

	Resumen Analítico en Educación - RAE
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1. Información General	
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Título del documento	The Impact of Moodle-based Worksheets to Enhance Students' Reading Comprehension
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2. Descripción
<p>This research study aimed to determine the impact of a series of Moodle-based worksheets in reading comprehension development to promote the use of reading strategies. This project is linked to the Materials Development field of study of the Masters' Emphasis on English Didactics. This qualitative study, framed in action-research, was conducted with a group of undergraduate students at a private university in Bogotá, Colombia. I collected data through students' artifacts, a focus group interview, and tests. The findings showed that the use of appealing, organized and contextualized virtual reading worksheets could be useful to enhance students' reading comprehension through an adequate use of a series of reading strategies that fostered their vocabulary development. Besides, the study showed that Virtual Learning Environments, such as Moodle, provide significant opportunities for students to empower their language learning process, which in this case, adheres to reading comprehension.</p>

3. Fuentes

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4. Contenidos

Chapter I

Research Problem

Research Problem

This study was conducted with a group of Undergraduate students at a private university in Bogotá. Their English level is between A2 and B1. According to archival documents, class observation notes and tests results I noticed that these students needed help to improve their reading comprehension through the adequate use of reading strategies. This situation showed that they needed help in terms of proper use of language learning strategies that could help them improve reading comprehension. Therefore, the main concern was to inquire how the use of adequate reading strategies through virtual worksheets could have a positive effect on students' reading comprehension development.

Research Question

How do the development and implementation of Moodle-based worksheets based on reading strategies impact undergraduate students' reading comprehension?

Research Objectives

General objective. To explore undergraduate students' reading comprehension progress through the development and implementation of Moodle-based worksheets.

Specific objectives. (a) To analyze students' reading comprehension process when being exposed to the use of reading strategies. (b) To analyze the impact of virtual material focused on reading strategies on students' reading comprehension.

Chapter II

Literature Review

This chapter explained the three leading constructs for this study: Materials Development (MD), Reading Comprehension, and Virtual Learning Environments (VLEs).

Materials Development (MD)

The main authors that framed this construct were Núñez and Téllez (2009) who affirmed that MD constitutes a set of actions whose aim is to enhance both teaching and learning processes, involving the design and/or adaptation of units, lessons, activities, among others; and Tomlinson (2011), who stated that MD is "anything which is done by writers, teachers or learners to provide sources of language input and to exploit those sources in ways which maximize the likelihood of intake" (p. 2).

Reading comprehension

This theoretical construct has been defined by authors like Snow (2002) as "the process of simultaneously extracting and constructing meaning through interaction and involvement with written language" (p. 11). Likewise, Swan (1975) defined reading comprehension as the capacity of capturing the highest amount of information from a text with the least misunderstanding, as well as the capacity of re-stating the ideas expressed by an author. Finally, Hill (2011) claimed that reading comprehension is a process that implies interaction and strategies that can lead to reading fluency.

Virtual Learning Environments (VLEs)

This third construct was defined by authors such as Dudeney and Hockly (2007), Chin (2003), and Dillenbourg, Schneider and Synteta (2002), who asserted that VLEs are internet-based systems aimed at

storing course content and materials; providing learners with tools to facilitate and enrich their learning experience through social and co-participative virtual spaces.

Chapter III

Methodological Design

Research Design

This section explained the research components of this study. It mentioned the research approach and type of study that framed the project, presented the participants of the study, and described each one of the data gathering instruments used in the research process. See section No. 5 of the document (“Metodología”) for detailed information regarding this topic.

Instructional Design

This chapter explained the pedagogical intervention implemented considering important foundations on the Theory of Language and Language Learning, the main and specific instructional objectives, and the innovations of this intervention in regards to the institution. This chapter also described the features of the methodological approach and the description of its phases and its implementation. See section No. 5 of the document (“Metodología”) for detailed information regarding this topic.

Chapter IV

Data Analysis

This chapter described the process of data analysis and the methodology adopted to describe the impact of the development and implementation of Moodle-based worksheets built on reading strategies in undergraduate students’ reading comprehension. This chapter illustrated the development of the different categories, subcategories that emerged from the analysis of data obtained through the instruments proposed in the research design, along with the constructs that provided the conceptual basis of this research study. The following are the categories, subcategories and findings that emerged from the analysis:

Category 1: Boosting knowledge through attractive, clear, and contextualized materials

Achieving impact through contextualized and meaningful materials. (1) Connection with learners’ needs, interests and context increased motivation (Núñez & Téllez, 2009; Núñez et al. 2009; Tomlinson,

2011); (2) Students showed permanent interest about relevant topics in their lives (Ramos & Aguirre, 2014).

Attracting learners' attention through clarity and visual appeal. (1) For students, the activities were visually suitable and pleasant (Tomlinson, 2011); (2) an adequate organization in the worksheets was beneficial for students.

Category 2: Reading strategies enhancing reading comprehension and vocabulary learning

Achieving progress in reading comprehension. Students improved their reading comprehension, and raised awareness about their progress (Pardo, 2004; Brown, 2001).

Using strategies to help students improve reading comprehension. There was a significant improvement in reading comprehension by using reading strategies (McNamara, 2009; Pardo, 2004).

Realizing the importance of the role of reading in vocabulary learning. (1) The reading comprehension worksheets contributed to students' vocabulary development (Thornbury, 2002; Manimozhi, 2012); (2) The use of reading strategies constituted a critical step for dealing with vocabulary in the reading worksheets (Grabe, 2008); (3) Students manifested their need to improve their vocabulary level to boost reading comprehension.

Category 3: Using Moodle to support learning

Moodle's simplicity to facilitate learning. (1) There was a positive general reception about this VLE from participants, due to its convenient, practical, and simple interface (Lopera, 2014); (2) Students were already familiar with the platform use. For them the access to the platform was friendly; (3) Students felt comfortable at accessing and solving the worksheets, due to the platform's usability, straightforward icons, and verbal instructions (Krug, 2000; Melton, 2006).

Chapter V

Conclusions and Pedagogical Implications

This chapter explained the most representative findings of this research study that emerged from data analysis intended to answer the research question. On the other hand, it presented the pedagogical implications for the English language teaching community, the institution where this study took place, and

for me as a teacher-researcher and materials developer. This chapter also mentioned the limitations of the study and some further questions that may yield further research.

5. Metodología

Research design

Research approach

This study was qualitative, as it was intended to describe and interpret perceptions, behaviors, and practices (Bell, 2005; Creswell, 2003). It was necessary to observe and study the attitudes and perceptions of a group of individuals with diverse and heterogeneous characteristics.

Type of Study

For the study, I adopted action research (Bell, 2005; Mettetal, 2001), since it was aimed at recognizing a problem, in order to plan an intervention, and according to data and findings, to propose actions to bring improvement.

Participants

Students. A group of eight undergraduate students at a private university. The sampling technique adopted for the study was the convenience sampling, which is focused on the selection of a group of individuals from a community with good accessibility and aligned to the researcher's judgment (Lawrence, 2007; Creswell, 2003)

Teacher as researcher and materials developer. (Mettetal, 2001; Hopkins, 1985; Núñez and Téllez, 2009) I used research to improve my teaching practice and to find mechanisms for enhancing students' learning process by identifying their main learning weaknesses, and designing a strategy that could help them overcome these difficulties. As materials developer, I proposed, designed and implemented activities aimed at achieving a positive impact on students' progress, and engaging them in the learning process.

Data Gathering Instruments:

Artifacts. They are aimed to obtain and systematize information of procedures and activities performed in the classroom, and identify the aspects to improve (Lankshear and Knobel, 2006; Rosnow, 2004). In the case of this research study, I designed virtual reading worksheets as artifacts.

Tests. This type of assessment aims to determine the learners' progress by providing data about abilities, behaviors, and accomplishments. (Durocher, 2010; Christensen, Johnson & Turner, 2007);

Focus group. This instrument provided first-hand data about participants' ideas and opinions. Focus group interviews rely on the group members' interaction by offering "a large amount of data in a short period of time" (Cohen, Manion & Morrison, 2000, p. 288).

Analysis Process

I adopted the grounded approach, in which analysis, theory and reflections derive from data, based on insights and comprehension to guide future action (Corbin & Strauss, 1990, Charmaz, 2006). Data provided the input to identify the most relevant elements to answer my research question.

Triangulation

I used the methodological triangulation approach, which implies the use of assorted sources of information, to facilitate the validation of the concepts emerged (Freeman, 1998; Altritcher et al., 2008). For data reduction, I adopted the color coding technique, which helped to arrange data into segments that delivered meaningful and clear information, to identify and check patterns (Hubbard and Power, 1999).

Instructional design

Pedagogical intervention

Virtual worksheets focused on reading strategies for analyzing and assessing the impact on the development of reading comprehension in a group of undergraduate students' (Oxford, 2003).

Instructional objectives

Main Objective: To design and implement Moodle-based worksheets intended to put into practice the use of learning strategies for reading comprehension.

Specific Objectives: (1) to help students be aware of the use of reading strategies for enhancing their reading comprehension; (2) to provide students with activities that may engage them in the development of reading comprehension; (3) to generate a friendly space on a Virtual Learning Environment (Moodle) to motivate students to read texts through interesting and appealing activities.

Second Language Acquisition Principles

For my pedagogical intervention, I adopted a series of SLA principles formulated by Tomlinson (2011), in which he claimed that materials (1) “should achieve impact”; (2) “help learners feel at ease”; (3) “should be perceived by learners as relevant and useful”; (4) “should facilitate learners’ self-investment” (p. 21)

Methodological Approach Underlying Pedagogical Intervention

The methodological approach chosen for this pedagogical intervention was the Strategies-based instruction (SBI), which focuses on making students aware of the strategies that can best help them overcome different learning weaknesses (Brown, 2000; O'Malley and Chamot, 1996; Oxford, 1990, 2003).

Intervention as innovation

The worksheets aimed to provide students with new and digital-based resources to help them improve reading comprehension through activities that promote the use of reading strategies. (Nuñez & Téllez, 2012; Markee, 2001; Karavas-Doukas, 1998).

Theory of language and language learning. The language view supporting the institution where the study took place was the functional view of language, focused on communicative and semantic aspects rather than structural-grammatical features (Richards and Rodgers, 2001; Sauvignon, 1991). The theoretical view that guided the development of the reading virtual worksheets was the functional one proposed by Krashen (1989), focused on the importance of input in language acquisition. This study also adopted the visions of language learning presented by Tudor (2001), more specifically, the ones related to experiential learning (centered on the level of exposure to the target language and its use for communicating in context), and analytical learning (focused on the cognitive processes that take place when learning new language items). Accordingly, the students participating in this study belonged to a higher education context that expected them to use the target language in real academic spaces.

Connection of the pedagogical intervention with the research question. The reading comprehension worksheets proposed for this pedagogical intervention encompassed activities that offered several opportunities for students to develop effective reading strategies to enhance their reading comprehension development. This intervention aimed to observe, on the one hand, if students used any strategies when

reading a text; on the other hand, how the use of a VLE such as Moodle helped them develop their reading comprehension; and how explicit instruction on reading strategies affected the reading comprehension of a group of undergraduate students.

Instructional stages. The MD framework proposed by Núñez, Pineda and Téllez (2004) was taken into consideration for the design of the pedagogical intervention (virtual worksheets). The authors highlighted the importance of conducting a needs analysis, establishing clear objectives, selecting a series of activities and their sequence for their development, and carrying out an adequate assessment of the materials.

Topic selection and development. I designed six virtual worksheets based on reading passages selected according to students' preferences, based on the information provided by the needs analysis survey. The topics included in the worksheets were: information technologies, travel, social networks, and business in the information era. The worksheets were structured as it follows: 1) A warming-up activity and pre-reading activities for students to make predictions about the passages topics and get familiar with the vocabulary related; 2) while-reading activities to encourage students to take an active role as readers and to help them check their comprehension through different reading strategies; 3) post-reading activities to help students assess their understanding of the texts and their engagement with the use of reading strategies; 4) a survey in which learners expressed their perceptions about their experience with the worksheet, and reflected about the use of reading strategies.

Informed consent. I wrote a letter to the University's Foreign Languages Common Area director for requesting permission to conduct the study with a group of undergraduate students. I also wrote an informed consent form for the participants, in which I explained the aim of the study, its benefits and implications. The students willing to participate signed the document.

Sensitization. Through a series of sensitization activities, students had the opportunity to share their experiences regarding reading comprehension. Then, I explained the purpose of the study to the group by describing some actions that could help them overcome their reading comprehension difficulties through the use of reading strategies.

Implementation of the materials. For developing this stage, I designed six virtual worksheets focused on reading comprehension. I chose the topics according to the participants' preferences, context and

language level. The worksheets included activities such as matching, word search puzzles, true/false statements, multiple choice and open questions, and completion of words, sentences and texts. The reading strategies included were: *grouping/categorizing*, *using imagery*, *scanning a text to capture specific information* and *placing new words into context* (Oxford, 2003, p. 12, 13); *using background knowledge*, *making predictions* and *making inferences* (Chamot & O'Malley, 1994, p.54). At the end of each worksheet, there was a self-assessment form, where I collected students' perceptions regarding the materials and their performance. I had the opportunity to pilot the worksheets with another group of the same course level. It was an important step in this process, as it helped me identify weaknesses in the worksheets designed, and to make the necessary improvements.

6. Conclusiones

Conclusions

- Contextualized virtual reading worksheets, which are visually appealing and organized, and aligned with students' context, needs and interests triggered their involvement and motivation (Tomlinson, 2003; Núñez & Téllez, 2009).
- Participants developed an increasingly higher awareness about the importance of reading strategies for enhancing reading comprehension (McNamara, 2009; Pardo, 2004).
- The reading worksheets were useful to strengthen and enhance learners' vocabulary learning (Jenkins et al., 1984; Adlof & Storkel, 2006)
- The Moodle platform can offer spaces and opportunities to help learners develop and enhance their reading comprehension (Tsai & Talley, 2014).

Pedagogical Implications

- The study represented a contribution to the participants and institution where I conducted the current study, as the virtual worksheets accomplished its population needs through useful materials to strengthen their reading comprehension.

- As a teacher-researcher and materials developer, it helped me to raise my awareness about my classroom daily practices and, therefore, to improve them (Burns, 2010). In the same vein, the study contributed to foster my research skills in my context.
- This study may benefit the ELT community in terms of the development of reading comprehension materials in virtual settings that can accomplish students' needs and interests.

Limitations of the study

- Time constraints for implementing the worksheets
- Absences of some students to some sessions, due to compulsory academic events of their faculty.

Further research

- How do the development and implementation of contextualized materials based on test-taking strategies promote reading comprehension in exams?
- What could be the impact of contextualized reading comprehension worksheets in vocabulary development?
- How do the development and implementation of contextualized virtual worksheets promote autonomous learning?

Elaborado por:	
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