# THE DEVELOPMENT OF VAKISITE (VISUAL AUDITORY KINESTHETIC LISTENING WEBSITE) FOR LISTENING SUBJECT

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**ABSTRACT**

This research was aimed at developing VAKISITE (Visual Auditory kinaesthetic Listening Website) to maximize students learning in the listening subject. The research used educational R&D Thus, this research used CAR (Classroom Action Research) research design to know the efficacy of the product in field testing step. The research procedures included needs analysis, studying education theories, developing the educational product, validating the product to experts, and field-testing. The research involved the second semester students of English Language Education Department of STKIP PGRI Trenggalek in 2022/2023 academic year as subject. The research instruments were field notes, questionnaires, and test. The field notes data was analysed in qualitative way, while questionnaire and test data was analysed in quantitative way. The product has been developed through five steps of development. Based on the result of students' needs, its score was 80%, it's showed that listening learning digital media were needed. Meanwhile, the result of field testing the product of the students showed a percentage of 86%, 1723 scores of students' feedback. It indicates that, the respondent agree that the product of this research was good and feasible to use as media in learning listening subject.

**ABSTRACT**

Penelitian ini bertujuan pada pengembangan VAKISITE (*Listening Web* berdasarkan Kinestetik Visual Auditori) untuk memaksimalkan pembelajaran siswa pada mata kuliah *Listening*. Penelitian ini menggunakan desain penelitian R&D. Selanjutnya, penelitian ini menggunakan desain penelitian PTK (Penelitian Tindakan Kelas) untuk mengetahui keberhasilan produk pada tahap uji lapangan. Prosedur penelitian meliputi analisis kebutuhan, mempelajari teori-teori pendidikan, mengembangkan produk pendidikan, memvalidasi produk kepada ahli, dan uji lapangan. Penelitian ini melibatkan mahasiswa semester II Jurusan Pendidikan Bahasa Inggris STKIP PGRI Trenggalek tahun ajaran 2022/2023 sebagai subjek. Instrumen penelitian yang digunakan adalah catatan lapangan, angket, dan tes. Data catatan lapangan dianalisis secara kualitatif, sedangkan data angket dan tes dianalisis secara kuantitatif. Produk telah dikembangkan melalui lima langkah pengembangan. Berdasarkan hasil kebutuhan siswa

diperoleh skor 80%, hal ini menunjukkan bahwa diperlukan media digital pembelajaran listening. Sedangkan hasil uji lapangan produk siswa menunjukkan persentase 86%, skor umpan balik siswa sebesar 1723 skor. Hal ini menunjukkan bahwa responden setuju bahwa produk penelitian ini baik dan layak digunakan sebagai media dalam pembelajaran mata kuliah *listening*.

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## Introduction

Digital technologies has become a popular trend among teachers who believe it will transform learning outcomes from the conventional method into something fresh to say. Digital tools can innovate English language teaching to get the best learning outcomes, according to Serdyukov (2017) in Susanty (2021:3). Further, Qarabsh, et.al (2019) states that in the 5.0 era, digital technology and the teacher's role must be balanced, where teachers must be able to utilize digital technology to design creative learning. Industry 4.0 integrates cyber-physical systems (CPS) and networks/communications, while era 5.0 perfects CPS into cyber-physical-human systems, where humans play an active role as work subjects, requiring interaction between machines and humans.

Listening is now generally acknowledged as an important aspects of language learning. According to Gulec & Durmus, in Sabri, T., et. al. (2015), listening is the ability to fully understand the message from the speaker wants to convey. Listening is a two-way interaction between the speaker and the listener. However, students always have difficulty listening properly because they are sometimes bored and not interested in the lesson. Lack of students' interest and motivation to learn listening, based on data caused by less effective media and teaching techniques. Furthermore, based on need analysis, most students need self-regulated learning. Then, they also want English listening learning can be improved by utilizing interactive web-based learning media. Thus students can study independently. Finally, most students expect learning apps to have an attractive appearance, interesting images, audio, and hands-on practice after the material as well as clear explanations, and easy access.

Considering difficulties and need analysis in learning listening subject above, the development of learning media in the digitalization era is needed to facilitate learning, need learning media to make students more understand. E-learning can establish a new environment for a range of learning processes and the advantages of e-learning include greater student retention of the material being taught and improved student learning abilities independently. However, learning media is not enough without combining with ascertain model of learning, one of model is "VAK" Visual, Auditory, and Kinesthetic. Rambe and Zainuddin (2014) in Ramadian et al. (2019) describe Visual, Auditory, Kinesthetic learning approach, which combines students' motivation, engagement, and cognitive processing habits, affecting metacognitive skills like situation analysis and self-evaluation.

VAK (visual, auditory, kinesthetic) is an effective learning model and the application of the VAK model in listening courses does not yet exist, then an effective model of learning that can help student to improve listening is VAK (visual, auditory, kinesthetic) Model. Therefore,

the researcher used the visual, auditory, kinesthetic (VAK) learning model to help students maximize their language skills, particularly listening skills. This study focused on accommodating the VAK learning style, which is a combination of the three main learning styles, visual, auditory, and kinesthetic (VAK) to maximize student learning in listening subjects.

Hence, based on the fact and theory above, the researcher was interested to conduct a learning media to maximize students in listening subject. The research Entitled "The Development Of VAKISITE (Visual Auditory Kinesthetic Listening Website ) to Maximize Students Learning in The Listening Subject". This Website contains the Listening material that conducted in second semester. So students will find it easier to learn the material through smartphone anywhere and anytime without having to bring books.

**Method**

This research utilized Research and Development (R&D). According to Basuki et al. (2018). R&D is education as an industry-based development model whose findings are used to design new products and procedures, which are then systematically tested in field, evaluated, and refined to meet the criteria of effectiveness, quality, or similar standards specified. Furthermore, Basuki (2019) defines "educational R&D as a research design that aims to develop educational products, such as curriculum, syllabus, textbooks, learning media, etc
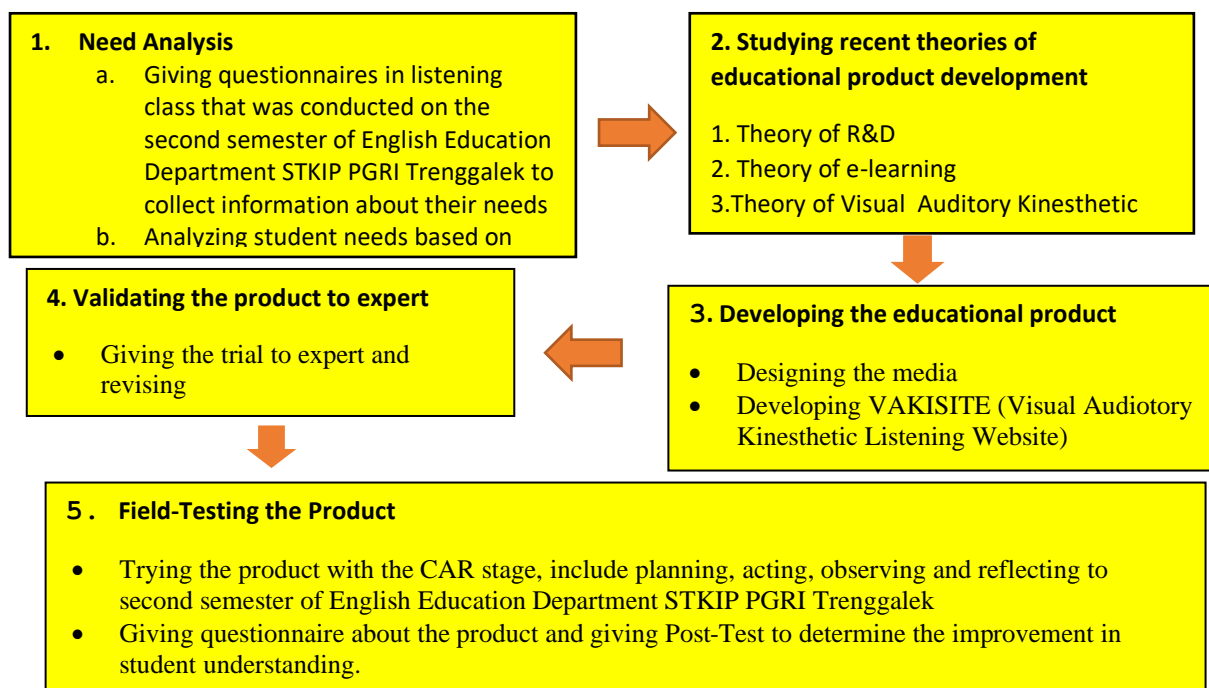
**1. Need Analysis**
   a. Giving questionnaires in listening class that was conducted on the second semester of English Education Department STKIP PGRI Trenggalek to collect information about their needs
   b. Analyzing student needs based on

**2. Studying recent theories of educational product development**

1. Theory of R&D
2. Theory of e-learning
3. Theory of Visual Auditory Kinesthetic

**4. Validating the product to expert**

• Giving the trial to expert and revising

**3. Developing the educational product**

• Designing the media
• Developing VAKISITE (Visual Audiotory Kinesthetic Listening Website)

**5. Field-Testing the Product**

• Trying the product with the CAR stage, include planning, acting, observing and reflecting to second semester of English Education Department STKIP PGRI Trenggalek
• Giving questionnaire about the product and giving Post-Test to determine the improvement in student understanding.

**Figure 1. Development steps of VAKISITE (Adapted from Mukti & Basuki 2020)**

The researchers conducted the research from January 2023 to April 2023 in STKIP PGRI Trenggalek. It is located at Supriyadi street number 22 Trenggalek. The researchers chose Listening subject for second semester students of English Department, STKIP PGRI Trenggalek in 2022/2023 academic year. The total students are 22 students. The sample in this study was 22, where researchers used a saturated sample, which means that all populations are samples because the population is less than 30.

In this research, the researchers used field notes and questionnaire in need analysis and field testing. The result was used to revise the product before tried in-field testing. The data analysis technique of this media development used qualitative and quantitative analysis techniques. The field notes data was to find out the activities during the research carried out and it was analyzed qualitatively. To analyze data from the questionnaire, the researchers analyzed by using quantitative ways. The researchers also used the Likert Scale to analyze the data.

## Finding

This section discusses the results of research including finding of need analysis, finding of expert validation, and finding of product field-testing.

### 1. Finding of Need Analysis

Finding of Student need analysis questionnaire result, obtained data as follow; maximum Score = (5 x 20 x 22) = 2200, minimum scores = (1 x 20 x 22) = 440, range score = (2200 – 440) = 1760, total score = 1751 and the result is described on figure 2
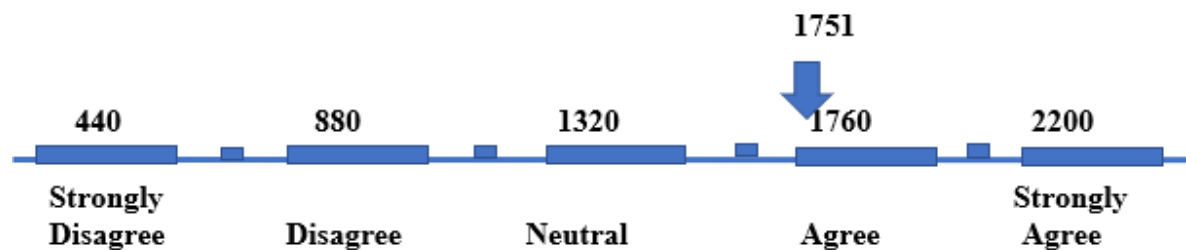


**Figure 2. Continuum Diagram of Students' Need Analysis**

The majority of students agree that they need a learning website to keep them motivated to study and have better comprehension in listening course material.

### 2. Findings of Expert Validation

After the product was developed, the researcher validated the product with learning media and listening material experts prior to field testing it. There were 2 suggestions from validators. Table 1 suggestion from first validator and Table 2 from second validator. Here are the specifics:

**Table 1. Product Comparison Before and After Validating to the Material Expert**

| Before | After |
|---|---|
| Lack of font size and clarity | Enlarge the font size and add colour to the font to make it clearer |
| In the eating out material in the kinaesthetic stage, there are pictures of restaurant menus that are not in accordance with the context and is not in English | Replace with western restaurant menus that are appropriate to the context |

There were 2 suggestions from validators. Table 1 suggestion from first validator and Table 2 from second validator.

**Table 2. Product Comparison Before and After Validating to the Media Expert**

| Before | After |
|---|---|
| The images on the Initial view do not use real human images, which are not in sync with the material in the product | The image on the Initial view is changed to a real human that appropriate to the context of the material in the product. |
| Lack of font size and clarity | Enlarge the font size and add colour to the font to make it clearer |

The Following image shows the characteristics, content, and features of product development.

After revising the product as validator notes, the product result consist of content and features of VAKISITE. The website link is https://alifaschool170.wixsite.com/vakisite. Figure 3 shows the homepage of web, figure 4 describes about material and exercises. The figures are described below.
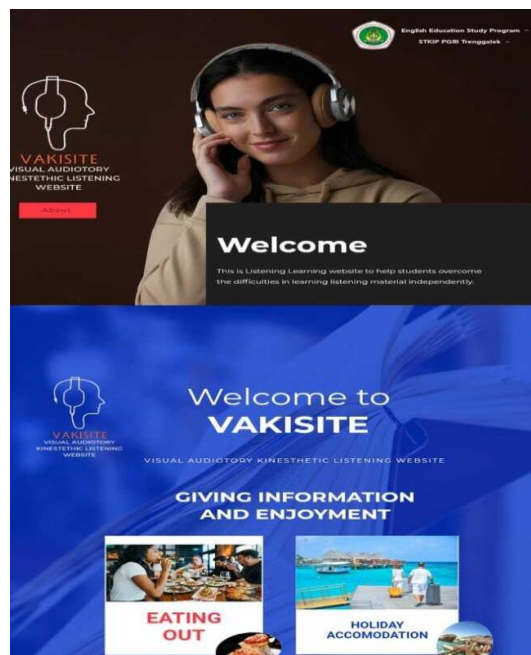


**Figure 3. Homepage**

In homepage, the researchers put the introduction of materials. Next, figure 4 explains about content for exercises. There are two materials in the web. First Eating Out, and second Holiday Accommodation. The exercises use Visual, Auditory, Kinaesthetic steps.
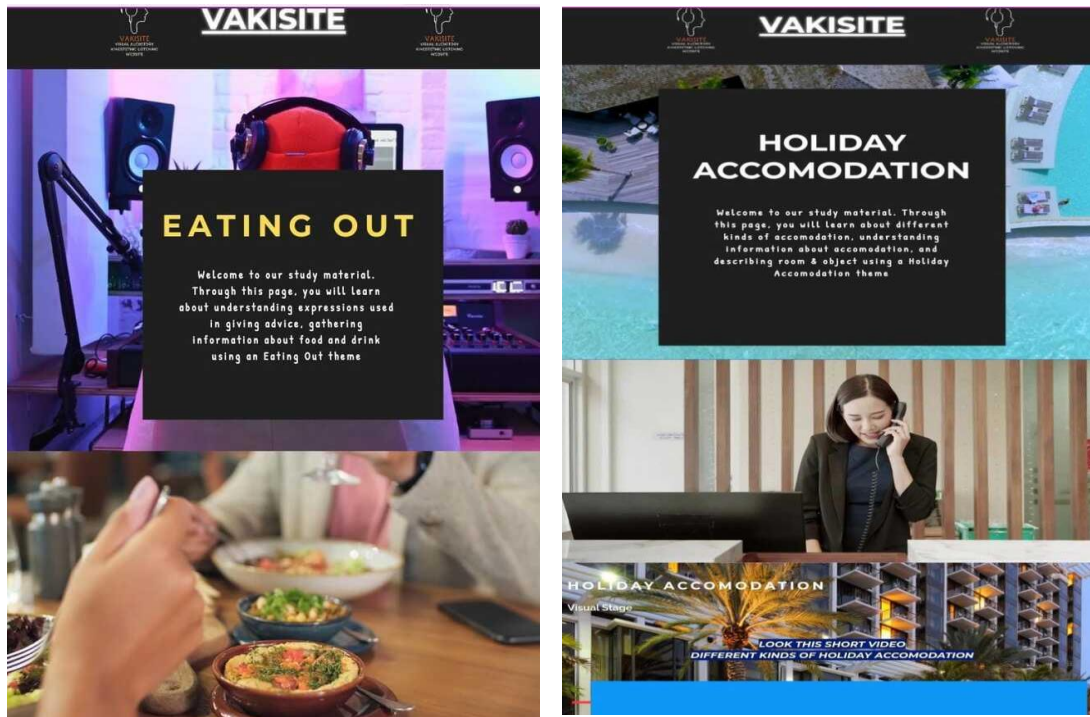
**Figure 4. The materials and exercises**

3.  **Findings of Field-Testing**
    The field test product was the final step in developing a website that engages students in learning listening subjects while using VAKISITE.

    a.  **Process of Planning**
        Researcher's designed learning lesson plans by involving students in listening learning. The RPPD is made in accordance with the second semester study contract for the Department of English Education STKIP PGRI Trenggalek for the 2022/2023 academic year.

    b.  **Process of Acting**
        Process of Acting
        The researcher distributed pre-test before using VAKISITE. From the pre-test that collected from 22 respondents, the mean score of Eating Out pre-test is 48, while the mean score of Holiday Accommodation pre-test is 50,6.
        Furthermore, the researcher did learning activities during learning process and been planned in the previous planning stage, described in the following table, namely using VAKISITE four meetings in teaching.
        **Table 3. Process of Acting**

| MEETING ONE | |
| --- | --- |
| Provide a pre-test to determine the level of students' understanding about the material of Listening for Information and Enjoyment before the students using the VAKISITE product. | Students took an offline pre-test, which was conducted together using the Language Lab to know the extent of student's understanding before using the VAKISITE product. |

| MEETING TWO | |
|---|---|
| The use of VAKISITE to learn Eating Out material from visual stage, auditory stage, and kinaesthetic stage. Which in each stage is equipped with exercises and quizzes that are in accordance with the material with clear instructions, and in the last stage, namely the kinaesthetic stage, students are asked directly to be able to practice according to the instructions listed on the website. | Students did the offline class that was conducted together using the Language Lab to trial this product together and after that, students can also learn the website independently. |

| MEETING THREE | |
|---|---|
| The use of VAKISITE to learn Holiday Accommodation material from visual stage, auditory stage, and kinaesthetic stage. Which in each stage is equipped with exercises and quizzes that are in accordance with the material with clear instructions, and in the last stage, namely the kinaesthetic stage, students are asked directly to be able to practice according to the instructions listed on the website. | Students did the offline class that was conducted together using the Language Lab to trial this product together and after that, students also can learn the website independently. |

| MEETING FOUR | |
|---|---|
| After the treatment is done and students can also study independently at home or anywhere. Provide a post-test to determine the level of students' s understanding about the material of Listening for Information and Enjoyment after the students using the VAKISITE product to determine whether there is an increase in understanding as evidenced by an increase in the average from pre-test to post-test. | Students took an offline post-test, which was conducted together using the Language Lab to know the extent of student's understanding before using the VAKISITE product. |

### c. Process of Observing

The researchers distributed field notes to observe and track student activities to determine whether or not they were learning listening lessons using VAKISITE. From the first meeting through the fourth meeting, there were barriers or no obstacles, as noted in the table of field notes below. As a result, all observation activities are carried out by researchers.

**Table 4. Field notes result**

| MEETING ONE | |
|---|---|
| THERE ARE OBTACLES | THERE ARE NO OBTACLES |
| During the pre-test, there was one recording of an audio question that could not be played because it did not support the lab computer. | There is no effect of network barriers when they did this pre-test it is caused by conducting in offline class. |

| MEETING TWO | |
|---|---|
| THERE ARE OBTACLES | THERE ARE NO OBTACLES |
| It takes about 1-2 minutes to access the website (depending on signal network conditions and internet quota) | There are no obstacles when doing task on the website. |
| The quiz sometimes took a long buffering due to device ram which affects the quiz process (depending on the user of the device), if using a laptop or PC it will be easier and faster, but cellphones are also easy and fast when the internet and ram of the student's device are stable. | There are no obstacles during the quiz on the website |

| MEETING THREE | |
|---|---|
| THERE ARE OBTACLES | THERE ARE NO OBTACLES |
| It takes about 1-2 minutes to access the website (depending on signal network conditions and internet quota) | There are no obstacles when doing task on the website. |
| The quiz sometimes took a long buffering due to device ram which affects the quiz process (depending on the user of the device), if using a laptop or PC it will be easier and faster, but cellphones are also easy and fast when the internet and ram of the student's device are stable. | There are no obstacles during the quiz on the website |

| MEETING FOUR | |
|---|---|
| THERE ARE OBTACLES | THERE ARE NO OBTACLES |
| All safe | All safe |

**d. Process of Reflecting**
   **1. Process evaluation of reflecting**

From the students' feedback questionnaires collected from 22 respondents, the total score is 1423. To interpret the data, the researchers count maximum score (5 x 15 x 22) = 1650, minimum score (1 x 15 x 22) = 330, (1650 – 330) = 1320, and resulted the following figure.
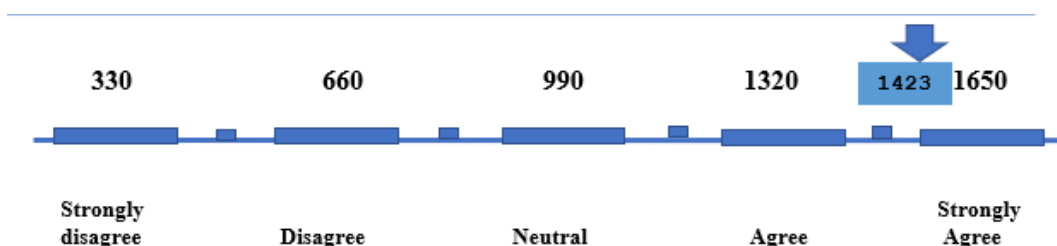


**Figure 4 Continuum Diagram of Students' Feedback**

Thus, feedback from students on the developed product has been found. Most students were satisfied with the appearance or design of the initial display, layout, characters, features offered and interactivity in the developed product. Furthermore, in terms of content, students agree that the interactive content can present the material according to the theme and stages of VAK (Visual Auditory kinaesthetic) well. In addition, according to students, this website can motivate them to study independently, especially in studying listening subjects.

## 2.     Result Evaluation of Reflecting

From the post-test that collected from 22 respondents, Eating Out post-test is 95, based on pre-test and post-test calculating was increased 97% while the mean score of Holiday Accommodation post-test is 92,5, based on pre-test and post-test calculating was increased 89%. Which mean there is a significance improvement after using the VAKISITE product.

**Table  5. Range Scale of Pre-test and Post-test**

| SCALA RANGE | EATING OUT | | HOLIDAY ACCOMODATION | |
|---|---|---|---|---|
| | PRE-TEST | POST-TEST | PRE-TEST | POST-TEST |
| 100-81 | - | 19 | - | 17 |
| 80-61 | - | 3 | - | 5 |
| 60-41 | 5 | - | 3 | - |
| 40-21 | 17 | - | 19 | - |

## Discussion

The product was developed based on the result of students' need analysis with score of 1751. It means, the respondent agree that listening learning media were needed, some theories of research and development, evaluation and suggestion from the expert who validates the product. Then, the findings of field testing showed that product gets good responses from the students and proved practical enough to boost the students' that get score 1723. It means, the respondent agree that the product of this research was good and feasible to use as media in learning listening subject. The result of pre-test and post-test show that the mean score of Eating Out pre-test is 48 and Eating Out post-test is 95, based on pre-test and post-test calculating was increased 97% while the mean score of Holiday Accommodation pre-test is 50,6 and Holiday Accommodation post-test is 92,5, based on pre-test and post-test calculating was increased 89%. Which mean there is a significance improvement after using the VAKISITE product.

## Conclusion

This research developed VAKISITE (Visual Auditory kinaesthetic Listening Website) to enhance students' listening learning in the English Language Study Program. The website is designed for smartphones and PCs and uses VAK (Visual Auditory kinaesthetic) stages, with exercises and quizzes to evaluate students' understanding. VAKISITE (Visual Auditory Kinaesthetic Listening Website) to facilitate students in learning listening subjects. The application of this product is in the form of online learning. This application consists of several features. These features are Home, about, Listening Learning Materials (Visual Auditory Kinaesthetic Stages) along with Exercise and Quiz, Forum, Further Information and Credit. The

first feature displays a brief explanation of listening and stages of VAK. The second feature displays listening material about Eating Out and Holiday Accommodation. This feature also uses the steps of the Visual Auditory Kinaesthetic) listening technique in each material provided. Third, the Forum which features buttons to post questions, ask questions or discuss. Fourth, more information and credits.

The website was adapted from the Listening for Information and Enjoyment subject and was revised based on students' needs, research, and expert suggestions. Field-testing showed good responses from students and increased interest, motivation, and enthusiasm for learning listening independently. In view of the findings, discussions, and conclusion outlined above, it is suggested for the following people who may find benefits of this research. Firstly, for students who want to boost their interest in listening skill on listening subjects, it is suggestive of using the product of this research as a learning media to start having independently learning to learn listening subjects. Secondly, for lectures who teach listening, it is suggestive of using product of this research to make it easier for you to teach listening material to students. Thirdly, for other researchers, are advised for them who may use the research findings as references or use the product to conduct the research with the similar or different topic of listening subject and/or research and development.

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