

CHAPTER IV

FINDINGS AND DISCUSSION

The findings and discussion of Hello English's usability as well as students' pronunciation errors in thesis abstracts are presented in this chapter. Its purpose is to address the study's issues. The findings are based on the responses to questionnaire and documents (record keeping). Then, the discussions are based on the data analysis's outcome.

A. Findings

1. Hello English Usability

a. Visibility of system status

Table 4.1 Visibility of system status

No	Heuristic Usability	Point	YES	NO	Percentage
1.	Visibility of system status	• Instructions	5	-	100%
		• Coloring	5	-	100%

The responses of five respondents to the two statement points can be seen in the table above "Are the instructions in the Hello English application easy to understand and Does the coloring technique on the appearance of this application look boring" are YES. It can be seen that the average on the *visibility of system status* has a value 100%.

b. Match between system and the real world

Table 4.2 Match between system and the real world

No	Heuristic Usability	Point	YES	NO	Percentage
2.	Match between system and the real world	• font size and type	5	-	100%
		• interface layout	5	-	100%

Based on the table above it can be seen that the responses of 5 respondents to the two points of the statement "Is the text on this application legible and did the component layout Settings on the application display you've met on other applications" are YES. It can be seen that the average on the *match between system and the real world* has a value of 100%.

c. Use control and freedom

Table 4.3 Use control and freedom

No	Heuristic Usability	Point	YES	NO	Percentage
3.	Use control and freedom	• Easy to recognize the appearance of the application	5	-	100%
		• Convenience in using the application	5	-	100%

The responses of five respondents to the two statement points can be seen in the table above "Are you able to recognize the specific features of the display in this application and Do you feel comfortable using this application" are YES. It can be seen that the average on the *use control and freedom* has a value 100%.

d. Consistency and standards

Table 4.4 Consistency and standards

No	Heuristic Usability	Point	YES	NO	Percentage
4.	Consistency and standards	<ul style="list-style-type: none"> There are similarities in the position of several application components with similar applications. 	5	-	100%
		<ul style="list-style-type: none"> ambiguous meaning in the use of words and icons 	2	3	40%

The responses of five respondents to the statement can be seen in the table above "Do you find the easy information-finding feature on this application" are YES. It can be seen that the average on the first point of *consistency and standards* has a value of 100% and to the statement in the second point "Does Hello English application has an ambiguous meaning in the use of words and icons" that 2 respondents answered YES. It can be seen that the second point of *consistency and standards* has a value 40%.

e. Error prevention

Table 4.5 Error prevention

No	Heuristic Usability	Point	YES	NO	Percentage
5.	Error prevention	<ul style="list-style-type: none"> Warning message in case of a possible problem. 	1	4	20%

<ul style="list-style-type: none"> • Easy to understand the warning message raised by the application system. 	3	2	60%
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The responses of five respondents to the statement can be seen in the table above "1 respondent answered YES. It can be seen in the first point *error prevention* has a value 20%. For the statement in the second point "Does the user understand the warning message rising on the Hello English application system" 3 respondents answered YES. It can be seen in the second point *error prevention* has a value 60%.

f. Recognition rather than recall

Table 4.6 Recognition rather than recall

No	Heuristic Usability	Point	YES	NO	Percentage
6.	Recognition rather than recall	<ul style="list-style-type: none"> • The uniqueness and characteristics of the application. 	4	1	80%
		<ul style="list-style-type: none"> • The menu layout in the application is easy for users to remember. 	5	-	100%

The responses of five respondents to the statement can be seen in the table above "Have you found the uniqueness that appears in this application so that you can recognize the appearance of this application easily" are 4 respondents answered YES. It can be seen in the first point of *recognition rather than recall* has a value 80%. For

the statement in the second point "Is the layout of the menu in the Hello English application easy for users to remember" 5 respondents answered YES. It can be seen the second poin of *recognition rather than recall* has avalue 100%.

g. Flexibility and efficiency of use

Table 4.7 Flexibility and efficiency of use

No	Heuristic Usability	Point	YES	NO	Percentage
7.	Flexibility and efficiency of use	• Access flexibility.	5	-	100%
		• Help each page to make it easier.	4	1	80%

The responses of five respondents to the statement can be seen in the table above "Can access this application anywhere and anytime" are YES. It can be seen in the first poin of *flexibility and effecincy of use* has a value 100%. For the statement in the second point "Is there navigation that can help on each page to make it easier" 4 respondents answered YES.it can be seen in the second poin of *flexibility and efficiency of use* has a value 80%.

h. Aesthetic and minimalist design

Tabel 4.8 Aesthetic and minimalist design

No	Heuristic Usability	Point	YES	NO	percentage
8.	Aesthetic and minimalist design	• Simple and attractive display design.	5	-	100%
		• Has a special feature in the display design.	3	2	60%

The responses of five respondents to the statement can be seen in the table above "Do you think the applications' display design is simple but appealing" are YES. It can be seen in the first point of *aesthetic and minimalist design* has a value 100%. For the statement in the second point "Do you think this application has a particular feature in the design of the display" 3 respondents answered YES. It can be seen in the second point of *aesthetic and minimalist design* has a value 60%.

i. Help users recognize, diagnose, and recover from errors

Tabel 4.9 Help users recognize, diagnose, and recover from errors

No	Heuristic Usability	Point	YES	NO	Percentage
9.	Help users recognize, diagnose, and recover from errors	• Notification when the user encounters an error.	2	3	20%
		• Error message feature	5	-	100%

The responses of five respondents to the statement can be seen in the table above "Is there any notification when a user has an error on the data input" 2 respondents answered YES. It can be seen in the first point *help users recognize, diagnose and recover from errors* has a value 20%. For the statement in the second point "Will the application display a message if you make an error in using the application either intentionally or unintentionally" are YES. It can be seen in the second point of *help users recognize, diagnose and recover from errors* has a value 100%.

j. Help and documentation

Tabel 4.10 Help and documentation

No	Heuristic Usability	Point	YES	NO	Percentage
		<ul style="list-style-type: none"> "help" or "assistance" menu to guide the user. 	5	-	100%
10.	Help and documentation	<ul style="list-style-type: none"> understand the information on each instruction in using the application 	5	-	100%

The responses of five respondents to the statement can be seen in the table above "Is there a "help" or "assistance" menu to guide the user and Does the user understand the information in each instruction of Hello English application" are YES. It can be seen in the first poin of *help and documentation* has a value 100%.

After obtaining the results of each Heuristic Evaluation method, According to (Arikunto, 2010), the division of feasibility categories only by paying attention to the range of percentage numbers. The maximum condition that is expected to be taken into account is 100%. So, between the values of 1% and 100% are divided equally according to the five categories according to the Likert scale above. The division of the range

Eligibility categories according to (Arikunto, 2010) are as follows: proceed with measuring these results using the scale in table 4.11.

Tabel. 4.11 percentage value category (Arikunto, 2010)

Percentage	Assessment category
81 – 100 %	Very feasible
61 – 80 %	Feasible
41 – 60 %	Feasible enough
21 – 40 %	Not feasible
<20 %	Very unfeasible

from the questionnaire results about 10 heuristic evaluations, it was found that the average on the visibility of system status has a value of 100% declared to be Very feasible, the average on the match between system and real world has a value of 100% declared to be Very feasible, The average on the use control and freedom has a value of 100% declared to be Very feasible, the average on the consistency and standards for the first point has a value of 100% it's declared to be Very feasible and for the second point has a value of 40% it's declared to be Not feasible, The average on the error prevention for the first point has a value of 20% it's declared to be Very unfeasible and for the second point has a value of 40%, it's declared to be Not feasible, the average on the recognition rather than recall for the first point has a value of 60% it's declared to be Feasible enough and for the second point has a value of 100% it's declared to be Very feasible, The average on the aesthetic and minimalist design for the first point has a value of 100% it's declared to be Very feasible and for the second point has a value of 80% it's declared to be Feasible, the average on the aesthetic and minimalist design for the first point has a value of 100% it's declared to be Very feasible and for the second point has a value of 60% it's

declared to be Feasible enough, the average on the help user recognize, diagnose, and recover from errors for the first point has a value of 40% it's declared to be Not feasible and for the second point has a value of 100% it's declared to be Very feasible, The average on the help and documentation has a value of 100 it's declared to be Very feasible.

2. Pronunciation error by the students

The second question was about how are students' pronunciation error analyzer by using Hello English application. Each spoken sentence has a score ranging from 1% to 100%, and the spoken utterance would be rewarded in the form of a coin. The score would be below 100 percent and the false word would be highlighted in red when the students' pronunciation was incorrect.

Tabel 4.11 Pronunciation Errors by the student

Student Codes	Pronunciation Errors by the student	Percentage of correct sentences
S1	• No, it is an apartment.	40%
	• No, it doesn't. But the building has a common garden.	80%
	• Yes it has a very large pool and a nice gym.	55%
	• Not at all. It is really quite and peaceful.	67%
	• We get a constant supply of both.	86%
	• You are welcome to visit whenever you want.	50%
	Average	63
	Predicate	B (good)

S2	• Not at all. It is really quite and peaceful	44%
	• We get a constant supply of both.	86%
	• Yes , we have two balconies.	80%
	Average	70
Predicate		B (good)
S3	• No , it is an apartment.	80%
	• It has two bedrooms , a hall, and a kitchen.	89%
	• Yes it has a very large pool and a nice gym.	55%
	• Not at all. It Is really quite and peaceful.	44%
	• And the apartment is very well it.	57%
	• We get a constant supply of both.	71%
	• You are welcome to visit whenever you want.	88%
	Average	69,1
Predicate		B (good)
S4	• Hi! What's up?	33%
	• Yes it has a very large pool and a nice gym.	64%
	• Not at all. Is really quite and peaceful.	89%
	• You are welcome to visit whenever you want.	50%
	Average	59
Predicate		C (average)
S5	• Yes , i just moved to a new place .	75%
	• No , it is an apartment.	80%
	• It is really big and spacious.	83%
	• No , it doesn't but the building has a common garden.	20%
	• Not at all. It Is really quite and peaceful.	89%
	• You are welcome to visit whenever you want.	88%
	Average	72,5
Predicate		B (good)

S6	• Yes, i just moved to a new place.	50%
	• No, it is an apartment.	60%
	• It has two bedrooms, a hall , and a kitchen.	56%
	• No, it doesn't but the building has a common garden.	90%
	• Yes it has a very large pool and a nice gym.	82%
	• Not at all . It Is really quite and peaceful.	67%
	• And the apartment is very well it.	43%
	• We get a constant supply of both.	86%
	• Yes, we have two balconies.	80%
Average		68,2
Predicate		B (Good)
S7	• Yes, i just moved to a new place.	88%
	• No, it is an apartment.	80%
	• It has two bedrooms , a hall , and a kitchen.	44%
	• No , it doesn't . But the building has a common garden.	70%
	• Yes it has a very large pool and a nice gym.	73%
	• No at all. It Is really quite and peaceful.	89%
	• And the apartment is very well it.	86%
	• Yes , we have two balconies.	80%
	• You are welcome to visit whenever you want.	62%
Average		74,4
Predicate		B (good)
S8	• No , it is an apartment.	60%
	• It is really big and spacious.	67%
	• No , it doesn't . But the building has a common garden.	40%
	• No at all. It Is really quite and peaceful.	44%
	• We get a constant supply of both.	43%
	• Yes , we have two balconies.	80%
	• You are welcome to visit whenever you want.	88%
Average		60,2

	Predicate	C (average)
S9	• Yes , i just moved to a new place.	75%
	• It is really big and spacious.	33%
	• No , it doesn't . But the building has a common garden.	80%
	• And the apartment is very well lit.	86%
	• We get a constant supply of both.	86%
	Average	72
	Predicate	B (good)
S10	• Hi! What's up?	67%
	• Yes , i just moved to a new place.	62%
	• No , it is an apartment.	60%
	• No , it doesn't . But the building has a common garden.	50%
	• Yes it has a very large pool and a nice gym.	73%
	• No at all . It Is really quite and peaceful.	56%
	• We get a constant supply of both.	86%
	• You are welcome to visit whenever you want.	88%
	Average	67,7
	Predicate	B (good)
S11	• Yes , i just moved to a new place.	50%
	• No , it is an apartment.	60%
	• It is really big and spacious .	50%
	• It has two bedrooms , a hall , and a kitchen.	67%
	• No , it doesn't . But the building has a common garden .	30%
	• Yes it has a very large pool and a nice gym .	64%
	• And the apartment is very well lit.	86%
	• We get a constant supply of both .	71%
• You are welcome to visit whenever you want.	75%	
	Average	61,4
	Predicate	B (good)
S12	• Hi! What's up?	67%
	• Yes , i just moved to a new place.	75%

	<ul style="list-style-type: none"> • No, it is an apartment. 60% • It is really big and spacious. 83% • It has two bedrooms, a hall, and a kitchen. 89% • No, it doesn't. But the building has a common garden. 50% • Yes it has a very large pool and a nice gym. 64% • No at all. It Is really quite and peaceful. 33% • And the apartment is very well lit. 71% • We get a constant supply of both. 71% • You are welcome to visit whenever you want. 62% 	
	Average	65,9
	Predicate	B (good)
S13	<ul style="list-style-type: none"> • Yes, i just moved to a new place. 38% • It is really big and spacious. 83% • It has two bedrooms, a hall, and a kitchen. 56% • Not at all. It Is really quite and peaceful. 89% • And the apartment is very well lit. 86% • Yes, we have two balconies. 80% • You are welcome to visit whenever you want. 88% 	
	Average	74,2
	Predicate	B (good)
	<ul style="list-style-type: none"> • Yes, i just moved to a new place. 88% • No, it is an apartment. 40% • It is really big and spacious. 50% • It has two bedrooms, a hall, and a kitchen. 44% • No, it doesn't. But the building has a common garden. 70% • Yes it has a very large pool and a nice gym. 91% • Not at all. It Is really quite and peaceful. 44% 	
	Average	61
	Predicate	B (good)

S15	• Yes, i just moved to a new place.	88%
	• No, it doesn't. But the building has a common garden.	80%
	• Yes it has a very large pool and a nice gym .	55%
	• Not at all . It Is really quite and peaceful.	56%
	• And the apartment is very well lit.	86%
Average		73
Predicate		B (good)

Classifying the students' predicate into five categories

(Sugiyono, 2013). It can be seen in the following tabel.

Tabel.4.13 students' Predicted Categories (Sugiyono, 2013)

Score	Predicate	Description
81 – 100%	A	Excellent
61 – 80%	B	Good
41 – 60%	C	Average
21 – 40%	D	Poor
0 – 20%	E	Very poor

From the table above, the researcher found out through the students' which already took pronunciation subject that there are 13 students' out of 15 whichever categorized in B (Good) with score around 61-80%. Although the rest of the students' (2 students') categorized in C (Average) around 41-60%.

Table 4.14 Students' Average

No	Students' code	Score
1	S1	63
2	S2	70
3	S3	69,1
4	S4	59
5	S5	72,5
6	S6	68,2
7	S7	74,4
8	S8	60,2
9	S9	72
10	S10	67,7
11	S11	61,4
12	S12	65,9
13	S13	74,2
14	S14	61
15	S15	73
Average Predicate		67,4 B(Good)

From the tabel above, Hello English application in pronunciation ability is 67,4%. It means that 15 students' pronunciation ability categorized B (Good).

B. Discussion

This section reviews those findings by displaying some theories connected to each following problem. Thus, the discussion is classified based on the research questions of the study.

1. Hello English Usability

a. Visibility of System Status

The finding of *visibility of system status* contained in the Hello English application fulfills heuristic evaluation criteria where the

Hello English application is easy to understand and has a coloring technique on the application display that is not boring. This finding can be matched with the principle of heuristic evaluation where an application can provide good feedback to users by displaying information about the system status (nielsen, 1995).

b. Match Between System And Real World

The finding of *match between the system and the real world* contained in the Hello English application fulfills heuristic evaluation criteria where the Hello English application that the learning media in uses language and terms that are common and appropriate for users and the layout of components on the application display has been encountered in other applications.

This finding can be matched with the principle of heuristic evaluation where an application is one of the objectives web-based learning media is for users to learn independently without being bound by time and space. Therefore, it is important that the developed media uses common language or terms that are relevant to the material presented. In addition, the layout of the components in this application display is familiar in everyday life and can prevent users from experiencing confusion when using the media (nielsen, 1995).

c. User Control And Freedom

The finding of *user control and freedom* contained in the Hello English application fulfills heuristic evaluation criteria where the Hello English application are able to recognize the special characteristics of the display on the hello english application and feel comfortable when using this application.

This finding can be matched with the principle of heuristic evaluation where an application importance of the user's control over a medium affects the comfort when using the medium. In learning media, it is very important to be equipped with a number of navigation so that users easily and freely move from one page of material to another (nielsen, 1995).

d. Consistency and Standards

The finding of *consistency and standards* contained in the Hello English application fulfills heuristic evaluation criteria where the Hello English application made the students' easily find information search features in the Hello English application and there is ambiguous meaning in the use of words and icons.

This finding can be matched with the principle of heuristic evaluation where an application consistency is essential for learning media. Not only in terms of layout but consistency is also needed for using colors. Use the same color for each action button or place the navigation on the left side of each page. This is the standard

composition of a web-based application and will provide comfort when learning with media. The importance of consistency so that a system has a pattern typeface, layout, wording, and color selection (Nielsen J. , 1995).

e. Error Prevention

The finding of *error prevention* contained in the Hello English application fulfills heuristic evaluation criteria where the Hello English application has a warning message if there is a possibility of problems with the Hello English application and there is warning messages raised by the Hello English application system.

This finding can be matched with the principle of heuristic evaluation where an application errors often occur when users use the software. In learning media, a good application or media is when the media is designed to prevent the user from making mistakes, for example providing a confirmation option before the user takes an action (nielsen, 1995).

f. Recognition Rather than Recall

The finding of *the recognition rather than recall* contained in the Hello English application fulfills heuristic evaluation criteria where the Hello English application uniqueness that appears from this application so that you can recognize the appearance of this application, menu layout in the Hello English app is easy for users to remember.

This finding can be matched with the principle of heuristic evaluation where an application optimizing the recognition process in interacting with a learning media is the use of icons or symbols. For example, when users answer questions, users will find it easier to know whether their work is right or wrong by adding a green tick (V) icon or a red cross (X) icon compared to just "True" or "False" text. We recommend that users do not need to remember too much when using an application or media (nielsen, 1995).

g. Flexibility and Efficiency of Use

The finding of *flexibility and efficiency of use* contained in the Hello English application fulfills heuristic evaluation criteria where the Hello English application can be accessed anywhere and anytime then there is navigation that can help each page to make it easier.

This finding can be matched with the principle of heuristic evaluation where an application flexibility in a medium can be seen when the media provides many ways to carry out an activity. Another implementation of the flexibility and efficiency of using a media is the existence of shortcut functions that are usually used by users who are experts, so they can save time (nielsen, 1995).

h. Aesthetic and Minimalist Design

The finding of *aesthetic and minimalist design* contained in the Hello English application fulfills heuristic evaluation criteria where the Hello English application the display design of the hello english

application is simple but attractive and this application has special characteristics in the display design.

This finding can be matched with the principle of heuristic evaluation where an application in a learning media it is very important to avoid using images that are not in accordance with the material, or adding background sounds that can interfere with user comfort while learning (nielsen, 1995).

i. Help Userd Recognize, Diagnose and Recover From Errors

The finding of *help userd recognize, diagnose and recover from errors* contained in the Hello English application fulfills heuristic evaluation criteria where the Hello English application has a notification when users experience errors in data input and the application will display a message if you make a mistake in using the application intentionally or unintentionally.

This finding can be matched with the principle of heuristic evaluation where an application helping users recognize errors, diagnose and correct their mistakes when using a learning media can improve user comfort (nielsen, 1995).

j. Help and Documentation

The finding of *help and documentation* contained in the Hello English application fulfills heuristic evaluation criteria where the Hello English application there is a "help" menu or "help" in guiding users and users understand the the information on each instruction in

using the Hello English application. This finding can be matched with the principle of heuristic evaluation where an application provide comprehensive documentation and guidelines to help users encounter problems when using the media (nielsen, 1995).

According to (Oktafina, 2021) In this study, it has been found that there are problems and obstacles related to usability aspects on the XYZ City Public Works Office website, then the researchers evaluated the website by referring to the 10 principles of the heuristic evaluation method using the Usability Aspect Report document, or abbreviated as UAR by 5 evaluators. The evaluation stages carried out in this research are establishing requirements, design alternatives, prototyping, and conclusions. The results of this research are 17 problems found and 17 recommendations for improvement in the form of prototypes made based on the discovery of existing problems in the object of this research even though there are 2 principles that have no problems in it. The most problems were found in the principle of flexibility and efficiency of use. Problems that have a severity rating of 4 amount to 3 problems, severity rating 3 amounts to 4 problems, severity rating 2 amounts to 7 problems and severity rating 0 amounts to 1 problem.

2. Pronunciation Errors By The Students

Pronunciation is one of the most important aspects of English, particularly in oral communication, as stated in the study's background.

Therefore, rather than having a native-like pronunciation, it is necessary to have an intelligible one. According to (Gilakjani, 2016) By repeating sounds and correcting them when they are made incorrectly, pronunciation is learned. Learners overcome difficulties brought on by their native language when they begin learning pronunciation (p.02).

Because some English words have more than one meaning in one form, this skill is already difficult enough. The meaning of a word will change if it is pronounced incorrectly. It may lead to confusion between the speaker and the listener.

Muna (2011) also found that using pronunciation software to teach pronunciation is effective and helps students improve their pronunciation skills. The average test score of the students improved from 69.1025 in the pre-cycle to 77.5641 in the first cycle, 80.1282 in the second cycle, and 87.4358 in the third cycle as a result of the tests that the students improved during the treatment with pronunciation software.

The result of the pronunciation test using Hello english application in pronunciation ability is 67,4%. It means that 15 students' pronunciation ability categorized B (Good). It was decided that using the Hello English app helped the students improve their pronunciation skills. In light of the preceding description, it was determined that the application of Hello English as a digital medium for pronunciation instruction was successful in this study. The fact that students could use

this application to learn whenever and wherever they wanted was another reason why they were interested in it.