The Acquisition of Comprehension Skills among High and Low Achievers of Year 4 to 6 Students in Primary School

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Abstract

Comprehension skill is one of the main skills which need to be acquired by primary school students. In the primary school, most of the Years 4 to 6 students is expected to achieve the necessary level of reading fluency based on the prescribed syllabus. Research finding on Year 5 students indicated that they were able to read fluently but could not comprehend what was being read (Nor Hashimah Hashim, 2000). In another study which observed the primary school teachers teaching reading comprehension showed that teachers did not stress on the acquisition of basic comprehension skills (Nor Hashimah Hashim, 2001). Thus, the objective of the present study is to identify the acquisition of comprehension skills of Year 4 to 6 primary school students. Altogether, 4101 students were involved in a comprehension test which consist of 50 multiple choice questions. These items were categorized into three main comprehension categories, namely literal, inferential and critical-creative. Twenty items were developed for literal category, 20 items for inferential category and ten items for critical-creative category which measured six, five and four comprehension skills respectively. This paper discussed the findings on the acquisition of comprehension skills among high and low achievers.

Keywords: Acquisition, primary school,

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1. Introduction

Comprehension skill is one of the main skills which need to be acquired by primary school students. In the primary school, most of the Years 4 to 6 students is expected to achieve the necessary level of reading fluency based on the prescribed syllabus. Research finding on Year 5 students indicated that they were able to read fluently but could not comprehend what was being read (Nor Hashimah Hashim, 2000). In another study which observed the primary school teachers teaching reading comprehension showed that teachers did not stress on the acquisition of basic comprehension skills (Nor Hashimah Hashim, 2001). The problem of students not being able to comprehend what is being read and the fact that there is no specific approach which stresses the acquisition of comprehension skill ought to be given serious attention. Without having understood what is being read, the potential for students to acquire knowledge might be jeopardized. As comprehension is a complex intellectual process (Dechant, 1981 and; Rubin, 1991) which involves several categories and comprehension skills, thus the acquisition of comprehension skills could be the same or different for low and high achievers. The similarities and differences are significant to identify. This paper discusses the acquisition of comprehension skills in literal, inferential and critical-creative categories of low and high achievers of Year 4 to 6 primary school students.

Comprehension Categories and Skills

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There are various categories or taxonomies from the literature (Gray, 1960; Barrett, 1976; Strang, 1978; Pearson & Johnson, 1978; Rosenshine, 1980; Dechant, 1981; Rubin, 1991; Miller, 2001; & Campbell, et al., 2001) which suggest that comprehension can be categorized into three, four or five levels. Each level consists of a few or many skills according to different researchers and authors.

The comprehension categories that were selected for this study were the literal, inferential and critical-creative (Nor Hashimah Hashim, Yahya Che Lah et al., 2006). There were six skills that were selected for the literal comprehension, five skills for the inferential comprehension and four skills in the critical-creative comprehension categories.

The literal (L) comprehension refers to the memorization of facts in the reading texts. Students were required to identify and memorize the subject which was discussed by the writer explicitly in the text and in the excerpt. In other words, the literal comprehension involved students’ ability to obtain the overt information from the texts. The literal comprehension needed the low level of thinking which would be the basic for the higher level thinking (Rubin, 1991). The focused skills involved were as the following:

- L1 Identifying the meaning of a word, a phrase or a sentence: students are required to give the meaning of the word, phrase or sentence which is present in the text explicitly.
- L2 Identifying the main idea: students are able to identify the main idea, theme or moral which are stated explicitly in the text or excerpt.
- L3 Identifying the important point: students are required to trace information about the name of a person, time or background of an event which is written explicitly in the text.
- L4 Making comparison: students are required to find similarities or differences and to make comparisons between two things such as character, time, location, facilities or events which are stated explicitly in the text.
- L5 Identifying the cause-effect: students are required to identify reasons or the root of an event, attitude, character or story which are stated explicitly in the text.
- L6 Identifying the sequence of ideas/events: students are required to identify the sequence of certain ideas, events or attitudes which are stated explicitly in the text.

The inferential (IF) comprehension refers to the ability of students interpreting meaning. Students are able to summarize, interpret, and make a generalization, a conclusion and a prediction. The inferential comprehension needs to use the overt information together with the intuition and experience (Ismail, Salmah dan Elly, 1992). Apart from that, the inferential comprehension needs the high level thinking as the questions involve answers which are not explicitly stated in the text. The inferential comprehension skills include the following:

- IF1 Interpreting the main idea: students are required to give the main idea, theme or moral in a text or excerpt which is not stated explicitly.
- IF2 Interpreting the important point: students are required to interpret the content or important information about someone, time or event that is not explicitly stated in the text. Students need to interpret or predict certain thing or event which occurs before or after in a story.
- IF3 Interpreting comparison: students are required to interpret similarities and differences in character, time, place, idea or event (example: male and female, then and now, here and there) which are not compared explicitly in the text.
- IF4 Interpreting cause-effect: students are required to interpret reasons or effects about a motive for attitude, action or event which are stated explicitly in the text.
- IF5 Making a conclusion: students are required to make a conclusion about a character, event, action, idea or opinion in the text. The conclusion is not given explicitly in the text but students need to make their own interpretation based on the explicit information in the text.

The critical-creative (C) comprehension integrates the students’ ability to do overall evaluation towards a certain information or idea which is read, make a conclusion about the precision or suitability of the given information or idea, apply the information, and emphasize the production of a new idea. The critical-creative comprehension needs a divergent thinking, which is the thinking skill outside the literal and inferential
comprehension (Rubin, 1991), which depends on the knowledge and personal experience of the students. The skills that were in focus include the following:

- **C1 Evaluating**: students are required to give opinions or support towards a certain event, situation, feeling, action or character in a text and contribute towards solving a problem.
- **C2 Making a conclusion**: students are required to conclude a certain subject, event, situation or character. The conclusion is not to be found in the text but students need to place themselves in the particular situation and state their actions that need to be taken.
- **C3 Internalization**: students are able to show sensitivity, sympathy and empathy towards a character, event or idea which is highlighted in a text by giving opinions or stating their feelings.
- **C4 Identifying the moral of the story**: students are required to state the moral of the story from a certain character, story line or a certain thing in the text.

**Methodology**

This study employed quantitative method using comprehension test to identify comprehension skills acquired by primary school children. The population of the study comprised of primary school students of Year 4, 5 and 6 (aged between 10 to 12 years old). Altogether, 4101 students were sampled and involved in the test. Cluster sampling technique was used based on a group and not random individuals (Gay, 2009).

The instrument of this study is a test which consists of 50 multiple choice questions. These questions were based from three main comprehension categories, namely literal, inferential and critical-creative. Twenty items were developed for literal category, 20 items for inferential category and ten items for critical-creative category which measured six, five and four comprehension skills respectively. The test was developed by a group of primary school teachers, experts from Curriculum Development Centers, administrators from District Education Office and State Education Department, and lecturers of School of Educational Studies from Universiti Sains Malaysia. The test was piloted and the value of Alpha Cronbach 0.815 for the 50 item can be accepted (Nunaly, 1978). In addition, the Pearson Correlation in the analysis of split-half reliability was significant (p=000). The test was administered and collected through the assistance of head Teacher in the primary schools.

The data was analyzed using descriptive statistics which include mean and percentage scores of students. Low and high achievers were identified through the scores obtained from the test administered. Students who scored below 41% and above 51% were categorized as low and high achievers respectively. However, students who scored between 42 and 50% were categorized as average and will not be analyzed for the purpose of this paper.

**Findings**

The findings on the acquisition of comprehension skills of low and high achievers of Year 4, 5 and 6 primary school students will be analyzed in Table 1 to 3 according to the three comprehension categories: literal (L), inferential (IF) and critical-creative (C). The mean scores obtained for all the skills in these three comprehension categories were ranked from the highest (rank 1) to the lowest (rank 5) scores.

Table 1 shows the acquisition of comprehension skills of low and high achievers in literal category. Three out of six comprehension skills in literal category, that are L5 identifying cause and effect (rank 2), L1 identifying meaning of word/phrase/sentence(rank 5) and L4 making comparison (rank 6) come out to be acquired by students of low and high achievers at the same rank. However, L2 identifying main idea (rank 1) seems to be acquired better by low achievers. As for the high achievers, L3 identifying important points (rank 1) appeared to be accomplished better (rank 1). The acquisition of comprehension skills of low and high achievers in literal category indicates almost similar pattern.

<table>
<thead>
<tr>
<th>Comprehension Skills</th>
<th>Mean Score</th>
<th>Rank</th>
<th>Mean Score</th>
<th>Rank</th>
</tr>
</thead>
</table>

Table 1 The Acquisition of Comprehension Skills of Low and High Achievers in Literal Category
Table 2 indicates the acquisition of comprehension skills of low and high achievers in inferential category. The first skill acquired by the low achievers based on the rank is IF4 interpreting cause and effect, followed by other skills such as IF3 interpreting comparison (rank 2), IF2 interpreting important points (rank 3), IF5 making conclusion (rank 4) and IF1 interpreting main ideas (rank 5). However, the high achievers accomplished the skill on IF3 interpreting comparison as the first skill in the rank, followed by other skills for example IF4 is interpreting cause and effect (rank 2), IF5 making conclusion (rank 3), IF1 interpreting main ideas (rank 4) and IF2 interpreting important ideas (rank 5). The acquisition of comprehension skills of low and high achievers in inferential category reveals irregular pattern.

Table 2  The Acquisition of Comprehension Skills of Low and High Achievers in Inferential Category

<table>
<thead>
<tr>
<th>Comprehension Skills</th>
<th>Mean Score Low Achievers &lt; 41%</th>
<th>Rank</th>
<th>Mean Score High Achievers &gt;51%</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>IF1 Interpreting main ideas</td>
<td>23.49</td>
<td>5</td>
<td>43.10</td>
<td>4</td>
</tr>
<tr>
<td>IF2 Interpreting important points</td>
<td>27.41</td>
<td>3</td>
<td>33.36</td>
<td>5</td>
</tr>
<tr>
<td>IF3 Interpreting comparison</td>
<td>29.92</td>
<td>2</td>
<td>59.27</td>
<td>1</td>
</tr>
<tr>
<td>IF4 Interpreting cause and effect</td>
<td>36.35</td>
<td>1</td>
<td>56.78</td>
<td>2</td>
</tr>
<tr>
<td>IF5 Making conclusion</td>
<td>24.00</td>
<td>4</td>
<td>46.96</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 3 illustrates the acquisition of comprehension skills of low and high achievers in critical-creative category. Two out of four comprehension skills in critical-creative category emerged to be achieved by low and high achievers at the same level. Both these skills are C4 identifying moral of the story (rank 1) and C2 making conclusion (rank 4). Other two skills concerning C1 evaluation and C3 internalization were attained by low and high achievers at different levels. The acquisition of comprehension skills of low and high achievers in critical-creative category illustrates more or less consistent pattern.

Table 3  The Acquisition of Comprehension Skills of Low and High Achievers in Critical-Creative Category

<table>
<thead>
<tr>
<th>Comprehension Skills</th>
<th>Mean Score Low Achievers &lt; 41%</th>
<th>Rank</th>
<th>Mean Score High Achievers &gt;51%</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>C4 Identifying moral of the story</td>
<td>38.84</td>
<td>1</td>
<td>65.06</td>
<td>1</td>
</tr>
<tr>
<td>C2 Making conclusion</td>
<td>23.63</td>
<td>4</td>
<td>36.52</td>
<td>4</td>
</tr>
<tr>
<td>C1 Evaluation</td>
<td>28.38</td>
<td>3</td>
<td>59.72</td>
<td>2</td>
</tr>
<tr>
<td>C3 Internalization</td>
<td>29.02</td>
<td>2</td>
<td>54.28</td>
<td>3</td>
</tr>
</tbody>
</table>

Discussion

The acquisition of comprehension skills of low and high achievers in literal category indicates almost similar pattern. Literal comprehension needs the student to understand ideas and information explicitly stated in the reading.
material which is not difficult for both low and high achievers. According to Rubin (1991) the literal comprehension required the low level of thinking which would be the basic for the higher level thinking.

The acquisition of comprehension skills of low and high achievers in inferential category reveals irregular pattern. This study reveals that low and high achievers comprehend show a variety of ranks/levels of understanding. The reason could be that whether students are of low and high achievers, both encounter different difficulty in making inference. Fisher (1990) states “many children who can understand what they read at a literal level, find it difficult to understand a writer’s underlying meaning and intentions. There is a tendency for them to interpret only what the words say, not what they mean.” Studies by Oakhill, Cain & Bryant (2003) found a number of text-level weaknesses in children identified as poor comprehenders, including difficulties with making inferences, difficulty with monitoring comprehension, and a poor appreciation of story structure. The explanation for these difficulties could be that poor comprehenders lack the knowledge needed on which to base an inference (Nation & Angell, 2006). In inferential category, the students need to read between the lines and make inferences about things not directly stated. When the student infers something, students based on his/her conclusion on information that is implied, but not explicitly stated. Student makes inference from clues within a reading passage that lead student to draw certain conclusions. The skills in inferential category tested student ability to draw conclusions about what an author is implying.

The acquisition of comprehension skills of low and high achievers in critical-creative category illustrates more or less similar pattern. This high level of comprehension requires the student to use some external criteria from his/her own experience in order to evaluate the quality, values of the writing, the author’s reasoning, simplifications, and generalizations (Yahya, 2013). The student will react emotionally and intellectually with the material. Because everyone's life experiences are varied, answers to some of the following questions will vary. In this study, the texts which used were based on student environment and experience requires them to use some external criteria from his/her own experience in order to evaluate.

Conclusion

In conclusion, there is consistency in the acquisition of comprehension skills of low and high achievers in both literal and critical-creative categories. This implies that both low and high achievers do not have difficulties in understanding ideas and information explicitly stated, and to think beyond the text related to their own experience. However, there is inconsistency in the acquisition of comprehension skills of low and high achievers in inferential category. This means both low and high achievers in this study have divergence inference ability. These findings can then lead to instructional plans that will strengthen students’ mastery of the comprehension skills. Strategies to foster comprehension skills can be developed to assist and improve students’ acquisition of comprehension skills especially in inferential category. Furthermore, validation of the comprehension test should be conducted since comprehension is a complex process that involves a number of skills from recognizing individual words to developing a coherent and cohesive intellectual and psychological understanding of a text.

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References


