

# An Analysis of the Intonation Patterns in Audio Materials Attached to English Textbooks for 5th Graders in Japan<sup>1</sup>

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## 1. Introduction

English was introduced as a required subject in Grade 5 in the academic year of 2021. In 2022, at the time of writing this paper, both students in Grade 5 and those in Grade 6 are learning the subject, and at the end of this academic year the first cohort of elementary school students to study under this new English education system will graduate. Therefore, extensive analysis of how this education is being conducted is necessary for the purpose of improving it for the future in Japan. There should be a particular focus on how English sounds are taught, given that the oral English skill is the weakest skill of most Japanese students.

In teaching English as an official subject, textbooks authorised by MEXT (the Ministry of Education, Culture, Sports, Science and Technology) play an important part. So, analysis of teaching English sounds should start with examining how modal sounds are recorded in audio materials that accompany these textbooks. There are seven kinds of English textbooks for both Grade 5 and Grade 6. Seven Japanese publishing companies publish these textbooks for elementary schools in Japan (in alphabetical order): Gakko Toshō, Kairyudo, Keirinkan, Kyoiku Shuppan, Mitsumura Toshō, Sanseido and Tokyo Shoseki. Each elementary school uses one kind of textbook that is chosen in each administrative district to which it belongs. As a first study, Yuzawa (2022) chose two textbooks for Grade 5 and examined how English sounds are taught and what model sounds are recorded there.

This paper examines audio materials recorded on CDs or DVDs accompanying all seven textbooks for Grade 5. The main difference between this paper and Yuzawa (2022) is that the previous paper focused on all sound features recorded in the audio materials for two textbooks while this paper focuses on intonation, especially what pattern is selected and whether there are any problems with present-

ing it as a model. There are two reasons why intonation is targeted in this paper. First, it is one of the most difficult sound features to teach. Second, as ‘no particular tone has a unique “privilege of occurrence” in a particular context’ (Roach 2009: 125), there can be more than one variety in the same situation. It is, therefore, worth examining whether such varieties are found and whether they, if any, are educationally valid.

## 2. Data

The names of the textbooks published by each of the seven publishing companies are as follows:

- Gakko Toshō – *Junior Total English*
- Kairyudo – *Junior Sunshine*
- Keirinkan – *Blue Sky Elementary*
- Kyoiku Shuppan – *One World Smiles*
- Mitsumura Toshō – *Here we go!*
- Sanseido – *Crown Jr.*
- Tokyo Shoseki – *New Horizon Elementary English Course*

In the following discussion, these textbooks will be abbreviated as:

- Gakko Toshō – *Total*
- Kairyudo – *Sunshine*
- Keirinkan – *Sky*
- Kyoiku Shuppan – *Smiles*
- Mitsumura Toshō – *Go*
- Sanseido – *Crown*
- Tokyo Shoseki – *Horizon*

The data used in this paper are sounds recorded on the CDs and DVDs that accompany these textbooks, and the names of the textbooks are also used to mean these accompanying CDs and DVDs in this paper. There are common topics

in these textbooks, and sounds for analysis are collected based on these topics so that it is possible to choose grammatically identical utterances and compare their intonation patterns in a practical way. The common topics selected in this paper are birthdays, preference, and ability. In addition, the paper investigates the intonation pattern of a grammatical item: *wh + be verb*. Finally, other minor features related to the use of intonation in these textbooks are discussed.

### 3. Analysis

#### 3.1 Birthdays

There are some commonly used expressions in this topic and three of them are selected here. The first is ‘When is your birthday?’ It is read as ‘When is your birthday?’ when it is expressed as a new topic. This is an unmarked form. On the other hand, it is read as ‘When is your birthday?’ when different addressees are in focus. This difference in tonicity is properly used in all the textbooks and helps learners to be aware of the important fact that English intonation can change depending on the context. Another common daily expression whose tonic syllable is changeable, and which all learners of English are certain to encounter soon after they start learning English, is ‘How are you?’ This is read as ‘How are you?’ as a default intonation pattern, but it is read as ‘How are you?’ when the addressee becomes a different person in the same context. Teachers should help students to be aware of the use of the same intonation pattern in these different expressions.

The second expression is ‘Happy birthday’. This is basically read with a fall, as in ‘Happy birthday’. When family members or friends celebrate a person’s birthday, they say this expression together with this tone. In *Sky*, however, when it is read twelve times, a fall-rise is used nine times, as in ‘Hi, | Mr. /Tiger, | ‘happy birthday! | This | is a ‘present for you!’ In the other three cases, it is read with a fall. The use of a fall-rise may be because of the reader’s natural intonation pattern and/or his occasional attitudinal changes for realising a smoother flow of two sentences which are semantically closely linked. The fall-rise ends in a rising pitch movement, so it can signal something more to come, just like a rise. Even though both a fall and a fall-rise can be used to read ‘Happy birthday’,

it is better to use a fall in all twelve expressions because it is more commonly used and presenting this pattern only is sufficient.<sup>2</sup> Presenting students with these two patterns may be educationally beneficial, but in a textbook such as this is not the right place to do so for three reasons. First, this textbook is targeted at Japanese 5th graders who are learning English as a foreign language as an official subject for the first time. Second, this expression is introduced at the very beginning of their lesson: Unit 1. Third, students have practically no chance in their daily life to compare what they learn in school with other varieties. Therefore, textbook writers should share the intonation patterns to be used before the recording and monitor carefully how native speakers in the studio use intonation during the recording. ‘This is a present for you!’ is read as two tone-units here. This helps to create a lively atmosphere. To make it easier to learn English intonation, especially at this stage of learning, however, it should be read as one tone-unit: ‘This is a ‘present for you!’ Use of simple intonation patterns is recommended for 5th graders, at least in earlier units.

The third expression is ‘What do you want for your birthday?’<sup>3</sup> This is read as two tone-units: ‘What do you want | for your birthday?’ in all seven textbooks. ‘Birthday’ is read with a fall all the time, but ‘want’ is read with three different tones: a fall (e.g. *Go*), a fall-rise (e.g. *Total*), and a rise (e.g. *Total*). The third type is the least frequent in all recordings adopted in the seven textbooks. All three types are communicatively acceptable. For the sake of 5th graders, however, it is appropriate to choose one tone type, especially within the single textbook. Judging from the frequency of use, a fall or a fall-rise should be selected. The change of tonicity is realised properly in all seven textbooks when different persons are in focus.

#### 3.2 Preference

The major relevant expression used in this topic is ‘What would you like?’<sup>4</sup> A noun can be inserted after ‘what’ as a grammatically extended version of this question, such as ‘What drink would you like?’ Basically, both questions are read with a fall, but there is a case in which ‘What would you like?’ is read with a rise (e.g. *Sky*). It sounds casual and friendly, but it may be educationally desirable to stick to one tone type when it is presented to 5th graders

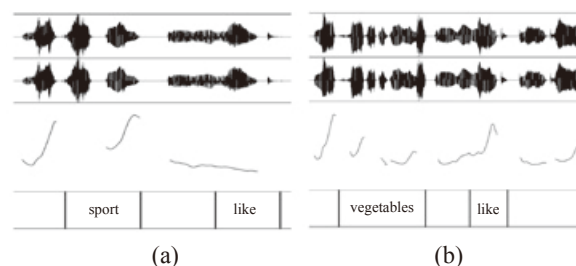
to help them to create a firm foundation for English intonation in their mind.

In addition to the issue of tone, tonicity also needs some attention. In ‘What would you like?’, the tonic syllable is placed on ‘like’: ‘What would you like?’ On the other hand, in ‘What drink would you like?’ (e.g. *Smiles*), it is placed on ‘drink’: ‘What drink would you ‘like?’<sup>5</sup> Students need to imitate appropriate tonicity in each expression although, at this stage of learning, they do not necessarily need to know the reason why the tonic syllable is located differently between them. Also, teachers may not need to explain to students this difference in tonicity unless they are asked, but they should encourage them to copy the model intonation pattern carefully and monitor how well they imitate it.

These expressions also need to be carefully used in terms of contrastive focus. In a dialogue, a similar expression ‘What sport do you like?’ (e.g. *Total*) is read as ‘What sport do you ‘like?’ by the first speaker, but when this is asked by the second person, the tonic syllable is moved to ‘you’: ‘What ‘sport do you you like? This results from the appropriate use of contrastive focus, which is found in many places in all seven textbooks. In *Total*, however, there is a case in which use of contrastive focus should be encouraged. In a situation where a teacher asks four students this question in a row, she uses the unmarked form to all of them. In a case like this, contrastive focus should be introduced from the second student. At least within the same textbook, there should be a good consistency in the use of intonation patterns.

There is also an issue of tonality. When ‘What vegetables do you like, grandpa?’ (*Total*) is read, not only is there a noticeable pause after ‘vegetables’ but also ‘like’ receives strong prominence with a noticeable pitch movement, together with the first syllable of ‘vegetable’. It is read as ‘What vegetables | do you like, | /grandpa?’<sup>6</sup> In this context, ‘like’ is not contrasted with another verb, so there is no reason why this verb is highlighted. This type of reading may have something to do with the slow speech rate that the speaker uses. This may be done on purpose for 5th graders to comprehend spoken English better, but it sounds unnatural. There should be some limit to the degree of the slow speech rate. Figure 1 shows the acoustic

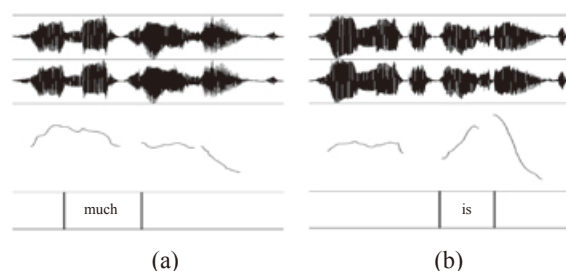
analysis of ‘What vegetables | do you like, | /grandpa?’, in comparison with the default intonation pattern used in ‘What sport do you like?’



**Figure 1** Acoustic analysis of (a) ‘What sport do you like?’ and (b) ‘What vegetables do you like, grandpa?’

Figure 1 clearly shows that the fundamental frequency (F0) of ‘like’ is different between (a) and (b). In Panel (a), there is no noticeable movement in this verb, and the overall intonation pattern displays an unmarked one. On the other hand, in Panel (b), an unnecessary high fall is detected. The intonation pattern shown in Panel (a) should also be used for ‘What vegetables do you like, grandpa?’

An interrogative sentence which is semantically related to the topic of preference is the one for asking the price of something, and the most concise form is ‘How much?’ This expression can include a common noun or a pronoun, as in ‘How much is this TV?’ or ‘How much is it?’ It should be noted that the tonic syllable is located differently. In the case of ‘How much?’ and ‘How much is it?’, it is placed on ‘much’.<sup>7</sup> In ‘How much is this TV?’, however, it is placed on the stressed syllable of ‘TV’. In *Go* and *Sky*, when ‘How much is it?’ is read, the tonic syllable is placed on ‘much’ in some cases while it is placed on ‘is’ in others, as shown in Figure 2.



**Figure 2** Acoustic analysis of ‘How much is it?’

As Figure 2 shows, ‘How much is it?’ is read differently. Because of the different use of pitch, the prominent word

is ‘much’ in Panel (a), but ‘is’ in Panel (b). The two audio recordings are taken from *Sky*. This expression appears on the same page but is spoken by different speakers. There is no special reason why different words are highlighted. This may be related to the intonation pattern that each speaker normally uses, but for the purpose of teaching 5th graders, the same expression should be read with the same intonation pattern when there is no special reason for doing otherwise. Judging from the reality of the recordings that were made, their use of different intonation patterns may make no perceptually significant difference among those involved in the recording in and outside the studio. However, they should pay more attention to the intonation patterns they use in order to create the best possible model for foreign learners. In a non-contrastive context, the intonation pattern of ‘How much is it?’ should be the same as the default intonation pattern of ‘How old are you?’, not that of ‘How are you?’

### 3.3 Ability

To make a statement about ability, the modal auxiliary verb ‘can’ is used and the statement is spoken with a fall when there is no particular reason for doing otherwise. This tone type is also applied to its negative form ‘can’t, as in ‘She can’t \swim.’ and ‘She ‘can’t \dance.’<sup>8</sup> because it is an appropriate and straightforward way to state the speaker’s idea and opinion. A fall is used in this way in all seven textbooks.

However, a fall-rise is also used, for example, in a dialogue in *Total*:

Kenta: Can you ‘walk on *Take/uma*?

Emma: \Yes, | I \can. | Can /you ·walk on *Take·uma*?

Kenta: \No, | I \can’t. | But I can ‘ride a \unicycle.<sup>9</sup>

Emma: /Really?

Kenta: Can you ‘ride a /unicycle?

Emma: \Yes, | I \can.

By reading the first ‘unicycle’ with a fall-rise, Kenta tells Emma implicitly that he is proud of his skill of riding a unicycle even though he admits that he does not have a skill of walking on *Takeuma*.<sup>10</sup> By using a fall-rise, he makes a contrast of his skills in the two activities. Learning

this use of a fall-rise, or at least being aware of it, may help students to appreciate the communicative role of intonation further. However, if this is too much for 5th graders, a fall should be used in this dialogue. The only demerit of this use is the loss of Kenta’s implicit message.<sup>11</sup>

### 3.4 Wh + be verb

In expressions, such as ‘What is it?’ and ‘How are you?’, the tonic syllable is located on the be verb<sup>12</sup>, but consider ‘What X is this?’, where X is a noun. In a situation where two speakers, who are named Speakers A and B, are looking at some items and Speaker A asks Speaker B this question by pointing at one particular item, it is highly likely to be read as ‘What ‘X is \this?’ because the items in question can be perceived visually, for example, and become shared information for both of them. As a result, ‘this’ becomes the tonic syllable as new information.

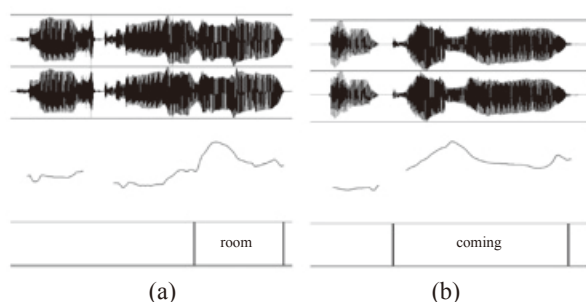
At the same time, it is also possible to highlight both ‘this’ and ‘X’, just like the first utterance made by Shota in *Go*, as in ‘What \country | is \this?’. In this context, Shota and his teacher, Ms. Miller, are looking at a map and Shota asks Ms. Miller the question by pointing at Peru on the map. Shota wants to be clear about both the target item ‘country’ and its exact location (‘this’), which is why he places the tonic syllable both on the stressed syllable of ‘country’ and on ‘this’. In the following similar situations, however, this question is read with a single tone-unit as in ‘What \country is ·this?’. This different intonation pattern may be used for the purpose of contrastive focus because the main reason for their activity is to learn names of countries. The tonic syllable is movable in this way. When target students are Japanese 5th graders, however, it is educationally desirable to present them with a single intonation pattern as often as possible because this method of teaching helps them to create a basic and firm foundation for English intonation. Presenting varieties can wait till a later stage of their learning. In this case, only ‘What ‘country is \this?’ may serve the communicative purpose because it is clear that the topic is ‘country’. So, in this context, the stressed syllable of ‘country’ does not have to be the tonic syllable.<sup>13</sup>

In addition to the issue of tonality and tonicity, there is also a case in which different tone is used. One example

is ‘Excuse me, where’s the bookstore?’ (*Sky*). It is read as ‘Ex\cuse me, | ‘where’s the \bookstore?’, but it is also communicatively natural for ‘bookstore’ to be read with a fall just like, for example, ‘What is it?’. For 5th graders, what is most important is to present them with only the most essential intonation patterns.

### 3.5 Others

There are other points that need some consideration. The first is an intonation pattern known as stylisation. In the first year of learning English, only major tones, which are fall, rise and fall-rise, should be used. A level tone may be included depending on the context. However, there are cases in which stylisation is used. In *Sky*, for example, ‘Please clean your room’ and ‘I’m coming’ are read as ‘Please ‘clean your ‘-room’ and ‘I’m ‘com-ing’, as shown in Figure 3.



**Figure 3** Acoustic analysis of ‘Please clean your room’ and ‘I’m coming’

The first utterance is used in a dialogue between mother and son and spoken by the mother when she finds his room messy. This is her educational message to her son, so she can say this in a more straightforward manner with a fall. The second utterance is spoken by a person who understands where her friend, who is at a loss on a street, is before she starts moving toward him. She can use a fall or a level in this case, which still sounds natural. For 5th graders, the use of major tones is recommended if utterances sound natural. This stylisation is also used in *Smiles* in a context where a teacher says ‘See you ‘la-ter’ to her students and they respond by saying ‘‘See -you’<sup>14</sup>. An alternative possible intonation pattern between this teacher and her students may be:

Teacher: ‘See you to\morrow, | /everyone.

Students: ‘See you to\morrow, | Ms. Ta\aka.

This also sounds natural and only two major tones are used.

The second point concerns listing or enumerating. MEXT (2017) mentions that one important use of intonation is for listing and gives an example: ‘I ‘like /English, | Japa\nese | and \math’.<sup>15</sup> This shows that each item is read with a rise before the last item, which is read with a fall. However, there are many examples which violate this rule in six of the textbooks. One example is cited from each textbook:

- I have /crafts, | \math, | \English, | \music, | Environ'mental \Studies, | \Hindi | and \art. (Total)
- I have 'moral edu\cation, | Japa\nese, | \math, | \English, | 'social \studies, | and P.\E. (Sunshine)
- We have 'five kinds of \ice cream: va\nilla, \chocolate, \strawberry, \matcha, and 'blueberry \ice cream. (Sky)
- I have | P.\E., | P./E., | \English, | \English, | and 'arts and \crafts.<sup>17</sup> (Smiles)
- I have \swimming lessons | and 'French \horn lessons.<sup>18</sup> (Go)
- I have Japa\nese, | \science, | 'moral edu\cation, | P.\E., | \math, | and home\room<sup>19</sup>. (Crown)

Educationally, the use of a fall before the last item is not desirable, especially in the first year of learning, because a fall and a rise have completely different pitch directions. They should be distinguished clearly. On the other hand, a rise and a fall-rise are similar in that the last pitch goes up. In this sense, the use of a fall-rise may be permissible even at this stage of learning, but it is still not strictly desirable. Both those who read these sentences and those who monitor their reading should be more attentive during the recording.

The third point relates to the stress pattern of phrases and compounds. There are cases in which the standard pattern is not used. Some examples are ‘French fries’ (not ‘French ‘fries’) in *Sky*, ‘apple pie’ (not ‘apple ‘pie’) in

*Smiles*, ‘UK’ (not ‘U’K’) in *Sky*, ‘corn soup’ (not ‘corn ‘soup’) in *Smiles*, ‘mineral ‘water’ (not ‘mineral ‘water’) in *Horizon*. These non-standard patterns are used when there is no specific contrast or emphasis. This misuse of stress patterns should be avoided.

The fourth consideration is the introduction of the expression ‘You are it’ in *Smiles*. This is used in a children’s play song, and is read as ‘You are \it’. This is a unique intonation pattern in which the pronoun ‘it’ becomes the tonic syllable. Normally, this pronoun never receives accent. In such a case, ‘that’ is used, but this demonstrative cannot be used here because ‘You are it’ is a fixed expression. This expression is introduced at the beginning of the textbook, but it would be better to replace this song with something else and introduce this marginal use of intonation much later.

The fifth concern is the way intonation and stress are represented. Even though both intonation and stress are taught in school, textbook editors do not try to relate them each other. For example, in *Sky*, the sentence stress is explained in the following way:

Where’s the park?  
It’s in front of the bookstore.

The black dots show stressed syllables. However, it is more educational if both sentence stress and intonation are displayed at the same time, where the pitch curve is displayed with an arrow before the tonic syllable in the following way:

Where’s the \park?  
It’s in front of the \bookstore.

This helps students to understand how stress and intonation are related. So far, however, they have been represented separately.

By using the standard tonetic stress marks, which are adopted in this paper, these two utterances can be represented in the following way:

‘Where’s the \park?

It’s in ‘front of the \bookstore.

This method of transcription requires less space and easy to write. It may be difficult for elementary school students to comprehend, but it can be introduced in junior or senior high school.

The sixth point concerns the way ‘Who are you?’ is read. It may be expected by many learners that it is read as ‘Who \are you?’ just like ‘What \is it?’ and ‘How \are you?’ In the story ‘The Happy Prince’ (*Crown*), however, this expression is read as ‘Who are \you?’ even though it is used in a non-contrastive context. This may be puzzling, but the following three observations may shed light on this problem. First, there are video clips of this story on YouTube and this expression is spoken as ‘Who are \you?’<sup>20</sup> in all three clips<sup>21</sup> that the author saw. Second, in Gimson (1975), which lists many examples to practise English intonation, ‘Who are you?’ is described in the following eight patterns:

- (1) ‘Who are \you?’ (without great interest)
- (2) ‘Who are \you?’ (lively; interested)
- (3) ‘Who are \you?’ (urgent; indignant; puzzled)
- (4) ‘Who are \you?’ (lively; very interested; affable)
- (5) ‘Who are \you?’ (insistent)
- (6) ‘Who are \you?’ (routine, but polite)
- (7) ‘Who are \you?’ (interested; appealing; polite)
- (8) ‘Who are \you?’ (forceful; encouraging; prompting)

The words in parentheses describe the speaker’s attitude. All examples have the tonic syllable on ‘you’. Third, among five films and TV dramas<sup>22</sup> in which the author noticed the use of this expression, it is spoken as ‘Who are \you?’ in four out of the five. These three observations may help to understand why ‘Who are you?’ tends to be pronounced as ‘Who are \you?’ among native speakers of English.

The seventh point to consider is the way contrastive focus is treated. In an utterance ‘I ‘want to ‘eat \pizza. I ‘really \like pizza.’ (*Sky*), the word ‘pizza’ in the second sentence is not accented. This is because this word is old and shared information. The same type of example is



found in *Crown*, where in a dialogue ‘\Wow, | do you 'like /Tuesdays?’ – ‘\Yes. | I \love Tuesdays.’, the word ‘Tuesday’ is not accented. The use of contrastive focus in these examples may not be easy to understand because they are not as simple as ‘How \are you?’ and ‘How are \you?’, for example. Still, however, they are good examples to help students to understand the use of contrastive focus further. However, a dialogue in *Sky* ‘The next is ... the flower shop.’ – ‘Oh, I love flowers.’ is read as ‘The 'next is ... the \flower shop.’ – ‘\Oh, | I 'love \flowers.’ It would be better for the second speaker to say ‘\Oh, | I \love flowers.’ because ‘flowers’ is old and shared information in this context. Contrastive focus may not be easy for 5th graders to understand, especially the examples cited here, in the early stage of their learning, but it is used in English very often. Care should be taken to present the students with the best possible intonation patterns in the audio materials that their textbook accompanies.

#### 4. Conclusion

For the purposes of helping Japan’s new English teaching system for elementary school students, which was implemented in the academic year of 2021, to be successful, this paper analysed audio materials accompanied by all seven kinds of textbooks for Japanese 5th graders. Good audio materials are highly important educational resources in teaching English, especially for students living in countries like Japan where English is not a daily language for communication. There are many findings during the analysis, and they can be summarised in the following three points:

First, the model intonation pattern should be carefully chosen, and attentive monitoring should be conducted during the recording to create the best possible model. There are many cases in all seven textbooks in which more than one variety of intonation pattern is used in the same context. However, judging from the fact that these textbooks are targeted at 5th graders who are learning English for the first time in school and for whom English is not a language for daily use, the model should be carefully chosen, and the default intonation pattern should be taught as often as possible. Marginal patterns should be taught at a later stage of their learning. This idea should be applied both to

tonicity and to tone. As for tone, those that are regarded as major (i.e., a fall, a rise and a fall-rise), should be used as much as possible. At the same time, contrastive focus should be presented when it is necessary. Students may not need to learn exactly how contrastive focus is used, but they should be aware of its presence at least and try to imitate the model intonation pattern as accurately as they can. This helps them to be aware of the important role of English intonation and create a firm foundation in their mind about how English intonation works.

Second, some recordings may require re-recording. There are cases in which correct stress patterns are not realised and the tonic syllable is misplaced. There are also cases in which unnecessary tone-unit division is made. This may be related to the slow speech rate that speakers may need to use for 5th graders to be able to follow, but it is important to avoid unnatural intonation patterns. At the same time, the model intonation pattern should be carefully selected among many possibilities. This applies especially to the intonation for listing. There are many cases in which the general rule is violated, although the rule is displayed in textbooks and the *Course of Study*. If such inappropriate intonation patterns are noticed during recording, it should be stopped immediately and re-recording should start after explaining the reasons to the speakers in the studio, even though it may take more time to complete all recordings. Moreover, after the recording is completed, it should be carefully checked repeatedly before the production of CDs and DVDs for commercial use begins.

Third, an alternative way of representing English intonation is essential. In teaching English intonation, both good audio materials and good visual information are necessary. Currently, sentence stress and intonation are explained separately in textbooks even though they are closely related. After students have learned sentence stress, this knowledge should be incorporated into the explanation of intonation, especially into figures explaining it. This would naturally help students to better understand English intonation and its close relation with sentence stress. One suggested way of doing this is to use the tonetic stress mark system or its simplified version. Marks used in this system are easy to read, and sentence stress and intonation can be represented together.

It is hoped that this paper will be of some help to improve accompanying audio materials and the way intonation is represented in textbooks when the revised edition is made. Audio materials for 6th graders will be analysed shortly as part of this line of study.

<sup>1</sup> This research is supported by the Japan Society for the Promotion of Scientific Grants-in-Aid for Scientific Research (C) 21K00672. The author is grateful to Professor Simon Fraser, Hiroshima University for his valuable comments on the first draft of this paper.

<sup>2</sup> If more than one intonation pattern is used for the same sentence, teachers need to be prepared for any questions that may be asked by their students in class. Knowledge of English phonetics is certainly helpful. Another alternative solution in this case is for textbook writers to write all necessary information about the recordings in the accompanying teacher's book.

<sup>3</sup> In this expression, the /t/ of 'what' is unleased and that of 'want' can be deleted. The former is used in all examples and the latter is found in some examples. Some students may notice the different realisation of this phoneme and be puzzled as to why this happens. Teachers should have enough knowledge of English phonetics and be ready to explain this in easy language (Japanese) when there is need to do so.

<sup>4</sup> This use of 'would' is often heard in daily conversation, but it is not included in *Crown*. Instead, it is included in their textbook for 6th graders. This is probably because the editors of this textbook may have judged that the use of this modal auxiliary verb as the subjunctive mood is grammatically difficult for 5th graders. In fact, it is not easy to decide when this use of 'would' should be introduced for Japanese elementary school students. It is necessary to examine whether teachers have difficulty teaching this expression and how 5th graders feel about learning it, but the current paper does not discuss this because it is beyond its scope.

<sup>5</sup> Cruttenden (1997) states that in wh questions where an adjectival wh word functions as the object of the verb, the tonic syllable falls on the object noun following the adjective, as in 'Which \course did you take?'

<sup>6</sup> This falling-rising pitch movement in 'vegetables' helps listeners to perceive something more to come.

<sup>7</sup> The related expressions can be seen in 'How are you?' and 'How old are you?', where, in a non-contrastive context, the tonic syllable is placed on 'are' in the former and on 'old' in the latter. See Wells (2006) for more details.

<sup>8</sup> In teaching 'can' and 'can't', teachers need to have students aware of the qualitative difference in the two vowels: schwa for 'can' sentence-medially and a strong vowel for 'can't'. They also need to be careful of the vowel of 'can't' that an ALT uses. He or she may use /ɑ:/, depending on where he or she is from, instead of /æ/ that is used on CD or DVD.

<sup>9</sup> Another example is seen in a dialogue in *Sky*, after the first speaker states 'Can this robot /fly?', the second speaker replies by saying '\No, | it \can't. | But it can \dance well.' An intended meaning is something like 'I wish it could fly

someday'.

<sup>10</sup> His pride of riding a unicycle may be weaker or lost at the end of the dialogue when he learns that Emma can also ride a unicycle.

<sup>11</sup> It is worth observing how students feel about this contrastive use of a fall-rise.

<sup>12</sup> When a demonstrative is used, the tonic syllable is located on this, as in 'What's \that?' See Wells (2006) for more details.

<sup>13</sup> If additional emphasis is thought to be necessary, 'What \country is \this?' may be a recommendable intonation pattern, where only a slightly more emphasis on 'country' is added with a falling pitch movement. The use of this falling head may also be a good use of intonation. However, care should be taken not to pronounce 'country' strong enough to be perceived as the tonic syllable and not to add a break after 'country' which is long enough to be perceived as a signal for a tone-unit boundary.

<sup>14</sup> Wells (2006) states that 'See you' tends to have a fall-rise,

<sup>15</sup> The intonation marks are modified from the original.

<sup>16</sup> The same sentence is also spoken by another native speaker, who uses a fall only for 'education' and 'P.E.'

<sup>17</sup> This shows a student's dream schedule. That is why the same subjects are repeated.

<sup>18</sup> This example is spoken by a primary school student in Britain, not by a native speaker who reads the textbook.

<sup>19</sup> The primary stress should be placed on the first syllable in this word, but this accent pattern does not reflect this stress pattern.

<sup>20</sup> A fall is used in two video clips and a rise is used in one clip. The use of a rise makes this expression sound more sympathetic and polite. This corresponds to examples (6) and (7) among the eight examples quoted from Gimson (1975) as the second incident.

<sup>21</sup> They are *The Happy Prince Bedtime Stories for Kids in English*, *THE HAPPY PRINCE* by Oscar Wilde read by Stephen Fry FULL UNABRIDGED and *The Happy Prince Oscar Wilde Michael Mills Classic Animated Short 1974*, and their URLs are <https://www.youtube.com/watch?v=2vG-03Ru3M4>, <https://www.youtube.com/watch?v=t33NWgOzjK8> and <https://www.youtube.com/watch?v=q3RZh1yaqxM>, respectively. They are accessed on 10th May 2022.

<sup>22</sup> These films and TV dramas are *Inferno*, *Mission: Impossible – Rogue Nation*, *Da Vinci Code* and *Star Trek: The Next Generation* (Season 1, Episode 4 and Season 4, Episode 3). Only in *Star Trek: The Next Generation* (Season 1, Episode 4), it is spoken as 'Who \are you?' In this scene, the spaceship crew member who said this expression had already known the existence of this group of another life form who is on board another spaceship facing his ship. Both spaceships had mechanical troubles due to the unknown power from the nearby planet, and some crew members from each spaceship landed on this planet to solve the mystery. He was one of them. He said this expression when he met them for the first time on the planet. The important point is that he already knew their existence when he said this expression. So, in a sense, 'you' is old information. In the other cases, such pre-knowledge does not exist. That may be one of the possible reasons why only in this case, the tonic syllable is placed on 'are'.



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# **An Analysis of the Intonation Patterns in Audio Materials Attached to English Textbooks for 5th Graders in Japan**

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## **Abstract**

English has been taught as a school subject in Grade 5 since the academic year of 2021. To improve this new English teaching in elementary school, extensive studies are necessary into how this education is being conducted, especially focusing on how English sounds are taught because oral English is the weakest skill of most Japanese students. In this paper, audio materials accompanying all seven of the MEXT-authorised textbooks for 5th graders were examined, focusing on intonation. Data for analysis in this paper were selected based on topics commonly used in these textbooks (birthday, preference, and ability) to make the comparison practical. One major finding is the use of various intonation patterns for the same sentence in the same context. Judging from the fact that these textbooks are targeted at 5th graders who are in the first year of learning English in school and for whom English is not a language used in daily life, it is suggested that the default intonation pattern should be taught as often as possible and that marginal patterns should be taught at a later stage of their learning.

(2022 年 6 月 1 日受理)