

The principal concerns of the study are twofold: to investigate the distribution of knowledge processes in the textbooks under study and further explore its pedagogical effect on teaching critical thinking. The detailed qualitative and quantitative analysis of *Market Leader* shows that all five textbooks cover the four processes of KP framework and that the general goal of the textbook developers has been achieved, namely to “develop the communication skills that learners must succeed in business and enlarge their knowledge of the business world, and make them more confident and fluent in using the language of business” (see Preface of the textbook). The study also pinpoints deficiencies and shows that the textbooks can be improved, specifically in relation to the balance between the knowledge processes so that sufficient scaffolding will be created for teaching critical thinking.

Although the KP framework has four processes, there is an imbalance between sub-processes, especially CT, ACri, and ACre. Indeed, the experiential learning approach advocates reflection on the experience, which contributes to critical understanding of business topics and business texts (Boud et al., 1993; Schon, 1983). For experiential learning, it is important “to take the learner through each subprocess of the cycle, ensuring that effective links are made” (Healey and Jenkins, 2000, p. 186). Consistency and balance ensure an effective link between each subprocess, but study findings show disparities between subprocesses. As a result, balance among sub-processes merits consideration by textbook developers.

Regarding the pedagogical impact of *Market Leader* on teaching critical thinking skills, five textbooks engage learners in authentic business texts to develop critical thinking. A case study that requires critical thinking in problem-solving tasks is typically designed for this purpose (Lynn, 2016). These tasks include analyzing information from the case description critically, forming their viewpoints on a certain problem, presenting and questioning each other’s opinions, and making the final decisions. However, since the textbooks did not provide sufficient links between each sub-process, they are not as effective in facilitating critical thinking and even practicing communication skills. Consequently, teachers must design extra tasks as scaffolding so that learners can re-read the text and re-think their own position to make a final decision. This conclusion is also reported by other scholars (Hong, 2019; Pan, 2014) who conducted surveys among Business English students and interviewed teachers after the use of *Market Leader* in China.

The study presents a test-case for textbook developers, teachers, and learners to move beyond the routine perspective of Business English textbook evaluation (such as task type) and examine the potential pedagogical impact of textbooks on teaching critical thinking skills. This type of evaluation also has limitations. One is that it does not take learners’ existing language and business background knowledge into consideration. As such, further research is needed to observe learners’ behavior in class and test their cognitive ability to think critically. Moreover, teachers can be asked to provide feedback on how well the textbooks work in teaching practice and how effectively they teach critical thinking skills.

Declarations

Author contribution statement

Yun Jiang: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

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