

## REVIEW OF RELATED LITERATURE

### A. Review of Related Literatures

This chapter reviews theoretical framework that deals with the current study. This review is divided into some main parts that will be discussed intensely; the first part will concern to *Computer Assisted Language Learning (CALL)* then continuing with the *digital media in general* after that give detail explanation about *Digital media in teaching English..* Then continuing with to *Factor affecting difficulties in designing digital media* give more comprehensive knowledge about what the researcher would like to discuss about *kind of difficulties in designing digital media* the specific point that finally going to *the students deal with the difficulties in designing digital media* After that give detail explanation about It is necessary also to present the brave explanation of which are applied in that research

## 1. CALL (Computer-Assisted Language Learning)

Computer-Assisted Language Learning or people generally abbreviate with CALL, is traditionally defined as ‘presenting, reinforcing and testing’ certain language items. It presents regulation and example for learners before they are tested their knowledge of the regulation, and later on the computer

will give feedback or mark, in which the teachers can use it as their investigation.<sup>1</sup>

Regarding the definition of CALL, Beatty also has contributed to define the term as any process in which a learner uses a computer and, as a result, improves his or her language.<sup>2</sup> This definition, though rather broad, is nevertheless a reasonable starting point when we consider the range of articles that show up at CALL conferences, in CALL journals and in CALL books. Here are the benefits of CALL:

- a. Learning efficiency: learners are able to pick up language knowledge or skills faster or with less effort.
- b. Learning effectiveness: learners retain language knowledge or skills longer, make deeper associations and/or learn more of what they need.
- c. Access: learners can get materials or experience interactions that would otherwise be difficult or impossible to get or do.
- d. Convenience: learners can study and practice with equal effectiveness across a wider range of times and places.
- e. Motivation: learners enjoy the language learning process more and thus engage more fully.

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<sup>1</sup> Nazh Gündüz, "Computer Assisted Language Learning (CALL)" 1, no. 2 (October 2005): 197.

<sup>2</sup> Ken Beatty, *Teaching and Researching Computer-Assisted Language Learning*, Second Edition (Edinburg: Pearson Education, 2012), 7.

- f. Institutional efficiency: learners require less teacher time or fewer or less expensive resources.

Similarly, others have criticized the field for being too connected to general education rather than focusing on the unique qualities of language learning.<sup>3</sup>

The definition above has similar sound with Scott and Beadle who stated that CALL is any process in which learners use computer to improve foreign language competence.<sup>4</sup> Scott and Beadle also explain more about the technology used in CALL, as well as a computer; smart phone, tablet, MP 3 Player and console are the members. In addition, they widely mentioned that in CALL, people commonly applied:

- a. Authentic foreign language material, such as video clips, flash-animations, web-quests, pod-cast, web-casts, and news etc.;
- b. Online environment where learners can communicate with foreign language speakers, through email, text-based computer-mediated communication (synchronous and asynchronous), social media, or voice/ video conferencing;
- c. Language-learning tools (online apps or software), such as for phonetics, pronunciation, vocabulary, grammar and clause analysis,

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<sup>3</sup> Hubbard, Philip., *GENERAL INTRODUCTION: Foundations of CALL*

<sup>4</sup> David Scott and Shane Beadle, "Improving the Effectiveness of Language Learning: CLIL and Computer Assisted Language Learning" (ICF International, June 25, 2014), 19.

which may include a text-to-speech function or speech recognition, and often includes interactive and guided exercises;

- d. Online proprietary virtual learning environments, which offer teacher-student and peer-to-peer communication;
- e. Game-based learning.

## 2. Digital Media

Birkerts and Stoll note that the digital environment tends to encourage people to explore many topics extensively, but at a more superficial level. In this case, students who are brought to learning which is facilitated by digital media will be more interested in and enjoy in receiving the material. Through digital technologies, young people get more new information from the technology they use outside of school than they do from their teacher in the classroom<sup>5</sup>. It is clear that learning in an online environment helps to improve the target language, encourages learner independence, and has great potential for the development of intercultural and communicative skills<sup>6</sup>.

*Jelarwin Dabutar* states that the role of media has extremely significant effect for students' achievement. Many people believe the increase of digital

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<sup>5</sup> Meidasari, Venny Eka.,. *Teaching English through New Digital Media* (University of Indraprasta PGRI and a postgraduate student in State University of Jakarta).

<sup>6</sup> Muhammad, Agus Fayakun. Thesis. "Students Motivation in Choosing CALL Subject at English Education Department State Islamic University Sunan Ampel Surabaya. (Surabaya: Post Graduate of Islamic state university of Surabaya, 2014)

media is one of the great events of our time.<sup>7</sup> By having this theory, researcher believes that the great media for delivering material of teaching-learning process is by digital way because digital media provides students as learner to have much time to use rather than the documents. So, this is teachers' opportunity to benefit digital media as the great idea to be implemented in teaching by mastering how to design some kinds of digital media interestingly and appropriately.

### 3. Digital Media in Teaching English

As teachers in education, the view of how teachers can integrate technology into teaching in order to engage today's environment as technology era, students fully modify to the reality that technology has transformed how, when, and where students can learn. From blogs and wikis, to podcasting and 3-D virtual worlds, the ninth edition is filled with case examples of how teachers are integrating technology and transforming their teaching to foster collaboration, discovery, and understanding of the "big ideas" in the curriculum<sup>8</sup>.

In this case, teachers should be creative in making digital media as the material for teaching English to create students' interest, enthusiast,

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<sup>7</sup> Sterne, Jonathan. *Digital Media and Disciplinarity*: Department of Art History and Communication Studies, McGill University, Montreal, Quebec, Canada. 2005 P. 250.

<sup>8</sup> Winerbrenner, Susan & Lisa M kiss. *"Teaching Kids with Learning Difficulties in Todays Class room how every teacher struggling students success"* United stated of America. free spirit Publishing. 2014. Ed:3.

and pleasure. Because digital area give much opportunity for students retake the material outside the classroom.

#### 4. Factor Affecting Difficulties

Difficulties in learning or in doing something have two factors there are internal factor and external factor, based on Dalyono explain that internal factor comes from inside their self. External factor comes from outside their self<sup>9</sup>.

##### a. Internal Factors

- 1.) Cause from the physical of the students: sick and physical defect.
- 2.) Cause from inside their body: Intelligent, motivation, talent and interest

##### a.) Intelligent

This factor becomes the mind effect in learning process. Thus, if students have problem in learning process but there is no support from their parents, it is make the students failed in learning process.

##### b.) Motivation

Students, who have low motivation to accept the lesson in learning process they will feel lazy, give up etc.

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<sup>9</sup> Dalyono, M. Psikology. pendidikan. Jakarta: Rineka Cipta. (1997) P.239

c.) Talent

Every students have different talent, students who give lesson that different from their talent they will feel bored and lazy to accept the lesson.

d.) Interest

Interest factor very important in learning process, by having interest in each lesson the student will enthusiast easy to accept the material and student who don't have interest do otherwise.

b. **External Factors**

- 1.) Family Factor: that's about how the way parents treat their child into education, parents and child relationships. Situation factor: the house situation very crowded. Economic factors: Poor Family condition.
- 2.) School factor: such as teacher factor the teacher is not qualified, lack of teacher interaction with the students, lack of teacher method. Instruments factor: lack of instrument since teaching and learning practice. Building and facilitation factor: lack of facilitation, lack of Wi-Fi. Lack of the media use in teaching and learning<sup>10</sup>.

According to Rosen & Weil, 1995; Winnans & Brown, 1992; Dupagne & Krendl, 1992; Hadley & Sheingold, 1993) the Factors student felt difficulties in designing digital media such as the lecture lack of teaching experience, lack of on-site support for teachers using technology,

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<sup>10</sup> Ibid

lack of help supervising children when using computers, lack of computer availability, lack of time to study in designing digital media, lack of facility to try use computers and lack of financial support<sup>11</sup>

Beside that also supporting by Galusha (1997) the factor students felt difficulties such as there is no student motivations since there is no face-to-face contact, startup cost and lack of faculty support, the feedback and teacher contact in every learning process, the student support and services, the lack of experience, and training related the infrastructure and technology related problems, and the present challenge<sup>12</sup>. Heidi et al. (2002) also examine that the difficulties in designing digital media is there is no healthy communication between participants and design groups for overcoming barriers to a successful delivery of distance learning courses.

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<sup>11</sup> Mumtas,Shazia, Factor Affecting Teacher Use Of Information and Communication Technology : A review of Literature. United Kingdom,University Of Warwick.2000.

<sup>12</sup> DABAJ. Fahmi. Analysis of Communication Barriers to Distance Education A Review Study. Online journal of Communication and Media Technologies.1.No 1 (Januari 2011).P.4



**Table 2.1**  
**Internal Factor affecting Difficulties**

<b>No</b>	<b>Factor</b>	<b>Kind</b>
1	Physical	Sick
		Physical defect
2	Inside their body	Intelligent
		Motivation
		Talent
		Interest

**Table 2.2**  
**External factor affecting difficulties**

N O	Factor	Kind	Categories
1	Family	Child education	
		Parents and child relationship	
		Situation	The house very crowded
		Economic factor	Poor family
2	Scholl	Teacher	Teacher is not qualified
			Lack of teacher interaction
			Lack of teacher method
			Lack of feedback
			Lack of teaching experience
		Instrument	Lack of

			instrument (material)
		Building and facilitation	Lack of Wi-Fi support
			Lack of supporting tool (computer)
			Class very crowded
			Lack of support using technology
		Time	Lack of time to use computer
			Lack of experience

### 5. Kinds of difficulties in designing digital media

Possible difficulties in designing digital media and technology here is physical and sensory difficulties and intellectual difficulties. That divides into four categories there are: Exploring Opportunity and clarifying the task, Generating developing and communicating design and proposal, planning and making, testing evaluation and modifying<sup>13</sup>.

<sup>13</sup> Banks,Franks. 1994. Teaching Technology. Garamond. Florence type LTD ,devon.

Table 2.3

## Possible difficulties in physical and sensory difficulties

Possible Difficulties	
<b>Exploring Opportunity and clarifying the task</b>	<b>Developing and communicating design.</b>
Certain Project could be inappropriate	In producing Drawing
Difficulties may Directly restrict asses to resource and situation	Designing digital media
	Organize the idea, Concept and make the solution
	Input the content suitable (goal , Objective)
Speech or other impairment could limit ability to communicate and approach the task.	Frustration and failure caused by restricted method
Difficult when making	
<b>Planning and Making</b>	<b>Testing evaluation and modifying</b>
Manipulation and coordination	Difficulties of Failure it Compromised
Lack of Accuracy and Quality	Low level education
Unfair dependence group works	Has little interest and student want to finish quickly

**Table 2.4**  
**Possible difficulties in Intellectual difficulties**

<b>Possible difficulties</b>	
<b>Exploring Opportunity and clarifying task</b>	<b>Developing and communicating design.</b>
Inability to see value or point of view the design and technology task.	Inability or low interest to connect making designing
Lack of confidence and inability to understand.	students want to make something (no to design)
Limited ideas and expression.	Students wants to finish quickly
<b>Planning and Making</b>	<b>Testing evaluating and modifying</b>
Inability to retain instruction and to listen the explanation	Low level of expectation and appreciate.
Inability to remember the previous skill and knowledge	Limit vocab and understanding the concept
Frustration and behavioral problem.	

The theories also consolidate from ausumbel supported by Kolb, Honey, Munford, and Habermas those difficulties in designing digital media for teaching English according. States that the effectiveness of learning is affected more by the content of the material rather than the technology used. This theory support that in providing the material, the content should be thought carefully rather than choosing the technology to be implemented. So, this reference give realize that the digital media designed should be provided by appropriate content<sup>14</sup>.

Gestalt Psychologists, included Pieget, state that the material should be meaningful agrees with the theme, and match with students'

<sup>14</sup> Hubbard, Philip., *GENERAL INTRODUCTION: Foundations of CALL*

need and improvement. Not only providing good design of the media digitally, but also the contents should provide what want to be achieved, dealing with the compatibility with the themes, goals and objectives.

**Table 2.5**

**When the students Feel Difficulties**

No	The Students difficulties	Kind
1	Content	Input the Content
		Input the material in designing digital media
		Make appropriate Content
		Same the goal
		Same with objective
2	Designing Digital media	When Designing Digital media
		Suitable with theme
3	Inappropriate students need with	Make suitable with the students need.

## 6. Problem Solving to Face the difficulties

Based on Janssen to solve the problem gives tools, because it can give big effect to make the students more understanding and conceptual understanding<sup>15</sup>. As learners reach a new developmental technology, they will be more attuned and self-regulated in their own thinking. Tools that support students in making visible the evolution of their problem representations are a

<sup>15</sup> Song,jeoe bae. 2014. Computer assisted language learning: learners, teachers and tools. Third volume of Asia Pacivic Assotiation

potential area of innovation. As a teachers can makes tools as media in teaching and learning, these solutions to solve the problem.<sup>16</sup>

According to Min Liu problem solving, in students that have difficulties in designing digital media that can do by the lecture and the students. To search the Information in the internet has become abundant and easily accessible. Rather than reading the unified perspective typically presented by a textbook, Students can access many different points of view to solve the problem<sup>17</sup>.

Instead of memorizing, Students now need assistance in learning how to find and select relevant information for problem they need solve. They need to learn how to collaborate with others as they solve these problems and communicate their solutions to their teachers and to the world beyond their classroom<sup>18</sup>.

Additionally, the instant feedback may guide teachers to make important instructional and solve misunderstanding. Technology can support learning through the use of real-world problems, which supports students in making the connection between concrete contexts and abstract concepts. Give new instruction innovation in order the students fell easy to understand.<sup>19</sup>

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<sup>16</sup>Ibid

<sup>17</sup> Liu, Min Designing Technology-Enriched Cognitive Tools To Support Young Learners' Problem Solving. Austin. University of Texas.

<sup>18</sup> Ibid

<sup>19</sup> Stockwell,glenn.2012.Computer Assisted Language Learning: Diversity in research and Practice. Cambridge University.P76

**Table 2.6**  
**Students face the difficulties**

No	Face The Difficulties	Categories
1	Search to another Point of view	Search in the Internet
		Reading Book from Another Perspective.
2	Collaborate with others	Discuss with friend
		See friend's assignments.
		Group works
3	Communicate with teacher	Discuss with the teacher
4	Tools as media in learning process	Looking for another visible tool
5	Feedback	Give new instruction to make the students easy to understand
		Give a feedback from the teacher

## **B. Review of Previous Studies**

Several studies have investigated the difficulties in designing digital media in CALL class for teaching English included what are the students factor and how the students face the difficulties. There are some previous studies which have similarity with this study.

The First is Research by Adrestya setya from State University of Semarang. The title of the research is “Faktor – Faktor yang mempengaruhi kesulitan belajar mata pelajaran teknologi informasi dan komunikasi siswa kelas VII semester I di SMP islam Hidayatullah Semarang”. The research problems is: Faktor – Faktor Apa saja yang

memengaruhi kesulitan belajar teknologi dan informasi kelas VII di SMP Islam Baitullah Semarang? In this study the researcher conducted the research used questionnaire and Documentation The aims of the research are: first to identify what are the student factoring felt difficulties in TIK lesson at SMP Islam Hidayatullah Semarang and the result of this research there are eight factors that make students felt difficulties such as students attitude, the students learning manner, book completeness, time in learning and mess media<sup>20</sup>.

The second research was handled by Muhammad Agus Fayakun Students Motivation in Choosing CALL Subject at English Education Department State Islamic University Sunan Ampel Surabaya. The research problem of this study is first, what are the factor which motivate the seventh semester of English Education Department state Islamic university of Sunan Ampel Surabaya in choosing CALL (Computer Assisted language Learning)? The second what are student's opinion about CALL as media for teaching English? Here the research used questionnaire and interview to collect the data. The aim of this research is to know that factor which is motivated the seventh semester of State Islamic university of CALL (Computer Assisted Language Learning) Subject, the second aim is to know

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<sup>20</sup> Adrestya, setya, Thesis. "Faktor – Faktor yang mempengaruhi kesulitan belajar mata pelajaran teknologi informasi dan komunikasi siswa kelas VII semester I di SMP Islam Hidayatullah Semarang. (Semarang: State university of Semarang, 2013)



students opinion about CALL as Media for teaching English and the result of this research is Factor which motivate students in choosing CALL Subject there are four factor which make seventh semester felt motivated there are students interest, Students need, Students Expectation and the last is students perceptions. The another result is Students opinion about CALL as media for teaching English show that Hot potatoes become the most popular software for them among the other CALL software. They can design English Material with using CALL software<sup>21</sup>.

The third previous study was handled by is Faizah binti mohd and Aumitra malar Vasu, the title is teacher's perception of lesson used Computer Assisted Language Learning (CALL) the author of this study from University of Technology Malaysia. The research problem of this study are: first what are the problem faced by the teacher when conducting Lesson used Computer assisted language learning, second is what are the teacher perception of lesson using Computer Assisted Language Learning (CALL). The third what is the effectiveness of using Computer Assisted Language Learning (CALL) in teaching experience? There are three aim of this study "first to find out the problem faced by the teachers when conducting lesson using

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<sup>21</sup> Muhammad, Agus Fayakun. Thesis. "Students Motivation in Choosing CALL Subject at English Education Department State Islamic University Sunan Ampel Surabaya. (Surabaya: Post Graduate of Islamic state university of Surabaya, 2014)

Computer Assisted Language Learning (CALL), second to identify teachers general perception of lesson using Computer Assisted Language Learning (CALL), the third aim is to investigate teachers' perceptions of the effectiveness lesson using Computer Assisted Language Learning (CALL). This study use questionnaire to collect the data and the result of this study the teacher can perform well if they supported by good computer equipment in the computer lab and with sufficient technology training teach the students using computer besides that from study it can be concludes that teaches have a very positive perception on lesson using Computer Assisted Language Learning. Moreover they are believed that CALL subject gives big effect to the student<sup>22</sup>.

The fourth research by the title of the research is The Difficulties and Challenges of Teachers' Integrating Computer Assisted Instruction into Teaching, this research the author is Tzu-Pu Wang Department of Applied English, Hsing Wu College. Research question of this study is what the difficulties of applying computer assisted instruction to teaching and what the solution problem of applying computer assisted instruction to teaching. The aims of this study to investigate and discuss the effect of teachers' integrating

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<sup>22</sup> Mohd,Faizah & Aumitra malar vasu. *Teacher's Perception Of lesson Using Computer Assisted Language Learning (CALL)*.University of Technology Malaysia

computer-assisted instruction (CAI) and multimedia into teaching. All these materials are quick, cheap, and available from internet. This study found that difficulties to applying computer assisted instructional in teaching there are (1) inefficient computer facilities, (2) administrators' ignorance, (3) teachers' belief and teaching styles, (4) teachers' computer competence, (5) teachers' burden, (6) Students' computer competence, and (7) the government support. The challenges that teachers face and solutions to the problem are to (1) fulfill facilities, (2) build up innovative teaching ideas, (3) improve computer competence, (4) participate in conferences, seminars, and teaching practice, (5) reduce teachers' work load, (6) do self-evaluation, (7) and ask the government for help<sup>23</sup>.

The fifth research by Ashraf jalal yousef zaidieh and the title of his research is The Use of Social Networking in Education: Challenges and Opportunities. The aim of this research is It helps us in the every fields of life such as political field, economic field and educational field. In this study will summarize some of challenges and opportunities to use social networking as educational tool Challenges that face use the social networking in education. The research question of this study is what are the benefit and obstacles

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<sup>23</sup> Wang, Tzu-Pu, The Difficulties and Challenges of Teachers' Integrating Computer Assisted Instruction into Teaching. The journal of Human resource and adult learning. 4 No 2 (Desember 2008)

that using social networking as educational tool? The result of this study are there are some benefits and obstacles that face the using the social networking as educational tool. Privacy, real friendship, taking up time and miscommunication are the most important challenges facing education through the social networking. On the other hand, flexibility, repeatable and convenience and accessibility have a vital influence in the use of social networking in education.<sup>24</sup>

The last previous study the title is Effects Of Computer-assisted Language Learning (call) Instruction On The Acquisition Of Passive Grammatical Forms By Post-secondary English As A Second Language (esl) Students. The author of this research is Ya Chi Chien from University of Central Florida. The purpose of this study is to compare Computer-Assisted Language Learning (CALL) grammar instruction with traditional classroom teacher-directed grammar instruction for post-secondary English as a Second Language (ESL) students enrolled in an Intensive English Program (IEP). The data collection techniques use quantitative. There are two research problem of this study, the first is Is there a statistically significant difference in acquisition of the passive grammatical forms for ESL students taught

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<sup>24</sup> Zaideh, Asraf Jalal yosef. The Use of Social Networking in Education: Challenges and Opportunities. Journal of word of computer science and information thecnology. 2.No.1 (Desember 2012)

in a traditional teacher-directed classroom setting as compared with ESL students taught by CALL (Computer-Assisted Language Learning)? The second question Is there a statistically significant difference in acquisition of the passive grammatical forms for ESL students taught in a traditional teacher-directed classroom setting as compared with ESL students taught by CALL (Computer-Assisted Language Learning) based on their current English proficiency level (low intermediate, high intermediate, and advanced)? This study showed the result that there was no statistically significant difference in acquisition of the passive grammatical forms for ESL students taught in a conventional classroom setting as compared to those taught solely by CALL. This study has offered a research-based indication that CALL instruction was as effective as traditional classroom teacher-directed instruction for teaching grammar to students of different levels of English proficiency<sup>25</sup>.

The researcher has explained about several studies related to CALL, problem Solving and factor difficulties in CALL (Computer assisted language learning). All the previous study above explains that factor difficulties in TIK lesson, Teacher perception and challenge to

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<sup>25</sup> Chien, Ya chi. 2011. Effects Of Computer-assisted Language Learning (CALL) Instruction On The Acquisition Of Passive Grammatical Forms By Post-secondary English As A Second Language (esl) Students.(Post graduate students of university central Florida).

face the difficulties. The author also discuss about how the students deal and opportunity in CALL.

The researcher also same have similar topic that discuss about what students difficulties, factor and the students deal the difficulties. The differences in this study the researcher makes specific topic that “student factor and how the students deal the difficulties in designing digital media”. Then, the second difference in this research is the subject in this study to the pre-service English education department not directly to the teacher as the previous study above.