

Online Radio: An RND Project in higher education

Arif Suryo Priyatmojo
English Department
Faculty of Languages and Arts,
Universitas Negeri Semarang
Semarang, Indonesia
arisuryo.unnes@gmail.com

Rudi Hartono
English Department
Faculty of Languages and Arts,
Universitas Negeri Semarang
Semarang, Indonesia
thehartonos@gmail.com

Galuh Kirana Dwi Areni
English Department
Faculty of Languages and Arts,
Universitas Negeri Semarang
Semarang, Indonesia
galuhunnes@gmail.com

Manikowati
Unit of Multimedia Development
for Education and Culture,
Indonesia
manikowati@kemdikbud.go.id

Abstract— *The purpose of this study was to report the findings of research conducted at the English Language and Literature Department of Universitas Negeri Semarang. This is a multi-year study funded by the Ministry of Research, Technology and Higher Education as an effort to improve the students' speaking skill using online radio. This research uses Research and Development (RND) design by identifying students' speaking skills and developing radio models on campus. In the first year, the research focuses on introduction and development. The introduction consists of literature studies and needs surveys; while the development includes divergent, convergent, and final processes. Based on the findings of the research, it can be found that the use of English in the daily routine of students is 60.5% (never), 23.7% (always), 7.9% (sometimes), 5, 3% (rare) and 2.6% (often). Then, the students use English as a means of communication on campus 36.8% (often), 36.8% (sometimes), 15.8% (rare) and 10.5% (often). Meanwhile, this study also produced an online radio model. This product can be seen in englishb3.caster.fm. This online product is made by collaborating free available radio software called caster.fm and some material that includes 1) CPU & monitor, 2) cable, 3) microphone, and 4) mixer. This online radio product has also been supervised by Unit of Multimedia Development for Education and Culture (BPMPK), and used in speaking practices by English students.*

Key words: online radio, media, speaking skill

I. INTRODUCTION

Higher education or University is currently in the modern era where learning activities begin to change from conventional learning to independent learning. Conventional learning relies heavily on lecturers as the main source of information and the students depend on the role of lecturers. One weakness of conventional learnings is the lack of the students' active role in the learning process. However, the learning era has changed where technology with all products has been mushrooming and widely used by the lecturers and students through its mobile devices (smartphones, tablets, laptops, etc.).

With the mushrooming product of technology, lecturers and students need to adapt with the use of technology in the teaching and learning process. This also needs to be implemented by the English Language and Literature Department, Universitas Negeri Semarang. Language is a medium of communication where the language user must

master language skills, namely listening, speaking, reading and writing. There is a phenomenon happening in the process of English learning experienced by students nowadays. Now, the speaking skills of students using English begin to decrease. This can be proved empirically by the increasingly difficulties to find verbal communication in English at the campus by the English students both in the classroom and outside the classroom. One of the factors according to the researcher's observation is the accessible mushrooming technology for the students so that it reduces students' verbal communication in English. This, of course affects their speaking ability.

The development of technology with its products must be responded positively because technology cannot be kept away from the students' daily lives. As the result, this has become the responsibility of the lecturer in utilizing technology to improve the students' language skills including speaking. One technology product that can be utilized is online radio or radio streaming. Online radio is available at App. Store and Play Store, but the activities are only limited to listening skill rather than speaking. Here, there needs to be a breakthrough that can be made by making learning media in the form of online radio that can be used by students, especially speaking learning activities. When this online radio is available, it can be integrated with all learning process related to speaking class, which in the final stage can be utilized by the wider community. This article tries to answer two questions: 1) how the conditions of English speaking skills of English Language and Literature students and 2) how online English radio will be held in the English Language and Literature Department.

The change of learning theory

Today we are living in the 21st century where things have changed and developed rapidly. English language learning in higher education has also changed that can be observed from some changes such as in learning theory, learning models, learning media, learning techniques, etc. One of the most prominent changes we can see is the changing of theoretical basis of learning from Behaviorism to Constructivism (Dewey, 1916; Piaget, 1972; Vygotsky, 1978; and Brunner, 1990). According to Behaviorism theory,

language learning is very dependent on the teacher's role in the learning class as agent of knowledge. The students are taught in such a way that they will be similar to the same with what has been expected by the lecturers. However, English learning has nowadays developed that depends not only on the input given by lecturers but also the context around them which will affect student learning methods that are more adaptive to the surrounding including language learning through technology products. In the current digital era, the role of technology is very important in language learning because there are many benefits that can be obtained by students including:

- 1) provide an easy learning process;
- 2) enable students to access information;
- 3) reduce paper materials for in the learning process (paperless);
- 4) improve students' literacy on technology;
- 5) develop students' independent learning;
- 6) etc.

The scholars behind the constructivism theory include Dewey (1916), Piaget (1972), Vygotsky (1978) and Bruner (1990). The learning process according to constructivism theory will run well depending on three important factors namely learners, learning environment and instructors. Based on the description above, according to constructivism theory, the success of learning activities will be achieved with three factors covering the learning environment, students and instructors. These factors can be implemented if there is one educational media that can bridge it. In the current digital era technology with its products can answer these challenges. This is because technology can provide facilities for a learning environment where students can independently search for extensive information, and can provide whatever information is needed by the students. Lecturers become facilitators of student learning and scaffold the learning process from one level to the next level. According to Yue (2015) current learning is referred to as a flexible education where learning emphasizes students as the subject of student-centered learning. Meanwhile according to Jeffries *et.al.* (1990) education is now categorized as flexible learning where learning should adjust the needs of students. This opinion is supported by Hayness (1997) who said that students should be given the flexibility to determine where to study, what to study, how to study and how to be assessed. Hence, the role of technology is very influential on the achievement of students' independent learning.

Online Radio

As lecturers of English, we are demanded to look for many ways so that speaking lectures are relevant to the real world, such as when we publish students' work online or in class. We can also describe the real world by producing utterances via online. Radio can bring the real world into learning classes by using mobile devices such as mobile phones, tablets, smartphones, etc. by sending students' audio into the real world (Levine & Franzel, 2013). Many researchers believe that radio is a product that is compatible with speaking learning especially students who understand the

relevance of radio to the real world. Nowadays mobile devices have become a part of our daily lives.

The students currently need special equipment to record in accordance with professional standards. Nowadays, if the students have a smartphone and are willing to download through a free application, our students can record and easily disseminate with good sound quality. This is because the radio combines mobile phones and social media. Furthermore, using online radio applications and technology in the learning class can achieve the expected outcomes. Radio in etymology can be defined as sending a sound or sound through the air (Balai Pustaka, 1997). According to Webster New World dictionary Enclypodia '*radio is transmission and reception of radio waves. In radio transmission, a microphone converts – sound waves (pressure variations in the air)*'. Therefore, it can be concluded that radio is a sound transmitter or sound transmitter receiver. Radio has several basic functions according to Effendy (1986). Radio functions as 1) entertainment, 2) information, and 3) educational. Related to this research, the radio that was developed is an English online radio used as educational device.

Speaking Skill

Living in an academic environment, students need communication with other students to convey meaning. One form of communication is speaking activities such as chat, discussion, conversation, etc. In conducting speaking activities the speakers in a conversation require skills in conveying meaning so that these meanings can be understood by the listener. Communication can be defined as verbal activity with the aim of producing understanding between the speakers involved (Hartley, 1993: 22). Conversational activities are not limited to producing words. As stated by Pridham (2001: 2) "conversation can take place through body language, prosodic features such as intonation, speed, stress and volume of events through silence or laughter".

Communication activities have a characteristic that is the presence of messages conveyed from one person to another and reflects the form and content (Hartley, 1993: 20). Brown and Yule (1983) quoted by Pridham (2001: 25) also states that communication activities are an interaction between speakers and listeners with different objectives. Teaching English as a foreign language for Indonesian students is quite challenging especially teaching speaking skills because students are used to communicating with their own language or dialect in various contexts and situations. Students are accustomed to communicating in English only in formal contexts such as in classroom only. As the result, they cannot communicate fluently. The goal of students' communication is to convey meaning using the most communicative way. Cultural context and situation have become consideration. In addition, other supporting elements should be noted to convey meanings are discourse markers, fillers and prosodic features. Here, speaking skills need to be trained with an increasingly frequent and intense time. These speaking skills can be facilitated by using relevant technology media in today's digital era.

II. METHODOLOGY

The selection of problem-based research designs at the campus is based on the weakening verbal communication activities that occur in current English students. The students speak in English only in the formal context and even with very minimal proportions. Therefore, this research needs to be carried out scientifically as a problem-solving research. The purpose of this research is to produce an English online radio. Thus, according to the problem, the design of this study was designed using a Research and Development (R & D) approach, which is a process or steps to develop media in the form of English radio online used as a medium for speaking activities.

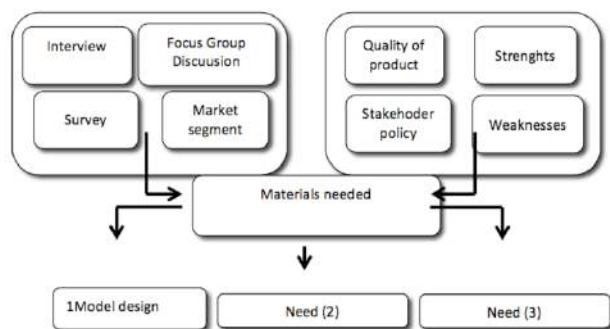


Fig. 1. Research Methodology

III. FINDING AND DISCUSSION

Finding

The initial activity of this research in accordance with the formulation of the problem is to carry out the initial observation of the subject study which is collecting data in the form of observation about the use of English as a medium of verbal communication at campus. Observation was carried out by observing directly the verbal activities of students in the campus environment of the English Language and Literature Department. In addition, the researcher also provided questionnaires in the form of questions around the use of English as a medium for verbal communication of students. The results obtained are as follows:

a. Verbal activities of the students

To find out the condition of student verbal communication, the steps that have been taken are conducting direct observation by recording student conversations naturally. When they were having a conversation in the campus environment, the researcher recorded them assisted by some students who helped the research. The video was the uploaded by the researcher with the approval from the students through the consent form. Video observations can be seen at the YouTube address below:

1. <https://www.youtube.com/watch?v=mhSxmNfLmhl>
2. <https://www.youtube.com/watch?v=ne49Y9fjgvM>
3. <https://www.youtube.com/watch?v=acZLS0gjZlc>
4. <https://www.youtube.com/watch?v=T6qlc5GxDzs>

Based on the video observation, we will find that verbal

communication carried out by students is non-English. The videos were recorded from several contexts such as 1) in the classroom, 2) in front of the English Language and Literature Department, 3) in front of the learning classrooms, etc. This shows that the quantity of English as a medium for verbal communication is very limited, which will result in poor speaking skills of students.

b. The students' response toward English speaking activities

After conducting observation by recording the students' verbal communication, the next step was giving questionnaires based on some different questions as the followings:

Table 1. The use of English in the students' daily lives

Alway	Often	Sometimes	Rarely	Never
9	1	3	2	23
23,7%	2,6%	7,9%	5,3%	60,5%

Based on the table above, we will see that students who never used English as a communication tool in their daily lives are dominated by 60.5%. This means that they use languages other than English in their conversations which indicate that there is no increase in the use of English. Meanwhile, around 23.7% of students use English as the language of instruction everyday, followed by occasionally 7.9%, rarely 5.3% and often 2.6%. Based on these findings, the lack of verbal communication among students is influenced by the lack of using English as a daily conversation.

Table 2. The use of English at campus

Alway	Often	Sometimes	Rarely	Never
14	4	14	6	0
36,8%	10,5%	36,8%	15,8%	0,0%

Then, questions were also given to respondents related to whether they use English as a means of conversation at campus. The data shows that sometimes and always show the same percentage of 36.8%. This shows that there are some students who are very active using English, but many are also less active. Then there are also some students who responded rarely 15.8%, and often 10.5%.

Table 3. The use of technology for improving speaking skill

Alway	Often	Sometimes	Rarely	Never
35	0	1	0	2
92,1%	0,0%	2,6%	0,0%	5,3%

In addition, the researcher also provided questionnaires related to the use of technology products by students to improve student speaking skills. It can be seen that 92.1% of the students use technology for their speaking activities. The others are never 5.3% and sometimes 2.6%. It indicates that most students are literate in using products of technology in the learning process.

The product of online radio

The followings are some materials needed for online radio. It is based on some reference studies and many online radio users. They are 1) computer, 2) cable, 3) microphone and 4) mixer.



Fig. 2. Materials for Online Radio

Then, all materials are constructed into an installation based on some references. Here is the model:

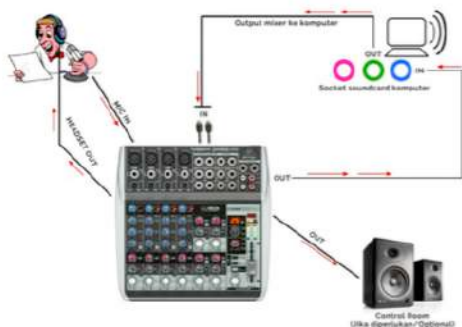


Fig. 3. Installation of online radio

The next step, the researcher downloaded online radio application namely caster.fm. This application was chosen based on some reference studies and there are many users who have used this for many different purposes. Also, many higher education have also used this application for academic purposes. The following is the application:



Fig. 4. The application of caster.fm

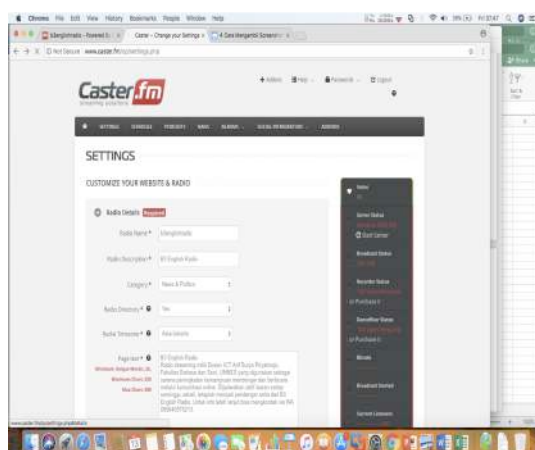


Fig. 5. How to register caster.fm



Fig. 6. Radio controller

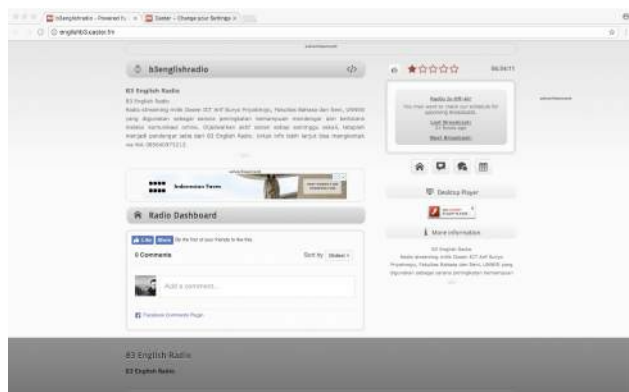


Fig. 7. The product of online radio 'englishb3.caster.fm'



Fig. 8. Studio of online radio

Table 4. The students' knowledge of online radio

Always	Often	Sometimes	Rarely	Never
0	11	14	3	10
0,0%	28,9%	36,8%	7,9%	26,3%

In the student questionnaire, they were also asked to respond to students' background knowledge of the existence of online radio. This research is related to a product of online radio that will be used in speaking skills learning. Based on the data obtained, the students in general have not been very aware of the existence of online radio which can be seen from the percentage of respondents 36.8% sometimes, 26.3% never and 7.9% rarely. Furthermore, there are also around 28.9% of students who know the existence of online radio. In general, those familiar with online radio see and download on the App. Store or Play Store which contains news and music programs in English.

Table 5. The students' perception toward online radio at campus

Strongly agree	Agree	Disagree	Strongly disagree
13	25	0	0
34,2%	65,8%	0,0%	0,0%

After online radio is produced, the students are given the opportunity to respond to the products that are made to provide feedback. Based on the table, the majority of students 65.8% agree with the existence of online radio on campus and there are around 34.2% who strongly agree. This indicates that online radio products are highly accepted and appreciated by the students.

IV. CONCLUSION AND SUGGESTION

Conclusion

Based on the result of the study, some conclusions are as follow:

1. The percentage of students using English in their daily lives shows a lack of exposure affecting their speaking skills;
2. Within the campus area the students also still vary the number of percentages in using English as a communication tool;
3. Radio online in today's digital era is not that difficult to realize, especially with the ease of software and hardware affordable by the academic community. Hence, online radio can be an alternative way to improve the students' speaking skills in the modern era with the proliferation of technology products.

Suggestions

Some suggestions are given by the researcher related to the study:

1. The students, lecturers and higher educations must be adaptive to technological developments because technology with all its products is unavoidable;
2. The higher educations need to make technological breakthroughs for learning activities;
3. The students and lecturers need adequate space to make learning breakthroughs using technology products in the disruptive era;
4. It needs another research to conduct as this product should be implemented and evaluated for its strengths and weaknesses.

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