Developing Reading Test Using Lower to Higher Order of Thinking for ESP Students

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Abstract

Reading assessment should cover reading micro skills as well as the students' order of thinking. The development of reading test that describes quality of reading performance, in large scale assessment is well established. However, less attention has been directed towards the development of reading test using multiple choice which ranges from lower to higher order of thinking levels. This paper reports on a recent project to define the construct of reading test which accommodate the order of thinking levels. The authors discuss how the processes of theoretical construct definition, together with empirical analysis of test taker performance are used to underpin the development of the test. Methodologies utilized in the project included expert judgment, text readability analysis, and item analysis. Based on the results, the findings can inform decisions about how best to account the reading micro skills of the students' performance.

Keywords: reading test, ESP, order of thinking

Introduction

As mentioned by Keenan, Betjemann, and Olson (2008) reading assessments are presented as measures of the same construct, comprehension. Comprehension as the ultimate goal of reading which involves decoding process (Fischer-Baum, et al., 2017) has shown that multiple cognitive processes (Rupp, Ferne, and Choi, 2006: Abu-Rabia, Share and Said, 2013) as well as metacognitive processes (Keenan, Betjemann, and Olson, 2008) include in achieving it. More particularly in reading tests, there has been an increased interest in trying to assess and understand comprehension (Gorjian, 2013; Artuso and Palladino, 2016; Levesque, Kieffer and Deacon, 2017; Ferrer et al., 2017).

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In relation to cognitive processes, reading tests should cover all low order of thinking as well as high order of thinking processes. This should be achieved by providing various questions which reflect different cognitive processes. The reading comprehension tests assisted the students in reaching a higher level understanding. Therefore, the taxonomy that served these purposes was the six-step question system based on Bloom (Daines, 1982: 159). It is confirmed that micro skill of reading for ESP can be matched by this Bloom's taxonomy (Orey, 2010; Adams, 2015) because it was one of the best known examples of logical analysis of cognitive areas. The sequential steps of this system consist of knowledge, comprehension, application, analysis, synthesis, and evaluation. However, the test used the revised bloom taxonomy namely remembering, understanding, applying, analyzing, evaluating, and creating (Orey, 2010; Adams, 2015).

The taxonomy was constructed as hierarchy and could be used in all content areas and at any grade level. Remembering is retrieving, recognizing, and recalling relevant knowledge from long-term memory. Understanding is constructing meaning from oral, written, and graphic messages through interpreting, exemplifying, classifying, summarizing, inferring, comparing, and explaining. Applying is carrying out or using a procedure through executing, or implementing. Analyzing is breaking material into constituent parts, determining how the parts relate to one another and to an overall structure or purpose through differentiating, organizing, and attributing. Evaluating is making judgments based on criteria and standards through checking and critiquing. Creating is putting elements together to form a coherent or functional whole; reorganizing elements into a new pattern or structure through generating, planning, or producing.

Additionally, reading tests should also reflect the microskills of reading. According to Brown (2004), micro-skills for reading include understanding topic, main idea, supporting ideas/ details, organization of the text, implied details, word meaning, pronoun reference, and the writer's tone of writing. Thus, in English for specific purposes (ESP), reading is the basic classroom activity to develop the Non-English Department students' study skill. The suitable reading materials are in the form of topics and texts which cover specific current content. The classroom discussion should cover the micro reading skills for specific purposes, and so do the reading tests.
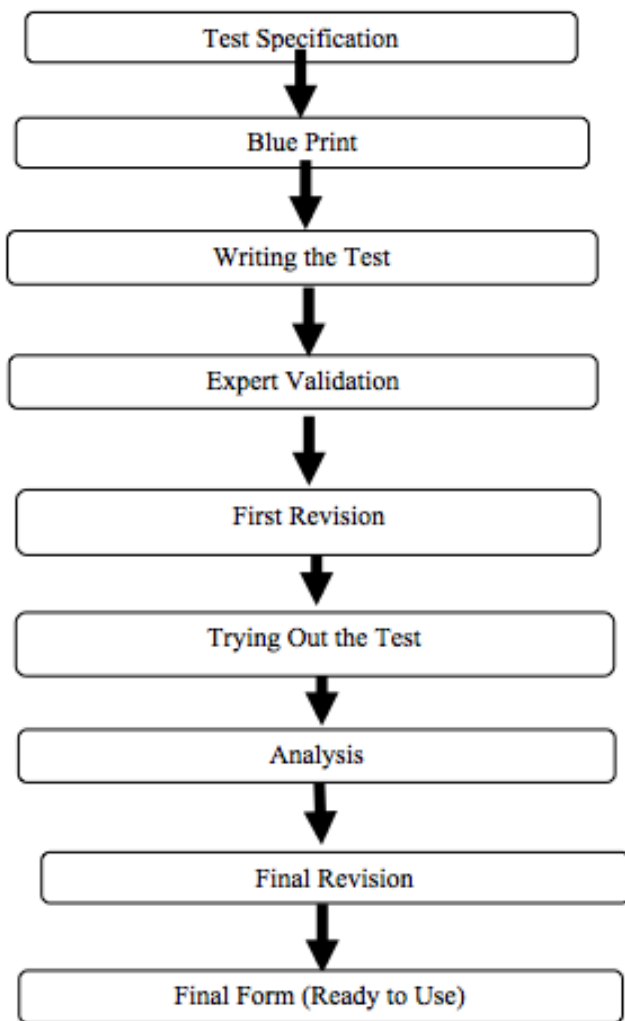
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Tests of reading comprehension, notably for a research should cover characteristics of a good test. First, this reading test should be valid to the extent to which this reading test can measure what it should measure (Heaton, 1989; Hughes, 2003; Brown, 2004; Weir, 1990). Second, reading test should be reliable as a measuring instrument (Heaton, 1989) by proving consistency on the test results (Hughes, 2003; Brown, 2004). Third, reading tests are good if they can discriminate the test takers' performance (Heaton, 1989). Fourth, the tests should have practical administration and test efficiency (Weir, 1990). Fifth, the reading test should have authenticity (Brown, 2004).

The issue at the present study concerned with appears to be related to some several previous studies. Gorjian (2013) mentioned that reading tests using multiple choice is suitable to students with a big number, and the results of this study provided evidence that prior knowledge and interest to the reading texts concerned with facilitating effects on the performance of foreign language learning taking multiple choice reading comprehension test. Besides that Baghaei and Ravand (2015) identified that cognitive processes underlying the reading test were derived. The derived processes were reading for details, making inferences, reading for main idea, syntax, and vocabulary. Evidence has shown that besides fulfilling criteria of a good test mentions by several experts, reading test with multiple choice format which provide cognitive processes questions on different order of thinking as well as measuring microskills of reading is highly demanded. Thus, a reading test which fulfill these requirements worth to constructing and standardizing.

Research Method

The authors discuss how the processes of theoretical construct definition, together with empirical analysis of test taker performance are used to underpin the development of the test. Methodologies utilized in the project included expert judgment, text readability analysis, and item analysis. Before the tests are constructed, table of specification and blue print for the test were designed. In developing the test, the researchers took several steps: 1) developing test specification of the test 2) writing the blue print of the test; 3) writing the test covering writing the direction and the items; 4) validating the test by an expert; 5) revising the test based on the comments from the expert; 6) trying out the test; 7) analyzing the result of the try out, and 8) revising the test based on the analysis. To make it clear, the model of test development used in this research is presented in the figure 1.

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Figure 1. Model of Test Development Plan

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┌─────────────────────────────┐
│     Test Specification      │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│         Blue Print          │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│      Writing the Test       │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│      Expert Validation      │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│       First Revision        │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│     Trying Out the Test     │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│          Analysis           │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│       Final Revision        │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│   Final Form (Ready to Use) │
└─────────────────────────────┘
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Results And Discussion

Test specification dealt with identifying the objective of the course, determining the objective of the test, micro skills tested, kind of test, number of texts in the test, sources of texts, number of items, time for test, equipment involved, and scoring method.

Identifying the objective of the course was important to do to ensure the content validity of the test. The test should correspond to the objective of the course and the test items have to be representative samples from the domain that is to be tested. In other words, the test should measure accurately what is intended to measure (Hughes, 2003: 22; Brown, 2004: 22). Therefore, the researchers went through this step before determining the objective of the test, the micro skills tested and type of the texts.

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The objective of the course for the first semester student of Fisheries and Marine Science reads that this course was designed to improve the students' reading skills and writing short essays in English related to Fisheries and Marine Science. These were aimed to enable the students to have a more thorough and comprehensive knowledge about Fisheries and Marine Science that was found in the literatures written in English to support their study. The general instructional objective of reading was to evaluate students' reading comprehension on the expository texts by using six-step question system of Bloom taxonomy.

The specific instructional objectives were evaluating students' understanding of topic, main idea, supporting ideas/details, organization of the text, implied details, word meaning, pronoun reference, and the writer's tone of writing of expository texts.

Based on the information above, the objective of the test was defined as to measure the students' reading comprehension of expository test. The micro skills tested included understanding of topic, main idea, supporting ideas/details, organization of the text, implied details, word meaning, pronoun reference, and the writer's tone of writing of expository texts.

The kind of test was multiple choice consisting of 5 expository texts and 30 items. The texts consist of 274 to 346 words. They were adapted from various sources, such as Robert (2003), Walker (1995) and Bob (2011). The time allotment to do the test was 90 minutes in which students work individually. They were required to bring a pen or pencil to write the right answer in the answer sheet provided. In scoring, correct answer is scored 1, while wrong answer was scored 0. for the total score. The total score equals the score obtained divided by the maximum score times 100. For details description, Appendix 1 shows the test specification for the test.

The Readability of the Texts

In this study, the readability of the texts that were used in the treatment was calculates using Flesch-Kincaid Formula. It was calculated automatically using readability software that was provided by Microsoft Office Word 2007. It is done offline. The procedures in using the readability results are as follow: (1) On the *Tools* menu, click *Options*, and then click the

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Spelling & Grammar tab; (2) select the *Check grammar* with spelling check box; (3) select the *Show* readability statistics check box, and then click *OK*. (4) On the *Standard* toolbar (toolbar: A bar with buttons and options that you use to carry out commands. To display a toolbar, press ALT and then SHIFT+F10.), click Spelling and Grammar Button image; (5) when *Microsoft Word* finishes checking spelling and grammar, it displays information about the reading level of the document. The reading texts used was 6.5 because it includes into plain English, so that it can be used for EFL learners in university level.

The result of the text readability was shown in the next table 1.

Table 1. Results of Readability of Texts

Title of the text	Word count	Readability Flesch-Kincaid Grade level
Text 1. The Need for Water Conservation	277	6.5
Text 2. GPS-You are Here	327	6.5
Text 3. Scuba Diving in Indonesia	305	6.5
Text 4. Coral Bleaching	255	6.5
Text 5. Whaling	314	6.5

Designing a Blue Print

In order to design the blue print, the researchers made indicators from the course objectives that were taken from micro skill of reading that was matched with the need of the Non-English Department especially in tertiary level of education. The micro skills described were fulfilled the need of ESP courses based on Sulistyo and Rachmajanti (2008: 20). They were evaluating students' understanding of topic, main idea, supporting ideas/details, organization of the text, implied details, word meaning, pronoun reference, and the writer's tone of writing of expository texts. Appendix 2 shows the blue print for the test.

Writing the Reading Test

The third step was writing the test covering writing the direction and the items. The direction was made as clear and brief as possible to ensure that the students were not confused without having to spend much time in reading the direction. The test items were based on the micro skills tested. The distribution of test item was as follows.

There were four point five percent or two numbers questioning about topic. Questions about main ideas were nine percent or four numbers. Questions about supporting details were

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eighteen percent or eight questions. They were divided into understanding cause effect (one number), descriptive (four numbers), problem solution (one number), sequence (one number), and comparative (one number).

Question about the organization of the text is nine percent, equals to four items. There are thirteen questions or twenty three point five percent for questions on implied details. Specifically, questions were divided into understanding problem (3 numbers), understanding description (2 numbers), understanding comparison (two numbers), understanding sequence (two numbers), and understanding cause effect (four numbers). Besides, there were seven questions or sixteen percent about word meaning. Questions on pronoun reference were four or nine percent. Questions on the writer's tone of writing were three or seven percent.

Validating the Test

Validity is another important feature of a good test. In developing and constructing a test to assess the students' skills and knowledge, a crucial consideration should be made, so that the test can get a valid result. Validity is defined as the extent to which an instrument measured what it claimed to measure (Ary et al., 2006: 263). In other words, in measuring the subjects' skills or knowledge, the test must measure appropriately the intended skills or knowledge so that the result of the test will be a convincing measurement that reflects the subjects' correct, right, or appropriate performance. Because validity of the result of the assessment is something abstract, it can merely predicted through providing validity evidence (Bachman, 1990: 237; Brown, 2004: 22; Latief, 2010: 132-133).

To get the validity evidence, after the process of writing the test has finished, the researchers asked an English lecturer of State University of Malang who had years of experiences in teaching English and testing to validate the test. To do this, the researchers gave him the test with enclosed test specification, blue print and expert validation checklist. He was asked to give feedback and comment on the quality of the test based on the questions provided in the checklist.

There were ten points asked to the expert: the construct of the test, the type of the texts, the content of the texts, the difficulty of the texts, the length of the texts, the number of

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items, the number of distractors, the micro skills, the questions, the directions, and the time allotment.

First Revision

The researchers came to revision stage once she got the feedback and comments from the expert. They also discussed with him. Based on his feedback, comment, and discussion, the test was revised. First, the micro skills tested was added by topic. Second, the order of reading skills in the blueprint was revised. Third, the word meaning in one of micro skills tested might be specified into vocabulary skills such as connotation, denotation, definition, synonym, antonym, or contextual meaning.

Trying-out the Test

The try-out test was aimed to produce or result the required data with relatively valid instrument. It was intended to know for sure the discrimination power of the test, the level of difficulty of the test and the reliability of the test in general before conducting the real test. The test was tried-out to another group of students with the same characteristics with the subjects of the experimentation of this study. After the first revision is finished, the test was tried out. It was conducted to three classes; there were 127 students joined for the try out.

Analyzing the Results of the Try-out

Analyzing the results of the try-out test was carried out after conducting the try-out test. They were analyzed to estimate reliability, item analysis, and item discrimination of the test. Reliability was a measure of consistency of test scores from one test administration to another or within one set of scores (Djiwandono, 1996: 98; Ary et al.; 2006: 254; Latief, 2010: 125). Reliability is of primary importance in the use of public achievement and proficiency test as well as is classroom tests.

Item difficulty is what Djiwandono (1996: 140) and Ary, et al., (2006: 229) describe as the index of difficulty is generally displayed as the fraction or percentage of the students who answered the item test either correctly or wrongly. In other words, the test should not be too difficult or too easy for the students. The discrimination index of test items indicates the extent to which the item could discriminate between the test takers, separating proficient

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students from low proficient ones (Djiwandono, 1996: 140; Ary et al., 2006: 229). Therefore, the test for measuring the quality of the test should be able to distinguish the high achievers from the low ones.

Item discrimination shows the extent to which each item discriminates among the test takers in the same way as the total score discriminates (Djiwandono, 1996: 142; Ary et al., 2006: 229). If an item is answered correctly more by proficient students than the less proficient students, it has good item discrimination. The item analysis was done by using *Item and Test Analysis Program* (ITEMAN) Version 3.50. The consideration of using this program was by far the least time consuming of all the reliability estimation procedures. It involved only one administration of a test and employed easily available information.

Thirty (30) items out of forty-five (45) were taken and analyzed. The item selection was based on point biserial (item validity), namely coefficient correlation. It ranges from 1.00 for a perfect valid test to 0.00 for totally invalid test. However, other considerations, like blue print and reliability of the test support the items selection. Blue print was needed to guide the researchers to select items that covered all the needs for the test based on the objective of the test. The test reliability (as shown below) shows that the test is reliable. The followings were the explanation on the result of the analysis.

Reliability

The reliability was calculated based on the relationship among scores taken from individual items or subsets of items within a test (internal-consistency coefficient). It ranges from 1.00 for a perfect reliable test to 0.00 for totally unreliable test (Ary et al., 2006: 261). The computation resulted in a reliability coefficient of 0.69 It means that the scores are 69% consistent or reliable with 31% measurement error (100%-69% = 31%). By using ITEMAN, the reliability score was seen in the scale statistics, especially in *alpha*.

Item Difficulty

Item difficulty of each test item could be seen from the item statistics, especially in *proper correct* from ITEMAN analysis summary information. Each item ranges from 0% to 100% or 0.0 to 1.00. The closer the value to 1.00 is, the easier the item is. According to Djiwandono (1996: 141), the recommended test item difficulty is between 0.20 to 0.80 unless

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the test items needs to revise, discard, or change. Table 2 below was a table of item difficulty range.

Table 2. Item Difficulty Index Range and Interpretation

Index Range	Interpretation
0.7 and up	easy
0.3 – 0.7	moderate
below 0.3	difficult

The test items used were easy, moderate, and difficult because the test was achievement test. The proportion was seventeen percent easy and difficult questions and sixty six percent for the moderate ones.

Based on the analysis, five items were categorized as difficult item, five items were categorized as easy item, and fourteen items were moderate. There were six items, two were too easy and the other four were too difficult, so they were revised.

Item Discrimination

Based on ITEMAN, item discrimination was symbolized as *discrimination index*. Item discrimination (ID) indexes range from 1.00 (if all the upper-group students answered correctly and all the lower-group students answered incorrectly) to -1.00 (if all the lower-group students answered correctly and all upper-group students answered incorrectly). The closer the ID index to 1.00, the better it was. The categorization of item discrimination was based on guidelines from Arnold (1980: 126) as cited in Djiwandono (1996: 142) as shown in Table 3

Table 3. Item Discrimination Index Range and Interpretation

Index Range	Interpretation	Action
0.40 and up	very good	Accepted
0.30 - 0.39	good	accepted
0.11 - 0.29	enough	reviewed and revised
0.11 - 0.29	ok (enough)	reviewed or rejected
0.11 – 0.10	poor	reviewed or rejected
0	no discrimination	rejected
-	negative	rejected

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1.00 is the ideal ID index, meaning that the item was successfully discriminate upper-group students from lower-group students. The entire first group answered the item correctly, while the later group did not. However, in reality, it rarely happened.

Based on the analysis, one item fell to the category of poor item, ten items were ok (enough). There were twelve items fell to the category of good items, and seven items were categorized as very good items.

Final Revision

After doing the analysis, the researchers revised the test items based on the result of item analysis concerning the reliability, item discrimination, and item difficulty. Revision was conducted to those that did not meet required standard or unreliable, not able to discriminate between proficient students and less proficient students, and too easy or too difficult items.

Because the reliability coefficient of the tests is 0.69, it was concluded that the test was reliable. However, based on the analysis of item difficulty analysis, there were six items, two were too easy and the other four numbers were too difficult were revised. They were revised in term the questions. Besides that, based on item discrimination, eleven items were revised in term of the answer options.

More applied implication of the findings refers to the format of the questions of reading tests. There has been great criticism of multiple choice questions because they may engage recognition processes rather than productive retrieval process. This research adds some other studies (Rupp, Ferne, and Choi, 2006; Gorjian, 2013; Baghaei and Ravand, 2015) proved that the criticism is not correct, but this test format appear to trigger productive cognitive process, for which multiple choice items are an appropriate alternative for ESP students.

Inserting questions which show cognitive processes especially lower order of thinking (remembering, understanding, applying) as well as higher order of thinking (analyzing, evaluating, creating) due to several reasons. This reading test is one of

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approaches to assess students' high order of thinking in reading. As Wilson (2007) suggests the reading texts should be challenging which allow the students to feel a sense of achievement and agency along the way are all key factors in responding analyzing and evaluation questions. These findings also complete Kamgar and Jadidi (2016)'s study results that students with high order of thinking can bring implication for teachers to design appropriate medium of evaluation to measure students' order of thinking level. The results of this research is fulfilling the suggestion asked by Karimi and Veisi (2016) which mentions that test developers are also recommended to develop test to affect the quality of teaching as well as students' ability on tests by using order of thinking based on Bloom's Taxonomy.

The findings also support that there were several ways to go through in order to make a good test, the process is not easy and it time consuming. However, these test development steps are worth doing due to its appropriateness in developing a standardized test, for a research purposes, particularly (Hughes, 2003; Brown, 2004).

Conclusion and Suggestion

To make a reading test for ESP students which fulfilling the criteria of a good test as well as reflecting the cognitive process are demanding. However, a multiple choice test format still can be used when the number of the students are big in the class. In developing the test, several steps, like developing test specification of the test, writing the blue print of the test, writing the test covering writing the direction and the items, validating the test by an expert, revising the test based on the comments from the expert, trying out the test, analyzing the result of the try out, and revising the test based on the analysis, can be done.

However, further research can be done by utilizing this test for several studies related to ESP students which deal with students' reading achievement in reading and cognitive processes. These studies can be done through various quantitative and qualitative research designs.

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Appendix 1. Test Specification for the Reading Test

No		Test Specification
1.	Objective of the course	: to improve the students' reading skills and writing short essay in English related to fisheries and marine science. These are aimed to enable the students to have a more thorough and comprehensive knowledge about fisheries and marine science that can be found in the literatures written in English to support their study.
2.	General instructional objective of reading test	: evaluate students' reading comprehension on the expository texts by using six-step question system of Revised Bloom taxonomy
3.	Specific instructional	: to measure the students' reading comprehension skill in term of

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	objective	expository text, especially in identifying:
		- topic
		- main idea
		- supporting ideas/details (understanding problem solution, description, comparison, sequence, and cause effect)
		- organization of the text
		- implied details (understanding problem solution, description, comparison, sequence, and cause effect)
		- the writer's tone of writing
		- pronoun reference
		- and word meaning.
4.	Kind of test	: multiple choice test
5.	Number of texts	: 5 expository texts, each of which employs: - Problem-solution: **The Need for Water Conservation** (Text 1) - Description: **GPS-You are Here** (Text 2) - Comparison: **Diving in Indonesia** (Text 3) - Sequence: **Coral Bleaching** (Text 4) - Cause-effect: **Whaling** (Text 5)
6.	Source of texts	: - **The Need for Water Conservation** (Muschla, Gary Robert. 2003. *Ready-to-Use Reading Proficiency Lessons and Activities*. San Francisco: Jossey-Bass. A Wiley Imprint. Page: 176) - **GPS-You are Here** (Walker, Michael. 1995. Success Communicating in English. Textbook 4. Massachusetts: Addison-Wesley Publishing Company. Page 30-31) - **Diving in Indonesia** (http://www.dive-the-world.com/diving-sites-indonesia.php. Retrieved 1 June 2011) - **Coral Bleaching** (Ewing, Bob. 2011. *Study Says Sunscreen Lotion Threatens Coral*. Retrieved from http://www.digitaljournal.com/article/255126#ixzz1PVV5ZHzx, on 18 June 2011) - **Whaling** (http://en.wikipedia.org/wiki/Whaling Retrieved on June 1st, 2011)
7.	Number of items	: 45 items
8.	Time allotment	: 90 minutes
9.	Equipment	: paper and pen/pencil
10.	Scoring	: 1 for correct answer. 0 for wrong answer. For the total score, the formula is:

$$\text{Total score} = \frac{\text{the score obtained}}{\text{the maximum score}} \times 100$$

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Appendix 2. Blueprint for the Reading Test
Language skill: READING
Course Goal: to improve the students' reading skills and writing short essay in English related to fisheries and marine science. These are aimed to enable the students to have a more thorough and comprehensive knowledge about fisheries and marine science that can be found in the literatures written in English to support their study.

Content		Cognitive Domain						Total	Percentage
Test objective	Indicators	Remembering	Understanding	Applying	Analyzing	Evaluating	Creating		
Measure the students' reading comprehension of expository test	Given five expository texts the students are able to identify: ▪ topic number				1 1	1 26	- -	2	4.5%
	▪ main idea number	- -	- -	- -	1 16	3 7, 24, 35	- -	4	9%
	▪ supporting ideas/details - understanding problem solution number - understanding description	2 - 12, 19 -	1 - 15 -	2 - - -	1 - 11 -	2 4 - 	 - - -	8	18%

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number						21		
- understanding comparison								
number	-	-	29	-	-	-		
- understanding sequence								
number	-	-	37	-	-	-		
- understanding cause effect								
number								
▪ organization of the text	-	-	-	-	4	-	4	9%
number	-	-	-	-	18, 27, 36, 45	-		
▪ implied details	-	1	-	4	8	-	13	27.5%
- understanding problem solution number	-	-	-	2	5, 6	-		
- understanding description number	-	14	-	-	9	-		
- understanding comparison number	-	-	-	25	22	-		
- understanding sequence number	-	-	-	32	30	-		
- understanding cause effect	-	-	-	42	38, 39,			

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						40			
	number								
	■ the writer's tone of writing	-	-	-	-	3	-	3	7%
	number	-	-	-	-	8, 17, 28	-		
	■ pronoun reference	-	-	3	1	-	-	4	9%
	number	-	-	31, 33, 41	10	-	-		
	■ word meaning	-	1	6	-	-	-	7	16%
	number	-	3	13, 20, 23, 34, 43, 44	-	-	-		

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Appendix 3. Sample of the Final Reading Test

DIRECTIONS:
1. *Write your name and student number on the answer sheet provided*
2. *Read the texts and write the answers on the answer sheet provided by using capital letter (A, B, C, or D)*
3. *You may not use dictionary*
4. *You have 60 minutes to finish the test*
5. *Do not write anything on the test book*

TEXT 1. For Questions No. 1-8
The Need for Water Conservation

As population increases, the need for fresh water increases. The availability of fresh water will become one of the most pressing issues for many communities in the upcoming years. At least, fresh water will become more expensive; at the worsts, water lacks and rationing will become daily occurrences.

Fresh water is a **finite** resource, accounting for only about 3 percent of all the water on Earth. As the demands for fresh increase, nature will become hard pressed to replenish lakes, rivers, and underground aquifers. In many regions today, nature is falling behind the demand.

In the past, as water use increased, local authorities simply expanded pumping facilities to draw more water from rivers, lakes, and reservoirs, or they dug more and deeper wells. But surface sources of water, as well as subterranean sources, can become overdrawn, especially during times of drought. Reservoirs shrink, and wells go dry.

Since fresh water is a limited resource, we must take steps that can anticipate a water crisis and give planners time to devise strategies that will assure an adequate supply of water. Some of the most obvious and simple conservation efforts include fixing leaking faucets and pipes, installing water-saving devices such as low-flow toilets and showerheads, and not letting water run when it is not being used. Reducing water pollution and cleaning and restoring polluted water to its natural state also help to stretch our fresh water supplies.

If current policies are not changed and supplies are not expanded people may suffer from water restrictions in the future. Policies to ensure future fresh water availability should be developed and enacted today. Tomorrow will be too late.

1. The author believes that we may face a ….
   a. water conservation
   b. lack of will for conservation
   c. lack of fresh water in the future
   d. problem of treating waste water

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2. According to the author, ….
   a. fresh water is limited
   b. water is essential for life
   c. people use too much water
   d. water pollution is a serious problem

3. "Fresh water is a **finite** resource, …."
   The word "finite" in the sentence (paragraph 2) has **antonym** ….
   a. purified
   b. sufficient
   c. unlimited
   d. boundless

4. Why do the population increases influence fresh water increases? Because ….
   a. fresh water will lack in the future
   b. fresh water will become more expensive
   c. nature is falling in fulfilling the need of water in the river
   d. the increasing number of people demand more water supply

5. Below are some conservations efforts to reduce a water crisis, **except** ….
   a. repairing leaking faucets
   b. decreasing water pollutions
   c. ignoring water run when it's not used
   d. setting low-flow showerheads and toilets

6. What is the solution given by the author?
   a. People should not fulfill the demand of fresh water.
   b. The government should ensure future fresh water availability.
   c. The government should plan to do simple water conservations.
   d. People should increase pumping facilities to get more fresh water.

7. The following best represents the main idea of this article:
   a. Water is valuable resource that is vital for life.
   b. There is little we can do to prevent future water lacks except to reduce our reliance on fresh water.
   c. Without conservation, an increasing population is likely to severely strain our current water supplies.
   d. To prevent severe water lacks in the future, conservation must be followed with steps to expand water supplies.

8. The writer wrote the article by showing ….
   a. sequence on the use of water
   b. description of water pollutions
   c. problem solution on the need of water conservation
   d. comparison about water uses in the present and past time

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