DEVELOPING AUTHENTIC MATERIAL OF LISTENING ON HIGHER EDUCATION BASED ON CONSTRUCTIVE LEARNING OF JEAN PIAGET AND VYGOTSKY THEORY

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Abstract

Developing authentic material for students is a vital point. Teachers need to design material which meets the students' potential needs. The purpose of this study is to design and to develop authentic listening materials for second-semester students of IAIN Kediri based on constructive theory of Jean Piaget and Vygotsky. The method used is the Research and Development. The result is a product of listening materials under those programs. This product was tried to the 35 students as samples, as well as the revision of the product. The results obtained the validity of teaching materials that cover the content, construct, and technical validity worth 3.80 at the stage of the testing expert with valid criteria. Data regarding the practicality has a value of 4.33 with the criteria "very practical". While the results of research on the effectiveness of teaching materials shown positive response obtained from teachers and students as users of the product. After revision, the value of the effectiveness of teaching materials in the test phase to Master 4.25 and 4.39 with the criteria to students "very effective". The average effectiveness of teaching materials was 4.32 with "very effective" criteria. Teachers and students concluded that the program is effective.

Keywords:
Authentic material, constructive theory, higher education

A. Introduction

Today education expert concerns in oriented learning and the potential needs of learners. The role of educators as "the master" in the class of bit - by-bit has been replaced by the participation of learners in the classroom. Multiplication potential and the needs of the students have been analyzed and used as a reference in the current teaching and learning. The book as a source of knowledge and reading become mandatory items that must be owned by the student. Shortage of books as reference material will make students become "helpless" in the English language. Moreover, the books are used as the current reference is not attractive and do not meet students' needs. Though now learning has to cope seven principles of learning, one of them is looking at the context of existing and building the knowledge based on the current reality (contextual learning).

Listening comprehension is a complex process, and crucial in the development of second language competence. Listeners use both bottom-

up processers (linguistic knowledge) and top-down processes (prior knowledge) to comprehend. Knowing the context of a listening text and the purpose for listening greatly reduces the burden of comprehension.

Moreover, listening is a basic skill in the first language acquisition and dis-crucial in English as Second/ Foreign Language (ESL/ EFL) learning. This skill, despite its importance, has been allocated inadequate consideration in ESL/ EFL teaching. Clearly, listening is complex and involves developing and adapting interpretations of the world within a linguistic context that seldom permits repetition of input. This can be difficult enough in one's first language; in a second language, it also demands that the listener change or adapt linguistic competence to be employed in EFL classrooms to improve students' listening comprehension.

In English language Department in Indonesia, however, the process of the skill of listening is not emphasized despite a wide access to listening materials with accompanying audiovisual technology in the classroom such as CDs, DVD or video. Students consequently attribute their difficulty in listening comprehension either to their inadequate competence or to the linguistic difficulty of stimulus texts. In a discussion of comparable teaching contexts, Graham observes that continuing difficulty in developing listening skills may lead to a sense of passivity, lack of motivation, and a less effective listener.[1] The point here is that the process of listening skill instruction is not given sufficient attention in the classroom and is undervalued globally and in Indonesia in particular.

According to Underwood, a child receives a large amount of verbal input through listening prior to developing speaking, writing, and reading skills.[2] These skills are developed later as the child matures. Buck states a new language learner should learn listening at the initial stage of language learning as a manner as a child learns a mother language.[3] Moreover, Chomsky's proposal of the notions of competence and performance in 1965 was postulated on the concept of the ideal speaker-listener, something which the average second language learner is very unlikely to be. He asserted that performance was dependent on competence but that there verse is not true.

Lyons in his explanation and expansion of this theory raised the possibility that "the acquisition of competence is partly or even wholly dependent upon, and in this sense is a function of, performance and text".[4]

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[1] Suzanne Graham, "Listening Comprehension: The Learners' Perspective," *System* 34, no. 2 (June 2006): 165–82, https://doi.org/10.1016/j.system.2005.11.001.

[2] Mary Underwood, *Teaching Listening* (London: Longman, 1989), 61.

[3] Gary Buck, *Assessing Listening* (Cambridge: CUP. Central Bureau of Statistics, 2001).

[4] John Lyons, *Introduction to Theoretical Linguistics* (Cambridge: Cambridge University Press, 1996), 16.

Canale and Swain developed Hymes' concept of communicative competence by suggesting that such skill comprised grammatical, sociolinguistic, discourse, and strategic competencies.[5]

To a great extent, this has changed due to the extraordinary technological advances that have taken place over the last decade which have contributed to make this medium increasingly affordable and accessible. At the same time, those same advances have presented unique opportunities and posed serious challenges to designers and developers of listening comprehension instructional materials. The addition of computer-assisted control has multiplied the possibilities, promises, and challenges of designing innovative, motivating and pedagogically sound activities which could not be created at all or would simply not be as effective without it. This double capability of random accessibility and computer control gives us our real chance to explore "interactive" uses of learning materials. In addition, to develop listening skills effective material used in English as a Foreign Language (EFL) classes is a crucial aspect of the teaching method is technology. It has played an increasingly important role in theme of instruction. One technology is video which offers instructors a wide variety of resource material.

A learning theory that deals with how to construct authentic materials to develop students' listening skill are the constructivist theory of Jean Piaget and Vygotsky. Constructivist theory is defined as a way of learning that is generative, or activities to create something of the meaning of what is learned to assimilate and construct the cognitive concept of the experiences and linking them with the knowledge they have. There are two theories of learning studied which is developed by Jean Piaget and Vygotsky.

Piaget's theory of constructivism states that the emphasis on the process to find a theory or knowledge that is built from the ground reality. Opinions about the children of the constructivist learning theory which states that Piaget cognitive science is built on the concept of the mind of a child through possessed schemata. The processes involve constructing schemata, assimilation, accommodation, and equilibrium. Assimilation involves the interpretation of events in terms of existing cognitive structure whereas accommodation refers to changing the cognitive structure to make sense. The concept of cognitive structure is central to his theory. Cognitive structures are patterns of physical or mental action that underlie specific acts of intelligence and correspond to stages of child development. There are two key Piagetian principles for teaching and learning: Learning is an active process: Direct experience, making errors, and

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[5] Michael Canale and Merrill Swain, *Theoretical Bases of Communicative Approaches to Second Language Teaching and Testing* (Ontario Institute for Studies in Education, 1980), 20.

looking for solutions are vital for the assimilation and accommodation of information. How information is presented is important. When information is introduced as an aid to problem-solving, it functions as a tool rather than an isolated arbitrary fact. Learning should be whole, authentic, and "real": Piaget helps us to understand that meaning is constructed as children interact in meaningful ways with the world around them. Thus, it means less emphasis on isolated "skill" exercises that try to teach something like long division or end of sentence punctuation. Students still learn these things in Piagetian classrooms, but they are more likely to learn them if they are engaged in meaningful activities (such as operating a class "store" or "bank" or writing and editing a class newspaper). Whole activities, as opposed to isolated skill exercises, authentic activities which are inherently interesting and meaningful to the student, and real activities that result in something other than a grade on a test or a "Great, you did well" from the computer lesson software, are emphasized in Piagetian classrooms.

Meanwhile, Vygotsky's work is based on two main ideas. First, intellectual development can be understood only when viewed from a historical and cultural context of the child's experience. Second, the development depends on signaling systems refers to the symbols that were created by the culture to help people

think, communicate and solve problems, thereby requiring the child 's cognitive development and learning of cultural communication systems using these systems to adjust the thinking processes yourself. Vygotsky called this as the individual's actual knowledge.[6] Learning in social interactions among individuals happens in the zone of proximal development (ZPD). What is learned in concert with others comes to be internalized, and what is learned becomes the new actual knowledge or the new developmental level. This learning with others creates and actualizes potential knowledge as individuals move towards a new developmental level. In this sense, learning is the leading edge of development. It creates new developmental levels. Vygotsky's view of internalization has a ring of absorption, rather than the sound of reconstruction. Contemporary adherents of the socio-historical approach have added constructivism to Vygotsky's theory, so as to make it more in line with current views of cognitive functioning, even though those views are not derived from the original socio-historical approach. It is important to shape the curriculum so that it fits with an appropriate developmental level and also capitalizes on students` natural curiosities to learn. Students are capable of accomplishing certain things in interaction with others

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[6] L. S. Vygotsky, *Interaction Between Learning and Development. From Mind and Society* (Cambridge: Harvard University Press, 1978).

that they could not accomplish by themselves. Working with a more competent peer or adult over an extended period of time can facilitate cognitive or emotional development that cannot be gained in any other setting.

Piaget and Vygotsky's constructivist theory focus on students' center and use authentic real-world learning and assessment (materials). Authentic material is defined by Gardner and Miller as material intended for some others use besides language learning.[7] An authentic material can come in all forms of interactions. It may be written text, audio recording so factual communications or video of conversations or dialogue, all containing content not intended to be used for language instruction. There some reasons for using them. Perhaps the most important is the students' motivation and interest. One of the powerful reasons for learning a new language is to get closer to its speakers, to understand them better and take part in their lives, in other word is the integrative motivation.

Authentic materials utilize this motivation very strongly by their ordinariness and favor of everyday life; they seem exotic and exciting, the very stuff of strange foreign life. For students who have this motivation, authentic materials are a highly effective way of bringing the target culture closer; this is

as near as to participation as they will get without actually living in the country. The content of the materials may not become a serious problem; we may not even worry them whether they understand it or not, provided it keeps their interest in the foreign culture alive. Marrow's definition (quoted in Holden) will serve us well. He relates it to "a stretch of real language produced by a real speaker or writer for a real audience and designed to carry a real message of some sort."[8] Harmer also says that authentic texts (either written or spoken) are those which are designed for native speakers: They are real text designed not for language students, but for the speakers of the language in question.[9] Nunan thinks that a rule of thumb for authenticity here is any material which has not been specifically produced for the purposes of language teaching.[10] According to Gebhard, authentic materials can be classified into three categories.[11]

1. Authentic Listening-Viewing Materials: TV commercials, quiz shows, cartoons, news clips, comedy shows, movies, soap operas,

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[7] David Gardner and Lindsay Miller, *Establishing Self-Access: From Theory to Practice* (Cambridge: Cambridge University Press, 1999), 101.

[8] K Morrow, *Authentic Texts* in ESP Susan Holden, *English for Specific Purposes* (London: Modern English Publ. Limited, 1977), 13.

[9] Jeremy Harmer, *The Practice of English Language Teaching* (London: Pearson Education, 1983), 146.

[10] David Nunan, *Designing Tasks for the Communicative Classroom* (Cambridge: Cambridge University Press, 1989), 54.

[11] Jerry G. Gebhard, *Teaching English as a Foreign or Second Language, Second Edition: A Teacher Self-Development and Methodology Guide* (Ann Arbor: University of Michigan Press, 1996).

professionally audio-taped short stories and novels, radio ads., songs, documentaries, and sales pitches.

2. Authentic Visual Materials: slides, photographs, paintings, children' artwork, stick-figure drawings, wordless street signs, silhouettes, pictures from the magazine, ink blots, postcard pictures, wordless picture books, stamps, and X-rays.

3. Authentic Printed Materials: newspaper articles, movie advertisements, astrology columns, sports reports, obituary columns, advice columns, lyrics to songs, restaurant menus, street signs, cereal boxes, candy wrappers, tourist information brochures, university catalogs, telephone books, maps, TV guides, comic books, greeting cards, grocery coupons, pins with messages, and bus schedules.

Based on the background above, the research problem can be formulated as how to design and develop authentic listening materials for second-semester students of STAIN Kediri (Now IAIN Kediri) based constructive theory of Jean Piaget and Vygotsky. This study aims to design and to develop authentic listening materials for second semester students of Stain Kediri (now IAIN Kediri) based constructive theory of Jean Piaget and Vygotsky and the benefits of the research is research development in the form of listening material for the second semester will be used by the lecturers of Stain Kediri

(now IAIN Kediri) as teaching materials and reference in listening class. For students, this book can be used as a handbook in learning to add to the scientific treasures.
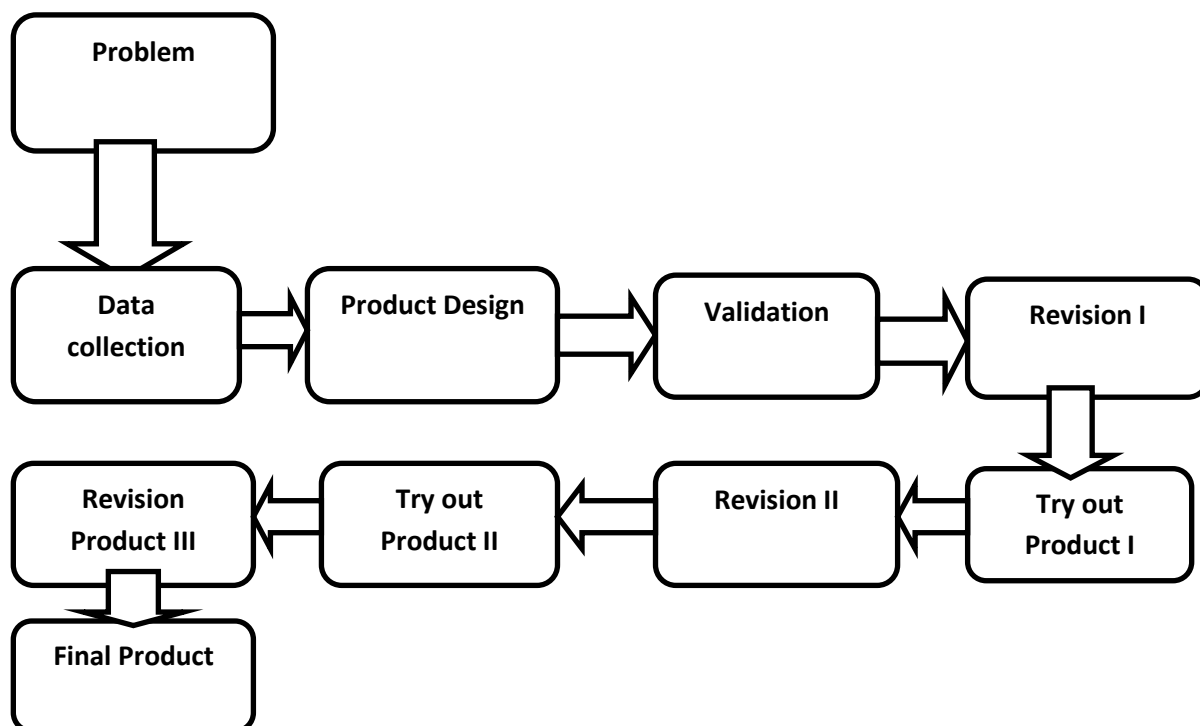
B. Methods

1. Types of Research

This research is a research and development (R & D) research. It is a study to examine the needs and build or develop instructional materials to enhance the learning process. Putra states R & D is deliberately and systematically directed to seek, to find, to formulate, to develop, to produce, and to test the effectiveness of the product which is certainly superior, new, effective, efficient, productive and meaningful.[12] Meanwhile, according to Sugiyono "Research and development is a research method that is used to produce a specific product and test the effectiveness of these products ".[13] Simply, research and development is not a research implemented to produce a theory but rather to produce a certain product. Dealing with this topic, the R & D here has the objective to make an interactive program that is worthy and reliable to support learning listening. Implementation of R & D research

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[12] Nusa Putra, *Research and Development: An Introduction* (Jakarta: PT. Raja Grafindo, 2012), 67.

[13] Sugiyono, *Metode Penelitian Kuantitatif dan Kualitatif dan R & D* (Bandung: Alfabeta, 2009), 297.

method used by the writer refers to the procedures developed by Sugiyono to the stages as shown in below:

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┌──────────┐
│ Problem  │
└────┬─────┘
     │
     ▼
┌──────────┐   ┌────────────────┐   ┌────────────┐   ┌────────────┐
│  Data    │──▶│ Product Design │──▶│ Validation │──▶│ Revision I │
│collection│   └────────────────┘   └────────────┘   └──────┬─────┘
└──────────┘                                                 │
                                                             ▼
┌──────────┐   ┌────────────┐   ┌────────────┐   ┌────────────┐
│ Revision │◀──│  Try out   │◀──│ Revision II│◀──│  Try out   │
│Product III│  │ Product II │   └────────────┘   │ Product I  │
└────┬─────┘   └────────────┘                    └────────────┘
     │
     ▼
┌──────────────┐
│Final Product │
└──────────────┘
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Picture I. The Procedure of Research and Development

Referring to the model of development by Sugiyono of 10 steps the implementation of the research methods of R & D, the researcher took seven steps in this process.[14] This is done with some consideration to adjust to the characteristics, limitations of time, effort and cost.

The steps taken are as follows:

a. Problems in this step are done literature review, analysis listening problem to the process of learning English in the field, identification of problems encountered in learning, and summarizes problems.

b. Data collection conducted by interview, observations, questionnaires, and documentation to obtain data that is accurate and suitable for processing in research, particularly as a material for designing and creating products that are expected to overcome the existing problems.

c. Product Design; product design was the end of the result of a series initial research, in this study the final result of the program, Validation was performed to

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[14] Sugiyono, *Metode Penelitian Kuantitatif dan Kualitatif dan R & D.*

assess the design product, this process includes the execution of the test media experts, subject matter experts, and experts of language.

d. Validation was a series of activities covering material validation and validation program.

e. Revision I was made after the design of known weakness or if advised by the validator.

f. Try out I the product-product trials conducted on the subject of the trial to check the product is good or not.

g. Revision II was done after the product has been tried after revision.

h. Try out II was to try the revision product.

i. Revision III was applied to make the program perfect.

j. The final product was a complete product that has been evaluated by the validators.

2. Product Design

The development phase begins with the design of the product in the latest flash-maker program. This design is adapted to the basic competencies that apply in curriculum and syllabus. The material was listening focus about report text. Sugiyono states, "The product design should be realized in the image or chart so that it can be used as a handle for assess and make it ".[15]

3. Product Concepts

Developed program is an Adobe Flash-maker for supporting listening. This program is intended for the second semester has an unlimited duration. Extensions images used are .png and .jpg, are used for buttons, background, explanation about the material and application. For audio extension uses the .mp3 format for the problems of English listening and sound effects button. The process interactivity briefly described as follows:

a. The "enter" to start the application.

b. Button on the main menu selection submenu.

c. Arrow keys to go back and headed to next page.

d. The "menu" to return to the main menu.

e. The "play" to play audio listening.

f. The "exit" to exit the application.

There is some software used to develop this program. They are as follows:

a. Adobe Air

Adobe Air is a useful application for turning the flash on digital technology devices kinds of desktop, laptop or mobile.

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[15] Sugiyono, 301.

b. Corel Draw X6

Corel Draw is a computer program which performs editing on vector and has utility for image processing. In the process making the program "Interactive Listening Comprehension," Corel Draw X6 used to make background pages and buttons applications.

c. Swishmax

SwishMax allows creating Flashô content to add images, animation, sounds, and interactivity to the website. Also, it can create games and interactive applications. For the first time, complex-text effects could be created in minutes that had previously taken hours to create in Flashô. SwishMax is so intuitive and easy to use to the young children, and they enjoy using it, and it is being used in schools throughout the world. SwishMax developers are dedicated to keeping the application intuitive and easy enough for the non-professional to use while adding those features most requested by professional users.

d. SWFkit

SWFKit is one of the leading SWF to EXE tools. SWFKit can build professional Windows desktop applications, screen savers from SWF movies created by Flash Authoring tools such as Macromedia Flash, Flex, Swish Max, etc. It can also create installers. SWFKit is fully compatible with Flash 3, 4, 5, MX, MX 2004, 8, CS3, CS4.

e. Flowchart Products

A flowchart is a chart with specific symbols that describe in detail the process sequence and the relationship between a process (an Instruction) to the other processes within the program. Here the sequences of pictures of the processes in the flowchart application of Interactive Listening Comprehension.
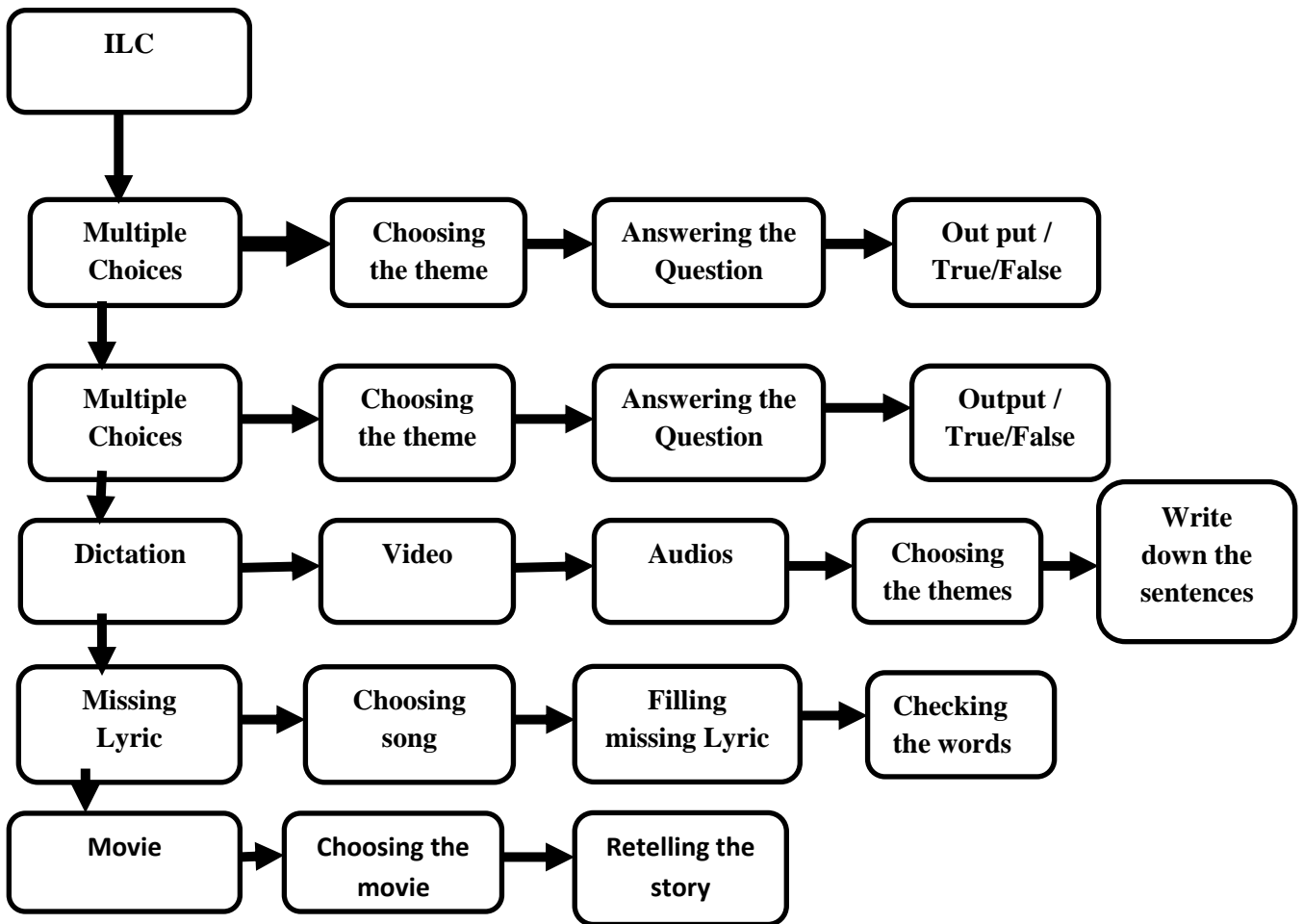
Picture 2. Flowcharts of the Product

f. Draft Product

The design of the display is intended to provide an interface for designing a program that will be created. The purpose of the interface design users is designing an interface that is effective for products made. Users often assess an application from the user interface. If the design of its interface is bad, then it is often a reason for discouraging users to operate applications.

4. Validation

Validation of the product can be done by presenting some experts who are experienced to assess new products. Each expert is asked to rate the designs, so then be known the strength and weaknesses.[16] In the validation process used questionnaires to collect data. Before creating questionnaires, the first is prepared the outlines. What is meant with gratings in the series is a kind of process of the instruments row

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[16] Sugiyono, 302.

column table that provides an overview of the relationship between the target object evaluation, instruments, and the numbers of items in the instrument.[17] There are three validators of this research.

a. Lecturer

In this research, a validator is a lecturer of the Education Department of Bandar Lampung University. He validated the worthiness of teaching materials that have been designed.

b. Multimedia Expert

Two experts of multimedia examined. Two experts were from UNP and SMPN 1 Grogol Kediri.

c. Students

Students who act as validators in this study are the third semester of English Department students of Stain Kediri (Now IAIN Kediri).

5. Data Analysis Techniques

The worthiness of a teaching material can be seen from the data polls used in the form of Likert scale. Information:

x = Average respondent

N = Number of respondents

Σx = Number of respondents value

r = Value eligibility

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[17] Suharsimi Arikunto and Cepi Safrudin Abdul Jabar, *Evaluasi Program Pendidikan Pedoman* (Jakarta: Bumi Aksara, 2009), 98.

The Value of worthiness media based on the feasibility of the Likert scale are as follow:

Ratings	Value
Strongly Worthy	4,00 – 5,00
Worthy	3,00 – 3,99
Less Worthy	2,00 – 2,99
Not Worthy	1,00 – 1,99

C. Results

Interactive Listening Comprehension Program is the final product, the display shows the opening page consists of the name of the program "Interactive Listening Comprehension" and the "enter" to start the program "menu" to enter the submenu. Here the picture of the front page of the program.

a. Display of the Main Menu

In the main menu page, there are six buttons, "submenu" to the pages of the material, "Multiple choices" for listening to the multiple choices practice "Dictation" on menu dictation, "Missing Lyrics" to fill in the word, and "Movies" to see English movies the "Exit" to exit. Here the display of the main menu:

b. Page views Material

Page views material is composed of 7 titles that can be selected by clicking one of the titles.

And there is the instruction to answer existing questions by clicking on one of the answers. Here the picture of page views material.


Picture 3. The display of Page views material

By clicking the one of the titles, the page views will show some questions. "Next" button is to continue the existing questions. Here the pictures.

Picture 4. The display of Page views material 2

c. Page views of Dictation

This page consists of two selection menu. The first is videos for the beginner, and audios to intermediate level. Here the picture.
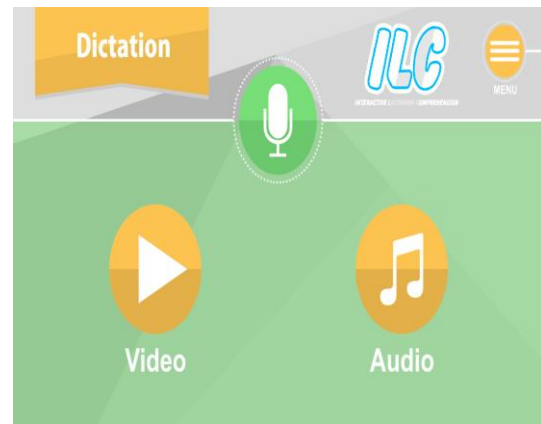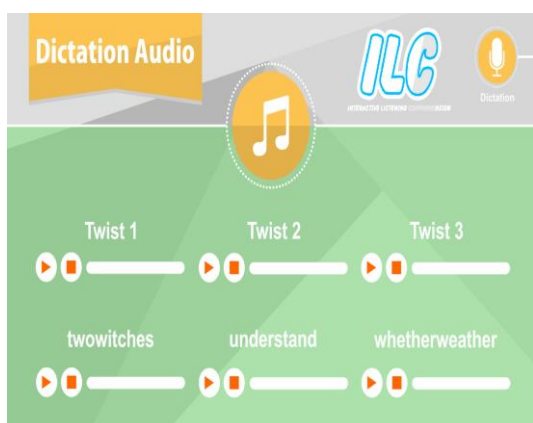

Picture 5. The Pageviews of Dictation 1

By clicking the title, students will listen and read the text.

Picture 6. The Pageviews of Dictation 2.

In audios menu, the students will not read the text. It is for Intermediate level.
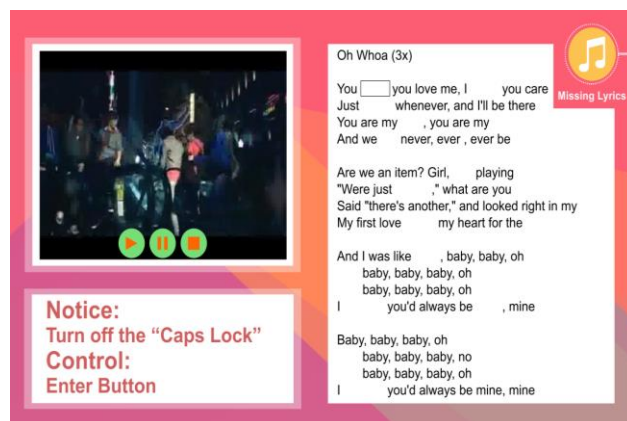
Picture 7. The Pageviews of Dictation 3

d. Page views of Missing Lyrics

The appearance of this page consists of 7 songs selection. By choosing one of the songs, the application will appear lyrics of the song whose words are omitted.

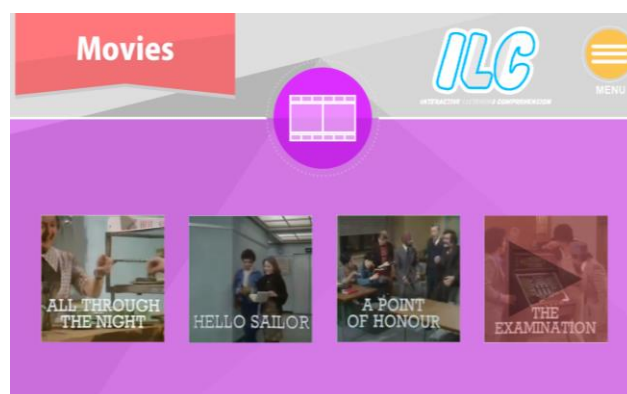**Picture 8. The Pageviews of Missing Lyrics 1.**

Here the picture of Missing Lyrics

Picture 9. The Pageviews of Missing Lyrics 2.

e. Page views of the Movies

The appearance of this page consists of four films. By choosing one of the films will show the film intended.

Picture 10. Page views of the Movies

The results of this research are a form of listening materials under the Adobe Flash-maker program. This program consists of a front page (Cover), Multiple Choice, Multiple Choice 2, Dictation, Missing Lyric and Movies as well as parts of the program. As for the parts of the multiple choices consists of 14 themes which 79 questions, part two is dictation that consist of 6 videos and 6 audios, the third part is missing lyrics which consists 7 videos, and the last

part is movies that play 4 movies about the usage of language. In this product program also presents answer keys and self-assessment exercises, as well as resources and listening materials. The study of developing an authentic listening material here revealed that: the results obtained namely the validity test, the validity of practical material, and validity of the effectiveness of the material. Description and data analysis questionnaire of validity test expert (Lecturer) and multimedia experts. The respondent provides worthiness value of the Interactive Listening Comprehension, with the overall average of respondents 79.59, rated worthiness of the respondent in the range of 0-100. The results of the practicality of teaching materials in the form of this program of the draft assessment prototype teaching materials in the test to the expert can be used with minor revisions or with little revision, data regarding the practicality has a value of 4.33 with the criteria "very practical". While the results of research on the effectiveness of teaching materials shown positive response obtained from teachers and students as users of the product. After revision of teaching materials, the value of the average effectiveness of this program was 4.32 with "very effective" criteria. Teachers and students concluded that the program is effectively used in learning.

D. Conclusion

In the Interactive Listening Comprehension program development can be concluded that:

1. The quality of "Listening Comprehension Interactive" program to support the learning of English listening in terms of validity test, the validity of practical material and the effectiveness of the product. Result assessment of the experts on all aspects of the measure, stating the results assessment with the category of "worthy". Based on this assessment, means program "Interactive Listening Comprehension" worthy used to support learning to listen.

2. The subject of product trials suggested that the use of program "Interactive Listening Comprehension" causes a sense of excitement, interest, attract the students' attention, and increase their engagement involvement in the learning process. This is evidenced by the analysis of questionnaire responses showed that the percentage of students who feel happy was 82%, students who are interested in was 80%, this product also can attract the students attention with the percentage of 77.99%, and 85% of the students involvement. From these results. So, it can be concluded that students' interest towards the program "Interactive Listening Comprehension" for learning English listening is very high.

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