

A Pragmalinguistic Investigation into Polar Interrogative-Response Sequences in MEXT Approved English Textbooks

Tomoe TAKAHASHI¹ and Goro MURAHATA²

Abstract

This study investigates how polar interrogative (PI)-response sequences are realized in English textbooks in comparison with those in discourse by native speakers. Very few studies have examined formal and functional features of PIs in relation to their responses in English textbooks. In this study 412 PI-response sequences are extracted from all of the six MEXT approved English textbooks for junior high school students published in 2016. PIs are analyzed in terms of their forms and functions, the intersection of their forms/functions and the turns in response to them. The results show that PI-response sequences in the textbooks have several divergent characteristics from native speaker discourse in their forms and functions. In particular, the rate of statement-form PIs, which are often observed at the beginning stage of first or second language acquisition, is much lower than that in native speaker discourse. Furthermore, PIs are largely used for the function of information request in the textbooks while PIs for repair or confirmation function are much more common in native speaker discourse. This study concludes with a suggestion that the teacher's ingenuity should be required to fill up disparities between turn-takings in the textbooks and those in native speaker discourse in order to provide second language users of English with more authentic input in a social context of situation.

1. Introduction

Polar interrogatives³ (PIs), alias Yes/No or polar questions/interrogatives, (Hudson, 1978:

¹ Aso Elementary School, Aso City, Kumamoto, Japan.

² Corresponding author, the Faculty of Education, University of Miyazaki, Miyazaki, Japan. *Email address* : murahata@cc.miyazaki-u.ac.jp

³ Following Raymond (2003), we use the term 'interrogative' instead of 'question' in order to avoid unnecessary confusion to readers. The grammatical form we are concerned with in this study can be used in a variety of social acts including 'questioning.'

Raymond, 2003; Larsen-Freeman & Celce-Murcia, 2016) and the turns interlocutors take in response to them as adjacency pairs⁴ or sequences have been traditionally considered to be one of the most pervasive practices of speaking in a second or foreign language classroom (Finocchiaro, 1969; Gauntlett, 1961; Kawajiri, 1978; Murahata & Inomata, 1995; Raymond, 2003; Richards, 1977, 1985). Thus, it follows that PI-response sequences can be considered as a fundamental unit of speaking discourse enabling second language (L2) users to use English impromptu in a given context of situation. Evidently, one of the most important sources of such PI-response sequences for L2 users is definitely the textbook to which they are exposed as part of their linguistic input in and out of the classroom. Therefore, it is of great significance to investigate how PI-response sequences are realized in the textbooks from a pragmalinguistic perspective.

Though there have been some studies which examined the types of responses to PIs alone in the textbooks in a Japanese context (Kawajiri, 1978; Fukazawa, 1992; Murahata & Inomata, 1995), very few studies investigated what interrogatives, including PIs, and in what functions were used in English textbooks as well as what type of responses to those PIs were compiled there. As Fries (1952) mentions, the PI itself is part of the linguistic frame in which the response as an utterance operates (quoted by Stubbs (1983, p. 105)). Therefore, only examining the formal and functional features of responses to PIs alone looks at part of the whole picture as a linguistic frame to use Fries' term.

As for functions of PIs, Clark and Lucy (1975) observe as follows:

In conversation people often mean something other than what they appear to be saying. The wife who says to her husband "Would you mind opening the window, dear?" does not expect him to take this utterance as a question to be answered by yes or no. She expects him to understand it as a request to open the window. (p. 56)

If the husband, either intentionally or unintentionally, answers by 'Yes' or 'No' and wouldn't move to the window, his answer is formally correct but pragmatically very odd in this context of situation.

⁴ When we say 'adjacency pairs,' it should be noted that it is not necessary for the first and the second pair parts to be immediately adjacent (McLaughlin, 1984). As shown in the following interaction between A and B (McLaughlin, 1984, p. 71),

A: Are you going to Brenda's party?
 B: What time does it start?
 A: Not 'til nine.
 B: Yeah, I guess so.

another pair of a PI-response can be inserted in a PI-response. That is, the direct response to the first interrogative "Are you going to Brenda's party?" is definitely "Yeah, I guess so."

His answer by ‘Yes’ or ‘No’ would even sound sarcastic to her implying his denial of her request to open the window for some reason or other.

Savignon (1997) indicates that “[l]anguage is used for an infinite number of purposes: to command, to describe, to request, to agree, to report, to avoid, to hide intent, to attract attention, and so on” (p. 19). Like the case in the wife-and-husband interaction quoted above, the function of a particular utterance is usually understood appropriately only when the utterance is placed in a particular form of social organization in its context of situation (Raymond, 2003). The PI is not an exception. From the pragmalinguistic point of view, the grammatical categories in grammar books such as below (Savignon, 1997, p. 19) simply do not apply as the PI in the wife-and-husband interaction clearly shows:

- The imperative is for giving orders;
- The interrogative is for asking questions;
- The declarative is for making statements.

Even a declarative sentence such as “You come from Texas?” is often used as PI to make not a statement but a confirmation or clarification (see the next section for this type of interrogative form).

In the present study we first collect all of the PI-response sequences in six MEXT approved English textbooks currently used nation-wide in Japan. Then we categorize them into several types according to their form and function comparing with those of previous studies. We also examine the intersections between PI forms/functions and the turns in response to them. Finally, we investigate what kind of synonymous formulae for Yes/No responses are used in the textbooks.

2. Review of Literature

2.1 Forms of Interrogatives

In this section, we review the characteristics of English interrogatives from a formal perspective. English interrogatives are linguistically marked by one or more of the following ways (Quirk et al., 1972, p. 386):

- (a) The placing of the operator in front of the subject:
Will John speak to the boss today?
- (b) The initial positioning of an interrogative or *wh* element:
Who will you speak to?
- (c) Rising ‘question’ intonation:
You will speak to the BÓSS?

Among these, (a) and (c) are called Yes/No interrogatives or PIs because they can be replied by either

'Yes' or 'No' for an extremely opposite meaning. Regarding the transformative operation of PIs (Quirk et al., 1985), if any of the 'Be-verbs,' that is, 'is, am, are, was, were' is in the verb phrase in a sentence, it is inverted with the subject of the sentence and placed at the beginning of the sentence (e.g., "Is she your sister?"). Other PIs are formed by placing the operator such as 'is/have/has/had/can/will' as follows:

Is Goro coming to today's party?
 Has Tomoe finished writing her report yet?
 Can I ask you something?
 Will you give me another hint?

Furthermore, if there is no item in the verb phrase that can function as operator, *do*, *does* or *did* as auxiliary is introduced (e.g., "Does Tomoe have any plan for the summer vacation?"). Therefore, in our study, PIs are classified into three types according to their formal properties: Be-Verbs, Aux1 (operators) and Aux2 (Do/Does/Did). However, as shown from a formal perspective above, we have another type of interrogatives, namely, the one where the syntax remains the same without inversion of the subject and the verb or auxiliary with rising intonation at the end of the sentence ("You are from Texas?") (Biber, Conrad & Leech, 2015; Larsen-Freeman & Celce-Murcia, 2016; Quirk et al., 1985). Biber, Conrad and Leech (2015) call this type of interrogatives 'declarative question' (p. 249).

Stivers (2010) found out that 70% (230 tokens out of 350) of interrogatives by native speakers were PIs, followed by 27% (90 tokens) of *wh*-questions and 3% (8 tokens) of alternative questions. With respect to PIs, non-inversion statement-form interrogatives with rising final intonation were used more commonly (66.8%, 145 tokens out of 217) than inversion interrogatives (33.2%, 72 out of 217) (excluding tags (13) out of 230 in total). Most of those interrogatives were B-event statements (Labov & Fanshel, 1977; Stubbs, 1983), that is to say, requests for confirmation.

From the language acquisition point of view, Yamada (1978) observed an interesting phenomenon as to the developmental stages of question formation in first or second language acquisition. He mentions that the order of appearance of PI forms in the textbooks do not follow the developmental stage of first and second language acquisition of English (Table 1):

Table 1 Developmental stage of PIs in first and second language acquisition⁵

Stage 1: Single words, formulae or sentence fragments + rising intonation

⁵ This is adapted and adopted from Lightbown & Spada (1999, Table 4.1, p. 79) and Ortega (2009, p. 35). However, the stages were originally developed by Pienemann, Johnston and Brindley (1988). See also Crystal (1976, pp. 50-51) for his very similar description of the developmental process of interrogatives in child learning English as a first language.

'Four children?' 'A hat?'

Stage 2: Non-inversion statement-form word order + rising intonation, no inversion, no fronting:

'It's a monster in the right corner?'

Stage 3: Fronting:

'Is your daughter work here?'

Stage 4: Inversion of *Be* and *Do* support

'Are you listening me?' 'Do you like ice cream?'

According to the developmental sequence in Table 1, the non-inversion interrogative form with rising intonation, 'the statement-form question,' first appears in children's discourse. Yamada's (1978) observation is very important when we think of optimal teaching and learning materials for beginners. However, he shows no reference, no empirical evidence for that developmental phenomenon.

2.2 Functions of Polar Interrogatives (PIs)

As Larsen-Freeman and Celce-Murcia (2016) and Raymond (2003) among others mention, PIs can be used in a variety of social functions other than just seeking new information (questioning): clarification, confirmation, request, invitation ("Would you like to sit for a while?"), directive ("Would you please stand up straight?"), reprimand ("Aren't you a little old doing that?") or complaint ("Have you ever stayed home all day with a two-year-old?"), among others. Stivers (2010) also gives a functional account of English interrogatives in terms of what she called 'social action.' She observes that interrogatives are seemingly concerned with securing information, but are identified primarily as doing something else in the interactional sequence: for example, other initiated of repair ("A: Waiter? B: Waitress, sorry."⁶), confirmation request, assessment, suggestion, offer, request, or tease. As seen from the above, there can be an infinite number of functions PIs perform. Nevertheless, seeking information, request (asking to do something) and confirmation, other initiated of repair (which can be regarded as a kind of confirmation), can be the most common functions of PIs in English. As for the 'declarative question,' Biber, Conrad and Leech (2015) indicate its function that "the speaker is testing out the truth of the statement by inviting confirmation" (p. 249).

Furuya (1993) examined the rate of PIs which function as 'request,' request for information, in three English textbooks for junior high school students published in 1993, *Sunshine English Course*, *Everyday English* and *New Total English*. He collected and analyzed a total of 428 interrogatives and found an extremely high frequency of 'question' use, 83.6% (358 tokens), and only 10 tokens of 'request' functional use, which results in the rate of a mere 2.3%. The combined rate of 'request' and

⁶ Adapted from a conversation by Schegloff, Jefferson & Sacks (1977, p. 377).

other functions such as suggestion, invitation and permission was 16.4%. Though his results highlighted the rather disproportionate characteristics of functional use of interrogatives in the textbooks, two methodological issues remain in his study. Firstly, he classified all the interrogatives (PIs, *w/*rquestions, and the like) in one category so that he failed to clarify in what function PIs were used in the textbooks, which is the main focus of the present study. Secondly, he also classified 70 cases into one category as ‘others’ which covers three different functional uses, that is, suggestion, invitation and permission. This also obscures the rate of each of the three different functions.

Stivers (2010) examined the intersection between linguistic forms and social functions of PIs and obtained the following results (Table 2):

Table 2 The intersection between form and function of PIs (adapted from Stivers (2010, Table 3, p. 2776))

Social Function Performed by PIs	Form Type of PIs		Total	
	Non-inversion statement-form	Inversion-form		
Information request	5 (7.9%)	58 (92.1%)	63 (30.9%)	
Other initiated repair	77 (95.1)	4 (4.9%)	81 (39.7%)	141 (69.1%)
Confirmation	54 (90.0%)	6 (10.0%)	60 (29.4%)	
Total	136 (66.7%)	68 (33.3%)	204 (100%)	

Non-inversion statement-forms are rather exclusively used for other initiated repairs and confirmations (77 tokens, 95.1%; 54 tokens, 90.0%) while inversion-forms for information requests (58 tokens, 92.1%). Two important implications can be drawn from these results. Firstly, as Stivers (2010) herself concludes, native speakers rely on a particular morphosyntax for designing social action in systematic ways. In other words, the morphosyntactic feature of a PI provides the respondent with a clue in what sort of social action is being put forward and how he or she should respond to the PI given. Secondly, it is our speculation that the role PIs mainly play in conversational discourse is not to get new information from the interlocutor but to avoid communication breakdowns by enhancing a flow of turn-takings and carrying on the interaction with repairs and confirmations.

2.3 Previous Studies on Responses to Polar Interrogatives (PIs)

Winn-Bell Olson (1981) found that approximately 8% (26 tokens out of 329 in total) of responses to PIs fell into the ‘Yes/No + Subject + Aux (+ further statement)’ type response. The most frequent type of responses (137 tokens) was either ‘Yes (Yeah, Yep, etc.)/No (Naw, Nope, etc.)’ alone (56 tokens) or ‘Yes/No, + further statement’ (81 tokens). The next most frequent type of responses (84 tokens) was either a full or incomplete statement (without Yes/No) of the same proposition as question (47

tokens) or a full or incomplete statement of new proposition (37 tokens). The third most frequent type of responses (48 tokens) was either formulaic expressions such as “Sure.” “I doubt it.” “Absolutely.” etc. (31 tokens) or ‘formulaic expression + further statement’ (17 tokens). One of the most important discussions in this study was that the frequency of the short-answer form (i.e., ‘Yes/No + Subject + Aux’) was an indication of the social distance between speakers. The more distant the relationship between them is, the more frequent the short answer is. Therefore, it can be said that the ‘Yes/No + Subject + AUX’ type short answer is highly likely to be posited as a distancing device indicating “slight discomfort, a subtle feeling of ‘something strange’” or “a strain in the relationship” (p. 408).

Richards (1977, 1985) examined a total of 575 answers to PIs from novels and plays, a total of 286 in a spoken corpus from informal interviews with four native speakers and six widely used English course books. He found six different types of response patterns as shown in Table 3 below.

Table 3 Six response patterns to PIs in discourse by native speakers of English (Richards, 1977, pp. 137-138)

Class I	The words ‘Yes’ ‘Yes, please’ ‘No’ ‘No, thank you.’ (ex.) Q: Are you sure his name is Jim O’Cormor? A: <u>Yes.</u>
Class II	‘Yes’ or ‘No’ + repetition of the subject and the verb or auxiliary verb in the question. (ex.) A: Did you enjoy living in Philadelphia? B: <u>Yes, I did.</u>
Class III	Without repetition of the subject and the verb or auxiliary verb, but with additional information confirming, supporting, denying, modifying, or commenting on the question. (ex.) A: Did you stop in Rome? B: <u>Yes, I spent a week there.</u>
Class IV	Repetition of the subject and the verb or auxiliary verb without ‘Yes’ or ‘No,’ but with additional qualifying, supporting, denying, or affirming information. (ex.) A: Are the students generally well paid? B: <u>The men are; the women aren’t.</u>
Class V	Synonyms for ‘Yes’ or ‘No.’ Formulaic expressions having the meaning of ‘Yes’ or ‘No’ or some intermediate shade of meaning between these categories. (see Table 4). (ex.) A: Are you feeling all right? B: <u>Of course, darling.</u>
Class VI	Without directly answering but a positive, negative or neutral reply being inferred from the context of the answer. Confirmation, agreement, denial, etc. is communicated by inference from the context of the response or the response may take the form of a comment or a request for clarification. (ex.) A: Are you going at once? B: <u>As soon as possible.</u>

Those responses in Classes I through III are used with ‘Yes’ or ‘No’ at the beginning of the turn; other responses are used without them and can be regarded as rather indirect responses to PIs. The

responses classified in Class V are shown in Table 4. They are synonymous formulaic expressions for 'Yes/No' responses that have the meaning of 'Yes' or 'No' or intermediate degree of meaning between the polar positive and negative responses.

Table 4 Synonyms (formulaic expressions) for Yes/No responses (Richards, 1977, p. 138)

(yes)		(no)		
uh huh	mostly	maybe	not that I know	of course not
certainly	as usual	perhaps	not well	never
of course	rather	fairly	I don't think so	nothing
sure	I think so	sometimes	I don't believe so	not a bit
why not	I believe so	I don't know	not really	
terribly	I suppose so		not much	
very	I expect so			
definitely				
plenty				
perfectly				

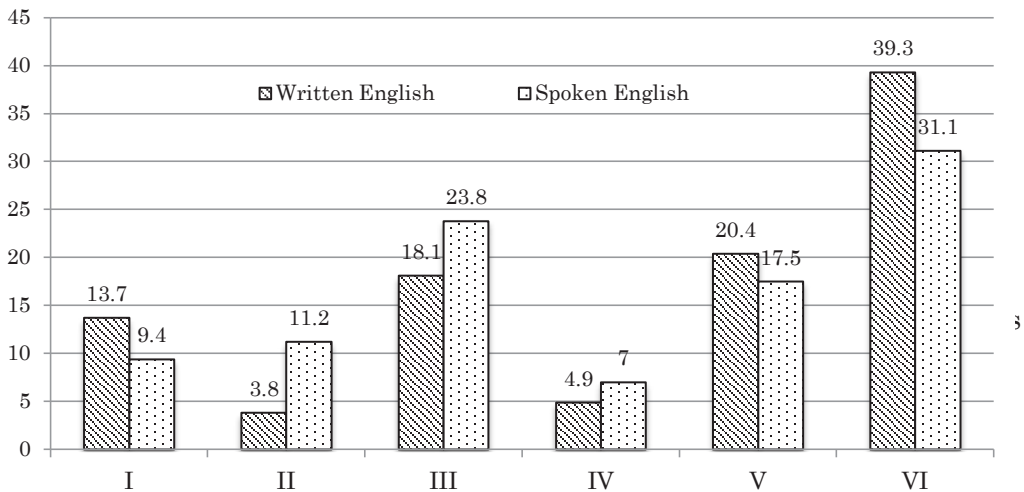


Figure 1 Rate of response types in written and spoken discourses by native speakers (Richards, 1977, p. 139)

Figure 1 shows that there were slight differences in frequency between written and spoken English, but the overall tendencies were basically the same; Class VI was the highest, Classes III and V came next and Classes II and IV were rather low in both linguistic modes. Table 5 shows the combined tokens and rates of the two modes, spoken and written, of discourses.

Table 5 Token and rate of response types to PIs in naturalistic discourse (written and spoken combined) by native speakers of English (Richards, 1977, p. 139)

Response types	I	II	III	IV	V	VI	Total
Frequency	105	54	172	48	167	315	861
%	12.2	6.3	20.0	5.6	19.4	36.6	100

The rate of responses classified in Class VI was the highest (36.6%) and that of those classified in Class II (Yes-No + Subject + Auxiliary) was the second lowest (6.3%).

Richards also found in English course books that the most frequent type of answer was ‘Yes’ or ‘No’ with repetition of the verb/auxiliary (Class II) and argued that such answers are not typical in normal English because “in ordinary conversation exchanges, more is usually expected from the participants than could be communicated by simply using yes or no with verb or auxiliary repetition” (Richards, 1977, p. 140). Richards expressed his view that responses in Class II pose “unnecessary difficulties for students and does not lead them toward normal uses of English” because these responses require the complex grammatical manipulation, namely, the inversion of the subject and the verb or auxiliary (either a modal auxiliary or *do, does, did* with no lexical meaning) in the question and may be of little value to the L2 user of English.

Yamada (1978) reviewed Richards’ (1977) research into the types of responses to PIs in native speakers’ discourse and called particular attention to the low token of response types in Class II (Yes/No + Subject + Auxiliary: “Yes, I am.” “No, I’m not.”). In addition, he suggested that it was necessary to investigate the types of responses to PIs presented in Japanese English textbooks in order for Japanese students not to be exposed to rather unnatural and stilted English discourse as linguistic resources.

Following Yamada (1978), Kawajiri (1978) investigated response patterns to PIs based on a preceding study by Richards (1977) in three English textbooks for junior high school students (under *Course of Study* revised in 1968~1970). He found that the response type first introduced in each of the textbooks was Richards’ (1977) Class II (i.e., “Yes, I am.” type short answer) and that the rate for responses categorized in Class II was extremely high across the three textbooks; the average rate for the textbooks was 80.0%. And if we add Class I responses to Class II, the rate becomes 92.8%, which means an extremely low rate, mere 7.2%, for the sum of the other response types (III, IV, V and VI) where certain additional information is more or less given.

Fukazawa (1992) also analyzed response types in six English textbooks for junior high schools published in 1990 (under *Course of Study* revised in 1977/1978), again based on Richards’ (1977) study, and found that the tokens and rates for classes were 53 : 13% (Class I), 187 : 45.8% (Class II), 83 : 20.3% (Class III), 3 : 0.7% (Class IV), 54 : 13.3% (Class V) and 28 : 6.9% (Class VI) respectively.

with frozen responses in Classes I and II.

Following Richards (1977, 1985) and Fukazawa (1992), Murahata and Inomata (1995) examined seven English textbooks published in 1995 (under *Course of Study* revised in 1994) in order to solve some weaknesses in Fukazawa's (1992) study, in short, too much dependence on statistical analyses, not showing sample expressions in Classes V or VI and some responses being categorized into more than one class. Murahata and Inomata (1995) found that the rates for response patterns Richards (1977) originally established were largely in consistency with those in Fukazawa's (1992) study; in particular, responses in Class I + Class II combined counted 262 tokens, approximately 60.0% of all the responses. They also found that the rates of responses classified in Classes V and VI (synonymous responses of 'Yes/No') increased (Class V: 69 tokens, 15.8%, Class VI: 45 tokens, 11.5%) compared with those in Fukazawa (1992). This shows the response patterns are getting inclined to naturalistic discourse by native speakers found in Richards (1977) (Class V: 19.4%, Class VI: 36.6%).

Another prominent result in Murahata and Inomata (1995) was the steady increase of responses in Class V with 21 response types (formulae) of 69 tokens in total. Out of those 21 types, 15 such as "Sure." "That's right." "Of course." were those for positive responses, which means that there was still a strong bias toward positive formulaic expressions as Fukazawa (1992) also found. Their conclusion was that English textbooks were said to stay structure-based with stilted responses in Classes I and II, but were showing, to some extent, those characteristics in naturalistic discourse by native speakers of English.

All of the previous studies on response patterns to interrogatives in English textbooks for junior high school students are of importance showing discourse features of responses to PIs in English textbooks. However, as mentioned at the onset of this paper, only examining responses to PIs alone looks at part of the whole linguistic exchange or what is called an adjacency pair. It is also necessary to examine pragmalinguistic features of PIs themselves and the intersection of PIs and their responses that follow in its context of situation.

2.4 Research Questions

Based on the findings and issues in previous studies on responses to PIs, the following research questions (RQs) are posited in this study:

- RQ1: What are formal and functional characteristics of PIs presented in English textbooks compared with those in naturalistic discourse by native speakers?
- RQ2: What types of responses to PIs are presented in English textbooks? Are they still structure-based being different from those in naturalistic discourse by native speakers?
- RQ3: What features can be seen in PI-response sequences or the intersection between PIs and their responses?

3. The Study

3.1 Materials

The materials we use for PI-response sequence analyses are six MEXT approved English textbooks, 2016 editions, 3 books for each, a total of 18 books:

- (1) *SSEC* (*Sunshine English Course 1, 2, 3*, Kairyudo)
- (2) *NCES* (*New Crown English Series 1, 2, 3*, Sanseido)
- (3) *NHEC* (*New Horizon English Course 1, 2, 3*, Tokyo Shoseki)
- (4) *CEC* (*Columbus English Course 1, 2, 3*, Mitsumura Shoten)
- (5) *TE* (*Total English 1, 2, 3*, Gakko Toshō)
- (6) *OWEC* (*One World English Course 1, 2, 3*, Kyoiku Shuppan)

The PI-response corpus we analyze includes the main texts and conversation exercises in the textbooks and we exclude other materials such as formal exercises, target sentences, the summing-up at the end of the program. PI-responses are most often seen in the dialogue, but are sometimes observed in an exchange such as “The Palace Theater?” “Yes.” (*NHEC 2*, p. 78) in a story type text.

3.2 Research Methodology

In this study, the following four formal types of PIs are identified based on Larsen-Freeman and Celce-Murcia (2016):

- (1) Be-Verb (BV): The inversion of the subject and the *be*-verb
(ex.) Is she an English teacher? (*CEC 1*, p. 38)
- (2) Auxiliary 1 (Aux1): The inversion of the subject and the auxiliary *do, does, did* with no lexical meaning itself.
(ex.) Do you like Japanese food? (*TE 1*, p. 24)
- (3) Auxiliary 2 (Aux2): The inversion of the subject and the modal auxiliary such as *can, must, will* etc. or *be* or *have* for passive and perfect sentences with no lexical meaning.
(ex.) Can anyone answer the phone? (*SSEC 1*, p. 91)
(ex.) Have you lived in Japan for a long time? (*OWEC 3*, p. 18)
- (4) Statement-form (ST): The statement syntax without any inversion but accompanied by rising intonation, including repetition of a word or phrase used in the question like an echo.
(ex.) And you have no family or friends in the city? (*NHEC 3*, p. 103)
(ex.) A witch? Me? (*OWEC 2*, p. 56)

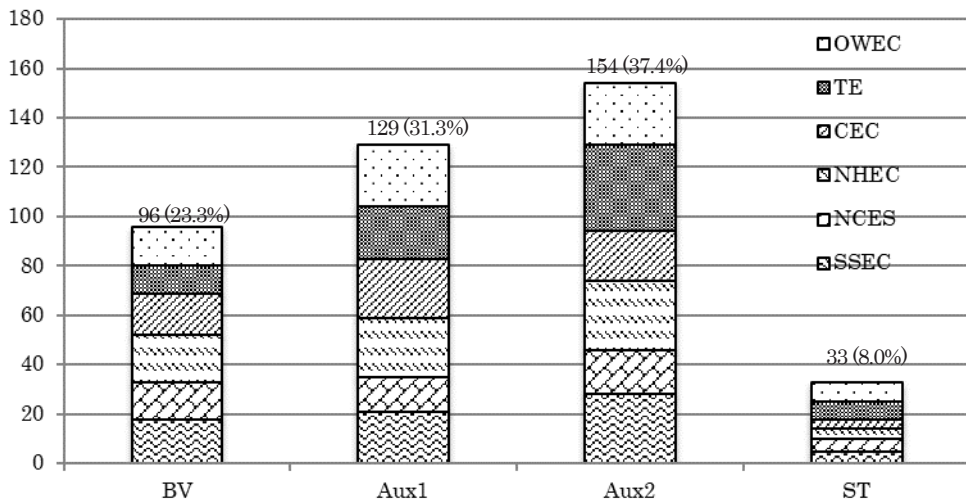
On the other hand, functions of PIs are classified into six categories. The categories (1) (2) (5) and (6) are based on Larsen-Freeman and Celce-Murcia (2016) and Stivers (2010), and (3) and (4) are our additional ones based on our preliminary study on the functions used in PIs in the MEXT English textbooks:

- (1) Information (Inf): Asking for information
(ex.) Do you practice the guitar every day? (*NHEC 1*, p. 40)
- (2) Request (Req): Asking to do something
(ex.) Will you lend me one, please? (*CEC 2*, p. 64)
- (3) Permission (Per): Asking for permission
(ex.) May I speak to Bill, please? (*CEC 3*, p. 63)
- (4) Invitation (Inv): Inviting someone to do something
(ex.) Shall we go to Paris, then? (*TE 2*, p. 52)
- (5) Offer (Off): Making offers to do something
(ex.) May I help you? (*SSEC 2*, p. 50)
- (6) Confirmation (Con): Making confirmations or encouraging repairs of understanding
(ex.) Is that so? (*SSEC 3*, p. 25)

As for the analysis of responses to PIs, we follow the six categories (Classes I to VI; see Table 3) reported by Richards (1977, 1985). However, we posit one additional category based on our preliminary research into response patterns found in the textbooks. We call the category Class VII in which includes those responses that don't belong to any of Richards' (1977, 1985) six categories. The turn classified in this category can hardly be regarded as the answer to the PI because it has neither the substantial meaning of 'Yes' or 'No' nor the implicational meaning induced by the listener's inference as in the case of Richards' Class VI. It functions not as response but rather as mere discourse link to the preceding turn (PI) such as "Is it really full of poison?" "Give it to me." (*NCES 2*, p. 54).

4. Results and Discussion

First of all, the answer to RQ1, "What are formal and functional characteristics of PIs presented in English textbooks compared with those in naturalistic discourse by native speakers?" is discussed based on the results obtained. Figure 2 shows formal characteristics of PIs in the textbooks comparing the rates of four syntactic forms (BV, Aux1, Aux2 and ST) in each of the textbooks examined. As the figure shows, no large differences in the tokens and rates of PI syntactic forms were found across the textbooks.



Notes: BV=Be-verb; Aux1= 'Do, Does or Did'; Aux2= 'Can, Will or May'; ST=Non-inversion statement-form

Figure 2 Distribution of token and rate of polar interrogative forms in the English textbooks

Secondly, as you can see in Table 6, the ST form, that is, the non-inversion statement-form, covers only 8.0% while inversion forms including BV, Aux1 and Aux2 account for over 90% of all the PIs. This result does not hold for what Stivers (2010) found as shown in the table.

Table 6 Comparison of tokens and rates of inversion-form and non-inversion statement-form in native speaker discourse and the English textbooks

	Stivers (2010)*	The present study
Inversion-form (BV, Aux1 and Aux2)	145 (66.8%)	379 (92.0%)
Non-inversion statement-form (ST)	72 (33.2%)	33 (8.0%)
Total	217 (100%)	412 (100%)

*Numbers are based on Table 1 (Stivers, 2010, p. 2773) excluding Tag-Q (N=13).

The rate of inversion-form in the textbooks was 2.8 times higher than that in English discourse by native speakers in Stivers (2010). On the other hand, the rate of non-inversion statement-forms in native discourse was 8.4 times higher than that in English textbooks. This implies that there is a great difference in syntactic forms of PIs between the textbooks and native discourse; namely, inversion forms are rather exclusively used in the textbooks while non-inversion statement-forms

account for two thirds of PIs in native discourse. It is legitimate to say that non-inversion statement-forms appear at the beginning stage of second language acquisition probably because of less cognitive burden in grammatical manipulation. If this is true, the PI-response sequences in the current textbooks compel L2 users to process too much cognitive demanding pragmalinguistic input.

However, out of 33 ST forms in the textbooks, 29 belonged to those (single words, formulae or sentence fragments + rising intonation such as “Soft tennis?” (*SSEC* 2, p. 81)) at the stage one in Table 1 and all of them were presented in the textbooks for either first or second graders, and the rest (four expressions) belonged to the stage two (non-inversion statement-form [sentence] word order + rising intonation such as “You play three different sports?” (*TE* 3, p. 27)). These results suggest that while the total frequency of non-inversion statement-form PIs was absolutely lower than that in naturalistic discourse by native speakers, the order of its appearance somehow follows the stages in first and second language acquisition of English.

On the other hand, what characteristics of PIs at the functional level can we see in the textbooks? Figure 3 shows functional characteristics of PIs in the textbooks. As in the case of formal characteristics of PIs, there were no large differences in the token and rate of functions used in each of the textbooks. One significant result found here was the largest token of the ‘information’ function used in the textbooks (265 tokens). This result shows that PIs in the textbooks are largely used for information request (64.3%), which again is not in parallel with that found in native discourse (Stivers, 2010; 30.9%).

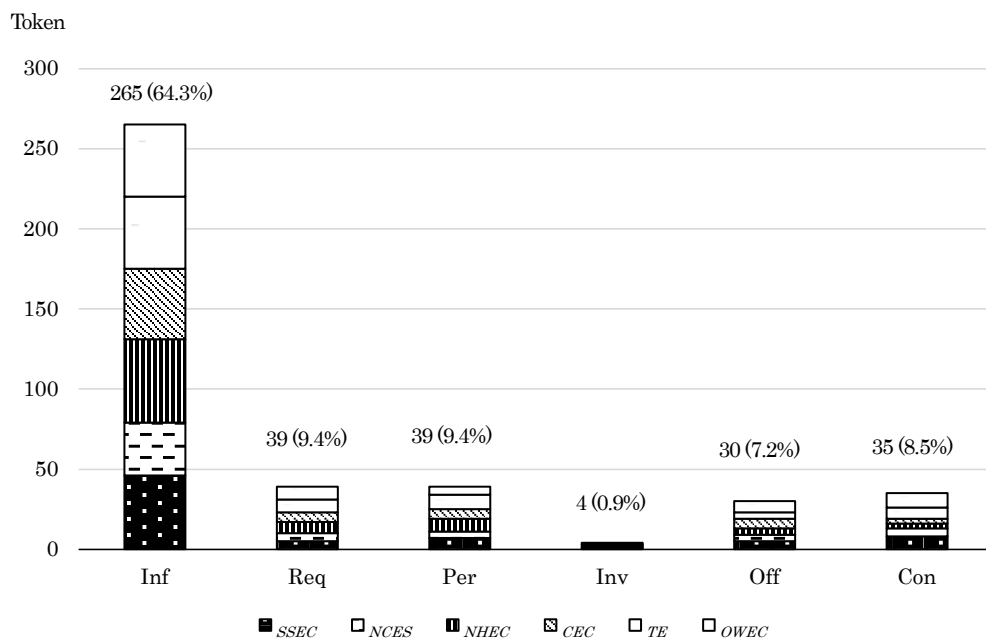


Figure 3 Token of functions used in each of the English textbooks

As far as non-inversion statement-form PIs are concerned, as Table 7 shows, the function in which they are used most in the textbooks is ‘confirmation’ (80.7%). Only 16.1% of all the ST forms are used for information request and the rest for either ‘confirmation’ (80.7%) or ‘offer’ (3.2%). That is, the majority of ST forms are used, as Biber, Conrad and Leech (2015) mention, for trying out the truth of the preceding utterance by inviting confirmation.

Table 7 Distribution of non-inversion statement-form according to functions (N=31)

Function	Token (%)	Inf. vs. others
Information	5 (16.1%)	5 (16.1%)
Other initiated repair	0 (0%)	26 (83.9%)
Confirmation	25 (80.7%)	
Offer	1 (3.2%)	

Next, we see the results for the answer to RQ2, “What types of responses to PIs are presented in English textbooks? Are they still structure-based being different from those in naturalistic discourse by native speakers?” Figure 4 compares the rates of types of responses to PIs in the English textbooks in four studies. Because of the comparative purpose, the responses in our original Class VII are excluded in the distribution of rates in the present study.

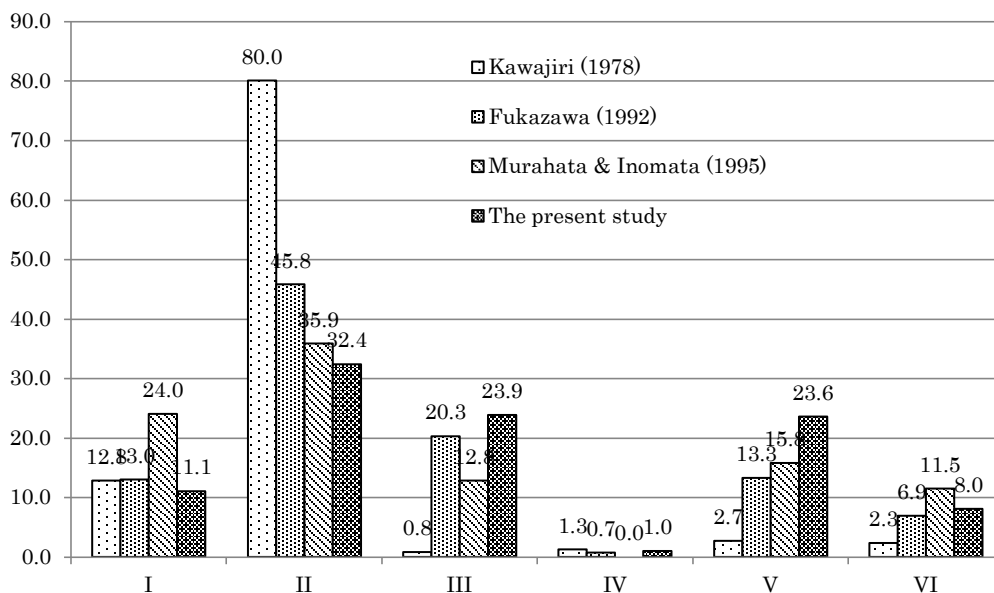


Figure 4 Comparison of rate of response types to PIs in the English textbooks

As you can see, in a general tendency, the gap between the response types in the MEXT approved textbooks and those in native discourse, as we reviewed in the preceding section 2.3, is getting smaller. For example, the responses classified in Classes I and II are decreasing while those in Classes V and VI are increasing. In particular, the rate of Class V (23.6%) is at the same level of that in naturalistic discourse (19.4%). Nevertheless, the rate of response types in Class II (32.4%), though decreasing compared with three of the previous studies, still remains high compared with that in native discourse (6.3%). This raises two serious problems for L2 users to learn pragmalinguistic features of the turns in response to PIs. Firstly, as Winn-Bell Olsen (1981) observes, the response type in Class II, that is, 'Yes/No + the Subject + Verb/Aux' expresses a social distance between speakers so that exclusive use of this response type in turn-takings might give the interlocutor discomfort or a feeling of something strange. Secondly, the response of this type requires the complex grammatical manipulation, that is, the choice of a cohesive pronoun ('You' → 'I') or pronominalization ('John' → 'he') of the subject, the repetition of the verb or the appropriate choice of the operator in adequate tense and number ("A: Were you studying? B: No, I wasn't." (TE 2, p. 18)).

Moreover, while the rate of responses in Class VI tends to be increasing, it remains one fourth of that in native discourse (8.0% vs. 36.6%). All in all, generally speaking, as far as responses to PIs are concerned, the discourse in the English textbooks to some extent comes to show characteristics in native discourse. However, there remain problems to be solved in responses in some classes, particularly Classes II and VI.

Thirdly, RQ3, "What features can be seen in PI-response sequences or the intersection between PIs and their responses?" is considered with related results. Figure 5 presents in what response type, including our category VII, each of the PI functions was responded, in other words, the intersection

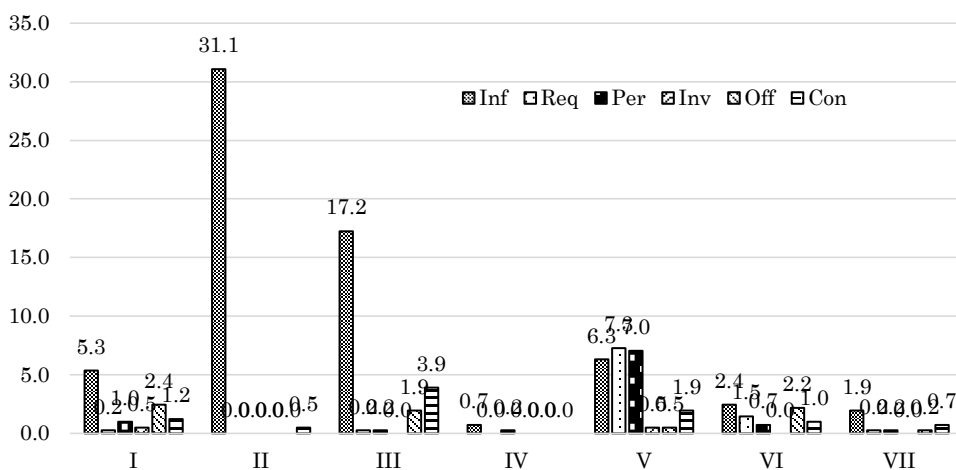


Figure 5 Intersection of interrogative functions and response patterns

of PI functions and response types to the PIs. According to the figure, as to information function, responses in Class II account for 31.1%, Class III 17.2%, Class I 5.3%. The responses in those three classes with 'Yes/No' occupy more than half tokens (53.6%).

On the other hand, Figure 6 shows with what response type each of the PI syntactic forms is responded, that is, the intersection of PI forms and response type to the PIs. As shown in the figure, BV is largely responded with responses in Class II (42.7%), Aux1 Classes II (41.9%) and III (31.0%), Aux2 Class V (43.5%), ST Class III (42.4%) respectively. It can be said that inversion-forms for BV and Aux1 ('Do, Does or Did') are mostly responded with 'Yes/No' response sequences in the English textbooks.

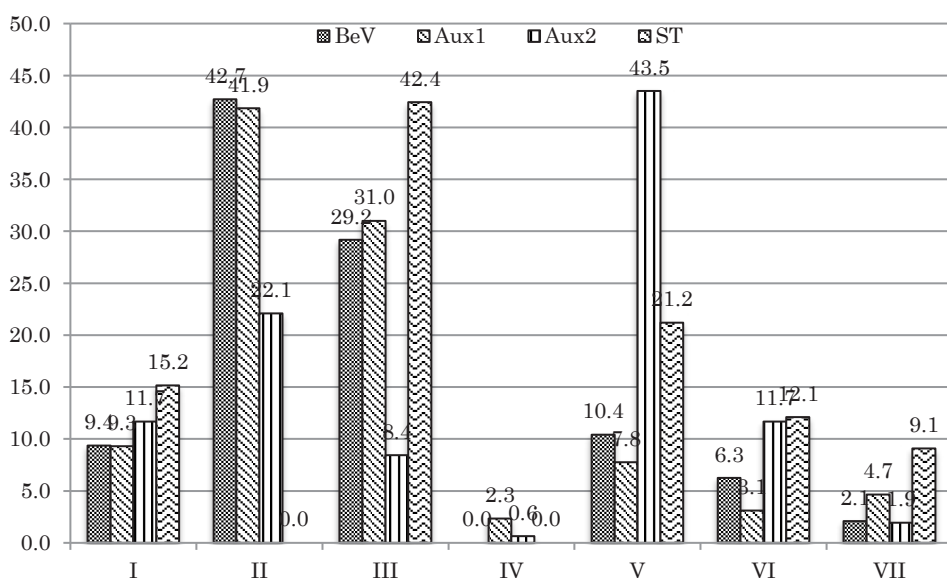


Figure 6 Intersection of interrogative forms and response patterns

Figure 7 shows with what type of response inversion-forms and non-inversion statement-form PIs are responded respectively. Concerning non-inversion statement-form PIs, responses in Class III are used most of all the types (39.4%), Class V comes next (22.6%), which accounts for 62.0% of all the responses. No response in Class II is found in the present study. On the other hand, as to inversion PIs, responses in Class II are used more than other types (33.9%), responses in Class V (22.8%) and Class III (21.9%) follow. The response type in Class V (formulaic expressions) is used rather evenly for both inversion-forms and non-inversion statement-forms (22.8% and 22.6%).

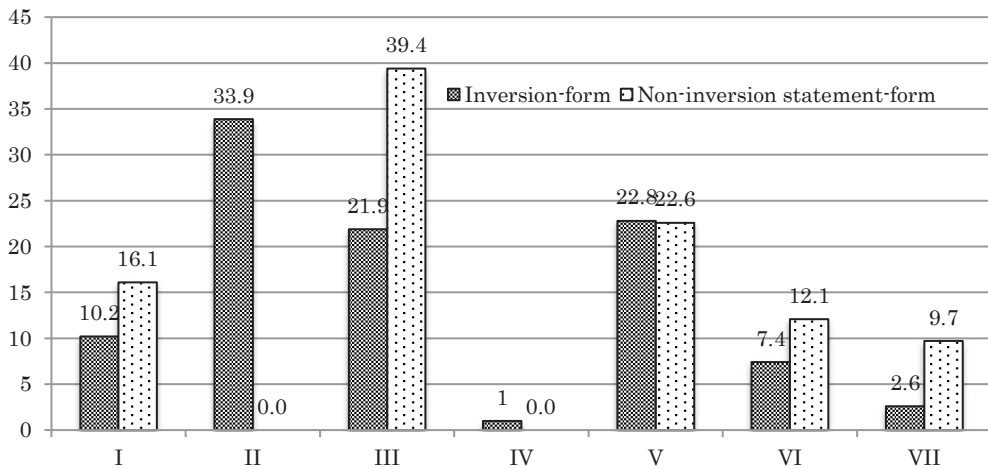


Figure 7 The intersection of inversion-form/non-inversion statement-form and types of responses

We next turn our attention to what kind of synonymous formulaic expressions are found in the current English textbooks. Table 8 shows those for Class V responses found in the present study in relation to those reported in the previous studies by Richards (1977, 1985) and Murahata and Inomata (1995). The number in the () bracket shows the token in the present study and the asterisk * denotes the synonymous expression which was found in the present study, but not in Murahata & Inomata (1995). The arrow ↑ shows the increase, ↓ the decrease. The (0) bracket denotes the synonymous expression which is found in Richards (1977, 1985), but not in the present study and the (0) bracket + ↓ stands for the expression which was found in Murahata and Inomata (1995), but not in the present study.

Table 8 Synonymous formulae for Yes/No (Class V) in the present study

(yes)		(no)	
Uh huh (0)	Maybe (1)*	Not that I know (0)	Of course not (0)
Certainly (0)	Perhaps (0)	Not well (0)	Never (0)↓
Of course (10)↑	Fairly (0)	I don't think so (0)↓	Nothing (0)
Sure (41)↑	Sometimes (0)	I don't believe so (0)	Not a bit (0)
Why not (0)	I don't know (0)	Not really (1)*	Sorry/ Oh, I'm sorry (8)↑
Terribly (0)	I'm not sure (2)	Not much (0)	Just kidding (1)*
Very (0)			
Very much (0)			
Definitely (0)			
Plenty (0)			
Perfectly (0)			
That's right/ Right (7)↑			
OK (9)↑			

All right/That's all right. (6) ↑
 Don't worry (0) ↓
 I know (0) ↓
 Here (0) ↓
 Yeah (0) ↓
 I agree (0) ↓
 Oh, please (0) ↓
 No problem (1)*
 I'm fine (1)*
 I'd love to (1)*
 Hold on, please (1)*
 That's perfect (1)*
 Great idea (1)*
 Speaking/ This is Rumi speaking (3)*
 Mostly (0)
 As usual (0)
 Rather (0)
 I think so (0) ↓
 I believe so (0)
 I suppose so (0)
 I expect so (0)
 Looks like it (1)*

Notes: The number in () shows the token in the present study; * denotes the synonymous expression which was found in the present study, but not in Murahata & Inomata (1995); ↑ shows the increase, ↓ the decrease. The (0) bracket denotes the synonymous expression which was found in Richards (1977, 1985), but not in the present study and the (0) bracket + ↓ stands for the expression which was found in Murahata and Inomata (1995), but not in the present study.

As Table 8 shows, synonyms for positive responses are still much more frequent than neutral or negative ones, which remains the same result as one of the important characteristics Murahata and Inomata (1995) found. At the same time, the number of those synonymous expressions which were found in Murahata and Inomata (1995) and the present study increases steadily. It was also found that many of the English textbooks, at different grades, tended to use synonymous formulaic expressions more frequently than before.

Among the synonyms, some were used more than once in the textbooks as Table 9 below presents.

Table 9 Synonymous formulae for Yes/No (Class V) used more than once in the English textbooks

Murahata & Inomata (1995)	The present study
Sure. (34)	Sure. (40)
That's right. / Right. (8)	Of course. (10)
OK. / Okay. (5)	OK. (9)
All right. (3)	That's right. / Right (7)
Of course. (3)	Sorry. / Oh, I'm sorry. (7)
I'm not sure. (2)	All right. / That's all right. (6)
I don't think so. (2)	Speaking/ This is Rumi speaking (3)
	I'm not sure. (2)

As you can see, the tokens for those formulaic expressions which were found in both studies increase and some new synonyms were also found ("Sorry/ Oh, I'm sorry" "Speaking / This is Rumi speaking"). From this result it can safely be said that the range of formulaic expressions has been broadening year by year.

Furthermore, not all of the synonyms have been used in all the English textbooks examined. Table 10 shows those formulaic synonymous expressions for Yes/No which were and were not found in Murahata and Inomata (1995) and the present study.

Table 10 Comparison of synonymous formulae for Yes/No (Class V)

Synonymous formulae for Yes/No which Murahata & Inomata (1995) found, but not in the present study	Synonymous formulae for Yes/No which were found in the present study, but not in Murahata & Inomata (1995)
Don't worry	No problem
I know	I'm fine
Here	I'd love to
I agree	Hold on, please
Oh, please	That's perfect
I think so	Great idea
I don't know	Speaking/ This is Rumi speaking
I don't think so	Looks like it
Never	Maybe
	Not really
	Just kidding

The paired expressions such as "I know / I don't know" "I think so / I don't think so" were found in native discourse in Richards' (1977, 1985) study, but not in the present study. Furthermore, 11 synonymous expressions (with the * symbol in Table 8) were newly found in this study. Some of them are closely tied to a specific context of situation such as the one in telephone conversation: "A: Can I speak to Ben? B: Speaking." (TE 1, p. 100).

We have seen several characteristics of PI-response sequences in the MEXT approved English

textbooks. In the last section that follows, we make a brief summary of the main findings of the present study and draw some conclusions of this study.

5. Conclusions

A number of conclusions can be drawn based on the results reported in the preceding sections of this paper. First of all, the current Japanese English textbooks have several divergent characteristics from English discourse by native speakers. Most of the PI forms, among others, are a particular type of sentences, that is, the form of the inversion of the ‘Subject + Aux2 or Aux1 or BV while non-inversion ST (non-inversion statement-form) type interrogatives are more commonly used than other formal types in native English. The latter usually appear at the early stage of the acquisition of English as a first or second language because of less cognitive burden in grammatical manipulation than the former. In other words, the PI-response sequences in the textbooks are highly likely to compel L2 users to process more cognitive demanding pragmalinguistic input. Moreover, most of the functions account for requiring some information from listeners while interrogatives for confirmation or clarification function are much more often used in natural English discourse by native speakers.

Secondly, as to the turns in response to PIs, there still found much more cases of the subject and verb after the Yes-No pattern (“Yes, I am.”) classified in Class II compared with those in natural English. This means that if L2 users are exclusively exposed to those responses in Class II, they will have trouble in socializing with stilted and distant expressions and in configuring inversion-form PI grammatical manipulation. On the other hand, the number of the formulaic expressions synonymous to Yes/No responses such as “I’d love to.” “Sure.” “Of course.” “Speaking.” and “Hold on please.” used in those English textbooks for Yes-No interrogative replies have greatly increased, more frequently than ever before, and their kinds also slightly increased, which means the contents of the textbooks in that respect are getting closer to those in natural English.

Thirdly, the results showed that the order of appearance of PIs seen in the textbooks, on the whole, did not follow the stages of natural language acquisition. Therefore, from the formal point of view, it seems difficult for students, especially junior high school first graders who are in the early stage of English learning, to learn the word order verbally and instantaneously. We argue that in order to improve this situation, teachers should not only teach the expressions used in the textbooks, but also make practices asking with easier questions such as non-inversion statement-form PIs such as “A dark side of US history?” “Make my bed?” “So he doesn’t have any time for basketball?” without any inversion to make a sentence a question particularly in earlier stages.

Fourthly, it must be pointed out that in order to prevent learners from acquiring only unbalanced expressions of English used in the textbooks, it is necessary for teachers to recognize that the textbook does have different characteristics from natural English when they teach students English in the classroom.

Finally, it is also important for students understand the function of PIs which realizes the speaker’s intention. The interaction without understanding it goes like this:

Professor: Hello, is Ms. Takahashi there please?

Ms. Takahashi: Yes.

Professor: Oh... may I speak to her please?

Ms. Takahashi: Yes.

Professor: Oh... are you Ms. Takahashi?

Ms. Takahashi: Yes, this is Ms. Takahashi.

In this interaction, Ms. Takahashi failed to understand Professor's intention and the interaction between them went very unnaturally.

In order to avoid such unnaturalness, students have to learn not only how to reply to PIs, but also how to interpret the speaker's functional intention assigned to an interrogative with a particular noticing of whether it is a request for information or help or permission, a confirmation, an invitation, or an offer in a given context of situation. Students should be able to interact appropriately with others impromptu in a social situation so that they need to have more opportunities to practice other PI-response sequences such as Request-Grant like the chain below (Richards, 1977, p. 130) than just formally frozen responses with 'Yes/No + Subject + Aux' such as "Yes, they are.":

A: Are these apples fresh?

B: I just bought them. Help yourself.

The aim of this study was not a comprehensive investigation to uncover all the pragmalinguistic features in the textbooks. As we have seen in a compendium above, however, our study was of significance as a first investigation into formal and functional characteristics of PI-response sequences in the MEXT English textbooks in comparison with those in discourse by native speakers of English. As a concluding remark, we would like to suggest that the teacher's ingenuity should be required to fill up, first and foremost, incongruities between the student's turn-taking skills including PI-response sequences as we have discussed in this study and the contents of the textbooks, but also disparities between the contents of the textbooks and those in native English discourse. By exercising such ingenuity, teachers can provide L2 users with more authentic input, which eventually leads L2 users to be able use English impromptu and appropriately in a social context of situation.

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