

AN ANALYSIS OF LANGUAGE PROFICENCY FOR STUDENTS OF MEDICAL LABORATORY TECHNOLOGY

Erlinna Juita¹, Hartini H²

^{1,2}(Akademi Kesehatan John Paul II Pekanbaru)

Corresponding author's E-mail erlinna.j@gmail.com

Abstract

Facing the era of Industrial Revolution 4.0 in which technology has become the daily basis of human life, English has become inevitably significant. In fact, it is really needed in the health sector, especially medical laboratory technology which adopted advanced technology, and thus requires the medical technologist to be able to accomplish human to human and human to machine interactions. This study aimed to identify the language proficiency of students of medical laboratory technology. The population of this study was the students of Akademi Kesehatan John Paul II Pekanbaru. The instrument used in this study is test. The results indicated that the overall performance was still categorized in the lowest level (A2) with the scores ranging from 337 to 443. In the first two sections, listening comprehension and structure and written expression, most of the students' proficiency was classified in the lowest level (A2) with the scores ranging from 38-49 and 33-43 respectively. In the last section, reading comprehension, all students' proficiency was classified in the lowest level (A2) with the scores ranging from 31-47. In conclusion, students' language proficiency was still categorized in the basic level or waystage

Keywords : English, language proficiency, students, Medical Laboratory Technology

INTRODUCTION

English has been accepted as international language which means it is used as means of communication among countries which have different languages. In general, there are two major groups of English speakers, native speakers of English and non-native speakers of English. Native speakers of English officially speak and acquire English as their mother tongue which is used at home and learned from other older family members for all interactions at home (Bühmann & Trudell, 2008). English is predominantly used as first language in United States, UK, Australia, and New Zealand, but there are only two variations of English which is universally accepted: American English and British English.

Non-native speakers of English do not use English as the main language for communication on a daily basis. There are two ways how English is perceived worldwide (Crystal, 2003). Some of them use English as language of instructions in

educational settings or which is known as second language, for example in Malaysia and Philippines. In addition, there are also countries which only use English to facilitate communication with other people outside the countries. This is known as foreign language. Indonesia is classified in the last category where English is only learned at schools and higher educations and used for communications to connect with people from other countries (Kirkpatrick, 2012).

Facing the Era of Industrial Revolution 4.0 in which technology has become the daily basis of human life, English literacy has become one of the requirements to adapt to the new era due to the fact that English still becomes the commonly used language in this digital Era (Hariharasudan & Kot, 2018). Therefore, it's been said that English has gone beyond the boundaries of all languages. Most non-native English speaking countries has adopted English as a compulsory subject at schools and higher education. It has become a challenge for countries adopting English as a foreign language – as well as in Indonesia – where college students were found to have low language proficiency level (Mallillin & Castillo, 2016).

In fact, a medical laboratory technologist is a professional who frequently needs to use English to accomplish the job descriptions. Decree of Minister of Health of the Republic of Indonesia No. 370/Menkes/SK/III/2007 stated that a medical laboratory technology must be able to communicate with patients, read procedures, operate, calibrate, troubleshoot, and maintain laboratory instruments. To be able to accomplish these tasks, they should be able to use English. This is in line with technology literacy of the fourth industrial revolution in which their technology-based works demand them to be able how the instruments work to obtain greater and more effective results (Fitriyani & Aziz, 2019). Furthermore, the industrial revolution 4.0 also emphasizes the interconnection between machines, devices, people to connect and communicate with each other through internet of things and internet of people (Afrianto, 2018). Consequently, an analysis of student's language proficiency should be conducted to address problems in English teaching and learning to achieve those goals.

TOEFL for English Language Assessment

TOEFL is a standardized test of English as a foreign language created by ETS (Educational Testing Service). The English used in the test corresponds to English used in real-life situation, like university lectures, classes, and laboratories (ETS, 2009). In English programs at schools and higher education, TOEFL score can be used to make decisions for placement and monitor students' progress because it is reliable, unbiased, and objective (ETS, 2017).

There are three language skills which are assessed in TOEFL Test: listening comprehension, structure and written expression, and reading comprehension divided into three sections. The first section, listening comprehension, tests students' ability to understand spoken English either stated or implied. The second section, structure and written expression, tests students' ability to recognize standard written English. The third section, reading comprehension, requires the students to identify the meaning of vocabulary words in reading passages to understand the entire passage (Phillips, 2001).

There is no statement whether the students pass or fail the test. The overall score ranges from 310 – 677. The scores obtained are useful to generally describe students' ability in English and specifically describe students' ability in each language skills. The scores are classified into some categories, C1, B2, B1, A2 in which C1 is the highest classification where the students are considered proficient, and A2 is the lowest where the students are considered basic users of language (ETS, 2014b). Students' scores in each language skills – listening, structure, and reading – are also classified into those categories: C1, B2, B1, and A2. These classification are created based on Common European Framework of Reference for Languages (CEFR) (ETS, 2014a).

METHODOLOGY

This is a descriptive quantitative research in which some numerical data is collected and analyzed to describe phenomena of interest (Gay, Mills, & Airasian, 2012). The numerical data derived from TOEFL-like tests administered to students of

Akademi Kesehatan John Paul II Pekanbaru, thus test became the instruments to collect those data. The test which was used to collect data was the test previously administered by ETS. This test was chosen because test from ETS has been reviewed and standardized to generate reliable scores. The scores obtained were subsequently classified into some categories of language skills (C1, B2, B1, and A2) ranging from proficient to basic users respectively in which each category has its own description about the language skills of those falling into the categories. The breakdowns of the scores were then categorized into the same classification (C1, B2, B1, and A2) of each language skills (listening comprehension, structure and written expression, and reading comprehension) based on Common European Framework of Reference for Languages (CEFR). Each classification also has range of score and description of the students' ability for the scores falling within a particular classification. Population of this study was 91 students of Akademi Kesehatan John Paul II Pekanbaru majoring in medical laboratory technology.

Overall Performance

The lowest score obtained was 337 and the highest score obtained was 443 meaning that both the lowest and the highest score obtained fell into the classification of basic user (A2). This information is presented in the below figure.

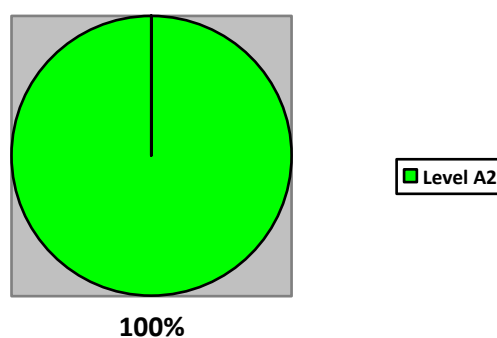


Figure 1. Overall Performance

The overview of the language proficiency of those falling within this category is presented in the following table

Table 1. Performance Descriptors

TOEFL Score Ranges	CEFR Level	Performance Descriptors
337 - 459	A2 Basic User - Waystage	<ul style="list-style-type: none"> ▪ Can sometimes understand explicitly stated information in written texts and short dialogues containing simple vocabulary ▪ Can sometimes understand main ideas when they are strongly reinforced in texts and short oral exchanges ▪ In simple context, can sometimes select appropriate verb tense and correctly choose between singular and plural nouns

Source: www.ets.org

Table 1 shows the performance descriptors of level A2 with scores ranging from 337 – 459. As the label implies – basic user – the performance descriptor highlights basic language proficiency which emphasizes simple vocabulary and explicitly stated information. However, there is still a chance that the students could not understand the main idea and select appropriate verb tense due to the use of the adverb of frequency – sometimes – in each description.

Listening Comprehension

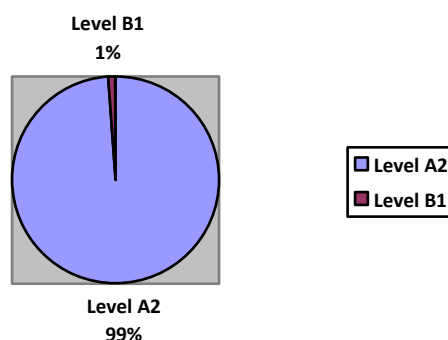


Figure 2. Results of Listening Comprehension

The first section, listening comprehension assess the students' ability to understand spoken English in academic setting. There are short conversations, longer conversations, and talks in it. The ideas discussed during the conversation could be stated or implied.

In general, the lowest score obtained in listening comprehension is 38 (A2) and the highest score was 49. There were 90 students (98.9%) classified into level A2 (38-46) and 1 student (1.1%) classified into level B1 (47-53). The proficiency descriptors are presented in the following table.

Table.2. Proficiency Descriptors of Listening Comprehension

TOEFL Section Scores	CEFR Level	Proficiency Descriptors
47-53	B1	<p>Test takers at this level are usually able, when listening to a short dialogue, to:</p> <ul style="list-style-type: none"> ▪ Understand high frequency vocabulary and deduce meaning of some lower-frequency vocabulary ▪ Understand some commonly occurring idioms and colloquial expressions (e.g., "I don't feel up to it", "maybe some other time") ▪ Understand implications (e.g., implied questions in the form of statements, indirect suggestions) that are clearly reinforced ▪ Understand common language functions (e.g., invitations, apologies, suggestions) ▪ Recognize referents for a variety of types of pronouns (e.g., "their", "these", "one")
38 - 46	A2	<p>Test takers at this level are sometimes able, when listening to a short dialogue about an everyday situation, to:</p> <ul style="list-style-type: none"> ▪ Understand the main idea of the conversation ▪ Understand basic vocabulary ▪ Understand explicitly stated points that are reinforced or repeated ▪ Understand the antecedents for

basic pronoun (e.g., “it”, “they”,
“yours”)

Source: www.ets.org

Table 2 shows the proficiency descriptors of listening comprehension. Most of the students were classified in level A2 in which their language proficiency in listening comprehension was limited in short dialogue only. In listening to short dialogue, the students can only understand the main idea, basic vocabulary and ideas which were clearly stated during the conversation. Compared to level A2, Level B1 was more capable to understand conversation because the descriptors highlighted the word “usually” instead of “sometimes”. Understanding high frequency vocabulary, idioms, implications, and language functions were predominantly needed in basic language proficiency to be able to interact in that language.

Structure and Written Expressions

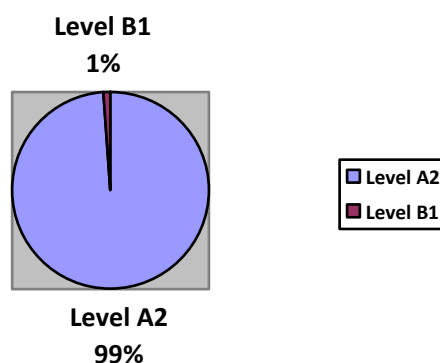


Figure 3. Results of Structure and Written Expression

The second section, structure and written expression, emphasize the recognition of standard written English. In general, the lowest score obtained in structure and written expression was 33 (A2) and the highest score was 43 (B1). There were 90 students (98.9 %) classified into level A2 (32-42) and 1 student (1.1%) classified into level B1 (43-52). The proficiency descriptors for each level are presented in the following table.

Table.3. Proficiency Descriptors of Structure and Written Expression

TOEFL Score Range	CEFR Level	Proficiency Descriptors
43-52	B1	Test Takers at this level are usually able to: <ul style="list-style-type: none"> ▪ Use common tenses of verbs correctly, including passive forms ▪ Use linking verbs with ease and use an expletives, such as “there is” in the absence of another main verb ▪ Recognize when verbs require objects, such as infinitives, gerunds, or clauses beginning with “that” ▪ Introduce a clause with very common words, such as “before” or “if” ▪ Recognize the correct structure of a sentence or clause, even when its subject and verb are slightly separated
32-42	A2	Test takers at this level are sometimes able to: <ul style="list-style-type: none"> ▪ Demonstrate familiarity with the most often used tenses of common verbs ▪ Use singular or plural noun correctly as the subject of a sentence in very simple contexts ▪ Link subjects to noun or adjectives with very common linking verbs ▪ Recognize that some common verbs require nouns as objects ▪ Make proper use of simple comparatives and common conjunctions and prepositions

Source: www.ets.org

Table 3 shows the proficiency descriptors for section 2, structure and written expressions. Most of the students were categorized in level A2 which describes the proficiency descriptors with adverb of frequency “sometimes” indicating that the students might or might not be able to demonstrate this proficiency. The descriptors in level A2 are related to basic proficiency involving most often used tense, noun, and verbs that most people must be familiar with. In contrast, the proficiency for level B1 is described using the adverb of frequency “usually” meaning that those in this level must be able to demonstrate this proficiency. Level B1 is one level above A2 in which

those in this level can differ active from passive voice. They can also identify more complex structures involving clause, gerunds, and infinitives.

Reading Comprehension

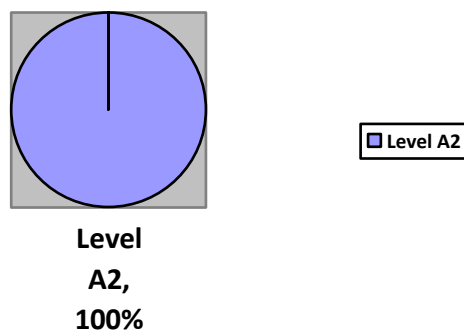


Figure 4. Results of Reading Comprehension

The last section, reading comprehension, emphasizes the students' ability to deal with reading passages. They should be able to figure out the meaning of some difficult vocabulary, paraphrase information stated in the passage and analyze the information implied in it.

In the last section, reading comprehension, all students (100%) were classified into level A2 (31-47). The lowest score obtained was 31 and the highest score was 41. The proficiency descriptors for this level are presented in the following table.

Table.4. Proficiency Descriptors of Reading Comprehension

TOEFL Score Range	CEFR Level	Proficiency Descriptors
31-37	A2	Test takers at this levels are sometimes able to: <ul style="list-style-type: none"> ▪ Understand the general idea of some sentences that use simple, every day vocabulary ▪ Understand the main idea of some texts in which the idea is reinforced by repetition of important vocabulary across many sentences ▪ Follow simple sentence references to determine the grammatical referent of a pronoun ▪ Locate requested information some sentences if pointed out directly to the

part of the passage containing the information (e.g., “in line x”, “in paragraph y”)

Source: www.ets.org

The proficiency descriptors in level A2 was outlined with the adverb of frequency “sometimes” pointing out that those in this level might and might not be able to, in certain circumstances, demonstrate the proficiency. It is still limited to simple vocabulary and ideas repeated frequently in order to recognize the main idea of a text. This means that the students still have limited vocabulary. Requested information should be explicitly directed to the part of the text using specific indicators.

CONCLUSION

Overall performance indicated that the students’ proficiency was still categorized in the lowest level or basic. If those results were broken down into each section, it showed that most of the students’ proficiency in listening comprehension was also categorized in the lowest level. Similarly, Section 2, structure and written expressions also indicated the same results. In addition, all students were categorized in the lowest level of reading comprehension. In conclusion, students’ language proficiency is categorized in basic level so that all aspects in language proficiency still need to be improved to achieve the expected goals.

REFERENCES

- Afrianto. (2018). Being a Professional Teacher in the Era of Industrial Revolution 4.0: Opportunities , Challenges and Strategies for Innovative Classroom Practices. *English Language Teaching and Research*, 2(1), 1–13.
- Bühmann, D., & Trudell, B. (2008). Mother Tongue Matters : as a Key to Effective Learning. *Unesco*, 1–50.
- Crystal, D. (2003). *English as a global language*.
- ETS. (2009). *The Official Guide to the TOEFL Test*. New York: McGraw-Hill.

- ETS. (2014a). TOEFL ITP ® Test Score Descriptors.
- ETS. (2014b). TOEFL Performance Descriptor.
- ETS. (2017). *Test and Score Data Summary for the TOEFL ITP Test*. New Jersey.
- Fitriyani, yani, & Aziz, I. A. (2019). Literasi Era Revolusi Industri 4.0. *Senasbasa, 1*, 100–104.
- Gay, L. ., Mills, G. E., & Airasian, P. (2012). *Educational Research: Competencies for Analysis and Applications*. New Jersey: Pearson Education, Inc.
- Hariharasudan, A., & Kot, S. (2018). A scoping review on Digital English and Education 4.0 for Industry 4.0. *Social Sciences, 7*(11). <https://doi.org/10.3390/socsci7110227>
- Kirkpatrick, A. (2012). English in ASEAN : implications for regional multilingualism Author Griffith Research Online. *Journal of Multilingual and Multicultural Development, 33*(4), 1–14.
- Mallillin, L. D., & Castillo, R. C. (2016). Level of Language Proficiency of Gulf College Students. *IOSR Journal of Humanities and Social Science, 21*(9), 45–52. <https://doi.org/10.9790/0837-2109044552>
- Phillips, D. (2001). *Longman Complete Course for the TOEFL Test*. New York: Addison-Wesley Longman, Inc.