



## **Pronunciation Errors of Medical Terminologies Occurred in Students' Presentation About Medical Laboratory Procedure**

**(A Case: The Second Semester Students of Bachelor Applied Science in Medical Laboratory Academic Year 2024/2025)**

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### **ABSTRACT**

Pronunciation becomes the unseparated point in learning active English skills. It is important to be recognized since it is placed as a crucial thing to avoid missed communication. English for Specific Purpose in terms of medical purpose employ the main rules for students in Bachelor Applied Science of Medical Laboratory study program, Poltekkes Kemenkes Semarang. The students' capability in presenting medical laboratory procedure becomes one of the skill that should be mastered in English subject. Since it is recognized as second language, the students need more attempt to learn especially in active skill aspect. This study elaborated descriptive qualitative method through the analyze of students audio recording about presenting medical laboratory procedure with the topics such as Sputum Sample for TBC Procedure, How to Measure Blood Sugar Level, Taking Feces Sample Procedure, Intermittent Blood Sugar Check Procedure, Medical Procedure about Checking Body Temperature, How to Use Tourniquet in Blood Draw, Peripheral Blood Smear, Hematocrit Examination Procedure, Hand Washing Procedure in Medical Laboratory, Procedure of Capillary Blood Collection, Bacteria Gram Stain Procedure. The data collection were identified in pronunciation errors in medical terminologies especially in the specification of medical laboratory. The vowel substitution more frequently occurred than consonant error. The result showed 62 % of vowel substitution errors and 32% of consonant errors. According to this founding, it can be outlined that there are some factors that influenced these problems such as the intervention of first language, the lack consideration of phonetic importance in English, and the less frequency to spoken English of medical terminology. In the future research, it is hoped that there will be more treatment or activities for improving their skills in speaking English and minimizing the errors of pronouncing medical terminologies since those are concerned as unseparated parts of medical laboratory context. So, it can build good performance in elaborating their skills in presenting medical laboratory procedure in the aspects of accuracy, safety, and professionalism.

**Key Words: Pronunciation, errors, medical terminologies, medical laboratory procedure**

### **INTRODUCTION**

The valid verbal communication in Medical Laboratory Science circumstances holds a major part in guaranteeing the security and purity in terms of clinical procedures. The students of Medical Laboratory Technology must be able to expert both in terms of technical comprehension in medical laboratory itself and their ability to communicate effectively regarding their comprehension. English becomes one of a subject that has to be learnt for the students to reach Bachelor Degree in Medical Laboratory Technology, Health Analysis Department, Poltekkes Kemenkes Semarang. The students are expected to perform their active skills especially in speaking to elaborate their scientific conversation ability in English.

Medical Laboratory students are expected to understand not only in the aspect of medical laboratory knowledge but the correct articulation of specific terminologies. Since English is concerned as second language, many students are fighting to perform correct pronunciation of medical laboratory vocabularies. Srakew (2021) outlined, "Pronunciation is an essential thing in good communication because the wrong pronunciation will lead to misunderstanding and negative impressive with the other person". Some terminologies may derive from Latin or Greek words which has their special characteristics in the writing and pronunciation point of view. It becomes a challenge for them especially when they perform oral presentation about medical laboratory procedure as a part of common academic assignment.

In speaking skills, pronunciation becomes the basic element. The correct pronunciation can potentially avoid misunderstanding, misinformation, misinterpretation and professional embarrassment in the aspect of medical laboratory procedures. It is critical for the students to perform their understandable communication by presenting medical laboratory presentations with correct pronunciation of terminologies, so it is easy to be understood. Kurnia, et all (2023) stated, "For university graduates, clear Pronunciation during job interviews, presentation of proposals, negotiations, and other professional instructions is essential to ensure their successful transition to the professional world." English for Specific Purpose (ESP) especially in medical field, wrong pronunciation of vocabularies like "hematology" "syringe" and "vessels" for example is potentially confuse the audience so the exact information cannot be interpreted well. According to Shuxratovna (2025) the urgency of correct pronunciation includes clarity and comprehensibility, building confidence, social and cultural integration, reducing accents and improving intelligibility, and professional success. Pronunciation holds crucial component in English since there will be different meaning of wrong pronunciation of a specific words. Dealing with this point of view, it is essential to produce the correct pronunciation to deliver understanding among the professionals in Medical Laboratory knowledge.

This study purposes to investigate the most common pronunciation errors about medical terminologies that emerged when the students of Bachelor Applied Science in Medical Laboratory when perform presentation about medical laboratory procedures.

## METHOD

### 1. Research Design

This study used a descriptive qualitative approach to create identification and analysis through pronunciation errors made by the students during their performance of medical laboratory procedure. This method is used to provide information about medical terminologies mispronunciation and causes of pronunciation errors.

### 2. Participants

The participants of this study were fifty three Second- Semester Students in Bachelor Applied Science in Medical Laboratory program at Poltekkes Kemenkes Semarang during academic year 2024/2025. The sample of this study was taken by employing purposive sampling, because they had already finish English materials in second semester and assigned to present medical laboratory procedure.

### 3. Data Collection

The data were collected through the following ways:

- Audio Recordings:

The students were asked to record their presentation as take home assignment. Each students did 3 – 5 minutes individual presentation explaining a specific medical laboratory procedure.

- Observation Checklist:  
The pronunciation checklist purposed to identify the mispronouncing of medical vocabularies performed by the students.
- Field Notes: The researcher took notes through listening the audio.

#### 4. Data Analysis

Data analysis was conducted error analysis techniques which involved in Corder (1974):

- Error identification, the audio recording of students' presentations were analyzed to find mispronounced words or terminologies.
- Errors Classification, the errors were classified into segmental (vowel/consonant errors).
- Causes Analysis, the probability of error occurrences were investigated based on language transfer, unawareness of phonological, and unfamiliarity of medical terminology.

### FINDING AND DISCUSSION

#### 1. Types of Pronunciation Errors

According to the audio recordings analysis and observation checklist, the two main categories of pronunciation errors were recognized as follows:

Segmental Error (errors produced by individual sounds). It is about incorrect pronunciation of vowels and consonants. The explanation reflected on the following table:

- Vowel Substitution

NO	VOCABULARY	English Pronunciation	Students' Pronounced as	Phonetic Symbol	
				from	to
1	syringe	/sə' rɪndʒ/	/'saɪ.rɪndʒ/, /'sɪ.rɪndʒ/	/ə/	/aɪ/, /ɪ/
2	tourniquet	/'tɜːr.nɪ.keɪ/	/'tɔːr.nɪkwet/, /'tuːr.nɪkwet/	/ɜː/	/ɔː/, /uː/
3	blood vessel	/blʌd 'vesəl/	/bluːd 'fiːsəl/	/ɛ/	/iː/
4	capillary	/'kæ.pə.lər.i/	/kʌp.i.ləri/	/æ/	/ʌ/
5	tube	/tuːb/	/tʌb/	/uː/	/ʌ/
6	blood	/blʌd/	/bluːd/	/ʌ/	/uː/
7	glucometer	/gluː 'kɑː.mə.tə/	/'gluː.kə.mə.tər/	/ə/	/æ/
8	lancet	/læn.sɪt/	/læn.set/, /læn.set/	/ɪ/	/ɛ/
9	thermometer	/θər'mɑːmɪtə/	/tɜːr'məmeter/	/ɑː/	/ɔ/
10	hematocrit	/hi:mə'toʊkrɪt/	/hɛ:mʌ'tɔkrɪt/	/iː/	/ɛː/
11	hematocrit	/hi:mə'toʊkrɪt/	/hɛ:mʌ'tɔkrɪt/	/oʊ/	/ɔ/
12	antibacterial	/ænti.bæk'tɛr.i.əl/	/ʌnti bʌk'tɛrɪʌl/	/æ/	/ʌ/
13	allergy	/'æl.ə.dʒi/	/'ʌlɛr.gi/	/æ/	/ʌ/
14	puncture	/'pʌŋk.tʃə/	/'pʊŋ.sjʊr/, /'pʌŋ.sjər/	/ʌ/	/ʊ/
15	reagent	/'riː.ɛɪ.dʒənt/	'reagen	/iː/	/ɛ/
16	antibody	/æntɪbɑːdi/, /'æntɪ bɑːdi/	/'æntɪbɔdi/, /'ʌntɪbɔdi/	/æ/	/ʌ/
17	hemoglobin	/hiːmʊ'glɒbɪn/	/hæ:mə'glɒbɪn/	/iː/	/æ/
18	hematology	/hi:mə'tɑːlədʒi/	/hæ'matɔləgi/	/iː/	/æ/

19	hematology	/hi:mə'tɑ:lədʒi/	/hæ'matɒləgi/	/ə/	/ɔ/
20	anticoagulant	/,æntikou'ægjələnt/	/ʌntikə'ʌgʊlən/	/æ/	/ʌ/
21	anticoagulant	/,æntikou'ægjələnt/	/ʌntikə'ʌgʊlən/	/ou/	/ɔ'/
22	glove	/gloʊv/	/'klɒf/	/ou/	/ɔ/
23	microscope	/maɪ.krə.skəʊp/	/'mɪkrəsku:p/, /'mɪkrəskəp/	/aɪ/	/ɪ/
24	microscope	/maɪ.krə.skəʊp	/'mɪkrəsku:p/, /'mɪkrəskəp/	/ə/	/ɔ/
25	patient	/'peɪ.fənt/	/pʌtiən/	/eɪ/	/ʌ/
26	patient	/'peɪ.fənt/	/pʌtiən/	/ə/	/ɛ/
27	method	/'meθ.əd/	/metət/	/ə/	/ɔ/
28	accurate	/æk.jə.rət/	/ʌkʊrət/	/æ/	/ʌ/
29	diagnosis	/daɪ.əg'nou.sɪs/	/dɪ'ʌgnəsis/	/aɪ/	/ɪ/
30	diagnosis	/daɪ.əg'nou.sɪs/	/dɪ'ʌgnəsis/	/ə/	/ʌ/
31	container	/kən'teɪnər/	/kən'taɪnər/	/ə/	/ɔ/
32	container	/kən'teɪnər/	/kən'taɪnər/	/eɪ/	/aɪ/
33	sphygmomanometer	/sfig.mou.mə'na:.mə.tə-/	/spigmomʌnometər/	/ou/	/o/
34	sphygmomanometer	/sfig.mou.mə'na:.mə.tə-/	/spigmomʌnometər/	/ə/	/ɛ/
35	oxygen	/'ɑ:k.sɪ.dʒən/	/ɒksɪgen/	/ɑ:/	/ɔ/
36	oxygen	/'ɑ:k.sɪ.dʒən/	/ɒksɪgen/	/ə/	/ɛ/

• Consonant Error

NO	VOCABULARY	English Pronunciation	Students' Pronounced as	Phonetic Symbol	
				from	to
1	vein	/veɪn/	/feɪn/	/v/	/f/
2	sputum	/spju:.təm/	/spʌtəm/	/j/	/ʌ/
3	temperature	/tem.pə.ə.tʃə-/	/'tempərətʃʊər/, /'tempərətʊr/	/ʃ/	/t/
4	thermometer	/θər'mɑ:mɪtə-/	/tɜ:r'məmetər/	/θ/	/t/
5	puncture	/'pʌŋk.tʃə-/	/'pʊŋ.sjʊr/, /'pʌŋ.sjər/	/tʃ/	/sj/
6	reagent	/'ri:'eɪ.dʒənt/	/reagen/	/dʒ/	/g/
7	hematology	/hi:mə'tɑ:lədʒi/	/hæ'matɒləgi/	/dʒ/	/g/
8	anticoagulant	/,æntikou'ægjələnt/	/ʌntikə'ʌgʊlən/	/j/	/g/
9	patient	/'peɪ.fənt/	/pʌtiən/	/ʃ/	/t/
10	method	/'meθ.əd/	/metət/	/θ/	/t/
11	method	/'meθ.əd/	/metət/	/d/	/t/
12	accurate	/æk.jə.rət/	/ʌkʊrət	/j/	/u/
13	tissue	/'tɪʃ.u:/	/tɪsʊ/	/ʃ/	/s/
14	sphygmomanometer	/sfig.mou.mə'na:.mə.tə-/	/spigmomʌnometər/	/f/	/p/
15	oxygen	/'ɑ:k.sɪ.dʒən/	/ɒksɪgen/	/dʒ/	/g/
16	blood vessel	/'vesəl/	/'fi:səl/	/v/	/f/
17	glove	/gloʊv/	/klɒf	/g/	/k/

These errors occurred in students' presentation about some topics in medical laboratory procedure for example Sputum Sample for TBC Procedure, How to Measure Blood Sugar Level, Taking Feces Sample Procedure, Intermittent Blood Sugar Check Procedure, Medical Procedure about Checking Body Temperature, How to Use Tourniquet in Blood Draw, Peripheral Blood Smear, Hematocrit Examination Procedure, Hand Washing Procedure in Medical Laboratory, Procedure of Capillary Blood Collection, Bacteria Gram Stain Procedure. These errors were found to minimize misunderstanding so the accurate pronunciation will be essential to deliver the informative meaning in medical communication.

The error occurrence is critical since there also findings that students were still have incorrect pronunciation for some familiar terminologies such as blood that should be pronounced as ['blʌd] but in students speaking version it was pronounced as [blu:d]. The other is in the pronouncing of the word patient that had should be pronounced as ['peɪ.jənt] but in student's version it became [pʌtiɛn]. In pronouncing the word "method" there was also finding that most of the students did not pronounce ['meθ.əd] but they pronounced as [mɛtət].

## 2. Frequency Errors.

Based on these findings it can be calculated that the errors in vowel substitution aspect is 68% and the consonant errors reached 32%. Based on these results, the vowel substitution error is higher than consonant errors. The vowel errors that were often occurred such as from (æ) pronounced as (ʌ) and (ə) pronounced as (ɛ). In the aspect of consonant the most common errors occurred in pronouncing from (dʒ) pronounced as (g) and from (v) pronounced as (f).

## 3. Possible Causes of Pronunciation Errors

There are some factors that contribute to the errors:

- The influence of First Language

In Indonesia, English is recognized as second language. It gives the impact that learning English especially in practicing speaking is challenging. According to Arevi and Ratmanida (2020) in Octaviani, et al (2024), "Indonesians are used to pronouncing words the same way they are spelled, which creates vowel sounds." In medical context, the second semester of Bachelor Applied Science in Medical Laboratory experienced English for Specific Purpose in this case is in Medical Context. Some of them are still in struggle to speak and memorize some medical vocabularies. So, they often adopt some pronunciation and articulation from Bahasa Indonesia.

- The Unfamiliar of Phonetic Awareness

Since the students are from medical knowledge background, there is less awareness of the importance of some policies in phonology. The lack of practice in speaking English reveals this problem. Alkhawaldeh in Wardana et al (2022) outlined phonological awareness is the capacity to perceive and control the verbally expressed pieces sentences and words. So, the less awareness must be critical to be improved.

- The Lack Exposure to Spoken Medical Terminology

Writing and reading are more frequently be practiced by the students than more practicing with listening and speaking. So, this situation may create minimal correct model of pronouncing some medical laboratory terminologies.

The students learned medical terms through reading and writing, with minimal listening or speaking practice, leading to incorrect mental models of pronunciation.

## CONCLUSION

This study has revealed that pronunciation errors remain a significant challenge for second-semester students of the Bachelor of Applied Science in Medical Laboratory when presenting medical procedures in English. The findings indicate that students commonly make both vowel substitution and consonant errors.

The most frequent errors involved mispronunciation of medical terms such as capillary, antibacterial, allergy, antibody, anticoagulant, accurate, reagent, hematology, oxygen. Those errors were often caused by first language interference, lack of phonetic awareness, and limited exposure to spoken medical vocabulary. These errors can affect the clarity and professionalism of students' presentations, which is critical in both academic and clinical settings.

The study highlights how crucial it is to include targeted pronunciation training in English for Specific Purposes (ESP) classes, especially for students enrolled in health science programs. Teachers can assist students in developing more precise and self-assured oral communication skills by integrating phonetic instruction, audio-based modeling, and oral practice of medical words into the curriculum. It is also recommended for future research to elaborate the way to improve pronunciation strategies, the advantage of phonetic tools, and students' perception toward pronunciation training in the medical context. Future research is recommended to explore pronunciation improvement strategies, the effectiveness of phonetic tools, and student perception toward pronunciation training in the medical context. Improving pronunciation is more than just sounding proper; in healthcare communication, it can be critical to assuring accuracy, safety, and professionalism.

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