A survey on language learning through song-based information technology

P D Iswara[1]*, J Julia[1] and T Supriyadi[2]

[1] Program Studi PGSD, Universitas Pendidikan Indonesia, Jl. Mayor Abdurachman No. 211 Sumedang, Indonesia
[2] Program Studi PGSD Penjas, Universitas Pendidikan Indonesia, Jl. Mayor Abdurachman No. 211 Sumedang, Indonesia

*iswara@upi.edu

Abstract. Nowadays, there are a number of applications, specifically, those of information technology to learn languages. The technology even comes into private devices for personal studies. However, surveys relat-ed to the use of applications or information technology remain limited. The same case also happens to testing related to the effectiveness of applications, programs, or information technology. Therefore, this study aims at conducting surveys and measuring the effectiveness of information technology use in language learning. The other research question deals with the use of information technology in language learning. This study utilized survey methods to obtain some information from the respondents about their preference on western songs. The results showed that 92.3% of 155 respondents liked to listen to songs. A total of 46.5% respondent's stat-ed that they liked western song, while 47.7% of them stated that they might like western song. Yet 80.6% of respondents stated that they studied foreign languages through songs, and only 46.5% memorized the lyrics of western songs. This research on song-based information technology has great potential in language learning.

1. Introduction

Currently, Asynchronous-Moving Language Laboratory (AML Lab) needs to be developed [1]. The asynchronous class is described in e-learning concept [2]. Meanwhile, moving class is a theory related to the development of AML Lab [3]. The development is due to the need for language laboratory technology, which is in accordance with the research on post-modern development [4] whose survey respondents encouraged the design change of language laboratory. Several studies also result in similar things, such as study on internet-based language laboratory (IBLL) [5], study on the concept of Mobile Platform Based Language Laboratory on Web Service [6], and study on the learning of oral English via digital language laboratory using statistical techniques to distinguish two groups [7].

Language laboratories have no longer been a room that merely plays language-learning videos for all laboratory visitors. The lab improves into allowing people to play their own videos. That way, they can acquire lesson or discussion material with certain speed adjusted to their individual intelligence and discuss the lesson materials with tutors who guide them to gain understanding progress. The mobile language laboratory can be used in asynchronous way. A group on social media (e.g. WhatsApp) can record the conversation of the laboratory users, for example, by laboratory operators or teachers. When the tape is sent to the group, each member of the group can listen to and repeat the tape, learn the sound

of a foreign language exemplified by the laboratory operator or teacher, and reply it by recording and sending the recorded voice to the group. Such laboratories are still being carried on.

In AML Lab, the instructor can form a group and instruct the language laboratory visitors to study conversations, songs, lectures, and also to memorize the conversation vocabulary, to identify the pronunciation, and to imitate the pronunciation. The laboratory program may also include an evaluation to test the progress of the visitors' skills.

When non-moving language lab facilities are not available yet, AML lab can be a solution for today's language learning problems. Therefore, it is important to study its effectiveness and to consider that, in Indonesia, the researchers who are interested in studying this issue are still considered rare. AML Labs can be compared to language laboratories using REST Protocol Web Service [8]. To reinforce success in learning, the method also need to be studied during language learning process in the laboratories [9]. The development of AML Lab is recently being sustained. Therefore, it is worth to examine how the laboratory visitors respond toward the language program they join in. For this reason, this paper aims at analyzing the students' responses on language learning through song-based AML Lab.

2. Method
This study applied survey methods in collecting the data from respondents about their tendency to use asynchronous-moving language laboratory. The subjects of this study were 155 students from one university in the province of West Java, Indonesia. They were asked about their tendency to use songs for language learning. The survey results were analyzed by using descriptive analysis and complemented by quantitative data

3. Result and discussion
This study deals with the survey for AML Lab development and can be correlated with the effectiveness of learning utilizing AML Lab. Most of the respondents (92.3%) of 155 respondents stated that they liked to hear songs. This survey question does not look into what kinds of song language the respondents like to hear. Apparently, those who like to hear songs did not always mean also like to hear foreign language songs (western songs), which can be seen in the next question

The survey shows that 46.5% of the respondents stated that they liked to hear western songs, and 47.7% of them stated that they might like western songs. It proves that not all of the respondents who liked songs mean they also loved western songs. In fact, this program was intended to facilitate the respondents for learning a foreign language through songs. Some of the asynchronous-moving laboratory programs are listening to songs, memorizing songs, pronouncing the target vocabulary properly according to the foreign language phonemes found in the song.

In learning the language using AML Lab, learners will possibly find words that they do not understand. In this case, they can use Google Translate (https://translate.google.com/) to translate the words. That way, instead of asking the laboratory operator or teacher for the meaning, they can independently look it up himself on the internet. However, the role of a laboratory operator or teacher is essential in guiding learners to understand, identify, and imitate the sounds of a language. Especially if the learners get certain words with problematic meaning after they use Google Translate, they can ask the operator or teacher for a confirmation.

Although most respondents liked to listen to songs, it was only 80.6% of them who claimed learning a foreign language through songs. Likewise, the number of respondents who liked listening to western songs was only 46.5%, which was lower compared to that of learning foreign languages through songs. Obviously, total respondents who learned western language via songs were more than those who just love to hear western songs. It means that a person can use songs to learn a western language, even if they do not like the song. In other words, they will listen to the song for language learning.
Only 46.5% of the respondents stated that they always read the lyrics of the western songs they heard, 41.3% of them stated that they sometimes read the lyrics of the songs. The result of this survey relates to the number of respondents who liked listening to western song. The number of respondents who

always read the lyrics of western songs was almost equal to the number of those who like to hear western song (46.5%).

There were only 27.7% of the respondents always memorized the lyrics of the western songs they heard, 54.8% of them occasionally memorized the lyrics of the songs. It shows that the respondents' ability to memorize was still relatively low. The attempts of the respondents to memorize the lyrics of songs also tended to be low. In fact, it was found that memorizing western song lyrics tended to help learners in learning western languages [10]. The number of respondents who sometimes memorized lyrics was higher than the number of respondents who always memorized the lyrics. Memorizing the lyrics is indeed quite difficult.

The operator or teacher can guide the learners by asking them to write down the vocabulary or lyrics they hear. The operator or teacher can drill or pronounce a phrase that the learners can follow. This way will ease the students to memorize lyrics in language learning. In memorizing the lyrics, the learners should also identify the sound. They compare the sounds they hear with the one they produce. There may be novice learners misidentifying certain sounds. However, learners will recognize the sound better by hearing it repeatedly. Identifying sounds is one valuable step in language learning and is one step to memorize the lyrics.

The results of song languages favored by the respondents were 85.5% Indonesian, 71% English, 32.9% local languages, other 25.8%, Japan 9%, Spanish 1.3%, German 0.6%, none 0.6%, France 0%, Persian 0%, do not know 0%. English is a very popular foreign language. In this survey, there is no Arabic, although it is an influential language in Indonesia because the majority of the population is Muslim who reads the Quran, worships and prays in Arabic. Perhaps the other option (25.8%) was for Arabic or partly for Arabic.

It was explored for the development of a language laboratory program. There are language laboratories used for multilingual purpose: Indonesian, local and English [11]. However, information technology, songs, and internet allow people to learn multilingualism. They can form communities or groups in social media to learn a language together. Internet provides language learners with abundance of songs from various genres.

This research should be followed up by a series of studies on language learning through songs or by using asynchronous-moving laboratories. Researches on laboratory development may incorporate the usage design of Raspberry Pi3, gadgets and/or WiFi. In addition, it is important to encourage a collaborative research between language and information technology experts.

A research on the software development for language learning in computer labs shows that computer labs can also be used as language laboratories [12]. This research can be developed by equipping a language laboratory with Raspberry PI3 for efficiency, in terms of budget. However, Raspberry PI3 is certainly weaker than Intel i7 or AMD A10. However, the gadget processors tend to be more energy efficient (battery). Samsung Galaxy s9 uses an Octa-core processor (4x2.7 GHz Mongoose M3 & 4x1.8 GHz Cortex-A55) or Octa-core (4x2.8 GHz Kryo 385 Gold & 4x1.7 GHz Kryo 385 Silver). The selection of equipment specifications for language laboratory is essential in the consideration of developing asynchronous-moving language laboratories.

Researches on Laboratory effectiveness should also be undertaken. A research on the use of Computer Assisted Language Learning (CALL) disclosed that students preferred lab classes to traditional theory classes because they could more actively participate in lab classes [13]. The reason might be the new taste they get in the language the labs in comparison with the traditional classroom learning in schools and colleges [13].

The success in the use of technology in language laboratories has been confirmed by a research in which it is stated that "the results of the study indicated that the use of technology in a language laboratory for training students in listening competences had reduced the anxiety of the students when listening to English. Further, there was a significant improvement on the part of students in acquiring listening skills through technology-based intervention" [14]. In addition, the language labs with different electrical and non-electrical gadgets such as video recording and voice recording features was also

described by a research that proved that the use of gadgets makes learning more appealing for the laboratory visitors [15].

4. Conclusion

This study shows that the majority of students loved listening to western songs, but their preference in listening to western songs was not necessarily aimed at memorizing lyrics, or even learning a foreign language through songs. It was recorded about 80.6% of the respondents stated that they learned foreign languages through songs, and only 46.5% of them who memorized the lyrics of the western songs.

References

[1]   P D Iswara, D T Sunarya and D Nugraha 2018 *Pengelolaan Laboratorium Bahasa PGSD Universitas Negeri Makassar (UNM) (Management of Primary Teacher Education (Pendidikan Guru Sekolah Dasar, PGSD) Language Laboratory in Universitas Negeri Makassar (UNM))* (Universitas Pendidikan Indonesia: Research Report)
[2]   L Rajasingham and J Tiffin 2002 *In search of the virtual class: Education in an information society* (Routledge)
[3]   Wawasanpendidikan.com. 2016 Moving Class: Pengertian dan Tujuan serta Manfaat (Moving Class: Definition, Purposes, and Benefits) Available from: https://www.wawasanpendidikan.com/2016/08/Moving-Class-Pengertian-dan-Tujuan-serta-Manfaat.html.
[4]   F A Kronenberg 2016 Language Center Design and Management in the Post-Language Laboratory Era *IALLT Journal of Language Learning Technologies* **44**(1)
[5]   Lou Y, Wu L, Liu H and Chen L 2016 Improving Non English Majored College Students' Writing Skills: Combining a Know Want Learn Plus Model of Meta Cognitive Writing Strategy Instruction and Internet Based Language Laboratory Support *Open Journal of Social Sciences* **4**(08) 37
[6]   Chong H, Sudarma H, Luwinda F A, Faahakhododo I and Gaol F L 2014 Wirest Lang Lab: Mobile Platform Language Laboratory based on Rest Web Service *Journal of Computer Science* **10**(12) 2464-2468
[7]   E Eze and R Oga 2014 Modern digital language laboratory and gender performance in the learning of oral english in tertiary institutions in enugu state *Journal of Teacher Perspective* **8**(3)
[8]   H Chong and F L Gaol 2013 ULa Lab: Ubiquitous open contents web-based language laboratory using REST protocol web service *International Journal of Multimedia and Ubiquitous Engineering* **8**(4)
[9]   M Jaipal and M Vishwanathan 2016 Teacher Beliefs and Teaching Methods as Causal Factors in Student Reticence in English Language Laboratory *Language in India* **16**(1)
[10] P D Iswara 2018 *Pembelajaran Bahasa melalui Syair Lagu (Language Learning through Song Poems)* (Universitas Pendidikan Indonesia: Research Report)
[11] P D Iswara, S Gunara and J Julia 2017 *Penciptaan Lagu-lagu Bermuatan Karakter Kebangsaan untuk Bahan Ajar di Sekolah Dasar (The Composition of Songs with National Characters for Teaching Materials in Primary Schools)* (Research Report, Universitas Pendidikan Indonesia)
[12] Y Syaifudin, I F Rozi and A N Asri 2015 The design of foreign language teaching software in school computer laboratory *Paper Presented on First Asia Pacific Conference on Contemporary Research*
[13] K D Hafiz 2013 An investigation into CALL in English language teaching through language laboratory *IOSR Journal of Humanities and Social Science (IOSR-JHSS)* **6**(6)
[14] P Madhumathi 2013 Analyzing the effect of technology-based intervention in language laboratory to improve listening skills of first year engineering students *Profile Issues in Teachers Professional Development* **15**(1)
[15] F Ziyaei, H M Mahmoudi and M Nabilou 2015 The Significance Of Language Laboratory in Teaching Grammar *English Studies International Research Journal* **3**(2