ADAPTING MOODLE RESOURCES FOR DEVELOPING EFFICIENT READING SKILLS IN ENGLISH AS A FOREIGN LANGUAGE CONTEXT

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Abstract
Acquisition of efficient reading skills in a foreign language is a key component of the professional competence for all professionals of the 21st century. The article proposes a series of online activities that can be integrated into the LMS Moodle in order to improve reading skills in English as a foreign language amongst university students. First, the article discusses three groups of factors (text-related; reading environment-related; reader-related) affecting the speed of reading and the quality of reading comprehension both in the native language and in English as a foreign language, emphasises contributors to fast reading in a foreign language, in particular. Secondly, a list of skills distinguishing a good reader from a poor one is given. Finally, we propose three blocks of reading activities that can be embedded into the LMS Moodle: the first block comprises activities designed to enhance the student's language competence (speed of recognizing and comprehending foreign words, grammar and syntactics); the second block is aimed at the development of skills of a good reader. The focus here is on reading strategies and compensatory skills. Lastly, the third block involves further advancement of reading comprehension and critical thinking reading skills and integration of knowledge into the conceptual picture of the world. The instruction is aimed at extracting information on three levels, i.e. of the text, subtext, implicit and unspoken information.

Keywords: information technology, education, efficient reading, reading comprehension, Moodle, foreign language teaching.

1 INTRODUCTION
Nowadays efficiency in English as a foreign language (EFL) reading implies integration into global information and, therefore, it is a key skill for any achievement-oriented learners and professionals. For today's students it also an access to worldwide academia, where mature reading skills are vital for self-study work with massive non-linear flow of information. Thus, foreign language (FL) teaching places particular emphasis on reading, as it is the most significant academic and professional language skill.

Depending on the maturity of the reading competence, in modern teaching theory and practice elementary, student and professional reading levels are distinguished [5]. The university program of FLT reading, undoubtedly, should be focused on the development and improvement of professional reading skills - a level that allows to fulfill intellectual and professional needs for information when working with FL sources.

Nevertheless, up to date a widely recognized problem faced by learners throughout the EFL world is that of slow reading [2], [4], [8]. This has often been linked with methodology of teaching reading in the classroom, particularly where classes focus on language development rather than reading as such. A number of experts have stated a common practice in intensive reading lessons, where texts are often treated as intermediaries for the presentation, practice, manipulation, and consolidation of language points, rather than the encouragement of reading itself [1], [5], [9]. Slow reading as a problem for learners has been defined in [6] as a "weakness independent of the purpose of reading", involving the processing of information at such a slow rate that the reader is unable to hold enough detail in short-term memory to permit decoding of the overall message of the text. In this context, Moodle resources can greatly assist the teacher in organizing and monitoring independent reading. Therefore, the current study offers a set of activities aimed at enhancing both reading speed and reading comprehension within the framework Moodle platform.
2 THEORETICAL FRAMEWORK

2.1 Psychological characteristics of reading as a form of written communication.

Reading as a process of perception and active processing of information graphically encoded according to a system of a language [10] is a complex analytical-synthetic activity that develops from the perception and understanding of a text. At the same time, mature reading is characterized by the merging of these two processes and the concentration of attention on the semantic side of the content. Mature reading also infers the ability to read an unfamiliar authentic text without outside help, at a proper pace with the correct comprehension and reading for various purposes [2].

To comprehend a foreign language text, one needs a certain perceptual-semantic basis, i.e. grasp of required phonetic, lexical and grammatical informative units that accelerate the comprehension of the text. If such a base is not formed or not sufficiently strong, then the reader’s extraction of information tends to be impeded or completely disrupted.

Reading is based on a number of complex logical operations, the result of which is the setup of sense relations in the text and the transition “from the expanded words to the meaning” [4].

Psychologists have repeatedly noted the gradual nature of reading comprehension. Z.I. Klychnikova identified four types of information extracted from the text (categorical-cognitive, situational-cognitive, emotional-evaluative, hortatory-volitional) and seven levels of reading comprehension [10].

Levels 1 and 2 are levels of recognizing the meaning words and phrases. They are indicative of a fragmentary understanding. Recognizing the meaning of words and phrases in context, the reader gets an idea of the text subject. The complexity of this level is related to discrepancy the reader’s vocabulary and the text vocabulary, similarly, many words are used figuratively and lack motivation. Polysemantic words, homographs, antonyms and synonyms are also very complex.

Level 3 is the level of the sentences comprehension. It is more progressive, though is still fragmented. Difficulties in understanding sentences are associated with both syntax and morphology. Identifying a sentence, involves dividing it into separate elements, establish a connection between them and their role in the utterance, identify grammatical homonyms, especially in functional word, etc.

Levels 4 and 5 are levels of text comprehension. They are associated with the types of reading and with the types of extracted information from the text. If information is categorical-cognitive and situational-cognitive, then it is reading with general/global comprehension, if the text contains emotional-evaluative, hortatory-volitional information then it is reading with complete/detailed understanding.

Level 6 is the comprehension of the information content and emotional-volitional information, level 7 - is the comprehension of all four types of information, including the hortatory-volitional information. Levels 6 and 7 indicate complete development of technical skills, i.e., the reader’s ability to respond to all kinds of communication signals: headings, punctuation marks, special typeface, underscore, charts, tables, paragraph highlighting, grammatical features of words, etc., ability to switch from one mental operation to another, to extract information that is not expressed explicitly. To achieve this the reader must be able to generalize, find a connection between meaningful pieces, highlight the most important, “go into subtext”, and achieve complete, accurate, and deep comprehension [10].

As a result of all these operations, the reader evaluates the text in a broad social and cultural context, and the reading itself is characterized by maturity, which can be assessed as a threshold advanced level of communicative competence [1].

2.2 Factors affecting reading comprehension

Scientists identify objective and subjective factors of reading. The objective factors include the content and structural characteristics of the text, the author’s language and style [5]. Subjective factors are determined by psychological characteristics of the reader, as well as the focus of attention in reading [10]. As to the speed of reading, factors are divided into those accelerating the reading speed and those retarding it [3]. Since reading takes in three main components: the text, the reader and reading environment, we have identified three groups of factors that could affect the reading speed and comprehension: text-related factors, reading environment-related ones and the reader-related factors.

The first group of objective factors is related to the properties of the text, its content meaning, structure, composition and genre features, the author’s language and style of writing. As the main parameters of
“readability”, researchers note information richness, which helps check the semantic guesses, consistency of the text composition, use of clichés and ready-made formulas [8]. Moreover, distribution of key information in the form of generalizations in accord with the logical schemas facilitates the understanding of a foreign language text [2]. While deficiency of information redundancy and topic sentences in paragraph, emphasis of minor details, abundance of symbolic words, metaphors referring to background knowledge, presupposition or reader’s ‘information/knowledge bank’, “implicit texts” [2] and implicit nature of the key ideas create significant difficulties for reader in foreign language.

Psychological studies show the logical line of thought in the text also affects comprehension. Thus, with deductive and deductive-inductive text structures are easier to understand than an inductive structure, because the latter force the reader to return to what he has read in order to clarify his conclusions [7]. In addition, a message is much easier and faster to understand, than descriptions, narration or reasoning, as they are more mentally demanding.

As to the author’s style, overload of emotional, evaluative and hortatory information, figurative words, idioms, elements of irony and humour based wordplay, etc. significantly impede reading comprehension.

Reading conditions include such parameters as reading time, room lighting, noise and distractions nearby, the personality of the teacher, the format of the text (paper text or electronic screen text). Text design can also enhance readability. As a rule, this is due to fonts, typeface; text layout; illustrations, headings and subheadings, colour of the text, linear/hypertext, etc.) The main task of the macro text is the arrangement of the message. While skimming help the reader distinguish important information from the minor one, therefore, paragraphing, bolding or italicizing of keywords, headings and subheadings contribute to understanding, while small and uniform typeface, on the contrary, slows down.

The most numerous group of the third one that distinguish psychological characteristics of the reader such as the level of the intellect, development of critical thinking, reading strategies, reading culture and information culture, reader flexibility, etc.

The process of reading also requires mastering reading techniques. Good reading technique implies fluency and speed text recognition. In this regard, researches often speak of factors that accelerate or slow down speed of text recognition [6]. These factors are mainly associated with negative attitude to reading and improper reading habits. Thus, deaccelerating factors include: a) incorrect eye movement or while reading; b) regression; c) a small range of vision, which leads to word-by-word reading; d) vocalization; e) a false belief that complete understanding is possible with slow reading; e) inability to determine the informative value of text parts; g) lack of focus; h) lack of vocabulary [8].

2.3 Contributors to fast reading in FL

In FL reading, the influential factors for comprehension are:

1. Vocabulary size and range. Range of vocabulary can directly affects the reading comprehension since reading comprehension requires extracting the meanings of most words in the text. Therefore, vocabulary size and range are considered an important and accurate predictor of the ability to read a foreign language and vocabulary enrichment is one of the main tasks of FL reading course.

2. Semantic and syntactic knowledge. To understanding of the author’s line of thought, the reader needs knowledge of the syntax. Syntactic incompetence can lead to decoding problems and, consequently, the inability to understand the text message.

3. Background knowledge. Huang described background knowledge as a person’s life experience and world knowledge acquired in his life [3]. According to Lerner, “reading comprehension is aimed at forming a holistic view of the described objective reality [4]. Any text is based on some knowledge deemed known and constituting its implicit information. The structure and semantics of the text form, as it were, one part of a complex mechanism, the other part of which is in the consciousness and memory of the individual perceiving the text. When these two components interact, perception and comprehension takes place” [2]. Thus, the background knowledge of the reader increases the speed of understanding the text. The more background knowledge about the read one has, the higher the speed and adequacy of reading comprehension is.

2.4 Effective reader skills

Researchers have described generalized typological characteristics of a mature/professional reader, which are divided into external and internal [1]. External characteristics are manifested in the activities
of the reader as a human who has a variety of needs, a range of reading interests and own initiatives, complex motives and a wide use of reading, a variety of reading materials and a versatile criteria for evaluating them. Internal characteristics reflect the specificity of reading as process. They are indicators of the reading culture – flexibility in use of reading strategies, automaticity of operations related to the text recognition and mastery of the reader’s technical skills.

T.G. Galaktionova [8] defines reading competence as “the ability to implement effective reading behaviour for solving various tasks”. This effective reader behaviour consists of 10 basic components:

1. Readers’ activity – an active resort to reading for education and self-education.
2. Planning your current and prospective reading, including leisure reading, professional-oriented reading, reading business and informational sources, reading periodicals (newspapers, magazines).
3. Control reading speed: comprehension of the needed volume with adequate reading speed.
4. Intentional reading of the text of the appropriate level of complexity.
5. Reader's reflection, i.e. a reflexive response to reading.
6. The choice of reading strategies: skimming, scanning, selective reading, reading for specific information, reading for detail.
7. Mastery of reading techniques.
8. The reader's independence, i.e. independent use of optimal strategies for reading different types of texts.
9. Text competence, which implicates ability to structure texts, i.e., highlight the main and the secondary, the main idea of the text; build a sequence of events, etc.
10. Linguistic knowledge. It means ability to work with metaphors – to understand the figurative meaning of expressions, to understand and use the figures of speech, built on covert assimilations and imagery resemblance of words.

Thus, the mature / experienced reader is characterized by the simultaneous perception of the form and content, which provides complete comprehension; with many mental operations proceed in a minimized form. In addition, the effectiveness of reading depends on the reader’s ability to choose the necessary skills and strategy. Hence, the experienced reader first specify their reading objectives and then the strategy and skills that must be used to them. They are competent in anticipating the information they can encounter when reading a whole text or a specific paragraph. They read to both confirm and refute their guesses. Thus, the reader is in constant interacting with the text.

2.5 Why LMS MOODLE

Moodle is the learning management system (LMS) or virtual learning environment (VLE) has several advantages. First, it is secure online learning space. VLE usually combines several tools and activities for learning and organizing training. Unlike online providers that offer one blog, wiki or open, public forums and chats, Moodle VLE combines all such communication tools in one space. Secondly, the Moodle has all the benefits associated with ICT such as hypertext, embedded glossary (single, bilingual), interactivity, feedback. At the same time, the Moodle has some specific benefits of VLE. So, Liu et al. highlights the following advantages of the Moodle for tutors: 1) Moodle system is free and has open access code. 2) It allows you to create courses for the teacher in different aspects of the language. Since reading in a foreign language cannot be isolated from other types of language competences, the Moodle in this regard is a unique resource. 3) A diverse assignment format is can be adapted to improve various reading skills. On the one hand, it deprives the process of monotony and boredom. 4) Exercises are well adapted for the development of reading competence, since there is a timer for training speed and it allows you to change and set various parameters of speed. 5) The tutor can create a gallery of multimedia texts that allows students to choose texts at their discretion. 6) One can download texts in various formats. 7) It is easy to integrate external programs (such as Hot Potatoes) for practicing reading and language skills. 8) The tutor can getting feedback from students with different resources in the platform. 9) Contributes to collaboration with a student, when students determine the reading materials and formats of tasks. 10) There is a forum for discussions, assessments, evaluations of the reading [7].
3 RESULTS

3.1 Three blocks of online reading activities

The task of teaching FL reading is to enhance fluency similar to the one of the native speakers. In order to improve the reading technique, one should develop fluent reading to oneself. Of great importance in this case is the regularity of this exercise.

The proposed exercises provide students with practical skills in the language (expansion of the active vocabulary), so they form the skills of profession-oriented reading, the ability to critically evaluate the reading resources and verify their point of view. All exercises are offered in three blocks.

In the first block, language skills development exercises are presented, aimed both at enriching general scientific vocabulary and special terms, as well as at developing guessing skills. The exercises help students understand how the paragraph affects the overall comprehension of the text and are aimed at specifying the main idea of the paragraph gradually teach them to find topic sentences.

The second block trains strategic and compensatory skills such as predicting the meaning of words by initial letters, guessing the words similar to ones in the native language, predicting the content by headings (visuals, footnotes, pre-text questions, etc.); ignoring unfamiliar words not impeding the comprehension; returning to clarify or better memorize; using visuals (tables, charts, graphs, highlighting, etc.) for comprehension; using bilingual and monolingual dictionaries.

In the third block, exercises ensure development of critical reading skills. Critical reading presupposes distinction between facts and assumptions/opinions/attitudes, evaluation of the text, raises and answers the questions: 1) How does this information fit in with my previous knowledge from other sources (reading special and popular science literature, listening to radio programs and viewing TV shows, relevant sites on the Internet, the study of other subjects)? 2) Do I share the stated point of view? 3) Could the author convince me? 4) How useful and trustworthy are the proposed information (facts and assumptions, hypotheses)? 5) How logical is the chain of reasoning? 6) Where and how can this information be used? Exercises for the development of critical reading suggest protecting one’s answers using references to the text; justifying one’s point of view; agree, support or refute the views of others. Here is a list of exercise that can be successfully integrated into the Moodle system and help to enhance fluent reading skills.

The types of exercises in widest use are not new or novel nor are they unique to the teaching of reading. They employ the well-known techniques of matching, multiple choice, true/false, same/different or same/opposite, filling blanks, rearrangement, transformation, summary, outline, and paraphrase.

3.2 Improving Speed

Speed reading authorities stress that automaticity in word recognition leads to reading fluency [4]. Timed reading puts pressure on the student to read faster. In the Moodle all reading can be timed, even directions and exercises.

Automaticity and accuracy in word recognition can be trained via drilling exercises on enlargement of FL readers’ lexicon and thesaurus. With that, words and phrases from the thesaurus should meet the following requirements: first, these are the most frequent words on a specific subject area; secondly, these words are meaningful, important for understanding phrases, opinions and the whole text. They denote items that are essential for understanding the subject, events, their quality or quantity. Thirdly, their definitions or concepts do not contradict the main provisions of this subject area.

3.2.1 Speed in recognizing words

Word matching.

- Choose the word that is the same as the given word:
  - believe
  - retrieve
  - receive
  - perceive
  - achieve
Word pairs.
- Indicate whether the members of the pair are the same or different by choosing S or D:
  - poor day – poor pay
    - S
    - D
  - have time – have time
    - S
    - D

3.2.2 Speed in understanding words

One-Word Definitions.
- Choose the word that has the same meaning as the given word.
  - believe
  - argue
  - discuss

Sames and Opposites.
- Indicate whether the numbers of the pair are the same or opposite by underlining S or O:
  - Constant/temporary
    - SAME
    - OPP
  - Range/distance
    - SAME
    - OPP

3.3 Vocabulary Build-Up

3.3.1 Word-formation

Prefixes.
- All the words below appear in the reading section. Use the correct prefix (dis-, im-, mis-, un-) to make them negative:
  - appear:
  - responsible:

Derived words.
- Fill the blanks with a noun (plural form) related to the underlined noun in the sentence:
  - Our interest was in physics and (physicists).
  - Our interest was in innovations and (…).

3.3.2 Lexical range

- Tick the sentence that illustrates the same use of the word as in the text.
  - There are bound to be regional differences.
    - The book is bound in leather.
    - Children are bound to have some accidents as they grow up.
    - The prisoner's hands were bound.
Recalling words from their definition.

- Fill in the missing letters in words from the reading selection:
  - Too many to be counted: inn…able

3.3.3 Further techniques the vocabulary build-up.

Using words in sentences.

- Use in one sentence each group of words listed together:
  - technology, slow, past: e.g., The advancement of major technology slowed down in the past century.
  - borrow, inventions …

3.4 Sentence Structure and Comprehension

3.4.1 Sentence structure and the main idea

Grammatical details.

- Supply the structure words that have been omitted:
  - Two women who meet … the first time often do … shake hands, unless one is … especially honoured guest.

General syntactical meaning: the main idea.

- Put a check mark before each statement that suggests approval.
  - It is difficult to see how anyone could find Professor Baker’s latest book anything but completely satisfying.
  - Although I have the highest personal regard for Professor Baker, I must confess that I find few major points in this book on which he and I agree.

- Choose the statement that seems to show disapproval.

3.4.2 Sentence comprehension: the full meaning

Logical completion.

- Complete the sentence in a logical way, using one of the four words:
  - Curiosity, a drive to seek and acquire knowledge, is the fuel that lets technology attain its…. (potential, talent, distance, trouble)

3.5 Paragraph structure and comprehension

3.5.1 Paragraph organization

Reading for the central idea.

- What single word expresses the central idea of paragraph 4? …
- Read the paragraph quickly to determine the central idea. Choose one statement that best expresses the central idea.

3.5.2 Paragraph development

- Paragraph 7 uses examples. Find another paragraph developed in this same way.
- Paragraph 8 explains a reason for a condition. What other paragraph uses the same method of development?
- Create a coherent paragraph by placing the sentences below in logical order.
  - There is no stage V.
  - Stage IV is medical jargon for a tumour which has spread to other parts of the body.
  - It can start with something as trivial as a small cough that will not go away.
But often lung cancers cause no symptoms at all until it is too late.
Ask Graham Thomas, who in 2014 found that hiding behind his pneumonia was a lung cancer at stage IV of its development.

### 3.5.3 Paragraph comprehension

Scanning for specific information.
- Scan the following paragraph to answer this question. How did the college get its name?

Reading for full understanding: paraphrase and analysis.
- Fill the blanks on the basis of the selection just read:

  Smart speakers are …, and it is now common to hear people asking such assistants to provide …, or to play audiobooks or music from ….. But because a smart speaker can act only on what it hears, it has …., or what those people might be up to. Having such awareness might improve its performance – and might ….. as well as word. Several groups of researchers are therefore working on ways …

### 3.6 Comprehension of Complete Selection

### 3.6.1 Surveying for Main Ideas and Organizational Pattern

Outlining.
- The main ideas are given below in mixed-up order. Arrange them in the order in which the author discusses them:
  - symbiotic arrangements.
  - damaging bleaching.
  - major industries.

Paraphrasing and summarizing the main ideas.
- Outline the thesis and main supporting ideas in an outline.

Organizational Pattern.
- Check whichever of the following statements best expresses the organizational pattern of this essay.
  - Protecting coral reefs.
  - An idea to save coral reefs from climate change takes a step forward.
  - Transplanting heat-resistant strains may help reefs.
  - Bleaching is bad for coral.

### 3.6.2 Scanning for Specific Information

- Skim quickly to find the number of the paragraph in which each of the following topics is mentioned or discussed.
  - The internal structure of stars.
  - Eddington’s speculations.
  - Reactor designs.
  - Fusion power as an alternative energy.

### 3.6.3 Reading for Comprehension

- Make the summary of the reading.
- Discuss the text in the forum.
- Answer the comprehension questions.
3.7 Comprehension Questions

Questioning for comprehension is used extensively in almost all reading texts. Five types of questions for comprehension can be described and graded according to (a) the linguistic form of the required response, (b) the relation between the information that is needed to answer correctly and the information provided in the reading selection. We present them in order of increasing difficulty for the student.

3.7.1 Types of Comprehension Questions

Type 1. Information from the reading sufficient for the answer is contained in the question itself.

a) Answerable simply Yes/No or True/False.
   - Before Frank left for town, his wife handed him an umbrella.
     - True
     - False.

b) Multiple choice of answers is given with the question.
   - What did Frank’s wife hand him before he left?
     - an umbrella,
     - a piece of cloth,
     - a letter

Type 2. Answerable with information quoted directly from the reading selection. Questions are made with Wh-questions (WHO, WHEN, WHERE, WHAT), usually not WHY or HOW questions.

- What did Frank’s wife hand him before he left for town?
  Answer: (She handed him) a piece of cloth (before he left for town).

Type 3. Answerable with information acquired from the reading selection, but not by direct quotation from a single sentence. Usually questions are made with WHY or HOW questions.

- How did Frank explain his difficulties to his wife?
  Answer: First, Frank told her... Then he said...

Type 4. Answerable from inference or implication from the reading; the information is not stated explicitly in the selection.

- How do you suppose Frank’s wife felt about his explanation?
  Answer: Well, since she looked, cross, I suppose that she...

Type 5. The answer requires evaluation or judgement relating the reading selection to additional information or experience of the reader.

- What would you have done in Frank’s place?

The five types of questions described above are used in reading comprehension tests at various levels of difficulty.

REFERENCES


