

CHAPTER IV

RESEARCH FINDINGS AND ANALYSIS

A. Developing Moodle-Based Interactive Online Media to Teach Narrative Reading

This project is intended to meet the development of procedures of Moodle – based interactive online media. There are six steps in the procedure of development based on Borg and Gall model which the researcher took in this research. They were need analysis, planning, developing preliminary form of product, preliminary field testing, main product revision and main field testing. Meanwhile, the developing of Moodle as software was based on the standard of international software development which used waterfall life cycle model. This model involved five steps. They were need analysis, design, implementation, testing and also operation and maintenance. So the result of Moodle-based interactive online media prototype was based on both of them. It was based on Borg and Gall model and it was matched by waterfall software model.

1. Need Analysis

The need analysis was done to search information how important Moodle-based interactive online media would be developed. It consisted of review the literature. The literature review in this research was concerned with interviewing as a foundation of knowledge upon which to develop a given educational product. In this step, the researcher interviewed the vice principal of curriculum areas, teacher of English subject and students. From the data of the interview, the researcher got a conclusion that the teacher of English did not employ yet in using e learning effectively, whereas there was a training of e learning process for teachers in the school.

Moodle-based interactive online media as software used waterfall software model in its developing. It used a use case diagram. A use case diagram is used to demonstrate the functionality of an entity such as a system, sub-system or class by using actors, use cases and the relationships between them. An actor was a set of roles that users can activity when interacting with the entity. Actors could be either human users or other systems. A use case was a unit of behavior or functionality of an entity viewed from the perspective of the user. ¹

¹ Kurt Bittner and Ian Spence, Use Case Modeling, p. 142

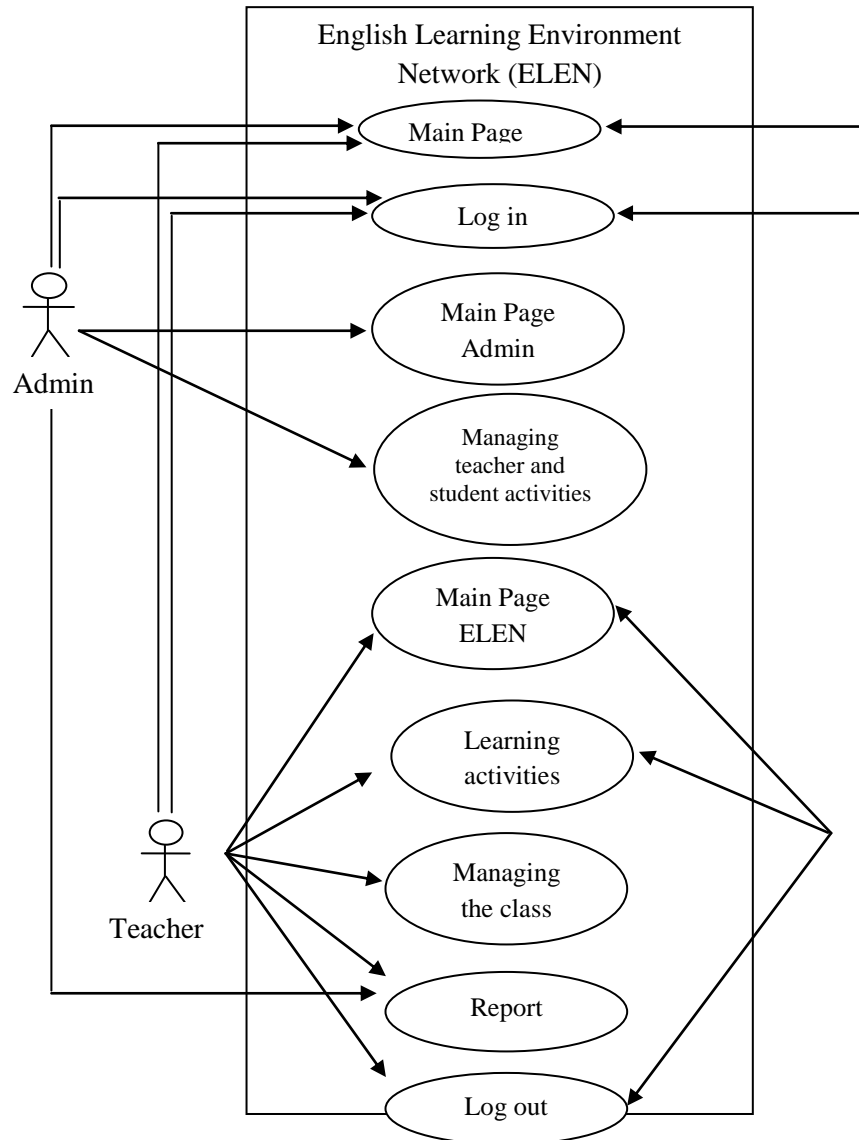


Figure 4.1 Use case diagram ²

From the diagram, it was able to be explained that there were three users who could access Moodle-based interactive online media ELEN. Users are anyone who uses the Moodle system. To participate in course users need to be enrolled into course with a given role, such as: students, teacher and admin. Once a user account is established the primary Moodle administrator can change accounts login permissions. Following are types of user accounts that can be assigned to a Moodle user: Student (default - can interact with course content

² Mike Herrity, *The Personal learning Environment Moving Platform Beyond the VLE and Share Point Learning Platform*, accessed at [http://mike herrity's blog.com](http://mikeherrity'sblog.com) at November, 18th 2014

only) Teacher with Editing Permissions (can populate a course with activities and provide learner feedback - e.g. grades, assignment comments etc.) Teacher without Editing Permissions (can provide learner feedback only - e.g. grades, assignment comments etc.) Administrator (can do anything and go anywhere within Moodle).³

2. Planning

The next literature review concerned with the formulating of learning material narrative text, lesson plan and validation instruments as the planning (See appendix 1 and 2). The planning also concerned with the determining of users access field in this online media. There are three main users; admin, teacher and students (See figure 4.1). Admin could access main page admin and manage teacher and students activity after logged in. Teacher could access main page ELEN, learning activities, manage class and report after logged in. And student accessed main page ELEN and learning activities.

The researcher also determined Bitnami local host for offline installation and purchased hosting and domain website. To access Moodle-based interactive online media by internet, it was needed a domain and web hosting to put the program files in web server. The specification of domain and web hosting Moodle-based interactive online media are as follow:

Table 4.1 Specification of domain and web hosting

Main domain	airybelle.com
Subdomain	elen.airybelle.com
Disk Space	500 MB
Monthly Bandwidth Transfer	1.21 GB / 19.53 GB
Apache version	2.2.27
PHP version	5.4.34
MySQL version	5.5.40-MariaDB
Operating system	Linux

3. Developing Step of The Preliminary Moodle – Based Interactive Online Media ELEN

The next developing step was design and implementation of Moodle-based interactive online media. It could be explained to be some interface pages

³ Bryan C. Williams, Matt Riordan and Martin Dougiamas, *The manual of Moodle v.1.4.3 for the Moodle.org* ,(USA: Free Software Foundation, 2005), p.6.

of Moodle-based interactive online media as follow (See the appendix for more figures); the front page of Moodle-based system of interactive online media was the entry point for the user to the system. The function of this page was to provide login access to all users and provided general information on this website. After logged in in the front page, user would go to course page.

a. Interface Design

Interface design of each user access field is as follow:

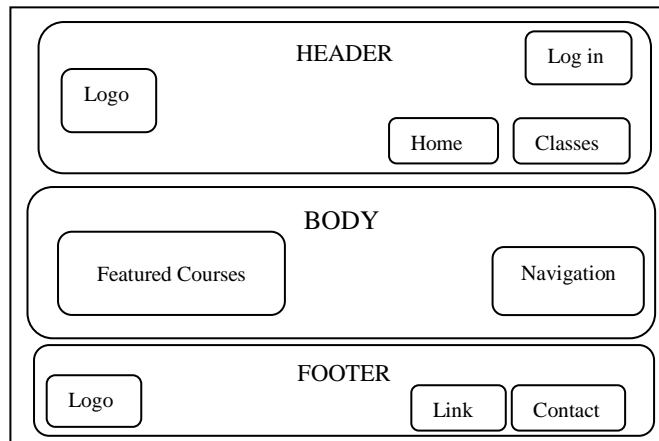


Figure 4.2 Front page

The page was divided into three sections. The top was header of the page. It consisted of logo picture, and button of log in, home and classes. The center was main course page, divided into featured courses and navigation block. The bottom was footer of the page which contained logo picture, links and contact info.

The user then continued to log in page based on the user access. They were admin, teacher and student. For each front page user page after they logged in would be delivered as follow:

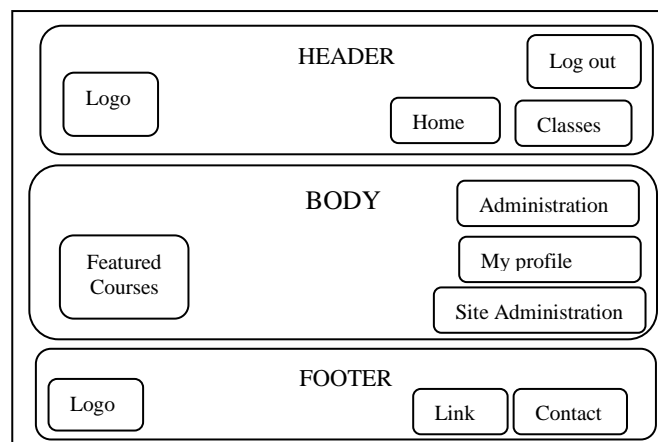


Figure 4.2 Admin front page

The page was divided into three sections. The top was header of the page. It consisted of logo picture, and button of log out, home and classes. The center was body page, divided into featured courses and administration block, my profile and site administration setting. The bottom was footer of the page which contains logo picture, links and contact info.

The next user was teacher. He had same page access with the admin. But there was not site administration setting.

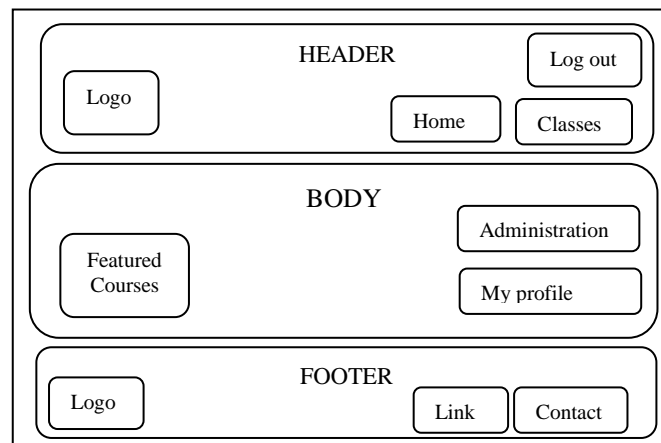


Figure 4.2 Teacher front page

The page was divided into three sections. The top was header of the page. It consisted of logo picture, and button of log out, home and classes. The center was body page, divided into featured courses, administration block and my profile setting. The bottom was footer of the page which contained logo picture, links and contact info.

The next user was student. He had same front page access with the teacher access. The administration setting of student had different content with the administration setting of teacher.

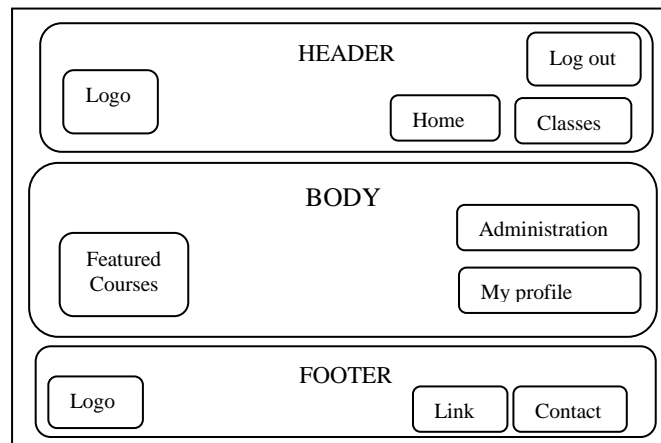


Figure 4.2 Student front page

The page was divided into three sections. The top was header of the page. It consisted of logo picture, and button of log out, home and classes. The center was body page, divided into featured courses and administration, my profile setting. The bottom was footer of the page which contains logo picture, links and contact info.

b. Implementation

The implementation process was a step to realize the design which had been before. The front page of the website <http://elen.airybelle.com> used default Moodle before it used a new theme. Theme developed from theme forest, namely Genesis theme. The captures of the site can be seen as below (See appendix 7 for more figures):

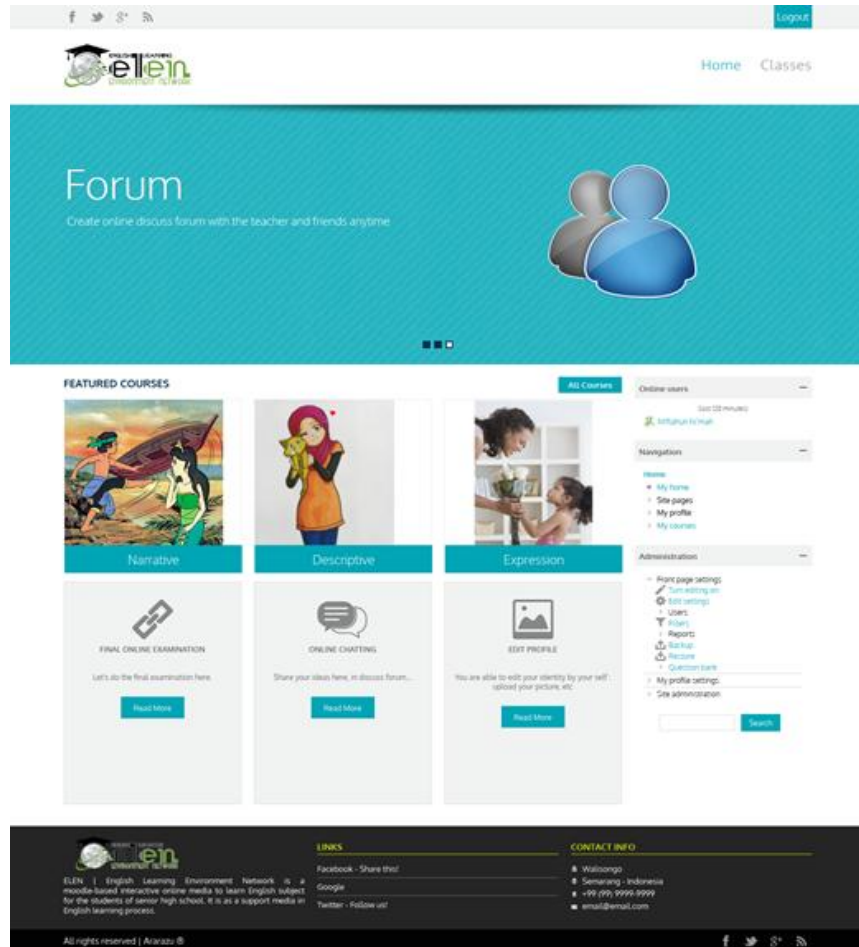


Figure 4.5 Admin front page.

The page was divided into three sections. The top was header of the page. It consisted of logo picture, and button of log in, home and classes. The center was body page, divided into featured courses and administration block, my profile and site administration setting. Featured coursed consist of narrative, descriptive and expression topic.

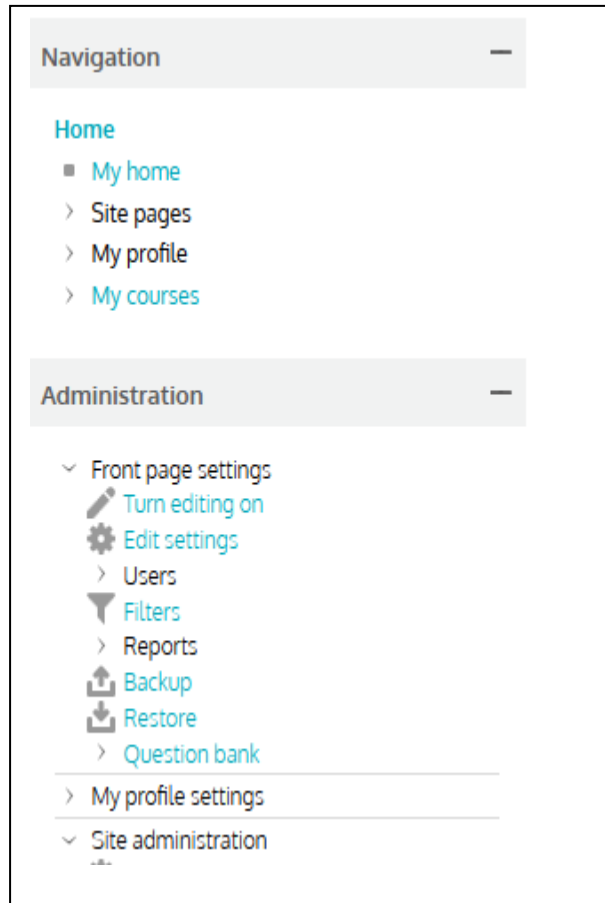


Figure 4.6 Admin's Blocks

Navigation and administration block were on the left column of main page. In the administration block, admin could manage everything on the site. And manage teacher and student's activities. It was hidden from students. It appeared on the front page and each course's home page by default. The bottom of the front page was footer which contained logo picture, featured links and contact info.

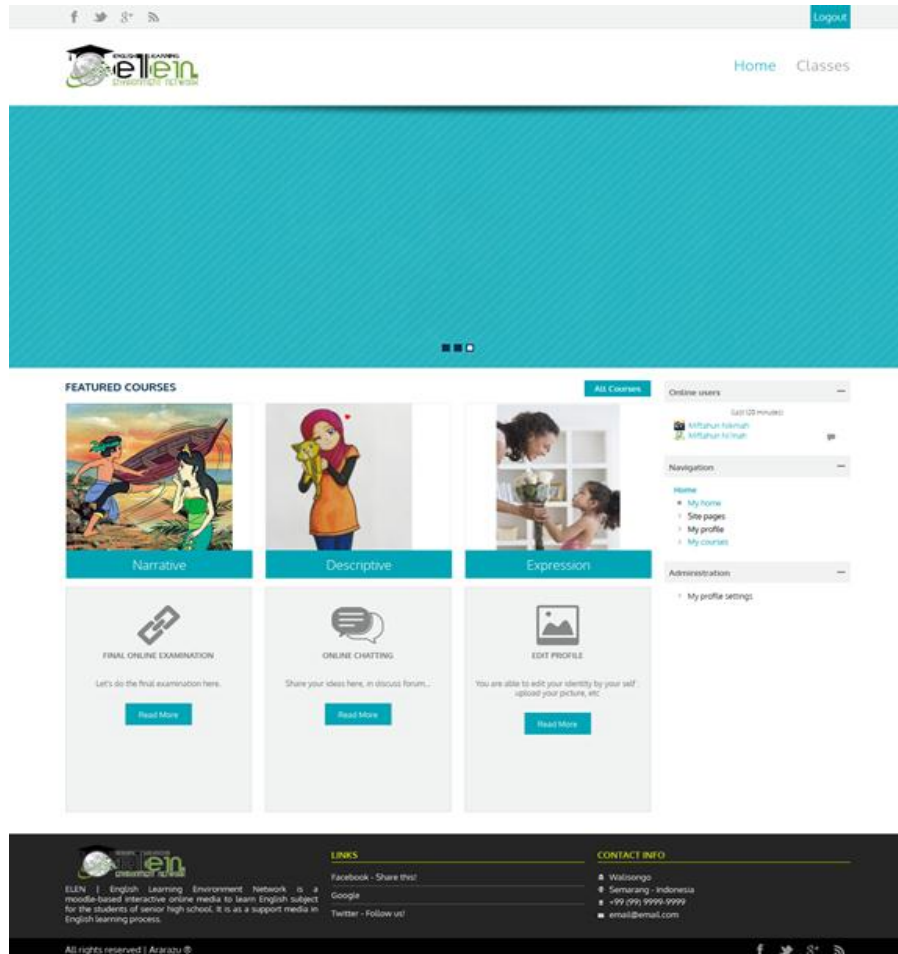


Figure 4.7 Teacher front page

The header and footer of teacher front page were same content with admin front page. It consisted of logo, button of log out, home and classes. The main page divided into featured courses, administration block and profile setting.

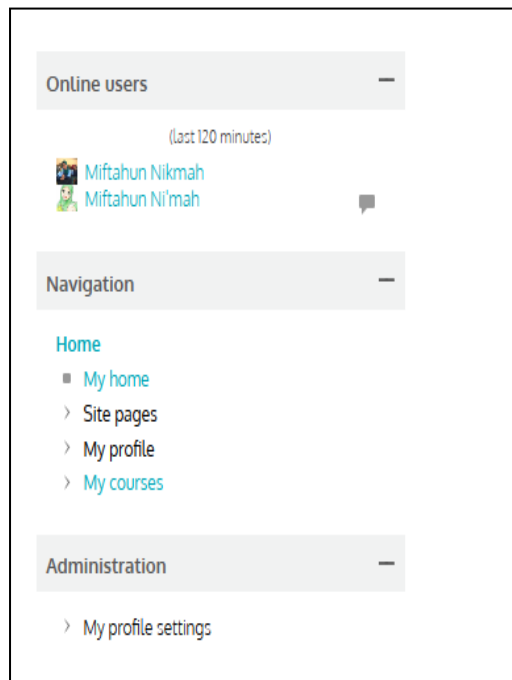


Figure 4.8 Teacher's Blocks

Navigation and administration blocks were on the left column. In the administration block, teacher could manage class, give feedback and make report of the courses. Teacher could edit profile from this block. As an adding block, there was online user block to see the users who were in the site for last two hours.

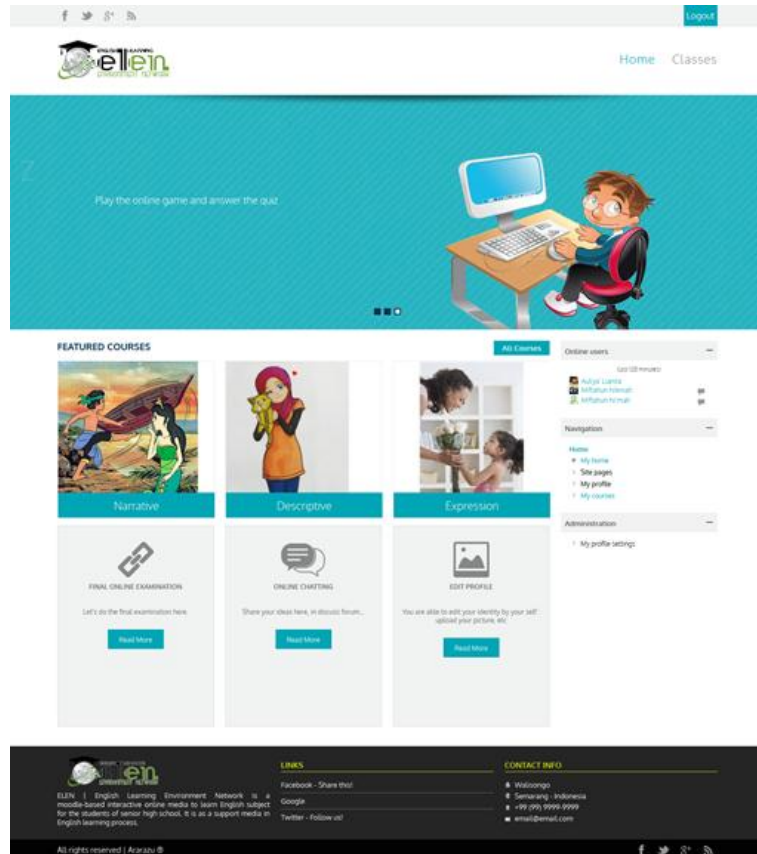


Figure 4.9 Student's front page

The header and footer of student front page were same content with admin and teacher front pages. It consisted of logo, button of log out, home and classes. The main page divided into featured courses, navigation and administration block and profile setting.

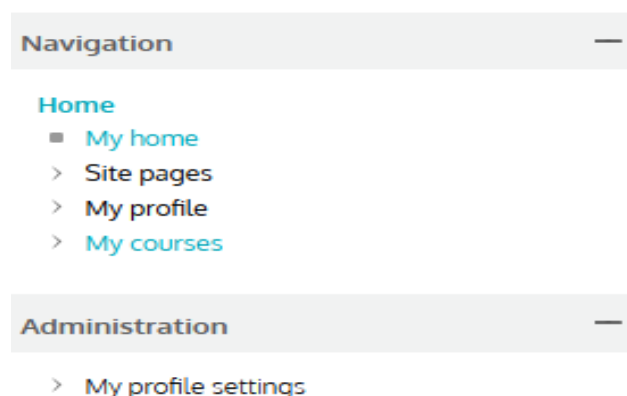


Figure 4.10 Student's Blocks

In the administration block, student could edit profile and check the grade.

c. Testing and Revision

After the Moodle – based interactive online media was created in complete design; the next step was testing or expert validations. The material experts in this research were the lecturer of English IAIN Walisongo Semarang, Mr. Agus Prayoga, S. Pd, M. Pd and the teacher of English subject of SMAN 13 Semarang, Mrs. Dra. Nasri Sunarsih. The online media experts are the lecturer of communication of IAIN Walisongo Semarang Ms. Maya Rini Handayani, M. Kom and the teacher of TIK of SMAN 13 Semarang, Mr. Muhammad Tafrikhan, M. Kom.

The average of the material validation result was 87.5 %. It was valid criterion and it could be used with little revision. As for the parts that needed revision would be described in the following table:

No	Component	Revision
1	a. Determination of the operational language of the indicator adjusted to "Bloom's Taxonomy" b. Determination of operational language in accordance with the indicator "Bloom's Taxonomy"	Determination of the operational language of the indicator suitable with Bloom Taxonomy
2	Determination of the indicator should be measurable and specific determination of specific and measurable indicators	Indicator was measurable
3	The use of the language "activity" should be student-centered use of student-centered language	Using student-centered in "activity" language
4	Add the assessment for each assessment for each meeting	Assessment was added
5	Some adjustment need to be made to gain maximum achievement	Some adjustment be made to gain maximum achievement

Table 4.2 Revision of material validation

The test questions that would be used also have been validated by two English material experts. The experts were the lecturer of English subject of IAIN Walisongo Semarang, Mr. Agus Prayoga and the teacher of English subject of SMAN 13 Semarang, Mrs. Nasri Sunarsih. The average of the result was 94.4 %.

No	Component	Revision
1	The content did not match with the basic competence of indicator side	Indicator suitable of the basic competence
2	“Communicative” change into “understandable” in language aspect	“Communicative” changed into “understandable” in language aspect
3	Add the question of showing the paragraph idea	Question of showing the paragraph idea was added

Table 4.3 Revision of test validation

After all of the teaching materials uploaded and organized in the website, the next stage was design it in the field of internet. Then it was validated by expert of online media. Online media experts consist of two people who were competent in the field of information and computer technology and the internet. The feedback received from the expert to be a reference to correct the online media. So it was ready and fit to use it for small group of students. The average of validation result was 94.4%. As for the parts that need to be revised by the online media experts are as follows:

Table 4.4 Revision of online media validation

No	Component	Revision
1	Keep English version and Indonesian runs all use the English version	Using English version only
2	Use English in all of parts of the media	Using English version
3	Use blue color of the IMK dominantly	Using black color of the IMK

The next step was field trial. This step was explained after the validators validated all of the components of this online media. The result would be explained in the different sub theme.

4. Preliminary Field Testing and Revision

The activities of the students in the preliminary field testing are as follow. They logged into <http://elen.airybelle.com>. They used the username and passwords which had given by the teacher. Then they edited their profiles. In the narrative course page, they discussed the topic, learned the material, played the crossword game and did the final examination.

The average of the result of final examination was 80 and the average of crossword game was 73.50. All of the students expressed their opinions on discussion forum.

5. Main Moodle-Based Interactive Online Media Revision

The revision of the opinions and suggestions was given by the validators and it was given by small group of students. It was shown in the following table:

Table 4.5 Revision based on the student's suggestions

No	Component	Revision
1	Less image in front page	Adding three images on the front page
2	Too small font type words in material page	Be larger small font type
3	It was limited time to do the quizzes	Managing time based on the quiz needed and the lesson time of English subject

6. Result of Main Field Testing

Main field testing was conducted in the different class from the preliminary field testing. In this field testing, they did not edit their profiles in the same time because of limited time. Username and password have been prepared by the teacher for them. So, they just logged in used the appropriate username and password which have given. They discussed with friends, played the quizzes and did the final examination.

The average of student's questionnaire result was 78.0 % (very good qualifying). So, the Moodle-based interactive online media was valid or suitable for them. The supporting data took from their scores. After main field testing was conducted, the students get significant improvement in their score. So the

score can be described as follow; in the first quiz they got the average score was 89.40. And in the final examination they get the average score was 79.60. The average of all courses was 84.50.

B. The Suitability of Moodle-Based Interactive Online Media to Teach Narrative Reading

The suitability of Moodle-based interactive online media to teach narrative reading was proven by employing the quantitative and descriptive qualitative data. All of the result in the quantitative data from the validators and trial subjects was analyzed using descriptive qualitative method.

The average of the material validation result was 87.5 %. It was valid criterion. Whereas the lowest percentage of each item was 75 %. It was valid enough criterion. And the highest percentage was 100 %. It was valid criterion.

The average of online media expert validation result was 94.4 %. It was valid criterion. Whereas the lowest percentage of each item was 75 % . It was valid enough criterion. And the highest percentage was 100 %. It was valid criterion.

The average of test question validation result was 94.4 %. It was valid criterion. Whereas the lowest percentage of each item was 75 %. It was valid enough criterion. And the highest percentage was 100 %. It was valid criterion.

The average of the student's questionnaire result was 78.0%. It was very good qualifying. From all of the data, it could be concluded that Moodle-based interactive online media was suitable to teach narrative reading for tenth grade students of SMAN 13 Semarang.

The validation result of the experts was summarized in this diagram below:

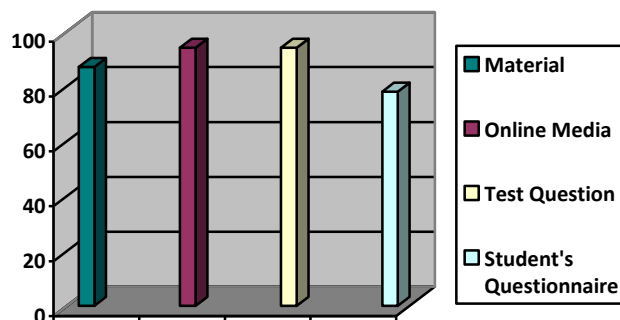


Figure 4.11 The validation result of the experts

C. Prototype of Developing Result

Prototype developing result of Moodle-based interactive online media could be accessed at <http://elen.airybelle.com>. The following are some captures of Moodle-based interactive online media to teach narrative reading (see the appendix for more captures).

The appearance of Moodle's front page changed after a user has logged in. The content and layout of the page before and after login be customized to represent the identity of English class. The following screenshot was the same site that the preceding screenshot was taken from after a user has logged in.

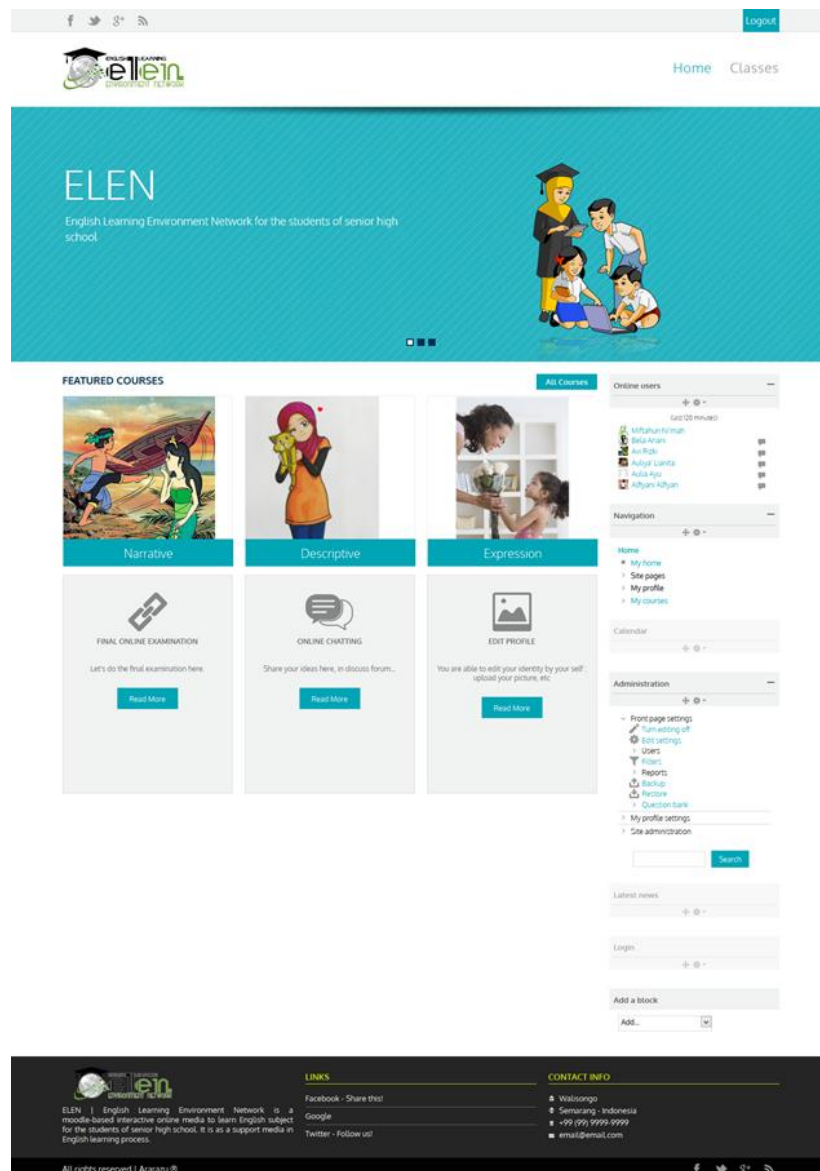


Figure 4.11 Front page before and after log in

The features were header, body and footer. In the header, there was logo of ELEN, log in button, home and class button. There were pictures in the slides which were related to the content of this site. In the body, there were featured courses in the center and navigation blocks in the left column. The last was footer which was located in the bottom of the page. There were smaller logo, links and contact info facilities.

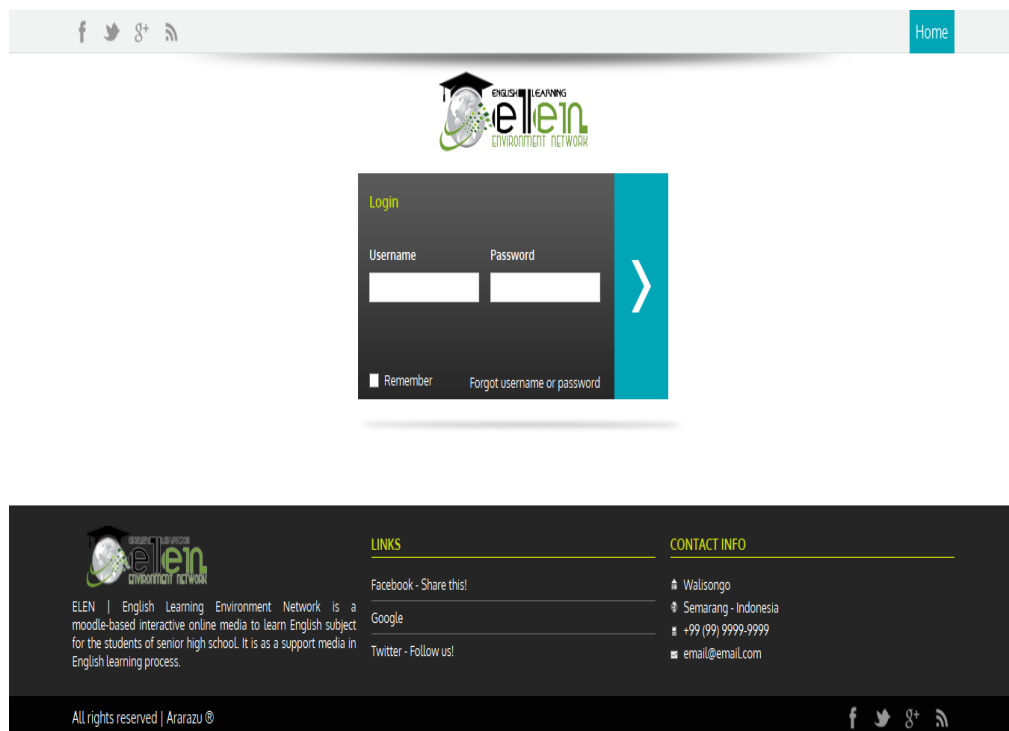



Figure 4.12 Log in page

User had to log in before going to the next page. User completed the username and password which has given by admin. In this theme, the log in page was in the different page from front page.

f t s+ n Logout

 Home Classes

Home / My courses / Classes / Class 9 / Odd Semester / X1 - Narrative

Navigation

- Home
- My home
- Site pages
- My profile
- Current course
 - X1 - Narrative
 - Participants
 - Badges
 - Chapter I
 - Chapter II
- My courses


Administration

- Course administration
 - Grades
- My profile settings

Basic Competence

- Grateful for the opportunity can learn English as an international language of communication that is embodied in the spirit of learning
- Demonstrating courteous behavior and care in performing interpersonal communication with teachers and friends.
- Demonstrating honest behavior, discipline, confidence, and responsibility for implementing a transactional communication with teachers and friends.
- Demonstrating responsible behavior, caring, cooperation, and peace-loving, in performing functional communication.
- Identifying social function, generic structure, and *language feature* of narrative text, according to the context of its use.
- Capturing the meaning of spoken and written narrative text legend.

Chapter I




After studying this session, students are expected to

Indicate the seriousness related learning English simple narrative text
Demonstrating caring behavior, confidence, and responsibility in performing relevant communication simple narrative text
Identifying social function, generic structures, and *language feature* of simple narrative text

- Reading Material
- Let's Discuss
- Crossword Game
- Final Examination

Chapter II



After studying Chapter II, the student should be able to

- Indicate the seriousness related learning English simple narrative text.
- Demonstrate caring behavior, confidence, and responsibility in performing relevant communication simple narrative text
- Respond the meaning of a simple narrative text

What Should you do:

First, Follow the chat in LETS DISCUSS, give your opinion.

Second, Learn the material on LANGUAGE FEATURE session

Third, Do the quiz in TEXT & QUESTIONS

Next, Do the next quiz in SYNONYM & FINDING MEANING quiz

the last, Wait your score!

- Let's Discuss
- Language Features
- Text & Questions
- Finding Meaning
- Synonym

Final Examination is not available



ELEN | English Learning Environment Network is a moodie-based interactive online media to learn English subject for the students of senior high school. It is as a support media in English learning process.

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• Semarang - Indonesia

• +99 (99) 9999 9999

• email@email.com

f t s+ n

Figure 4.13 Narrative course page

In Moodle course, all blocks have been moved to the right column. Blocks could be moved, delete and add by the admin or teacher, although some blocks were required.

Course materials were clearly designated in week with the use of a label and indentation.

The screenshot shows the ELEN website interface. At the top, there is a teal header with the ELEN logo and navigation links for 'Home' and 'Classes'. Below the header, a teal banner is visible. The main content area is titled 'Crossword Game' and includes a 'Crossword' section with a '958' button. A text box instructs the user to 'Complete the crossword, then click on "Check" to check your answer. If you are stuck, you can click on "Hint" to get a free letter. Click on a number in the grid to see the clue or clues for that number.' Below this is a crossword puzzle grid with numbered starting points (1-9) and a 'Check' button. The footer contains the ELEN logo, a description of the network, 'LINKS' (Facebook, Google, Twitter), and 'CONTACT INFO' (Walisongo, Semarang, Indonesia, phone number, and email address). Social media icons are also present in the footer.

Figure 4.14 Crossword game page

This page consisted of crossword game. It was designed in limited time to do it. This game feature was designed by hot potatoes software. The opportunity to attempt the game was designed by teacher in twice.

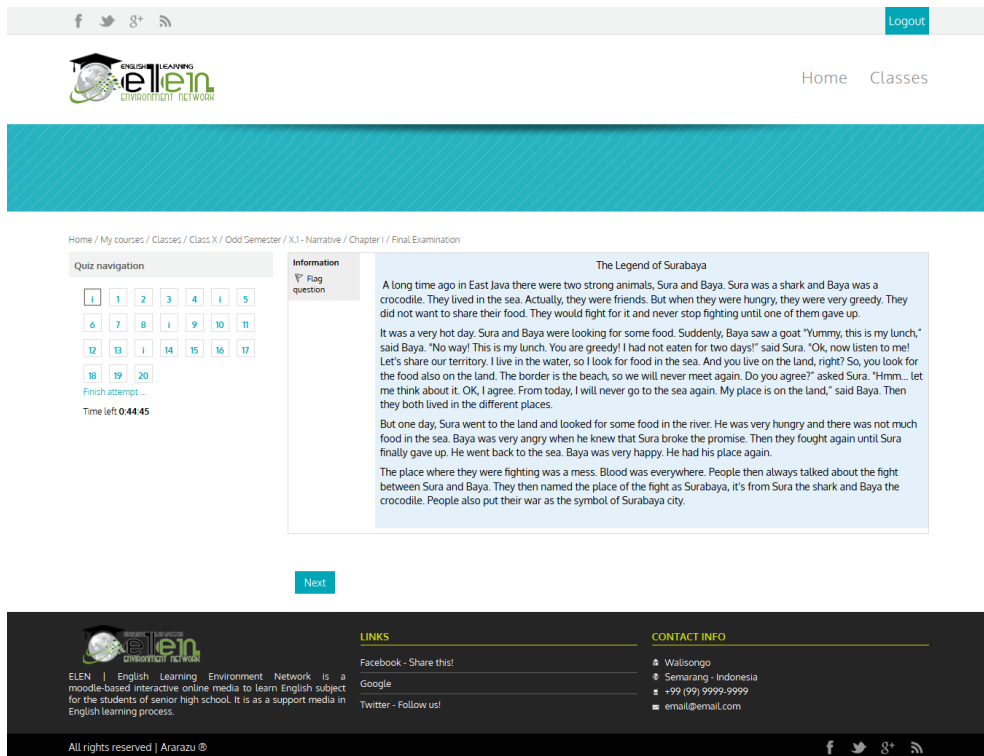


Figure 4.15 Final examination page

The final examination consisted of multiple questions. For each page consisted of one text. The next page was question of the text. Student could back to the text and question which he wanted related to the number of the question on the right column.

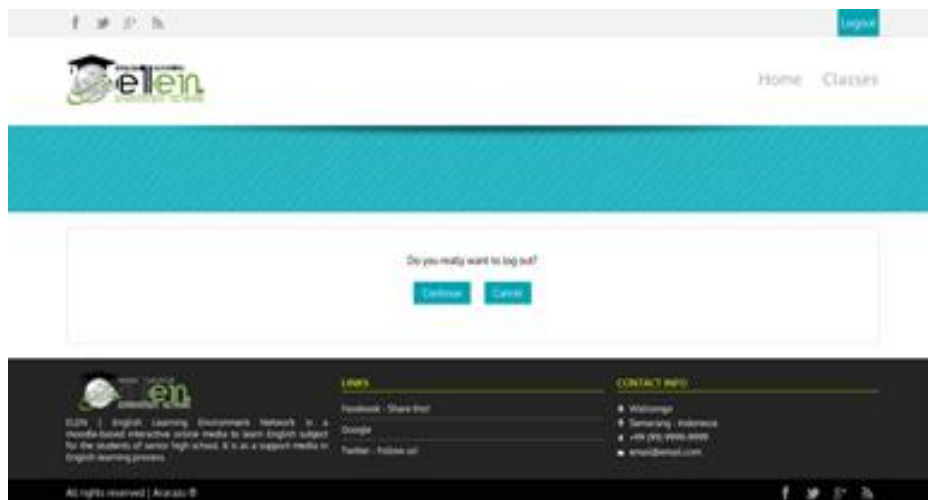


Figure 4.16 Confirmation page to log out

This page was confirmation page to log out. If the user wanted to log out, he could chooses continue button. But if he wanted to go back to the course, he could choose cancel button.