A. Literature Review of Previous Researches

The researcher will describe some works that are relevant to this thesis in order to make this thesis arrangement easier:

Muhammad Yusuf Mauludi (Student Number: 063411007). The Effectiveness of Jigsaw Technique to Improve Students’ Reading Narrative Text Ability (An Experimental Research with the Tenth Grade of MAN Kendal in Academic Year of 2010/2011). Background of this research was based on creating active teaching learning process in Narrative reading by applying jigsaw. He would to know how the effectiveness of Jigsaw technique to teach students’ reading narrative text at the tenth graders of MAN Kendal in the academic year of 2010/2011 is. So, he used three instruments. They are test, documentation and observation. In this research, the researcher used purposive sampling technique to determine class of research. The subject of the study was the grade XI IPS-1 and XI IPS-2. There were 43 students each class. He conducted the experimental class was taught reading narrative text using Jigsaw technique, whereas the control class was taught reading narrative text without using Jigsaw technique. Based on his finding, he resumed that Jigsaw technique can be used by the teacher to improve students’ ability in reading narrative text.¹

Nugroho, Septian (NIM. 1102409026). Keefektifan Penggunaan E-Learning Berbasis Moodle dalam Pembelajaran terhadap Hasil Belajar Siswa pada Mata Pelajaran Teknologi Informasi dan Komunikasi di SMA Negeri 5 Semarang. Skripsi Jurusan Kurikulum dan Teknologi Pendidikan Fakultas Ilmu Pendidikan Universitas Negeri Semarang, 2013. In this study, the writer used experimental methodology using random control group pretest-posttest. The collecting of the data is based on the test. So based on the posttest, it can be conclude that there was significant difference between experimental control classes in their result of activeness. He also concluded

¹ Muhammad Yusuf Mauludi (Student Number: 063411007). The Effectiveness of Jigsaw Technique to Improve Students’ Reading Narrative Text Ability (An Experimental Research with the Tenth Grade of MAN Kendal in Academic Year of 2010/2011). Thesis. (Semarang: Bachelor Program of English Language Education of Tarbiyah Faculty of Walisongo State Institute for Islamic Studies, 2011).
that using E learning Moodle-based could improve the activeness and the score of TIK of SMA Negeri 5 Semarang students.2

Mukhammad Irkahm Luthfi Ansori (09690034). Developing Problem Based Worksheet Students (LKPD) on The Subject of Kinetic Theory of Gases to Increase High Order Thinking Skills for XI Science Grade SMA/MA Students. This study is a Research and Development (R&D) that adapted Borg and Gall model with is limited until the product tryout process and pre experimental design (no designs) method type one-group pretest-posttest designs to test the product developed. The technique of collecting the data includes questionnaires to the experts (material and media experts and also SMA/MA teacher of Science). Based on the data analyzed of test results using N-Gain test, it is shown that there was difference of high other thinking skill before and after using LKPD developed. And based on questionnaires of expert concluded that the quality of the product is very good with ideal percentages respectively 89.20 %, 91.67% and 85.09%.3

The difference of the previous researches with the research that the writer conducts is on the technique and the design. The first researcher focuses on jigsaw technique and using experimental study in his research. And for the second and the third previous researches, they developed different product on material teaching.

B. Description of Theory

1. Interactive Online Media

Media can be used as a facilitate communication and learning.4 Using teaching media enhances student learning.5 In this modern area, there are modern teaching media conclude as computer-based and web-based multimedia. In reality many teachers are unable to take advantage of technology-based

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3 Mukhammad Luthfi Ansori (09690034). Developing Problem Based Worksheet Students (LKPD) on The Subject of Kinetic Theory of Gases to Increase High Order Thinking Skills for XI Science Grade Students, (Yogyakarta: UIN Sunan Kalijaga, 2013).
5 Halimi Sisilia S, Becoming a Creative Teacher: A Manual for Teaching English to Indonesian Elementary Students, (Jakarta: UI), p.95
multimedia, but most teachers do have access to simpler teaching aids such as flashcards, posters, art, charts, CDs, film, overhead projectors, concrete objects, and all forms of realia. Using available media on a regular basis will increase understanding and help the teacher to develop effective learning.\(^6\)

Based on the statement above about using multimedia in this era, it can’t be separated from internet role. The internet is a rich source of information on just about any subjects.\(^7\) The internet is reshaping nearly all aspect of society. Many schools in the developed countries are now wired for the internet inspiring grassroots efforts to reform education in order to take better advantage of information technology. A majority of university students and professors use the internet to conduct research, share ideas and collaborate in the knowledge product.\(^8\)

The internet encompasses many different ways of communicating and exchanging information. The main internet features, they can be categorized as asynchronous computer-mediated communication, synchronous computer-mediated communication, and hypertext.\(^9\)

The definition of each part as follows. Computer-mediated communication (CMC) refers to communication that take place via network computers. The people communicating do not need to be sitting at the computer at the same time for the asynchronous CMC. Rather, messages are somehow deposited to be read later. The examples of this part are E-mail and web bulletin boards. Synchronous computer-mediated communication, all participants must be sitting at the computer at the same time. The examples are chat rooms, instant messaging and videoconferencing. The last feature of the internet is Hypertext. The World Wide Web is based on principles of hypertext. A nonlinear linked or

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\(^6\) Halimi Sisilia S, *Becoming a Creative Teacher: A Manual for Teaching English to Indonesian Elementary Students*, p.95

\(^7\) Halimi Sisilia S, *Becoming a Creative Teacher: A Manual for Teaching English to Indonesian Elementary Students*, p.96


layered form of information organization whereby documents in a database are connected via hyperlink.\textsuperscript{10}

The most common feature of the internet for this research is The World Wide Web. It contains millions of documents from organizations and individuals all over the world. As a teacher, we can find a wealth of resources on the World Wide Web. Online media is one of the large numbers of Word Wide Web resources.\textsuperscript{11}

Interactive online media is generally understood to be a form of multimedia in which the presentation is carried in digital form and interaction between the viewer and the presentation is supported.\textsuperscript{12}

Today our access to information resources on computers, CD-ROM databases, Internet search tools, multimedia utilities, and people made accessible through e-mail and Web sites expands our cognitive worlds and resources to a virtually unlimited degree. At the same time, these electronic media are changing our modes of interaction with information and with each other.\textsuperscript{13}

Classrooms are shared social spaces and as such cannot function without communication between participants, but they are also institutional spaces, with a power dynamic which derives from the nature of the pedagogical relationship as well as the institutional setting. It is under these conditions that teachers ‘manage’ classrooms. Learners and teachers make their decisions about teaching and learning.\textsuperscript{14}

There are two choices for getting interactive online media courseware. The first is buying it “off-the-shelf.” This means we use a course that’s already been built. In the case of project management, we find a course that teaches “pretty much” what we want our employees to learn. And the second is developing “custom-built” courseware. This means it starts with the proverbial “blank page” and builds the course from scratch (or we might be modifying an

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\textsuperscript{11} Mark Warschauer, et all, *Internet for English Teaching*, (Illinois, Pantagraph Printing), p.22

\textsuperscript{12} Alistair Inglis, Peter Ling & Vera Joosten, *Second Edition Delivering Digitally Managing The Transition To The Knowledge Media*, (London:Koganpage, 2002), p.8


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existing course to make a custom version). With this approach, we can make sure the course teaches exactly what we want it to.15

After choosing the way to get courseware, it is continued by determining an automated system to manage e-learning process. A website environment may contribute to the teaching and learning process if the integration is done within the framework of proper pedagogy. Building customized web learning programs places high demands on design, programming skills, and time. Such a system is called a learning management system (LMS). An LMS uses Web technology to plan, organize, implement, and control all aspects of the learning process.16 One such system that has been gradually gaining worldwide popularity is Moodle (Modular Object-Oriented Dynamic Learning Environment), a course management system for online learning.17

2. Moodle-Based Interactive Online Media

a. Modular Object - Oriented Dynamic Learning Environment (Moodle)

Moodle or Modular Object-Oriented Dynamic Learning Environment is an open source program that most famous of programs other e-learning. This application was first developed by Martin Dougiamas in August 2002. By nature which can be downloaded for free and can be modified by anyone makes this program become a solution for the development of learning more effective and efficient.18

Moodle (Modular Object-Oriented Dynamic Learning Environment), a course management system for online learning. Moodle is “open source”, allowing developers to tailor the system to individual needs.19

The other definitions of Moodle are:

Moodle is one of the fastest growing free, open source VLEs (Virtual Learning Environment) around at the moment. It is also commonly

18 Shulamit Kotzer1, Yossi Elran2 “1st Moodle Research Conference Heraklion, Crete-Greece, September, 14 - 15, 2012, p. 123
19 Shulamit Kotzer1, Yossi Elran2, p.122.
referred to as an LMS (Learning Management System) or a CMS (Course Management System).  

Moodle is a free learning management system that enables you to create powerful, flexible, and engaging online learning experiences. The word Moodle was originally an acronym for Modular Object-Oriented Dynamic Learning Environment, which is mostly useful to programmers and education theorists. It’s also a verb that describes the process of lazily meandering through something, doing things as it occurs to you to do them, an enjoyable tinkering that often leads to insight and creativity. As such it applies both to the way Moodle was developed, and to the way a student or teacher might approach studying or teaching an online course. Anyone who uses Moodle is a Moodler.

Moodle is designed to support a style of learning called Social Constructionist Pedagogy. This style of learning is interactive. When people interact with the learning material, construct new material for others, and interact with other students about the material, it means that they learn best. Moodled was built on constructivism approach. Constructivism is based on the idea that individuals learn new things (construct knowledge) through experience by comparing new things to what they already know. They do this by solving realistic problems, often in collaboration with other people. The purpose of this theory is to create independent students who have belief and skill to use variety of strategies to arise their knowledge by themselves.

However, Moodle is also conducive to add six types of interactive course material. This material makes a student interacts with, by answering questions, entering text, or uploading files. The six types of interactive course material are assignment (uploading files to be reviewed by the teacher and/or students), choice (a single question), and journal (an online journal), lesson (a

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23 William H. Rice, *Moodle E-Learning Course Development*, p. 8

24 Jeff Stanford, *Moodle 1.9 for Second Language Teaching*, p. 9

25 Elearning. P. xviii
conditional, branching activity), quiz (an online test) and survey (with results available to the teacher and/or students).  

Moodle also offers five kinds of activities where students interact with each other. These are five activities used to create social course material. They are Chat (live online chat between students), Forum (you can choose the number of online bulletin boards for each course), Glossary (students and/or teachers can contribute terms to site-wide glossaries) and Wiki (Wikis can be inserted into courses, or a Wiki can be the entire course) and the last, Workshop (workshops support collaborative, graded efforts among students).  

b. Developing Moodle-Based Interactive Online Media

Moodle is an e-learning system or called as software. To develop Moodle, it was needed a standard of software development. ISO/IEC 12207 is an international standard for software life-cycle processes. It aims to be the standard that defines all the tasks required for developing and maintaining software. In software development, there is a standard process called SDLC. SDLC is the acronym of Software Development Life Cycle. SDLC is a process followed for a software project, within a software organization. It consists of a detailed plan describing how to develop, maintain, replace and alter or enhance specific software. The life cycle defines a methodology for improving the quality of software and the overall development process.

There are various software development life cycle models defined and designed which are followed during software development process. These models are also referred as "Software Development Process Models". Each process model follows a Series of steps unique to its type, in order to ensure success in process of software development. Following are the most important and popular SDLC models followed in the industry: Waterfall

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Model, Iterative Model, Spiral Model, V-Model and Big Bang Model. The most popular one is Waterfall Model.29

Waterfall approach was first SDLC Model to be used widely in Software Engineering to ensure success of the project. In "The Waterfall" approach, the whole process of software development is divided into separate phases. In Waterfall model, typically, the outcome of one phase acts as the input for the next phase sequentially.30

![Waterfall software model](image)

Figure 2.1 Waterfall software model31

The phase set of activities carried out during the development of a software product is explained below:

1) Needs Analysis

Needs analysis is used to identify the problem, object, scope associated with the input, output and procedures (process) which is applied in managing inputs into outputs.32

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30 tutorialspoint.com, *Software Development Life Cycle (Sdlc) Simply Easy Learning By Tutorialspoint.Com*, p.4


32 Wenty Dwi Yuniarti, *Simulasi Dan Pemodelan .....*, p. 6
All possible requirements of the system to be developed are captured in this phase and documented in a requirement specification doc.33

Related to developing Moodle-based interactive online media, need analysis was conducted of analyzing functional and non-functional requirements. Usually, functional requirements are defined by means of use cases which describe the users’ interactions with the software. Some of them are included such requirements as purpose, scope, perspective, functions, software attributes and user characteristic. In contrast, some of the non-functional requirements refer to the various criteria, constraints, limitations, and requirements imposed on the design.34

Related to developing Moodle-based interactive online media is about the components of Moodle. Moodle has been developed on the open source LAMP framework consisting of Linux (operating system), Apache (web server), MySQL (database), and PHP (programming language). Due to the portability of these components and the modularity of Moodle itself (that’s what the "M" stands for), it can support a wide range of operating systems, database systems, and web servers. The following diagram shows a simple overview of the overall architecture:

![Moodle architecture diagram](image)

Figure 2.2 Moodle architecture diagram.

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The lowest level is the operating system. While Linux is the preferred platform, other Unix derivatives such as Solaris and AIX are supported, along with Windows and Mac OS X (preferably the server variants for production sites). Certain libraries will have to be installed, Moodle Installation. PHP is the programming language in which Moodle is developed (accompanied by HTML, JavaScript, and CSS files). It is the only component that cannot be replaced with any other counterpart. MySQL is the database of choice for most open source applications, but other database systems such as Microsoft SQL Server, Oracle, and PostgreSQL work without problems. Apache has become the de facto standard for large-scale web applications, closely followed by Microsoft IIS. Both web servers are supported like any others offering PHP support.

Moodle consists of the basics of the three core elements. They are Moodle courses, users, and roles. The three concepts are inherently intertwined and any one of these cannot be used without the other two. To give an overview of courses, users, and roles, let's have a look at the following diagram. It shows nicely how central the three concepts are, and also how other features are related to them. Again, all of their intricacies will be dealt with in due course so, for now, just start getting familiar with Moodle terminology.

![Diagram of the basics of the three core elements of Moodle.](image_url)

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Let's start at the bottom left and cycle through the pyramid clockwise. Users have to go through an Authentication process to get access to Moodle. They then have to go through an Enrolments step to be able to participate in Courses which themselves are organized into Categories. Groups & Cohorts are different ways to group users at course level or site wide. Users are granted Roles in particular Contexts. Which role is allowed to do what and which isn't depends entirely on the Permissions set within that role.  

2) Design

It is the process of planning and problem solving for a software solution. One type of this process is interface design. It would be create interface design of Moodle-based interactive online media.

3) Implementation

It refers to the realization of business requirements and design specifications into a concrete executable program, database, website, or software component through programming and deployment. In developing of Moodle-based interactive online media, it is the website which can be accessed.

4) Testing

It is also known as verification and validation which is a process for checking that a software solution meets the original requirements and specifications and that it accomplishes its intended purpose. It is validation expert and field trial of Moodle-based interactive online media.

5) Operation and Maintenance

Phase maintenance is an activity that aims to accommodate changes in order to produce a better performance. It is the process of

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36 Alex Büchner, *Moodle 2 Administration An administrator's guide...*, p. 58
37 Youssef Bassil, *A Simulation .....*, p. 2
38 Youssef Bassil, *A Simulation .....*, p. 2
39 Youssef Bassil, *A Simulation .....*, p. 2

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modifying a software solution after delivery and deployment to refine output, correct errors, and improve performance and quality.\textsuperscript{41}

It is revision process of developing Moodle-based interactive online media.

From the definition above, it can be seen that Moodle as an interactive online media has many varieties contents and types. One reason that makes it is interesting which is because the developer can modify the features based on her/his need. Although it has a copyright from the formal institution, as developer, we also have a copyright of it. Those what makes the web different from other and those reasons are what underlie the writer choice.

3. General Concept of Reading

Reading is a constant process of guessing, and what one brings to the text is often more important than what one finds in it.\textsuperscript{42} Reading is an active skill. It involves guessing, predicting and checking oneself questions.\textsuperscript{43} Reading is an active process of thinking. To read is to develop relationship among ideas.\textsuperscript{44}

Another reading expert also explain that reading is a thinking process that sets two people in action together-an author and a reader.\textsuperscript{45} Reading is highly complex process draw on knowledge of the linguistic code, cognitive processing skills, schema-based understanding, and contextual cues both within and outside the text.\textsuperscript{46}

Reading is defined and described in a variety of ways. Some linguists gave some definitions of reading that may help us to get clearer definition. Reading is not a single skill but a process comprising a complex set of interrelated skills. The skills involve: word recognition and mastery of basic vocabulary and the intelligence. Intelligence is necessary to follow the thought

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\textsuperscript{41} Youssef Basil, \textit{A Simulation} ...., p. 2
\textsuperscript{43} Franoise Grellet, \textit{Developing Reading Skills}, p. 8
\textsuperscript{44} Dorothy Grant Hennings, \textit{Reading with Meaning Strategies for College Reading}(USA: Prentice Hall, 1999).p. xiii
\textsuperscript{45} Dorothy Grant Hennings, \textit{Reading with Meaning Strategies for College Reading}, p. 2
development that presented make any relevant deduction, inferences, or critical assessment. The last skill is the ability to concentrate on the reading task. ⁴⁷

To summarize, reading is an ability of cognitive process or interaction between the graphic symbols and the language skills of a reader. Reading is also a process of communication between a writer and a reader. A writer has message in his/her mind, such as teaching, facts, ideas and argument that he/she wants to share the writer puts the message into word or printed verbal symbols. When the messages enter the reader's mind, it means that communication goes on. In comprehending the content of the text, reader not only uses eyes but also their mind concentration to catch the writer's idea.

4. Narrative Text

Narrative is one of the genre text forms. It is the material which has been used by researcher in the teaching reading text. The researcher measured the students’ reading narrative text ability. Therefore the writer discusses some points which relates with narrative among other; definition, the social function, types, generic structure and language features of narrative.

The Narrative text type tells a story. Its purpose is to present a view of the world that entertains or informs the reader or listener.⁴⁸ Narrative is a text which contents about a story like a story of citizen (folktale), the story of animals (fable), legend, etc. that a narrative text contains story by presenting the sequence of events and actors which are characterized as heroes or cowards. It can be concluded that narrative text is a spoken or written text to communicate a massage, which is used to interpret its meaning in the story. There are many types of narrative text, including: humor, romance, science function, diary, and adventure.⁴⁹

One way in understanding narrative text is by identifying the generic structure of that text. The simple generic structure that is taught in senior high


⁴⁸ Mark Anderson & Kathy Anderson, Text Types in English 1-2, (Australia: Macmillan Education Australia PTY.LTD, 2003), p. 6

⁴⁹ Mark Anderson and Kathy Anderson, Types in English, p.28.
school is divided into the following four elements, namely orientation, complication, resolution and reorientation.

Orientation is the introduction or orientation of the writer or narrator who explains where the story happened. In this level the writer also produce the atmosphere so that make the readers are persuaded to follow the story. In other words, it also has a function as the stimulus to the readers the narrator’s literature. By reading the introduction of the text, the readers will understand the contents of the text before they read all of it.

The crisis arises in the complication part. It is the climax of the narrative. In the middle of the story, generally, the narrator shows the complication. Complication makes the story more interesting because the main character is prevented to reach his or her wanted. In this part, narrator brings up the issues occurred in the story. Complications are the description of real life. It also tells the readers that every issues or problems can be solved.

After spelling many issues in the climax of the narrative, the narrator then tells to the readers about the resolution of issues or the problems. Resolution is the crisis which is resolved, to be better or worse. A satisfied narration will give the readers the resolution of the problem or complication. Generally, the resolution is placed in the end of narration, but sometimes the narrator will place other issues or complication after he or she presents the resolution of the problem. In short, resolution is the ending of the story.

Re-orientation is optional of generic structure of narrative. So re-orientation is sometimes there and sometimes it isn’t there in narrative text. It is usually in ending of story or closure of events.

The language features of narrative text are using nouns and pronouns. It is used to identify people, animal or things involved. Specific participant is special characteristics object. The other language feature is adjectives using. It is useful to shape noun phrase. The next language feature is adverbs and adverbial phrases using. It indicates place and time. Using action verb in past for and using saying verbs which sign to pronounce something are other language feature of narrative text.

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50 Mark Anderson and Kathy Anderson, *Text Types in English*, p. 29
C. Theoretical Framework

Moodle-based interactive online, that is developed, has a high quality and be able to use as an interactive media to teach Narrative reading for tenth grade students of SMA Negeri 13 Semarang in the academic year 2014/2015.

The use of Moodle-based interactive online media to teach Narrative reading for tenth grade students of SMA Negeri 13 Semarang in the academic year 2014/2015 is suitable.