

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter covers previous studies, teacher, student, English book, reading text, curriculum, syllabus, reading comprehension, readability.

A. Previous Studies

The writer takes some previous studies as the comparison and guidance of this research.

First, The Readability Level of Reading Texts in the English Textbook Entitled *Bahasa Inggris SMA/MA/MAK For Grade XI Semester 1* Published By The Ministry Of Education and Culture of Indonesia”⁵ In this study, there were two results that writer can conclude: (1) based on The Flesch Reading Ease Formula, the texts are *standard* with score 69.392. It means that reading texts are appropriate for eleventh grade students; (2) the questionnaire found that the reading texts in “*Bahasa Inggris SMA/MA/MAK For Grade XI Semester 1*” are difficult to read by the respondents. In short, the result between Flesch Reading Ease Formula calculation is different with students’ opinion as the book user. Therefore, the teacher should give more guidance in reading session.

Second, Readability - An Analysis of English Textbooks for Swedish School Years 7-9.⁶ Results of this study ar from Flesch Reading Ease and Flesch-Kincaid in Microsoft Word 2007 indicated that the texts in general become more difficult

⁵ Rahmat Hidayat, *The Readability Level of Reading Texts in the English Textbook Entitled Bahasa Inggris SMA/MA/MAK for Grade XI Semester 1 Published By the Ministry of Education and Culture of Indonesia*, Thesis, Palangka Raya: IAIN, 2015. t. dt

⁶ Liselott Langeborg, *Readability-An Analysis of English Textbooks for Swedish School Years 7-9*, Hogskolan I Galve, 2010, Essay, t.dt.

for each school year and with assigned level. However, the study showed that there are differences among the four series as regards

Third, “The Readability Level of Reading Text in the English Textbook Entitled “Look Ahead 2” Published by Erlangga”.⁷ This study is written by Fahrudin. The writer uses this study as the main reference in finding readability. The study aimed to know and measure the readability level of the reading texts in the English textbook entitled “Look Ahead 2” Published by Erlangga. The finding shows that from 6 units that divided into 23 reading texts in the English textbook, all the text are readable and suitable for the eleventh grade of Senior High School, but there two texts more proper used in senior high school that are entitled *Proverbial Value and Can AFI Guarantee One to be a Talented Singer*, where both the text are fairly difficult.

Fourth, Readability of the “*Science*” Textbook used by the First Year of RSBI Class of SMP Negeri 3 Pati in the 2009/2010 Academic Year.⁸ Writer uses this study as reference of theory and as comparing activity of writer’s study. In this study, there were some results that writer can conclude: The result of the research shows that the *Science* textbook used by the first year of RSBI class of SMP Negeri 3 Pati is not readable for the students. The textbook is not readable because of the difficulties in sentence patterns, words choice, and lexical density. Then, the researcher suggests that the teachers should give more guidance to the students in using the textbook that is not readable for the students, and the

⁷ Fahrudin. *The Readability Level of Reading Text in the English Textbook Entitled Look Ahead 2 Published by Erlangga*. Thesis, Palangka Raya: IAIN, t. dt

⁸ Indri Murwati, *Readability of the “Science” Textbook Used by the First Year of RSBI Class of SMP Negeri 3 Pati In The 2009/2010 Academic Year*, Thesis. Surakarta : Sebelas Maret University,2010. t.dt.

students should improve their vocabulary and grammar mastery to support them in exploring their understanding of the textbook written in English.

B. Teacher

Teacher is a person who has the responsibility to teach one or more person that is called as student. In Indonesia, teacher means as the person who teaches in the school. In general teacher is students' facilitator in learning process. In dictionary, teacher is a person who teaches especially in school⁹.

There are two kinds of teachers. First, permanent teacher is person who teaches in school permanently or in simple, teacher as government employee. While the second, teacher as honorary worker is teacher who teaches in school too but, not permanently or in simple, teacher is not as government employee yet, so the teacher can stop to teach/work whenever it happens.

C. Student

Student is object of teacher who receives the knowledge which is taught by teacher. In oxford dictionary, student means as person who interest to study. Fahrudin¹⁰ stated that to make students interest in learning is one of teacher's homework. In detail, Fahrudin gave explanation about teacher who should creative to create good atmosphere in the class so, the students interest to study or learn.

Jack Ricahard in Fahrudin explained students as a center of learning, the approaches to teaching in which students take part in setting goals. There is a concern for the students' feeling and values. As humanistic approach, the teacher

⁹ Oxford, p.1225.

¹⁰ Fahrudin, *The Readability Level of Reading Text in the English Textbook Entitled Look Ahead 2 Published by Erlangga*, thesis, STAIN, Palangka Raya, 2012, p.12-13. t.dt.

is seen a helper, advisor, or counselor. Many contemporary language teaching approaches seek to give learners an active role in learning.

D. English Book

Based on writer's observation on October 2015, writer found that there are two kinds of English books are sold by book shops in Palangka Raya and used by Senior High School in Palangka Raya. Those are text books and work books.

1. Workbook

Workbook is one of book which has main function to make students be active. This opinion is in line with the fact that teachers often use work books rather than text books as compulsory materials for the students because they help teachers to teach a lesson-in which there is summary of materials- and provide some tasks for students.

According to Tomlinson work book is a book which contains extra practices for learners to work their own time. It is also used as complement of textbook and support of Lesson Plan (RPP). Work Book is an appropriate alternative for students because it helps students provide the information about the concepts through systematic learning activity (according to Suyitno).

The use of work book is inclined on the use of its task. Breen (according to Nuna) stated task is assumed to refer to a range of work plans which have the overall purpose of facilitating language learning-from the simple and brief exercise type, to more complex and lengthy activities such as group problem solving or simulations and decision making. The tasks in the work book are used by teacher as source of exercises in each material. This is done in order to

activate the students, help students in understanding a concept, and train the students to think critically¹¹.

Based on the explanation, writer concludes that workbook is learning material which is used to help teachers to explain the concept and make students become independently in learning.

2. Textbook

Textbook is one of media which is used by teachers and students to facilitate teaching learning process. There are many definitions of textbook, according to dictionary, text book or course book (UK English) is a manual of instruction in any branch of study. Textbooks are produced according to the demands of educational institutions. Schoolbooks are textbooks and other books used in schools. Text book is a book used by students as a standard work for a particular branch of study.¹² Hornby¹³, Richards and Schmidt stated, textbook (for foreign language) is a book used as guidance in teaching learning and covers by multiple skills (listening, reading, speaking and writing) or in college, usually deal with one skill {e.g. listening}.¹⁴ Textbook is made by single writer or a group of writers to provide materials based on current curriculum and students' needs¹⁵.

¹¹ http://eprints.ums.ac.id/20595/2/03._CHPATER_I.pdf, on october 28th 14: 53: 37 2015, p. 2-3 t.dt.

¹² [Http://Dictionary.Reference.com/Browse/Textbook](http://Dictionary.Reference.com/Browse/Textbook) Access on March 24th 2015

¹³ A. S. Hornby, *Oxford Advanced Learner's Dictionary*, Oxford University Press, 1995, page. 1234

¹⁴ Jack C. Richards and Richards Schmidt. *Dictionary of Language Teaching and Applied Linguistics*, Malaysia: Longman Pearson Education, 2002., page 550.

¹⁵ Adhi Nugroho, Analysis on the Content of English Textbook, p. 14a t.dt.

So in conclusion, textbook is a media as source of material in teaching learning, which is based on the curriculum used in currently by single writer or a group of writer and used in schools. Because in this study writer will use textbook as subject of the study, so writer will focus to explain about textbook.

a. Good Textbook

Textbook is one of the most important things in teaching learning process. As students furthermore teacher, we should be able to choose good textbook. There are many criteria of good textbook. Byrd (according to Murcia) stated that a good textbook should fit with curriculum, students and teacher. Moreover, dealing with the fit between the textbook and the students, she gave explanation that criteria of a good textbook are: (a) the illustrations, the graphical and design element are appropriate for students' age and educational level; (b) the printed text is easy to read and appropriate with the students' reading level; (c) the white space are in balance so the readability is enhanced and appropriate; (d) it has index, appendix or other section that are usable for the students; and (e) these are well constructed. Brown states that good textbook criteria are: (a) the textbook fits the readiness level of the students who will use it; (b) the textbook is accurate and up to date; (c) its content coincides closely with the philosophy of the school in which it will be used; (d) the textbook helps the students understand why certain responses are better than others for given aims; (e) the textbook provides for realistic experiences; (f) text presentations are readable, comprehensible and interesting to the students who are expected to

read them; and (g) the textbook contains well-selected self-help aids; and (h) it makes integrated uses of appropriate, well-prepared graphics and picture¹⁶.

Based on some expert's opinion, good textbook is the textbook should fith to curriculum, students, and teacher. In short explanation the book which fits with students is the readable textbook. And in this study, writer will analyze this case.

E. Reading Text

1. Nature of Reading Text

Text is collecting of some printed or written words which has explore idea or information. In dictionary, meaning text is noun which means as thr written or printed part of a book or page contrasted notes, illustration, etc¹⁷.

While, reading text is an action to understand information in text. Reading is the action of person who looks at and understands the meaning of written or printed words or symbol¹⁸. Karen Tankersley stated reading is process connecting many skills trough foundational treads. Karen mentioned six threads cannot be apart each other are readiness/phonemic awareness, phonics and decoding, fluency, vocabulary and word recognition, comprehension, and higher-order thinking¹⁹.

¹⁶ Indri Murwati, *Readability of the "Science" Textbook Used by the First Year of RSBI Class of SMP Negeri 3 Pati in the 2009/2010 Academic Year*, Surakarta: Sebelas Maret University, 2010, p.33-34. t.dt.

¹⁷ *Oxford Dictionary*, p.1234.

¹⁸ Karen Tankersley, *The Threads of Reading Strategies for Literacy Development*, Alexandria: Association for Supervision and Curriculum Development, 2003, p. 2.

¹⁹ *Ibid.*

There are some reading terms in our daily activities. Those are reading interact with reading matter (reading text), reading which talk about measuring person by comparing average ability (reading age), and reading room which talk about place²⁰.

From the definitions above, it can be conclude reading text is written or printed part of book which is understood by a process of looking at and understanding meaning.

2. Criteria of Good Reading Text

Criteria are characteristic of something which makes it different with other. Criteria of good reading text are characteristic which make reading text becomes good. Sacha Antony Berardo stated, four criteria of a good text for students are: (1) Suitability of content, this criteria consist of students' interest and students' need relevancy (2) Exploitability, it means that text should be can used to develop reader (students) competency; (3) readability, is level to measure students difficulty in reading to challenge them as reader (4) Presentation, it is about the content, or in general about varieties of text.²¹

So, the criteria of good reading text are fits with teaching learning purpose, fits with students' ability and needs, challenging, and able to develop students' competency.

²⁰ A S Hornby, Jonathan Crowther Oxford fifth Edition, oxford university Press, 1995, p. 967-968.

²¹ Sacha Anthony Berardo, *The Use of Authentic Materials in the Teaching of Reading*, The reading Matrix, 2006, page. 63

F. Curriculum

Curriculum is guidance for every school to make teaching learning design. One of purposes of curriculum is to make the main purpose of schools in Indonesia is same each other.

Curriculum in Indonesia has several times change by The Indonesia Ministry of National Education. Each of curriculums has the similarity and the difference. But, it has the same aim to increase the quality of national education²². In the history of Indonesia's education, national education curriculum has experienced many changes in the years 1947, 1952, 1964, 1968, 1975, 1984, 1994, 2000, 2006 and the latest is 2013. The change is a logical consequence of the political system, social, cultural, economic, and science changes. The entire national curriculum is designed based on Pancasila and the 1945 Constitution, the difference is the emphasis on basic education goals and implementation approach²³.

There are many definitions of curriculum. First, belongs to Richards, Platt and Platt, Curriculum is an educational program which states: (a) the educational purposes of the program (the ends), (b) the content, teaching procedures and learning experiences which will be necessary to achieve this purpose (the means), (c) some means for assesing whether or not the educational ends hav been achieved²⁴. Second, belongs to Ej. Sowell, curriculum as a program

²² *Ibid*, P.12.

²³ Sekretaris Jurusan, Microsoft Word - Sejarah Kurikulum, Pdf. P. 1, t.dt.

²⁴ Agung Adhi Nugroho, *Analysis the Content of English Textbook Entitled "English in Focus" Based Curriculum Used by the Seventh Grade Students of SMP Budi Luhur Plaangka Raya in Academic Year 2012/2013*, Sarjana Thesis, Palangka Raya: Palangka Raya University, 2013, page 7. t.dt.

that defines what is to be taught in specific institutions. The last definition is presented by Levy who affirms that curriculum, in general, is the overall plan of the content or specified material of instruction that the school should offer the learners by way of qualifying him or her for graduation or for entrance into a professional or vocation field²⁵.

Based on some definitions of curriculum above, writer concludes that curriculum is a plan, which contains everything related to how the content for course is transformed into teaching learning process and has main goal to the school or education desire.

1. English Language Teaching in Indonesia

The first standardized curriculum applied nationally was developed and implemented in 1975. English has played an important role in Indonesia. English was chosen as a compulsory foreign language to learn starting at the junior high school level.²⁶

The formal teaching of English at school started from the Dutch colonial era in early 1900s when French was abolished from primary schools. The development of systematic ELT started in 1950 when the ministry of education of Indonesia established a cooperation project with the Ford Foundation from the United States to conduct two-year evening classes for in-service teachers to supply schools with qualified English teachers in a short period of time. To

²⁵ Jamil Januansyah, *English Students' Perception Toward the Implementation of 2011 Curriculum in English Education Study Program of STAIN Palangka Raya*, Sarjana Thesis, Palangka Raya: STAIN Palangka Raya, p.9. t.dt.

²⁶ Astuti, *Sikap dan preferensi kepala sekolah SMA se Jawa Tengah terhadap bahasa asing pilihan (Attitude and preferences of Senior High School in Central Java province towards foreign language)*. *Lingua*, 6(1).2009 in Ouda Ena, *Visual Analysis of E-Textbooks For Senior High School in Indonesia*, Dissertations. Paper 513. Loyola University Chicago, 2013, p.26 t.dt.

meet the increasing demand of teachers, three teachers colleges were established in 1958, English teaching materials and curriculum were also developed. The ministry of education began to develop national curriculum that included English as a compulsory subject starting from grade 7th of junior high school.

The national curriculum of English was revised in 1984, 1994, 2000, and 2003²⁷. According to the 1975 curriculum the purpose of English teaching in high school was to facilitate the development of advance science, technology, culture, and arts, and to enhance international relations.²⁸.

Therefore, it is known as the 1984 Curriculum. Another curriculum was introduced in 1994. In the previous curriculum trimester the school calendar was used. In the 2004 curriculum a semester school calendar was introduced. The government controls the quality of education by setting basic competencies and standard competencies. These competencies are measured by a standardized national test at the end of year 9 and 12. In 2006, in line with the implementation of the Regional Autonomy Law, the ministry of education promoted school-based management and school-based curriculum. Schools are expected to developed their own curriculum and be independent financially.²⁹ Then we called as KTSP.

²⁷ Mistar, 2005; Sadtono, 1997; Yuwono, 2005 in Ouda Ena, Visual Analysis of E-Textbooks for Senior High School in Indonesia, Dissertations. Paper 513. Loyola University Chicago,2013, p.28 t.dt.

²⁸ *Ibid*, P.27

²⁹ Ouda Ena, Visual Analysis of E-Textbooks For Senior High School in Indonesia, Dissertations. Paper 513. Loyola University Chicago,2013, P.28 t.dt.

In order to face the challenge of the globalized era, Ministry of Education and Culture of Republic of Indonesia stated that the 2013 Curriculum development framework uses socio-eco-cultural approach which integrates the moral education of local wisdom to the subject matters s Curriculum aims to shape the individuals who are faithful in God, good in Characters, confident, successful in learning, responsible citizens and positive contributors to the civilization. In its progress to be implemented in the new academic year in 2013, this framework has been supported by government regulations No.32/2013 as the revision of government Regulations No. 19/2005 on the National Educational Standard and elaborated by Education and Culture Ministerial regulations No. 67, 68, 69, and 70 on Fundamental Framework and Curriculum structure for primary, Junior Secondary, Senior Secondary and Vocational Secondary School.³⁰

In 2014, the implementation of curriculum 2013 was stopped because new Ministry of Education and Culture said that this curriculum was not ready to implement and national education curriculum should back to *KTSP Curriculum*.

2. Competency-Based Curriculum - Version KTSP (School – Based Curriculum)

KTSP (School – Based Curriculum) is curriculum which is give each of school authority to develop the teaching learning material base on their own students' need. The implementation of Law No. 20 of 2003 on National

³⁰ Muhammad Aswani, Developing English Instructional Materials Based on the 2013 Curriculum for the Tenth Grade Students of SMAN 5 Palangka Raya, Thesis Magister, Palangka Raya: University of Palangka Raya, p.42. t.dt.

Education System is described in a number of regulations, among others, Government Regulation No. 19 Year 2005 on National Education Standards. Government Regulation is landing on the need to provide structured and carried out eight national education standards, namely: (1) the content of standards, (2) a standard process, (3) graduate competency standards, (4) the standard of teachers and staff's, (5) standard facilities and infrastructure, (6) management standard, the standard financing, and (7) assessment of educational standards.

The curriculum is understood as a set of plans and the setting of objectives, content, and study ways and used as a guide providing learning activities to achieve certain goals of education, then rising with Government Regulation No. 19 in 2005, the government has lead to implement the education curriculum in the form of the level of the education curriculum, the curriculum developed by the operational and implemented in each educational unit.

Substantially, the School – Based Curriculum (KTSP) to further implement the existing regulations, namely PP No. 19/2005. However, the essence and the content of the direction of development are still characterized by the achievement of packages of competence (and not on a thorough not subject matter), namely:

- a. Emphasis on student competency both individual and classical.
- b. Results-oriented learning (learning Outcomes) and diversity.
- c. It is in learning to use the approach and methods vary.

- d. Source of learning not only teachers, but also other sources of learning that meet the educational elements.
- e. Emphasis on the assessment process and results of study in an effort to control or achievement of a competency.³¹

G. Syllabus

1. Nature of Syllabus

A syllabus is an official “map” on a school subject. It provides teachers with:

- a rational and outline of the school subject
- an overview and specification of what should be taught and learned
- Guidance on applying centralized standards to assess students and to ensure that classroom and school-level assessment aligns with systemic practice.³²

The explanation above indicates if then syllabus is the guideline and standard role for the teacher to find out the material, topic and specific contents to teach the students and it should be match with the students need.

2. The Syllabus of Reading in Senior High School

a. Core of competency

Processing, reasoning, and serve in the realm of concrete and abstract domains associated with the development of learning in school independently, act effectively and creatively, and able to use the method according to the rules of science

³¹ Sekretaris Jurusan, Microsoft Word - *Sejarah Kurikulum*, Pdf. P. 8, t.dt.

³² The government of Queensland studies authority *Partnership and innovation*, page. 1

b. Standard of competency

1.1 Catch the main idea of a discussion text and propose solutions to overcome the problems associated with the natural environment in the form of discussion text

Standard of competency for senior secondary school students are (a) understand meaning inter-personal and transactional oral discourse, both formal and informal in the form of 12 kinds of text³³ in daily life contexts; (b) express meaning orally in simple interpersonal and transactional oral discourse, both formal and informal in the form of 12 kinds of text²⁸ in daily life contexts; (c) understand meanings in simple written interpersonal and transactional oral discourse, both formal and informal in the form of 12 kinds of text²⁸ in daily life contexts; (d) express in written form meaning in simple written interpersonal and transactional oral discourse, both formal and informal in the form of 12 kinds of text²⁴ in daily life contexts. Note that standards for students in the language program are higher in terms text coverage and situation in which English used³⁴.

H. Reading Comprehension

Reading comprehension is reader's act of power understanding after doing reading. Kathy stated, reading comprehension is the ability to understand what one is reading. There are large individual differences in how well people read. Children may have difficulty understanding what they are reading for different

³³ Twelve kinds of text are recount, narrative, procedure, descriptive, news items, report, analytical exposition, hortatory exposition, spoof, explanation, discussion and review.

³⁴ Suwarsih Madya, *Curriculum Innovations In Indonesia and the Strategies to Implement Them*, Yogyakarta: Yogyakarta State University, p. 28- 29. t.dt.

reasons. One of the reasons is processes that related to language and cognition. These processes consist of background knowledge, vocabulary, sentence comprehension, working memory, metacognitive skills/ attention/ motivation, knowledge about text structure.³⁵.

I. Reading Comprehension Levels

There have been many efforts to identify structures of cognition or taxonomies. Bloom defines taxonomy as a system of classification usually in a hierarchical structure. For the teacher, the taxonomy provides a system of classification, usually in a hierarchical structure, for cognitive processes of learners. These classification systems enable teachers to build learning experiences on increasingly complex levels of thinking. Classifying levels of thinking and kinds of knowledge provide useful structures for curriculum decision making on what is to be learned (curriculum) and how it should be taught in the classroom. Knowing how to use taxonomies enables educators to build precise objectives for effective lesson planning. Bloom finds that people are too often stuck at the lowest levels of the reading taxonomy and never move onto the higher levels, which are the higher orders of thinking³⁶.

Bloom's taxonomy is known as the best known classification system. There are six levels of Bloom taxonomy: *knowledge, comprehension, application, analysis, synthesis and evaluation*. However, the Bloom's taxonomy has been

³⁵ Kathy Boroughs, *Language & Reading*, Kingsgate Speech, p.1

³⁶ International Journal of English Language Education ISSN 2325-0887 2014, Vol. 2, No. 2 256 www.macrothink.org/ije, p. 255.

revised by Anderson and Krathwohl with new terms and emphasis. The six levels of reading taxonomy by Anderson and Krathwol are³⁷:

1. Remembering : Retrieving, recalling, or recognizing knowledge from longterm memory.
2. Understanding : Constructing meaning through interpreting, inferring, and explaining.
3. Applying : Carrying out or using a procedure through executing or implementing.
4. Analyzing : Breaking material into parts; determining how the parts relate to one another and to an overall structure or purpose through differentiating, organizing and attributing.
5. Evaluating : Making judgments based on criteria and standards through checking and critiquing.
6. Creating : Putting elements together to form a coherent or functional whole; reorganizing elements into a new pattern or structure through generating, planning or producing.

J. Readability and Readability Level

Writer analyzed meaning of word readability by understanding meaning of “readable” which mean as easy or pleasant to read. The concept of readability has defined in various ways. Dubay explored readability as something makes text easy to read and in this case Dubay focused on typace and layout³⁸. It refers to how

³⁷ *Ibid*, p. 255-256.

³⁸DuBay, W. H., 2004. *The principles of readability*. 2004, p.3.

easy a written text is to read and understand³⁹. However, Klare looked at readability from the style of writing such as content, coherence and organization. In more detail Gretchen Hargis and her colleagues supported Klare, they stated that readability is talk about how easy we read words and sentences. Dale and Chall⁴⁰ indicated that readability is the sum of the total of all those elements, which a given piece of printed material has that affect the success of a group of readers. The success is the extent to which they understand it, read it at an optimal speed and find it interesting. Thus, good written material should be highly readable in order to be clearly understandable by a wide audience⁴¹.

Bringing all these point together, the writer concluded that readability is how written text can be easy to understand, interesting and extend meaning to readers. While, level is degree. In complete meaning level isa point or position on a scale of quantity, strength, value, etc⁴². So, readability level is scale of easiness in written text to understand, interesting and extend meaning to readers.

1. Factors Affecting Readability of Texts

Readability text has close connection with text, reader, and writer. These elements have each effect to readability level of text. According to Stephens⁴³, five style factors likely to affect the readability of a text are the number of pronouns, average number of words in sentences, percentage of different words

³⁹ Charles Owu-Ewie, *Readability Of Comprehension Passages In Junior High School (Jhs) English Textbooks In Ghana*, Ghana Journal Of Linguistics 3.2: 35-68 , 2014, p.37

⁴⁰ DuBay, W. H., 2004. *The Principles of Readability*.

⁴¹ Charles Owu-Ewie

⁴² A. S. Hornby, *Oxford Advanced Learner's Dictionary*, Oxford University Press, 1995, page.677.

⁴³ Stephens, C., 2000. *All about Readability*. Retrieved from <http://plainlanguage.com/newreadability> on12/04/12. in Charles Owu-Ewie, *Readability of Comprehension Passages in Junior High School (Jhs) English Textbooks in Ghana*, Ghana Journal of Linguistics 3.2: 35-68 , 2014, p.37

and number of prepositional phrases. In addition, the inclusion of needless words, the use of sentence structures that are evident and ambiguous, and the haphazard and illogical organization of the material affect readability⁴⁴.

In same line, Oakland mentioned some experts to divide elements which contribute to the readability. Those are language element including vocabulary, use of conversational elements in narrative, frequency of affixed morpheme, and the amount of detail amplification of abstract ideas; and non- language element such as text legibility and interest⁴⁵.

According to Richard, et al.⁴⁶ readability is influenced by average sentence length, numbers of new words, and the grammatical complexity of language used. In this case, Sakri also states the same factors. Moreover, the factors of readability will be explained as follows:

a. Sentence difficulty

Readability is identical with sentence difficulty. Bruce finds that writing contained simple sentences is more readable than writing predominated by compound, complex and compound - complex sentences.

b. Lexical density

It refers to the average number of words in the sentence of text. Nababan states that its density of words also determines readability. Lexical density

⁴⁴ Charles Owu-Ewie, p.38

⁴⁵ Thomas Oaklan and Holly B. lane, *Language, Reading and readability Formulas* : *Implications for Developing and Adapting Test*, Internatonal Journal of Testin,4, 239-252, page 9

⁴⁶ Indri Murwati, *Readability of The "Science" Textbook used by the First Year of RSBI Class of SMP Negeri 3 Pati in the 2009/2010 Academic Year*, Sarjana Thesis, Surakarta: Sebelas Maret University, 2010, p. 36-37. t.dt.

relates to the length of sentences he uses. By using short sentences, it will be easier for the reader to understand than a long one.

c. Words difficulty

Word difficulty is the basic source of readability. A word, which appears rarely in popular writing and everyday conversation, will make the reader difficult to understand. A writer should use common, simple, familiar words and often to use. Besides that, the writer should avoid the words of three syllables or more since these words will cause difficulty for the mass audience.

Many factors, however, contribute to readability other than word difficulty and sentence length. In the extent of the text, the features affecting readability are⁴⁷:

a. Content

The content is the information which is stated in the textbook. It is intended to be delivered to the reader.

b. Style

Difficulty in writing style can also hinder readability. Linguistically predictable sentences or phrases will always be easier to read than those less predictable.

c. Legibility

Legibility includes type, layout, reading conditions medium, illustrations, reading and navigation aids, typeface, and colour. Correct use of type size,

⁴⁷ *Ibid*, p.37-38

line spacing, column width, text-colour-background contrast and white space make text easy to read. The print must be clear, the simpler the better. Avoid fancy, stylized letter even as decoration.(www.timetabler/reading.html).

Nababan adds that the other factors that influence readability are strange words and ambiguous words. Sentence and elicit sentence also make text readability low. Generally, reading a text is easier if it is short, factual, and the topic is concrete and familiar, contains short and simple sentence, contain simple and Standard English-structure, vocabularies familiar to the students, clearly organized⁴⁸.

2. Readability Assessment

Readability assessment is the way is used to measure readability level or we can say that readability assessment is a method of estimating the level of difficulty of a piece of writing. Klare⁴⁹ describes the term “readability” in the following three ways: (1) To indicate the legibility of a document. (2) To indicate the ease of reading due to the interest-value or pleasantness of writings, and (3) To indicate the ease of understanding due to the writing style.

Readability assessment methods can be divided into *computational assessment* and *non-computational assessment*. Computational assessment, or automatic assessment involves the use of statistical techniques such as

⁴⁸ *Ibid*,p. 37-38.

⁴⁹ G. R. Klare. Table for Rapid Determination of Dale-Chall Readability Scores. *Educational Research Bulletin*, 31:43–47, 1952 in Lau Tak Pang, *Chinese Readability Analysis and Its Applications on The Internet, Thesis*, The Chinese University of Hong Kong, 2006, p.8. t.dt.

regression and correlation⁵⁰. The idea is to extract some easily measurable attributes of the passage, such as sentence length and word length, and then the hard-to-measure readability level is predicted based on them. Non-computational assessment estimates readability level based on actual human perception of the passage. As a result, it often requires human intervention during assessment⁵¹.

The paper points out that readability formulas only measure “what can be count”, and ignores the features, which are hard to measure; only focus on text features and ignore the cognitive process⁵². Also excluded from formulas are specific internal factors such as the reader’s social and cultural background⁵³ together with motivation, interests and previous knowledge. Such factors cannot be easily integrated in the formulas⁵⁴. There are also many external, textual factors excluded from formulas such as text layout and the potential presence of visual aids⁵⁵, writing style, organization and exposition

⁵⁰ R. D. Powers, W. A. Summer, And B. E. Kearl. A Recalculation of Four Adult Readability Formulas. *Journal of Educational Psychology*, 49:99–105, 1958 in Lau Tak Pang, *Chinese Readability Analysis and Its Applications on The Internet, Thesis*, the Chinese University of Hong Kong, 2006, p.8 t.dt.

⁵¹ J. Redish. Readability Formulas Have Even More Limitations Than Klare Discusses. *Acm Journal of Computer Documentation(Jcd)*, 24(3):132–137, 2000 in Lau Tak Pang, *Chinese Readability Analysis and Its Applications on The Internet, Thesis*, The Chinese University of Hong Kong, 2006, p.8.

⁵² Zakaluk, B. L. And Samuels, S. J. 1988. Toward a New Approach to Predicting Text Comprehensibility. In Zakaluk, B. L. and Samuel, S. J. (Eds.). *Readability: Its Past, Present, and Future*. Newark: International Reading Association, 121-144. in Lau Tak Pang, *Chinese Readability Analysis and Its Applications on the Internet, Thesis*, the Chinese University of Hong Kong, 2006, p.8. t.dt.

⁵³ Bruce, B. And Rubin, A. 1988. Readability Formulas: Matching Tool and Task. in Davison, A. and Green, G. M. (Eds). *Linguistic Complexity and Text Comprehension*. New Jersey: Lawrence Erlbaum Associates, Publishers, 5-22. in Lau Tak Pang, *Chinese Readability Analysis and Its Applications on the Internet, Thesis*, the Chinese University of Hong Kong, 2006, p.8. t.dt.

⁵⁴ Klare.

⁵⁵ Burns, B. I Don’t Have to Count Syllables on My Fingers Anymore: Easier Ways to Find Readability and Level Books. *Illinois Reading Council Journal* 34 (1), 34-40. 2006 in Lau Tak

and ,typographical factors⁵⁶. Another limitation of readability formulas is that they do not consider deeper textual structures. It is important to remember that a low readability score is no guarantee of true ease of reading⁵⁷. Readability level of reading material can be measured by three ways: giving judgment, giving cloze test, and using readability formula⁵⁸.

a. Judgment

The judgment is given by professional teachers and experts. It is believed that judgment of text readability may not be reliable. Subjectivity always plays important part in judging the text. A text that is evaluated by some evaluators will not have same judgment result. Moreover, there is no clear standard in judging, the readability is questioned.

b. Cloze procedure

Taylor introduces that actually the cloze procedure is an attempt to improve the existing readability measures. One approach, which is focused on the reader's process through a text rather than on the text itself, is cloze procedure.

The cloze procedure is used to: (1) determine what students already know about a given topic; and (2) to assess the suitability of a new text for students by testing their prior knowledge and language competence as they attempt to fill in the deletions.

Pang, *Chinese Readability Analysis and Its Applications on the Internet*, Thesis, the Chinese University of Hong Kong, 2006, P.8 t.dt.

⁵⁶ Gilliliand

⁵⁷ Bruce & Rubin

⁵⁸ Indri Murwati, p.39-42

In cloze procedure, students are given a text, which has several gapped spaces for word place that has been deleted from the original text. Then, it is scored. By scoring result, teacher can identify if the text is at independent, instruction, or frustration grade for students.

Fauziana says that usually teaching reading instructional program uses cloze test. It is done in order to examine the match potential between the students and the material. It is also used with a graded set of material to determine student's general reading level.

Form of cloze test can be essay or multiple choices. This test is created by deleting every fifth, sixth, seventh word or other functional words base on the purpose of the test. Based on how to score the result of test, Krachen wrote two ways to give score in cloze test. First, exact scoring method: all of words which are not exactly same with the original text is wrong. And the second is approximate scoring method: the words which have same meaning and do not break the plot of story is true although the words are not same with the words in original text⁵⁹.

Furthermore, Jacobs explained some variants of style in creating cloze test. There are *True False Cloze* (students choose the word is true or false), *Multiple Choices Cloze* (students choose options words which is usually marked by letter a, b, c), *Fill-in-the Blank-Cloze* (students choose one of existed words to fill in the right place of the questions), *Letter Blank*

⁵⁹ M. Subiyati, *Cloze Test Dalam Pengajaran Bahasa Inggris*, P2 IKIP Yogyakarta, page 2 & 4

Cloze (students are asked to complete letter of blank words), and *First Letter Cloze* (students was given first letter to guess the blank words)⁶⁰.

There 5 essential stages of cloze test are⁶¹:

1) Text selection

Selecting texts is a process of choosing the represent material, from the beginning, middle, and end of the textbook. Each text should contain approximately 250 words length to get high reliability. More texts used are better to get higher validity and reliability.

2) Words deletion

Deleting words is started from the second sentence. The length of words space deleted must be same. It is important to know that some kinds of words that may not be deleted. They are proper name, dates, abbreviation or acronym. When they are found, the next word will be deleted and the process of deleting starts again from that point.

3) Construction

In constructing stage, the 250-word selection is typed in a doublespaced format. There should be a blank for every underlined word. The blanks are in the same length. Create an answer key of the exact replacement for the missing words.

4) Administration

Give the students written directions. Emphasize the fact that this is not a timed test, but a way to determine their background knowledge of the

⁶⁰ *Ibid*, page 5

⁶¹ Indri Murwati, p.40

topic. Explain that they are to read first the entire passage and then attempt to fill each blank with a word that they think the author might have used. Allow them to take as long as they need to complete the task.

5) Scoring

There are four techniques in scoring procedure: the exact words, scoring for contextual appropriateness, weighting degrees of appropriateness, and interpreting the score and protocol. To score the cloze passage, count only exact replacements. It is not permitted to count the synonym of correct answer. The exact replacements help to get more accurate scoring and minimize potential problems or different semantic understanding by different people. The raw score is the number of words that are correct.

The test scores (X) are averaged to get the mean score of the test (Mx). Then divide the mean by the number of test items (k) and multiple by 100% to get the cloze score. The score shows readability of the text. Because there are three texts that will be analyzed, to get total cloze score (Cs-total) all cloze scores are added, then divided by three. There is the formula showing how the cloze test is calculated:

$$MX = \frac{\sum fx}{\sum f}$$

$$Cs1 = \frac{MX}{k} \times 100\%$$

$$Cs - total = \frac{Cs1 + Cs2 + Cs3}{3}$$

Suharso states that cloze test has standard validity and it can be used as alternative instrument to measure student's reading ability for any level. According to Zintz in Burns if a student had less than 40 percent correct, the material is probably at that individual's frustration level and it is difficult. Thus, the teacher should offer alternative ways of learning the material. If the students had 40 percent to 60 percent correct, the material is probably at the instructional level for that students, and they will be able to learn from the text if the teachers provide careful guidance in the reading by developing readiness, helping with the new concept and unfamiliar vocabulary, and providing reading purposes to aid comprehension. If a student had more than 60 percent correct, the material is probably at his or her independent level, and he or she should be able to benefit from the material when reading it independently⁶².

Table 2.1 Cloze Scores:

Material is too easy	Independent Level	60% and Above
Material is about right	Instructional Level	40-60%
Material is too Difficult	Frustration Level	under 40%

c. Readability Formula

Readability formula are mathematical in nature, each formula's aim is to measure level difficulty of a text. It works by measuring certain features of text based on mathematical calculation. It measures on a handful of factors.

The most common factors are the number of words in a sentence and

⁶² Indri Murwati, Page 42.

number of letters or syllables in a word. By using readability formula to assess readability of text, it does not need the reader to read the text⁶³. In this study, writer focuses on common readability formulas, Flesch Reading Ease which included in Microsoft Word's Spelling & Grammar (Microsoft Office 2007 and online).

1) The Flesch Reading Ease Formula

The Flesch Reading Ease Readability Formula is one of the oldest and most accurate. It was developed in 1948 by Rudolph Flesch who is an author and a reading consultant. It is a simple approach to assessing the grade-level of readers. This formula is best suited for school text⁶⁴. The formulas were to match a student's typical grade level with such a comprehension of texts with given individual readability scores⁶⁵. Eventually, the Flesch Reading Ease grew to be the most common formula, at least for other than pure educational purposes⁶⁶. Studies have also established it to be one of the most tested and reliable⁶⁷.

⁶³ Indri Murwati, p.43 t.dt.

⁶⁴ Liselott Langeborg, *Readability-An Analysis of English Textbooks for Swedish School Years 7-9*, Essay, Hogskolan I Galve, 2010, p.7.

⁶⁵ R. F. Flesch. A New Readability Yardstick. *Journal of Applied Psychology*, 32:221-233, 1948 in Lau Tak Pang, *Chinese Readability Analysis and Its Applications on the Internet*, Thesis, The Chinese University of Hong Kong, 2006, p.8 t.dt

⁶⁶ Klare, G. R. 1988. The Formative Years. in Zakaluk, B. L. And Samuel, S. J. (Eds.). *Readability: Its Past, Present, and Future*. Newark: International Reading Association, 14-34, P.20. in Lau Tak Pang, *Chinese Readability Analysis and Its Applications on the Internet*, Thesis, The Chinese University of Hong Kong, 2006, p.8 t.dt

⁶⁷ Dubay, W. E. (Ed.). 2006. *The Classic Readability Studies*. Costa Mesa: Impact Information, P.97 in Lau Tak Pang, *Chinese Readability Analysis and Its Applications on the Internet*, Thesis, The Chinese University of Hong Kong, 2006, p.8 t.dt

The formula for the Flesch Reading Ease Score (FRES) test is:

$$\text{RE} = 206.835 - (1.015 \times \text{ASL}) - (84.6 \times \text{ASW})$$

Note:

RE = Readability Ease

ASL = Average Sentence Length (i.e., the number of words divided by the number of sentences)

ASW = Average number of syllables per word (i.e., the number of syllables divided by the number of words)⁶⁸

Table 2.2 Flesch Reading Ease Formula Score⁶⁹

Reading Ease Score	Style	School Leve
90-100	Very Easy	5th grade
80-89	Easy	6th grade
70-79	Fairly Easy	7th grade
60-69	Standard	8th – 9th grade
50-59	Fairly difficult	10th – 12th grade
30-49	Difficult	13th – 16th grade
0-29	Very difficult	College graduate

2) *The Dale-Chall Formula*

The Dale-Chall formula is the result of the collaboration of two researchers who had been working on the problem of the readability for several years prior to their successful joint venture; they are Edgar Dale and Jeane Chall. This formula utilizes a number of specific rulers but it is based on just two counts; (1) average sentence length, and (2) percentage

⁶⁸ *Ibid*, p. 43-44

⁶⁹ *Ibid*, p. 45

of unfamiliar words. ⁷⁰According to Zamanian and Heydari, the pattern of the Dale-Chall formula is follows:

$$\text{Raw Score} = 0.1579 \text{ PDW} + 0.0496 \text{ ASL} + 3.6365$$

Raw Score = Reading grade of reader who can answer one-half of the test questions on the passage

PDW = Percentage of Difficult Words

ASL = Average Sentence Length in Words

Table 2.3 Table of Dale-Chall Score

RAW SCORE	ADJUSTED SCORE
4.9 and below	Grade 4 and below
5.0 to 5.9	Grade 5-6
6.0 to 6.9	Grade 7-8
7.0 to 7.9	Grade 9-10
8.0 to 8.9	Grade 11-12
9.0 to 9.9	Grade 13-15 (College)
10 and above	Grade 16 and above (College Graduate)

3) *The Fry Graph Readability Formula*

The Fry Graph Readability Formula is one of the most popular reading formulas. It is developed by Edward Fry. Fry developed readability test based on graph. The graph-based test determined readability through high school; it was validated with materials from

⁷⁰ *Ibid*

primary and secondary school and with results of other readability formulas⁷¹.

The way to counting readability level of reading texts by using Fry formulation is follow⁷²:

$$G = 669 I + 4981 LD - 2.0625$$

G = Reading Grade Level

I = Average idea unit length

LD = The average number of words

To estimate reading ages by Fry graph and the average of words, sentences, and syllables, see the figure below:

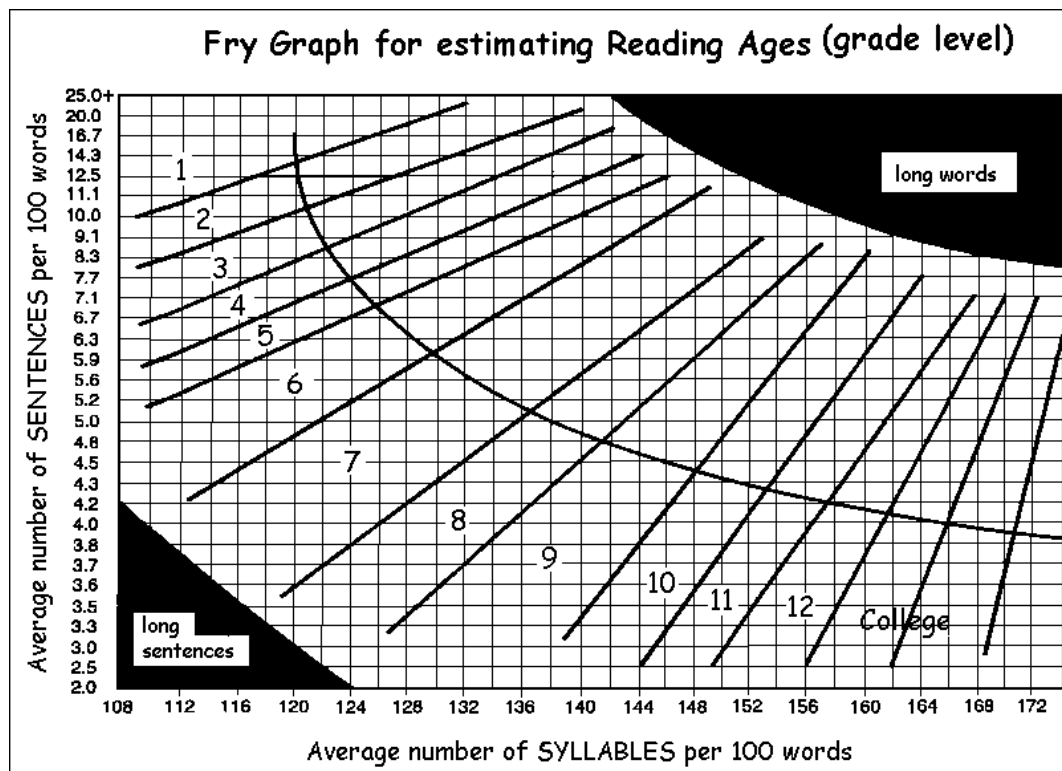


Figure 2.2 Fry, Edward. *Elementary Reading Instruction*. McGraw-Hill, 1977.

⁷¹ Indri Murwati, p. 39

⁷² *Ibid*, p.51

4) *SMOG Readability Formula*

Another formula delivering a general estimated of readability is SMOG Grading. It is created by Harry McLaughlin. This formula is created as an improvement over other readability formulas. SMOG is an acronym for Simple Measure of Gobbledygook. Like other formulas, it samples words and sentences length. The SMOG formula is considered appropriate for secondary age (4th grade to college level) readers, and the pattern is:

$$\text{SMOG Grade} = 3 + \text{Square Root of Polysyllable Count}$$

5) *Gunning Fox-Index*

The Gunning Fox-Index use two variables, average sentence length and the number of word with more than two syllables for each 100 words.⁷³

The formula of Gunning-Fox Index looks below:

$$\text{Grade Level} = 4 (\text{average sentence length} = \text{hards word})$$

Hards word = Number of words more than 2 syllables

$$\text{Grade Level} = 3.06080 = 0877 (\text{average sentence length}) + 0.984 (\text{percentage of monosyllables})$$

A hard word is defined as a word that is more than two syllables long as shown the table below:

⁷³ Dubay, page 42.

Table 2.4 Fox-Index Score

Fox-Index		Estimated Reading Grades
	17	College Graduates
	16	College Senior
	15	College Junior
	14	College Sophomore
Danger Line	13	College Freshman
	12	High School Senior
	11	High School Junior
	10	High School Sophomore
Easy	9	High School Freshman
	8	Eight Grade
Range	7	Seventh Grade
	6	Sixth Grade

6) *Flesch-Kincaid Readability Formula*

Peter J. Kincaid and his team developed the formula in 1975. In 1976, the Flesch formula was once again revised; this time in order for it to immediately generate a grade level. The study was ordered by the U.S. Navy and did not include Flesch himself⁷⁴. The new formula is called the Flesch-Kincaid readability formula or Flesch Grade-Scale formula and the Kincaid formula⁷⁵. It is widely used in industry⁷⁶ and extensively used in education to determine the readability level of various books. This implies that the formula can be used to determine the number of years of formal education generally required to understand a reading text.

⁷⁴ Dubay, 2006, .

⁷⁵ Ibid

⁷⁶ E. B. Fry. Fry's Readability Graph: Clarifications, Validity, And Extension To Level 17. *Journal Of Reading*, 21(3):242– 252, 1977 in Lau Tak Pang, *Chinese Readability Analysis and Its Applications on the Internet, Thesis*, the Chinese University of Hong Kong, 2006, p.8 t.dt

The formula makes it easier for teachers, parents and librarians to select appropriate reading texts for their children/learners⁷⁷.

However, even though formulas may not provide exact difficulty levels for individual texts, they are better at indicating the progression of difficulty level between texts⁷⁸.

The Flesch Kincaid formula is:

$$\text{Flesch-Kincaid Grade Level} = 0.39 \times \text{ASL} + 11.8 \times \text{ASW} - 15.59$$

ASL = average sentence length (number of words divided by number of sentences)

ASW = average number of syllables per word (number of syllables divided by number of words)

7) Coh-Metrix

The Coh-Metrix L2 Reading Index is calculated using three linguistic indices reported by the Coh-Metrix tool. These three indices are CELEX Word are, text readability and intuitive simplification frequency (logarith mean for content words), sentence syntax similarity (sentence to sentence adjacent mean), and content word overlap (proportional adjacent sentence unweighted).⁷⁹ These indices and their relation to text processing are discussed below.

⁷⁷ Charles Owu-Ewie, p. 41.

⁷⁸ R. Gunning. *The Technique Of Clear Writing*. New York: Mcgraw-Hill, 1952/1968 in Lau Tak Pang, *Chinese Readability Analysis and Its Applications on the Internet, Thesis*, the Chinese University of Hong Kong, 2006, p.8 t.dt

⁷⁸ H. G. McLaughlin. Smog Grading: A New Readability Formula. *Journal Of Reading*, 12(8):639–646, 1969 in Lau Tak Pang, *Chinese Readability Analysis and Its Applications on the Internet, Thesis*, the Chinese University of Hong Kong, 2006, p.8 t.dt

⁷⁹ Scott. A. Crossley et al., p. 91.

The Coh-Metrix formula is below:

$$\mathbf{-45.032 + (52.230 \times \text{Content Word Overlap Value}) + (61.306 \times \text{Sentence Syntax Similarities Value}) + (22.205 \times \text{CELEX Frequency Value})}$$