A STUDY OF READING QUESTIONS IN HIGH SCHOOL ENGLISH TEXTBOOKS AND NATIONAL TESTS

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Abstract

The lack of English language proficiency of Thai students has been acknowledged for years, and this is reflected in the national test scores i.e. O-NET, GAT, and GET, all of which fall below 50%. The question of concurrence between testing and teaching was raised when the revision of national curriculum (B.E. 2551) was implemented in prototype schools in 2009. Reading comprehension skills, in particular, were given attention as it contributes to other skills and overall learning. The aim of this study is to seek the connection between reading questions in the tests and textbooks in Thai schools. For this purpose, Barrett’s taxonomy (Pearson, 2009) was adapted. The findings indicate that Inferential Comprehension is dominant in the tests, but Literal Comprehension is dominant in the textbooks. However, there is a partial agreement between the tests and textbooks in terms of high-order questions such as Inferential Comprehension, Evaluation, and Appreciation. The findings imply that the design of tests and textbooks should be reviewed to reflect the effectiveness of the curriculum and learning, which will possibly improve test scores in the national tests.

Textbooks are the most reliable source of learning English for non-native English speakers. Therefore, they are widely used by schools. Nowadays, there are plenty of commercial English textbooks that are produced for English language education worldwide. However, it is generally agreed upon that learning a second language pedagogy is influenced by the socio-cultural frame of reference of the learners, and the objectives of learning vary from place to place according to curriculum design. Selecting a good textbook that suits the learning context and curriculum is challenging
A Study of Reading Questions in High School English Textbooks and National Tests

for schools. This study provides further information to people who are involved in the textbook selection of all levels of educational supervision.

**Key words:** English, Reading comprehension skills, National test scores, textbooks, Thailand.

**Introduction**

The English language has become very important to Thai people since the Association of Southeast Asian Nation (ASEAN) was established leading to AEC (2015). However, the failure in English language education studied by Prapphal (2001), Education First (EF Index) (2012), and Jobstreet.com (ASTV, 2013) is reflected in the national test scores i.e. the Ordinary National Educational Test (O-NET), General Aptitude Test (GAT), and General Education Test (GET). The mean scores appear below 50% of the total score: O-NET ranges 19-32% (2005-2013), GAT ranges 31-36% (2010-2013), and GET ranges 28.5-31% (2011-2015) (NIETS). Although the tests are different in terms of their purposes, the scores are far from satisfactory.

This problem has been acknowledged by the Ministry of Education (MOE), and measures have been put in place, such as hiring foreign teachers to teach in English Program (EP), more in-depth training of teachers, and revision of the national curriculum (B.E. 2551) in which the learning objectives are clearly stated. However, the alignment between the new curriculum and student learning has never been evaluated in a systematic way.

This study aims to ascertain the connection between English language learning and the curriculum by examining the alignment of textbooks and the tests. In particular, reading comprehension questions were focused on due to the fact that reading comprehension scores accounted for around 50% in national tests. Moreover, reading comprehension ability has an impact on other language skills.

Past studies done by multiple researchers have examined the causes of inadequate reading comprehension skills in Thai students. As revealed by Uttayawalee (1999), Yimwilai (2008), and Chuanram (2011), there is a lack of reading skills and strategies in students such as being able to identify the
main ideas and make inferences from texts. The use of various forms of Grammar-translation approach is reported by Ruangputtanakul and Tongjai (2006; cited in Chawwang, 2008). In addition, Strauss (2008) and Srang and Janssen (2013) point out that teaching emphasizes intensive reading that prepares students for tests. In contrast, extensive reading, which aims at building incidental learning of language skills, is neglected. This is because teachers strongly believe in intensive reading (Renandya and Jacobs, 2002). The lack of reading materials for extensive reading is another reason. Furthermore, the materials are typically expensive, monotonous, and unsuitable for the students’ level (Strauss, 2008). In summary, past studies focused on teachers, reading programs, course materials, teaching methods, and learners whereas the connections between the textbooks and the tests are omitted. The purpose of this study is to focus on the connection between textbooks and tests. The framework for analysis, theories and past studies related to this study are given by the following.

**Literature Review**

This section will provide a review of the relevant studies on reading comprehension with an emphasis on questions for reading. This section describes the meaning and purposes of reading, and testing of reading. After that, reading question taxonomies and past studies about reading questions are reviewed.

According to Wallace (1992), Aebersold and Field (1997), and Anderson (1999), reading is an invisible process of acquiring information from written texts, and it requires active interactions in the readers’ mind and brain to discern actual meaning. In order to comprehend a text, the process must be done in multiple cycles from decoding words and then making a prediction of the whole text (Nuttall, 1996; Aebersold and Field, 1997; Urquhart and Weir, 1998). Learning reading and testing reading are similar in terms of its processes. However, learning and testing of reading are different in terms of purposes, while learning aims at assisting learners for how to deal with texts, testing means to distinguish them (Alderson, 1996). As a result, reading questions are specifically designed and used concerning those purposes.
Reading Question Taxonomies

Reading questions in tests and textbooks are structured differently in terms of form, quantity, and purpose. According to Nuttall (1996), there are three question forms regularly used in learning of reading which are discussed below. Open-ended questions are effective but require language production. Multiple choice questions (MCQ) are easy to formulate but are only effective for a particular condition. Yali and Jilian's (2007) study indicates that MCQ has a low discriminating effect, and the process of arriving at the answer is not clear (Urquhart and Weir, 1998). True/false (T/F) questions are easy to guess, but can also lead to class discussions. However, other forms of questions are also available but are not used frequently in Thailand e.g. cloze test, information transfer, the free-recall test, etc.

Reading questions are categorized according to two criteria, learning domains and the sources of answers. For example, Bloom's taxonomy (Anderson et al, 2001; Krathwohl, 2002) deals with the cognitive domain of learning. Marzano and Kendall's taxonomy (2007) and Nuttall's taxonomy (1996) puts a wider range of domains into consideration i.e. cognitive, psychomotor, and affective domain. Pearson and John's taxonomy (Chikalanga, 1992: 1987; cited in Alderson, 2000) pays attention to the source of the answers either explicitly stated in the text or not. Barrett’s taxonomy (Pearson, 2009), which is selected for this study, applies two criteria for classifying questions, sources of answers and learning domains reflected by actions observed when answering the questions. The taxonomy classifies reading questions into five types: Literal Comprehension, Reorganization, Inferential Comprehension, Evaluation, and Appreciation.

Good questions help monitor not only interactions between the readers, texts, and critical comprehension but also strategies applied by active readers. Studies indicate that types of questions affect information learned (Watts and Anderson, 1971; cited in Royer et al., 1984: 75). This is supported by the work of Hunkins (1969; cited in Royer et al., 1984: 76). The study suggests that students who have practiced high-order (evaluative) questions can perform well in both high-order and low-order (knowledge)
questions. Ehara’s (2008) findings reveal similar results for senior-high school Japanese students. Furthermore, the result suggests that low English proficiency learners improve their reading skills through high-order reading questions.

Seetalarom (1986) followed Pearson and Johnson’s taxonomy to examine the connection between question types in 12 English textbooks and the entrance examination for Thai students between 1984 and 1985. Although the results indicate a variety of question types, textually explicit questions were emphasized. However, the number of textually explicit questions decreased in the textbook of a higher level of the same series; the examination focused on textually implicit questions. Even though learning higher-order questions can help learners handle lower-order questions, many studies indicate there is an overemphasis on lower-order questions in many English textbooks regardless of the taxonomies applied for investigation (Dalacorte, 1994; Watcharapaskorn, 1998). In other words, there were more high-order questions in the tests than in the textbooks. Hunaifi (2008) examined IELTS Guide and Training book by following Barrett’s Taxonomy, and he found two types of questions in the book, Literal comprehension and Inferential comprehension. Lan and Chern (2010) analyzed national achievement test (SAET), and the Department required Test (DRET) that were required for university entrance in Taiwan. The findings indicate that a broad range of cognitive skills from the low-order level to the high-order ones are required: Remembering, Understanding, Applying, and Analyzing. However, Remembering and Understanding are the major cognitive skills of the tests. Humos (2012) applied Barrett’s Taxonomy to examine English textbooks for 12th-grade Palestinian learners and his study suggests that the textbooks do not agree with the curriculum owing to a contrast ratio of question types assigned by the curriculum.

The studies reviewed above implies a disconnect between the tests and the teaching materials. This study aims to reveal the connection between reading questions in textbooks and tests which are used in high school in Thailand.
Research Questions

1. What are the dominant question types in textbooks?
2. What are the dominant question types in national tests?

Methodology

Method of Data Collection

Textbooks

In order to analyze the dominant question types in textbooks, Matthayom 6 textbooks were selected from the approved list of the MOE for the national curriculum (B.E. 2551). Bridge 6 (Bideleux, S., Boyle, J., Finnie, R., Mackie, G., McGavigan, P., and Stephen, N.) by Heinle Cengage Learning, Elevator 3 (Downie, M. and Gray, D.) by Richmond Publishing, English Explorer 3 (Stephenson, H. and Bailey, J.) by Heinle Cengage Learning, Icon 3 (Freeman, D., Gordon, D., Graves, K., and Lee, L.) by McGraw-Hill, Success 3 (McKinlay, S. and Hastings, B.) by Pearson Longman, and Upstream 6 (Evans, V. and Dooley, J.) by Express Publishing.

Tests Papers

In order to analyze the dominant question types in tests, seven sets of test papers from three tests i.e. O-NET, GAT, and GET were gathered. Three sets of O-NET from 2011, 2012, and 2013 were received from the National Institute of Educational Testing Services (NIETS). Two sets of GAT were retrieved online (ความถนัดทั่วไป (8 October 2011, 3 March 2012) retrieved from http://www.mylearnville.com/gat-eng-exambank/). Two sets of GET were retrieved online. GET for 2011 (ข้อสอบ 7 วิชาสามัญ วิชาภาษาอังกฤษ ปี 2554 (28 June 2014) retrieved from http://www.slideshare.net/KanjanapornThompat/7-2554, and for 2012 (ข้อสอบ 7 วิชาสามัญ วิชาภาษาอังกฤษปี 2555 (6 January 2013)) retrieved http://files.unigang.com/pic/2/4340.pdf.
**Theoretical Framework for Data Analysis**

Barrett’s taxonomy is adapted for this study. The questions are classified by considering sources of answers and required actions or emotional reflection to produce the answers as shown in Table 1 below.

Table 1 Barrett’s Taxonomy

<table>
<thead>
<tr>
<th>Question types</th>
<th>Sources of answers</th>
<th>Actions observed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type 1</strong> Literal Comprehension</td>
<td>explicit in the text</td>
<td>to locate, to produce from memory</td>
</tr>
<tr>
<td><strong>Type 2</strong> Reorganization</td>
<td>explicit in and outside the text</td>
<td>to rearrange, classify, categorize, make outline, summarize, combine explicit information from other sources.</td>
</tr>
<tr>
<td><strong>Type 3</strong> Inferential Comprehension</td>
<td>implicit, includes background knowledge</td>
<td>to interpret, predict</td>
</tr>
<tr>
<td><strong>Type 4</strong> Evaluation</td>
<td>implicit, includes qualities, values, background knowledge</td>
<td>to evaluate, judge, give opinion</td>
</tr>
<tr>
<td><strong>Type 5</strong> Appreciation</td>
<td>explicit in learners’ mind in terms of affection, feelings, emotions</td>
<td>to emotionally reflect to the text, the language, express feelings, interests, likes, dislikes</td>
</tr>
</tbody>
</table>

There were 889 questions from the textbooks and 201 questions from the tests. The samples were analyzed by adapting Barrett’s taxonomy that classifies questions into five types: Literal Comprehension (Lit.), Reorganization (Reor.), Inferential Comprehension (Infer.), Evaluation (Eval.), and Appreciation (Appr.) according to the criteria shown in Table 1. Due to the cognitive demand required to answer the questions, Literal Comprehension is classified as a low-order question (L), and the other questions are high-order questions (H). The number of post-reading questions is counted. The percentage of each type has been reported together with the ratio of high-order questions to low-order questions. Comparison between the quantity of question types in the tests and textbooks were examined in order to find out the connections between them.
Findings and Discussion

Questions in the tests and textbooks were analyzed as exemplified below.

**Literal Comprehension**

Mark the statements *T*[true] or *F*[false].

a. Annie Moore arrived with her two sons.

b. Twelve million immigrants entered the USA in 1954.

c. Most immigrants were on Ellis Island for a short time.

d. Some immigrants studied English on the crossing.

e. Only poorer immigrants went to Ellis Island.

*(Elevator 3, p12)*

The question is presented as true/false in which a. appears as Literal Comprehension type because the explicit answer is stated in the text below:

On January 1, 1982, Annie Moore, a 15-year-old Irish girl, and her two brothers became the first immigrants to enter the USA through the immigration station on Ellis Island in New York.

*(Elevator 3, p12)*

**Reorganization**

Summarize the text to find the answer ‘how’

How did he lose his job in the egg factory?

*(Success 3, p81)*
The learners are required to understand the situation stated in the paragraph mentioned above and then summarize it to produce the answer in their words.

The question aims at condensing the text and finding a summary. The text describes a person’s life: Alan. The answer to this question is stated in the paragraph below.

**It’s not always easy to know what to do when you leave school. Alan Jeffries had an exciting experience!**

However, they say that pride comes before a fall. And so it was with Alan. One day, he decided to make his job more interesting by seeing how fast he could do it. He set his stopwatch and drove as fast as he could towards, the boxes full of eggs. His foot was hard down on the accelerator, and the fork-lift was going at top speed, but Aland was sure he was in control. However, he was wrong. He waited one second too long. He hit the brakes, but it was too late. The fork-lift crashed into a huge pile of boxes. There was a terrible crunching noise and then silence. When Alan’s workmates went to see what had happened, they found Aland standing in the middle of the world’s biggest omelette. Fortunately, he wasn’t hurt, but he had broken more than twelve thousand eggs.

*(Success 3, p80)*
Inferential Comprehension

Which statement can be inferred from the pie charts?

1) An African is more prone to die from Malaria than a Japanese.
2) Communicable disease is illustrated as the major cause of death in the first world.
3) An almost equal number of people in both regions die from major and minor wounds.
4) Accidents and injuries are not causes of concern in both developed and developing regions of the world.
5) A small number of people die from communicable diseases in both industrialized and nonindustrialized worlds.

(GET-II)

The question aims at identifying implicit facts of the text that is provided as a pie chart. Because of the text form (non-linear), interpretation skill is required to transform the illustration to scripts in order to realize the significant information being reported.

Evaluation

Asking for opinion (choose the place based on information learned)

Where would you rather live—in Arica or in Oymyakon? Why?

(Icon 3, pII)

The questions exemplified the focus on the application of the learners’ background knowledge and experience. The text describes two cities: Arica in Chile and Oymyakon in Russia. The extreme difference of the climates and atmosphere between the cities are described. The learners are required to
incorporate their experience and background knowledge to make a decision (judge) on a city to live in.

**Appreciation**

Then, in pair, talk about whether you would like to try this sport, and explain why/ why not.

*(Upstream 6, p85)*

The question aims at expressing the learner’s feeling towards the topic.

The text describes an extreme sport and the good feeling that the sport player has towards it. The question seeks a response as to whether the learners are motivated enough to do the sport.

The findings are discussed in two sections.

**I. Research Question I:** *What are the dominant question types in textbooks?*

The textbooks provide a wide range of question types as shown in Table 2.

Table 2 Dominant questions in textbooks (%)

<table>
<thead>
<tr>
<th>Question types</th>
<th>Textbooks</th>
<th>Average</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bridge 6</td>
<td>Elevator 3</td>
<td>English Explorer 3</td>
</tr>
<tr>
<td>Lit.</td>
<td>51.13</td>
<td>46.03</td>
<td>44.35</td>
</tr>
<tr>
<td>Reorg.</td>
<td>15.04</td>
<td>9.52</td>
<td>19.13</td>
</tr>
<tr>
<td>Infer.</td>
<td>30.08</td>
<td>29.37</td>
<td>27.83</td>
</tr>
<tr>
<td>Eval.</td>
<td>3.76</td>
<td>14.29</td>
<td>7.83</td>
</tr>
<tr>
<td>Appr.</td>
<td>0.79</td>
<td>0.87</td>
<td>4.29</td>
</tr>
<tr>
<td><strong>H:L</strong></td>
<td><strong>50:50</strong></td>
<td><strong>55:45</strong></td>
<td><strong>55:45</strong></td>
</tr>
</tbody>
</table>

Table 2 shows a summary of the percentage of question types in the textbooks. Lit. stands for Literal Comprehension, Reorg. stands for Reorganization, Infer. stands for Inferential Comprehension, Eval. stands for Evaluation, and Appr. stands for Appreciation. The ratio of high-order questions to low-order questions (H:L ratio) of each textbook is stated.
According to the Table, three textbooks include more high-order questions i.e. *Icon 3*, *Success 3*, and *Upstream 6* while the others i.e. *Bridge 6*, *Elevator 3*, and *English Explorer 3* have them in equal proportion. Although high-order questions are emphasized, when an individual type is considered, a low-order questions such as Literal Comprehension is dominant since it accounts for around 41% on average. This confirms past studies by Seetalarom (1986), Dalacorte (1994), Watcharapaskorn (1998), and Humos (2012). *Icon 3* and *Upstream 6* have a different distribution of the questions compared to the other textbooks. Apart from literal comprehension questions, reorganization and evaluation questions are also dominant in *Icon 3*. Similarly, Inferential Comprehension is dominant in *Upstream 6*.

### 2. Research Question 2: What are the dominant question types in tests?

The tests have a wide range of question types as shown below in Table 3.

#### Table 3 Dominant questions in tests (%)

<table>
<thead>
<tr>
<th>Question types</th>
<th>Test titles</th>
<th>Average</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>O-NET</td>
<td>GAT</td>
<td>GET</td>
</tr>
<tr>
<td>Lit.</td>
<td>32.63</td>
<td>33.33</td>
<td>15.71</td>
</tr>
<tr>
<td>Reorg.</td>
<td>16.84</td>
<td>11.11</td>
<td>8.57</td>
</tr>
<tr>
<td>Infer.</td>
<td>46.32</td>
<td>52.78</td>
<td>57.14</td>
</tr>
<tr>
<td>Eval.</td>
<td>4.21</td>
<td>2.78</td>
<td>12.86</td>
</tr>
<tr>
<td>Appr.</td>
<td>0.00</td>
<td>0.00</td>
<td>5.71</td>
</tr>
<tr>
<td><strong>H:L</strong></td>
<td><strong>65:35</strong></td>
<td><strong>65:35</strong></td>
<td><strong>85:15</strong></td>
</tr>
</tbody>
</table>

Table 3 shows a summary of the percentage of question types in the tests. The ratio of high-order questions to low-order questions (H:L ratio) of each textbook is stated. According to the Table, high-order questions are emphasized as they account for at least 65%, and when an individual type is considered, Inferential Comprehension accounts for 52% on average. This confirms past studies by Lan and Chern (2010) and Hunaifi (2008). The findings indicate that the tests confirm the key indicators of the curriculum because cognitive skills such as: interpreting, inferring, identifying, analyzing,
justifying and expressing an opinion (MOE, 2008) are emphasized. In addition, the findings reveal there is a change in dominant question used in placement tests as the study of Seetalarom (1986) indicates. Literal comprehension questions (textually explicit) is dominant whereas GAT, a placement test in this study, has Inferential comprehension questions.

Furthermore, the distribution of questions in GET is different from O-NET and GAT. The H:L ratio (85:15) is much higher, and Inferential Comprehension questions appear 8-11% higher than GAT and O-NET respectively. It is found that the amount of Evaluation question type which is 10% higher in GET than the other tests highlights the differences between question types in the tests. It appears that the national achievement test (O-NET) and the placement test (GAT) are similar to the study of Lan and Chern (2010), which emphasize only two question types i.e. Inferential Comprehension and Literal Comprehension. On the other hand, the proficiency test (GET) strongly emphasizes Inferential comprehension questions and pays more attention to higher-order questions i.e. Evaluation than do the other tests. This might be due to the nature of proficiency test, which is to evaluate language skills used in the outside world, and evaluation skill is usually required.

The connections between the tests and the textbooks are discussed in regards to two criteria, the quantity of the dominant questions and the quantity of high-order questions. As a result, the textbooks can be divided into three groups according to the connections they have with the tests.

I. Dominant questions

Inferential Comprehension appears as the dominant question used in the tests whereas Literal Comprehension is dominant in the textbooks. The similarity between O-NET and Upstream 6 is observed as shown in Table 4.
Table 4 shows the amount of questions in O-NET and *Upstream 6* that reveals their connection. The ratio of high-order questions to low-order questions (H:L ratio) is stated. According to the Table, O-NET and *Upstream 6* agree with each other in terms of types, quantity, and the question purposes.

Firstly, O-NET and *Upstream 6* have the same ratio of high-order to low-order questions (H:L = 65:35). Secondly, when an individual question type is taken into consideration, it appears that Inferential Comprehension and Literal Comprehension are dominant in them. Besides, a wider range of questions is found in the textbook as Evaluation (10%) and Appreciation (2%) exist while they appear in a few instances in the test. This indicates that the textbook tends to practice high-order skills according to Barrett’s taxonomy. Therefore, according to Ehara (2008), the learners who use this book tend to develop adequate skills for reading.

Lastly, the questions in the textbook aim for identifying explicit and implicit main ideas which are similar to the test. Some inferencing skills such as identifying the tone of the text and finding word meanings from the provided contexts are missing from the textbook. However, the higher-order questions such as judging the writer’s purpose (Evaluation) and responding to the writer’s ideas (Appreciation) are provided.
2. **High-order questions**

When considering high-order questions, the ratio of high-order questions to low-order questions (H:L ratio) is used, and the textbooks are divided into two groups according to their connection with the tests as shown in Table 5.

Table 5 Connection between questions in tests and textbooks in terms of quantity of high-order questions

<table>
<thead>
<tr>
<th>Groups</th>
<th>Test titles</th>
<th>Textbooks</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>O-NET</td>
<td>Elevator 3</td>
</tr>
<tr>
<td></td>
<td>GAT</td>
<td>Icon 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Upstream 6*</td>
</tr>
<tr>
<td>B</td>
<td>GET</td>
<td>Icon 3 (partial)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Upstream 6 (partial)</td>
</tr>
</tbody>
</table>

**Remark** *Upstream 6 and its connection with O-NET is discussed separately in the previous section. Therefore, the discussion in this section does not repeat all aspects of it towards O-NET.*

Table 5 shows the textbooks that tend to agree with each test. They are divided into two groups. Group A agrees with O-NET and GAT while Group B agrees with GET. These are discussed further below:

**Group A (O-NET and GAT)**

The members of Group A tend to agree with O-NET and GAT, and there are three textbooks in this group i.e. Elevator 3, Icon 3, and Upstream 6 as shown in Table 6.
Table 6 Connection between questions in O-NET and GAT and textbooks in terms of quantity of high-order questions (Group A, %)

<table>
<thead>
<tr>
<th>Question type</th>
<th>Test titles</th>
<th>Textbooks</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>O-NET</td>
<td>GAT</td>
<td>Elevator 3</td>
</tr>
<tr>
<td>Lit.</td>
<td>43.33</td>
<td>33.33</td>
<td>46.03</td>
</tr>
<tr>
<td>Reorg.</td>
<td>13.33</td>
<td>11.11</td>
<td>9.52</td>
</tr>
<tr>
<td>Infer.</td>
<td>40.00</td>
<td>52.78</td>
<td>29.37</td>
</tr>
<tr>
<td>Eval.</td>
<td>3.33</td>
<td>2.78</td>
<td>14.29</td>
</tr>
<tr>
<td>Appr.</td>
<td>n/a</td>
<td>n/a</td>
<td>0.79</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>H:L</strong></td>
<td><strong>65:35</strong></td>
<td><strong>65:35</strong></td>
<td><strong>55:45</strong></td>
</tr>
</tbody>
</table>

Table 6 explains the amount of questions in O-NET and GAT in comparison with three textbooks: Elevator 3, Icon 3, and Upstream 6. The ratio of high-order questions to low-order questions (H:L ratio) is stated. According to the Table, the textbooks are likely to agree with the tests because of three reasons: the existence of high-order questions, the purposes of the questions, and the question forms.

Firstly, H:L ratio indicates the potential of the textbooks to practice cognitive skills required by the tests as they show equal to (65:35) and higher (70:30) ratio of high-order questions than the tests. However, Elevator 3 is an exception. Although it has a lower ratio of high-order questions (55:45), and Inferential Comprehension is lower than the tests, it has more Evaluation (around 11%) than the tests. According to Bloom’s Taxonomy and Alderson (2000), to be successful at this level the learners should have practiced lower-level skills. These questions will help low-proficiency learners improve reading comprehension skills (Ehara, 2008). Likewise, the distribution of questions in Icon 3 emphasizes Evaluation and Appreciation even though Inferential Comprehension is lower than O-NET and GAT. As a result, it is possible that students who practice these questions are able to manage the test questions. The agreement between Upstream 6 and GAT is explained in the same manner as its agreement with O-NET.
Secondly, the textbooks have the same purpose for the questions as found in the tests such as locating and identifying main ideas, assigning titles/headings, and judging the purpose of the texts.

Lastly, the question forms in the textbooks tend to be more effective than the tests in which MCQs are common. Due to the weakness of MCQ (Nuttall, 1996; Urquhart and Weir, 1998; Yali and Jilian, 2007), the question of if the score is the product of actual comprehension or not exists. On the contrary, other question forms in the textbooks are more effective. For example, open-ended questions are better at eliciting comprehension because the answer must be produced by the learners. Matching questions and polar questions i.e. T/F and yes/no lead to discussions in which critical thinking skills are encouraged despite the possibility of getting the answer by guessing. More importantly, these question forms are frequently used in the textbooks for high-order question practice, as a consequence the learners should be able to manage the questions in the tests.

**Group B (GET)**

The members of Group B tend to correspond with GET, and there are two textbooks in this group i.e. *Icon 3* and *Upstream 6* as shown in Table 7.

Table 7 Connection between questions in GET and textbooks in terms of quantity of high-order questions (Group B, %)

<table>
<thead>
<tr>
<th>Question type</th>
<th>Test titles</th>
<th>Textbooks</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GET</td>
<td>Icon 3</td>
<td>Upstream 6</td>
</tr>
<tr>
<td>Lit.</td>
<td>15.71</td>
<td>27.14</td>
<td>34.62</td>
</tr>
<tr>
<td>Reorg.</td>
<td>8.57</td>
<td>27.14</td>
<td>10.58</td>
</tr>
<tr>
<td>Infer.</td>
<td>57.14</td>
<td>14.29</td>
<td>42.31</td>
</tr>
<tr>
<td>Eval.</td>
<td>12.86</td>
<td>27.14</td>
<td>10.58</td>
</tr>
<tr>
<td>Appr.</td>
<td>5.71</td>
<td>4.29</td>
<td>1.92</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>H:L</strong></td>
<td>85:15</td>
<td>70:30</td>
<td>65:35</td>
</tr>
</tbody>
</table>
Table 7 explains the amount of questions in GET in comparison with Icon 3, and Upstream 6. The ratio of high-order questions to low-order questions (H:L ratio) is stated. According to the Table, none of the textbooks align with GET as their H:L ratios (70:30 in Icon 3 and 65:35 in Upstream 6) are lower than the test (85:15). However, there are four reasons these textbooks tend to align with the tests.

Firstly, Evaluation and Appreciation type account for 12.5% in Upstream 6 and 31% in Icon 3 which is similar to GET (19%). Although H:L ratio of each textbook is rather low compared with the test, these two types are found comparable to the test. This indicates the tendency of the learners who use these textbooks are able to manage the questions in the test the more they practice high-order questions (Alderson, 2000; Krathwohl, 2002; Ehara 2008).

Secondly, the textbooks provide necessary practice of skills required by the test such as locating or identifying main ideas, understanding textual relation, categorizing, summarizing, acertaining writer’s purpose, and providing an emotional response to the text. The textbooks also provide practice at applying knowledge and skills to make connections within the text that is mostly used for answering high-order questions.

Thirdly, the textbooks evaluate the entire learning process that leads to successful learning. The existence of Appreciation questions in the textbooks (4% in Icon 3 and 2% in Upstream 6) and the test (around 6%) satisfies learning domains of education because it represents the affective domain of learning. Appreciation requires all aspects of comprehension including emotional and aesthetical response, due to this it is classified as the highest level according to Nuttall’s (1996) and Barrett’s taxonomy. This indicates that the textbooks are designed to practice all question types. Therefore, they have the tendency to align with the tests.

Lastly, question forms in the textbooks tend to evaluate the actual comprehension of the learners. As discussed in this article, MCQ is the common form of a question in tests, the weaknesses of it is acknowledged, but the textbooks have a variety of question forms e.g. open-ended and matching that require actual comprehension.
3. Other textbooks

The members of this group are *Bridge 6*, *English Explorer 3*, and *Success 3* as shown in Table 8.

Table 8 Connection between questions in tests and textbooks (%)

<table>
<thead>
<tr>
<th>Question type</th>
<th>Test titles</th>
<th>Textbooks</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>O-NET</td>
<td>GAT</td>
<td>GET</td>
</tr>
<tr>
<td>Lit.</td>
<td>32.63</td>
<td>33.33</td>
<td>15.71</td>
</tr>
<tr>
<td>Reorg.</td>
<td>16.84</td>
<td>11.00</td>
<td>8.57</td>
</tr>
<tr>
<td>Infer.</td>
<td>46.32</td>
<td>52.78</td>
<td>57.14</td>
</tr>
<tr>
<td>Eval.</td>
<td>4.21</td>
<td>2.78</td>
<td>12.86</td>
</tr>
<tr>
<td>Appr.</td>
<td>n/a</td>
<td>n/a</td>
<td>5.71</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>H:L</td>
<td>65:35</td>
<td>65:35</td>
<td>85:15</td>
</tr>
</tbody>
</table>

Table 8 illustrates the amount of questions in the tests in comparison with three textbooks i.e. *Bridge 6*, *English Explorer 3*, and *Success 3*. The ratio of high-order questions and low-order questions (H:L ratio) is stated. According to the Table, the textbooks lose their connection to the tests in terms of the criteria applied in this study.

Firstly, the textbooks do not emphasize Inferential Comprehension which is dominant in the tests. They have around 14-33% less emphasis than the tests. On the other hand, Literal Comprehension is prevailing. However, this question type represents concrete learning and requires only basic skills i.e. ‘Remembering’ according to Bloom (Pearson, 2009). As a consequence, it is frequently used to practice general skills and strategies such as scanning and locating explicit information whereas the most useful skills for education are the more complex ones (Krathwohl, 2002). At the same time, the curriculum B.E. 2551 requires high-order skills (MOE, 2008) such as: analyzing, evaluating, and judging. Therefore, the practice of Literal Comprehension does not benefit the learners.

Lastly, H:L ratio of *Success 3* (60:40) should indicate a connection with O-NET and GAT (65:35). However, high-order questions are mainly from Reorganization that is considered a lower-order skill compared to
Inferential Comprehension which appears to be a dominant type in the tests. According to Bloom, the ability of learners to be successful in the tests is in doubt. In addition, Evaluation and Appreciation appear only a few times in the textbooks (around 4% in Bridge 6, 8.5% in English Explorer 3, and 8.5% in Success 3). This might not be adequate to conclude whether the learners are equipped with other lower-order skills that promote their ability to answer the test questions as suggested by Hunkins (1969; cited in Royer et. Al., 1984: 75), especially the questions in GET. As a result, the overemphasis on low-order questions with a lack of high-order questions indicate a poor alignment between the textbooks and the tests.

According to this study, to be successful in learning to read, reading questions should reflect the comprehension of all aspects, either explicit or implicit information, the underlying meaning, and aesthetical responses. However, the textbooks and the tests lack these aspects because appreciation questions are found very rarely. This might be due to affective domain, which has been acknowledge as the most difficult domain to evaluate.

Conclusion

In this study, the selected tests and textbooks were analyzed and discussed in terms of what questions were dominant and the connection between the tests and the textbooks. The analysis indicates the different dominant questions in the tests – Inferential Comprehension—the textbooks—Literal Comprehension. The findings confirm past studies by Dalacorte (1994), Watcharapaskorn (1998), Lan and Chern (2010), and Humos (2012) that the excessive practice of low-order questions tend to dominate in textbooks. However, it does not benefit learners because for higher education, as Krathwahl (2002) mentioned, high-order questions are more useful and helpful. According to the findings of this study, the textbooks are divided into three groups: the group that reflects O-NET and GAT i.e. Elevator 3, Icon 3, and Upstream 6, the group that is more reflective of GET i.e. Icon 3, and Upstream 6 and the group that has the greatest variation with the tests according to the criteria applied in this study i.e. Bridge 6, English Explorer 3, and Success 3.

There are a few issues that need to be considered in order to improve reading abilities. Firstly, extensive reading practice is required. Reading in school strongly emphasizes intensive reading, and that leads to a lack of
reading motivation and passion. Therefore, supplementary materials to serve extensive reading purposes should be included in reading curriculum in order to achieve reading goals. Secondly, textbooks and tests should include more high-order questions. Because high-order questions such as Evaluation and Appreciation are required in everyday life and for further education, giving more opportunity to practice these types will maximize learning. Moreover, the range of question forms should be widened in the tests, because the inherent weaknesses of MCQs are obvious, and are increasingly being avoided in textbooks and assessment. Other questions such as open-ended can be more effective, and short answers can reduce the workload of checking, and ensure reliable scoring. Lastly, varieties of text types and formats should be included. The difference between the tests and the textbooks is the text forms. While non-linear texts such as cartoon windows, graphs, charts, diagrams, signs, lists, and announcements are included in the tests, they are omitted in the textbooks. These forms involve the learners’ background knowledge and experience for comprehension. The study suggests that familiarity of text types and forms involve text comprehension which benefits the learners, especially when they need to deal with high-order questions. The same learning experience provided in the reading class would help them perform in the test. In addition, certain content should be included in textbooks in for example science and technology to expand vocabulary. Many science-related topics are not everyday topics and are found in articles that are not regularly read by many students, but despite this they appear in GET.

Nevertheless, it is obvious that tests and textbooks have different purposes. Tests are used to differentiate learners whereas textbooks aim at supporting and guiding them. Therefore, textbooks target all learners, but tests are more specific and selective. The groups of learners that textbooks serve are broader and more varied in terms of background knowledge, language proficiency, and critical thinking skills. On the other hand, the national tests tend to be selective in terms of screening for higher education.

However, this study’s findings are limited to only the textbooks for Matthayom 6 approved by the MOE for English core course according to the curriculum B.E. 2551. The test papers samples pertain to only the year selected as they were accessible at the time of the study. Test papers of the later years may not confirm what was found in this study.
A Study of Reading Questions in High School English Textbooks and National Tests

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