

Problem-based Learning in English Teaching: A Systematic Literature Review

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ABSTRACT

The industrial revolution 4.0 brought many changes in various sectors of life, including education. It also impacts curriculum changes. In the latest curriculum, MBKM, one of its characteristics is student-centered learning with one of its methods, namely case-based learning or problem-based learning. This study aims to find out how deep and extensive research has been conducted between 2013-2023 regarding problem-based learning in English teaching and the issues that develop in it. To reach those aims, the researchers use the Systematic Literature Review (SLR) method and Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) as a data collection and reporting protocol. The findings revealed a noticeable increase in publications emphasizing problem-based learning as the main focus in the last three years. Among the numerous publications reviewed, the majority consisted of quantitative research studies. The research subjects predominantly comprised college and undergraduate students, while the most frequently chosen topic was problem-based learning in teaching writing. This comprehensive finding will reveal publishers, authors, research methods, issues, gaps, and novelties in problem-based Learning research that researchers can use for future research.

Keywords: Problem based Learning, English Teaching, Systematic Literature Review.

INTRODUCTION

As times evolve and progress, the advancements of the fourth and fifth industrial revolutions, as well as the advancements in science and technology during the 21st century, have led to corresponding adjustments in the curriculum and Higher Education Standards (SN-Dikti) to keep pace with these changes (Jenderal et al., n.d.; Mutammimah et al., 2019). This curriculum change is necessary as long as it does not conflict with the philosophy of education and to achieve better goals and conditions.

From 1947 to 2013, the curriculum has changed eleven times. Then

in 2019, Nadiem Makarim, the Minister of Education and Culture, changed the 2013 curriculum to MBKM (Merdeka Learning Kampus Merdeka). The MBKM concept gives freedom to think and innovate (Ainia, 2020; Vhalery et al., 2022). Higher Education preparation is carried out and designed by carrying out innovative, collaborative, and understanding learning processes for students or Student-Centered Learning (SCL) to achieve cognitive, affective, and psychomotor aspects optimally and relevant to the MBKM curriculum (Jenderal et al., n.d.; Vhalery et al., 2022)

Student-Centered Learning (SCL) represents a vital aspect of the learning process in MBKM. By implementing SCL, the aim is for students to foster their creativity, enhance their abilities, shape their personalities, address their individual requirements, and cultivate self-reliance when acquiring and discovering knowledge. Within SCL, instructors can utilize various teaching approaches, including case- or Problem-based Learning (Jenderal et al., n.d.).

Several previous studies have examined the application of problem-based learning in teaching English. Ali stated that SCL is an educational method that focuses on students, aiming to improve problem-solving skills with independent learning and the ability to work in teams (Ali, 2019). When problem-based learning is used in learning English, this method can improve students' social skills, where they can practice English to communicate directly (Othman & Shah, 2013).

The existing literature has paid limited attention to assessing the breadth and depth of the research. It has not reflected how research has progressed over the past two decades on Problem-Based Learning in English teaching. Motivated by this focus, this research tries to systematically plan literature that examines problem-based learning in teaching English.

Concerning the background above, this study will contribute significantly to researchers interested in English teaching methods, especially Problem-based Learning. This study provides a comprehensive reference guide for researchers and practitioners in English teaching methods. This comprehensive finding will reveal publishers, authors, research methods, issues, gaps, and novelties in Problem-based Learning research that researchers can use for future research.

This research answered the following research question:

1. What are the patterns in problem-based learning research in English teaching?
2. What are the core conclusions of the available literature?

METHOD

1. Research Design

The present study is a Systematic Literature Review (SLR). This meticulous examination of the literature aims to gather pertinent findings

that meet specific criteria to address the research questions. The Systematic Literature Review employs explicit and systematic approaches to reduce bias in identifying, selecting, synthesizing, and summarizing existing research outcomes. (Moher et al., 2016).

2. Data Collection and Reporting Procedure

As for the process of collecting literature and searching data, it is carried out using the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) protocol (Akmal, 2022; Handayani et al., 2018; Kernagaran & Abdullah, 2022; Page et al., 2021).

In the flowchart, PRISMA presents a complete and detailed stage for conducting a literature review. The stages in detail are (Kernagaran & Abdullah, 2022; Santhanasamy & Yunus, 2022):

a. Identification

In this stage, the researcher determines the criteria for articles suitable for this study. The eligibility criteria used by researchers are as follows:

- Research results in English
- Research results in articles in journals and proceedings
- Research results published in 2013-2023
- Research discussing Problem-based Learning in English Language Teaching

This study uses the ERIC, ProQuest, Taylor & Francis, and Google Scholar databases as sources of information. Researchers will use articles that can be accessed and eliminate those that cannot be accessed.

The selection of literature here will be carried out through the following phases:

1. Establish appropriate search terms (such as "English Teaching and Problem-based Learning," "Case-based Learning in English Teaching," and "Problem-based Learning in ELT").
2. Identify and evaluate titles, abstracts, and keywords from the located articles, considering predefined criteria for eligibility.
3. Review and assess articles to determine their suitability for inclusion in the review based on the predefined eligibility criteria

b. Screening

In this stage, the researchers screened selected articles from four databases; ERIC, ProQuest, Taylor & Francis, and Google Scholar. The researchers eliminated the duplicated articles. Subsequently, the titles and abstracts of the remaining articles were examined. The researchers quickly reviewed and evaluated the titles and abstracts, and based on predetermined inclusion and exclusion criteria, they identified the selected articles (Xiao & Watson, 2019).

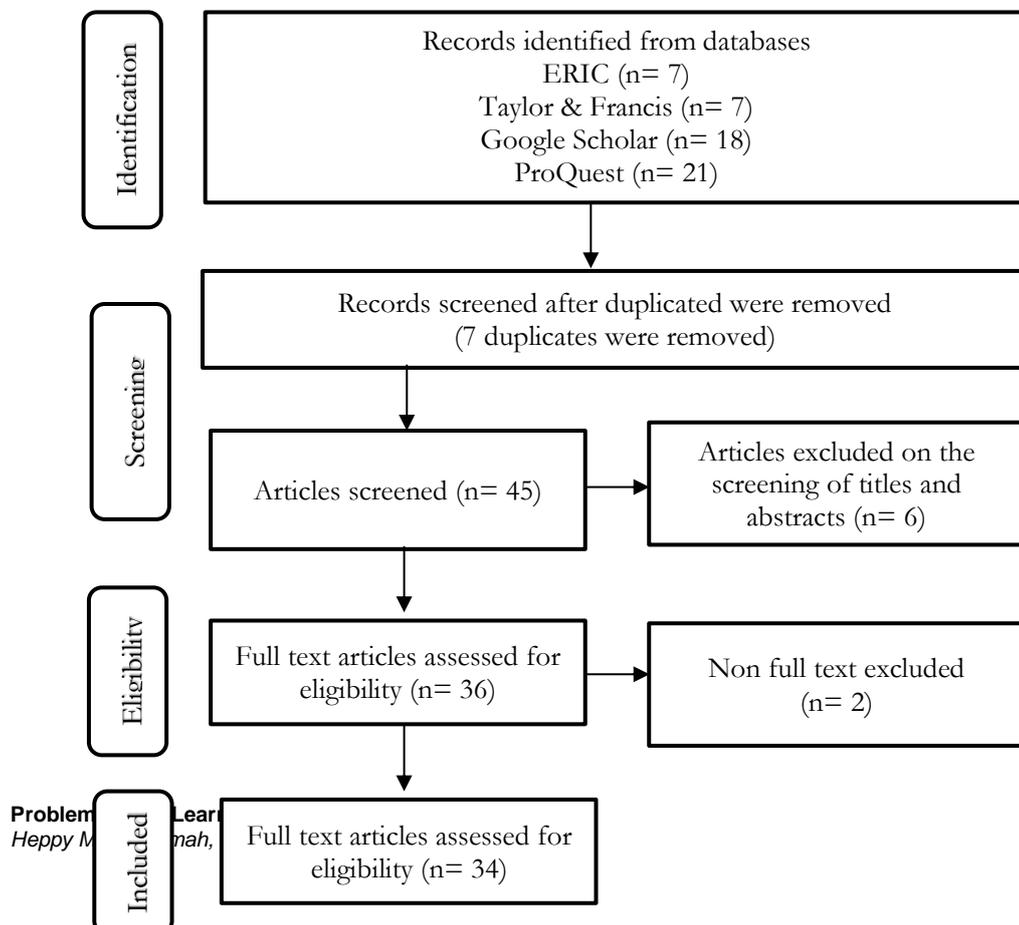
c. Eligibility

The articles were examined and assessed during this stage to determine if they met the necessary requirements. The articles had to meet the criteria, which specified the inclusion and exclusion parameters. Articles that met these criteria and had full text available were considered eligible, while those that did not meet the criteria were excluded. Essentially, the article selection process aimed to address the research questions effectively. Therefore, the inclusion and exclusion criteria played a significant role in designing superior-quality research.

d. Exclusion

Following the assessment of articles for eligibility, those that did not meet the criteria were excluded from this paper. The excluded articles encompassed book chapters, books, review papers, and meta-analyses that were not published in English. Additionally, articles published outside the timeframe of 2013 to 2023 were also omitted. This stage is vital as it represents the conclusive step in refining the search process to identify pertinent articles on problem-based learning in English teaching. Figure 1 provides a summarized overview of this search process, utilizing the PRISMA flow chart to illustrate the details.

Figure1:
Flow chart of the Systematic Literature Review Process



Based on Figure 1, the selected articles in this research are 35 articles. These articles have passed the screening, are eligible, and meet the criteria set by the researchers in the previous stage.

3. Data Analysis

In data analysis, every article is categorized according to specific criteria that align with the designated category. This categorization is determined based on the information provided by the authors in the abstract, methods, and discussion sections. The collected data is also presented using visual aids such as diagrams, tables, images, or charts. (Susetyarini & Fauzi, 2020).

FINDINGS AND DISCUSSION

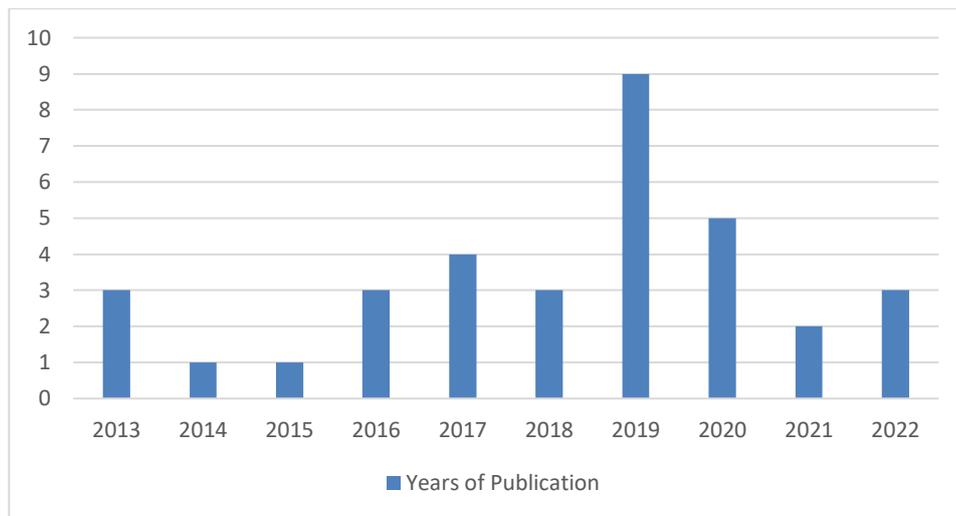
1. RQ1: What are the patterns in problem-based learning research in English teaching?

The patterns in the research of problem-based learning will be shown as the distribution of the studies by years, distribution by countries, research methodology, and participants in the included articles in this study.

a. Distribution of the studies by years

The distribution of the studies by years indicated how the research was conducted in a certain period. This study accumulated articles from 2013 – 2023. Figure 2 shows the number of publications since 2019 has risen higher than in previous years. The development trend in the number of publications year to year indicated a significant increase in research about problem-based learning in English teaching.

Figure 2
Distribution of the studies by years

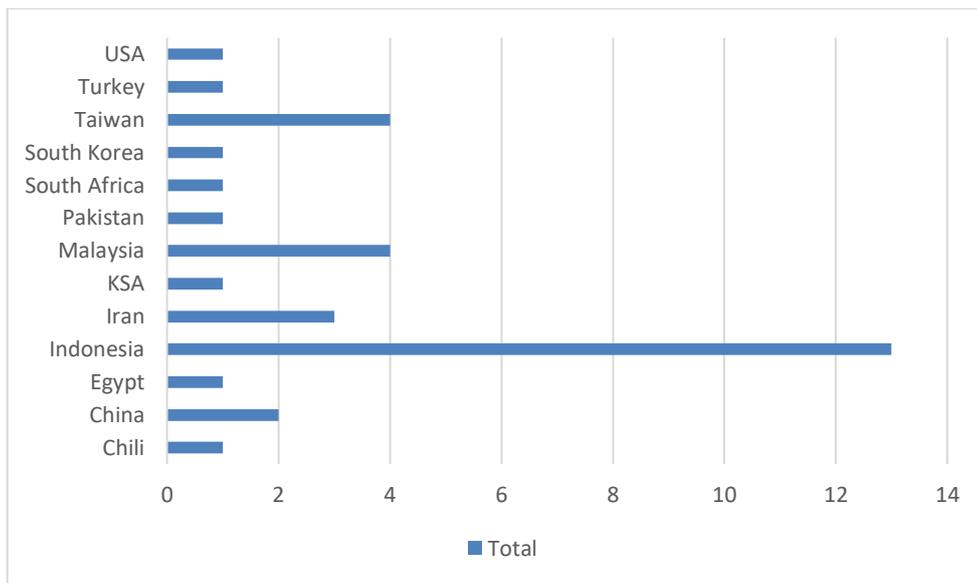


Increasing the number of studies exploring problem-based learning in English instruction will have a more significant beneficial impact on the advancement of education in Indonesia. This assertion is rooted in the belief that the primary objective of the research is to enhance educational methods (Coburn & Penuel, 2016). Moreover, research holds the power to shape educational practices for several reasons. Firstly, its discoveries serve as reliable information that researchers and educators can effectively apply. Additionally, research provides a fundamental framework for making national, local, or institutional educational decisions.

b. Distribution by countries

Figure 3 shows that Indonesian authors contributed the most articles to the research dealing with problem-based learning in English teaching, even English as a foreign language in Indonesia. The second countries that mostly gave contributions were Malaysia and Taiwan. The primary reason for the many articles contributed by Malaysian authors is their extensive research efforts beyond foreign language (FL) and English as a second language (ESL) studies. Malaysia, where English is a second language, places significant emphasis on English proficiency, as evident from the attention given by the Malaysian Education Ministry (MOE) to ensure students at all levels achieve mastery of the language (Kernagaran & Abdullah, 2022).

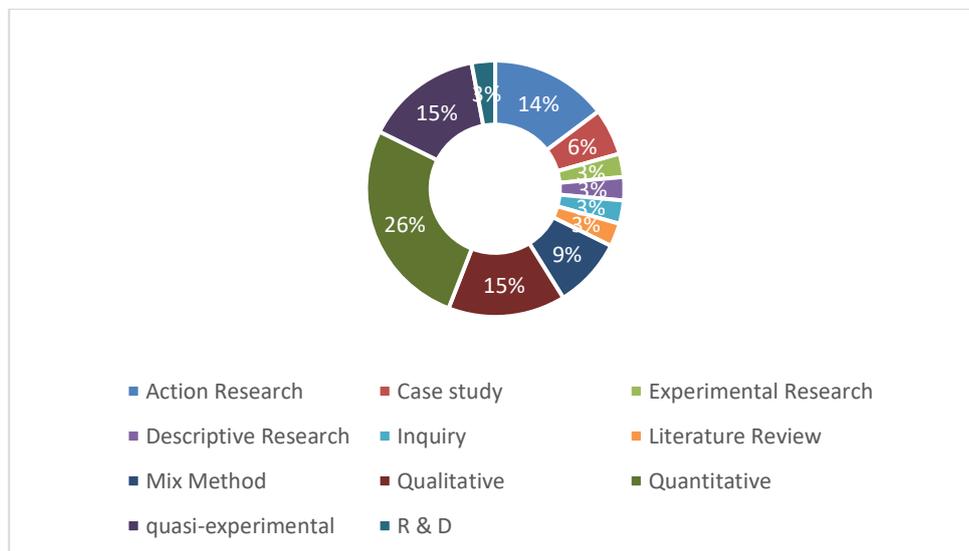
Figure 3:
Distribution by countries



c. The research methodology used in selected articles

Based on Figure 4, the research methods related to problem-based learning in teaching English are very diverse. However, from these data, it can be seen that there are four methods most often used, namely quantitative research, experimental where this experimental is also design of quantitative, qualitative research, and classroom action research.

Figure 4:
 The research methodology used in selected articles



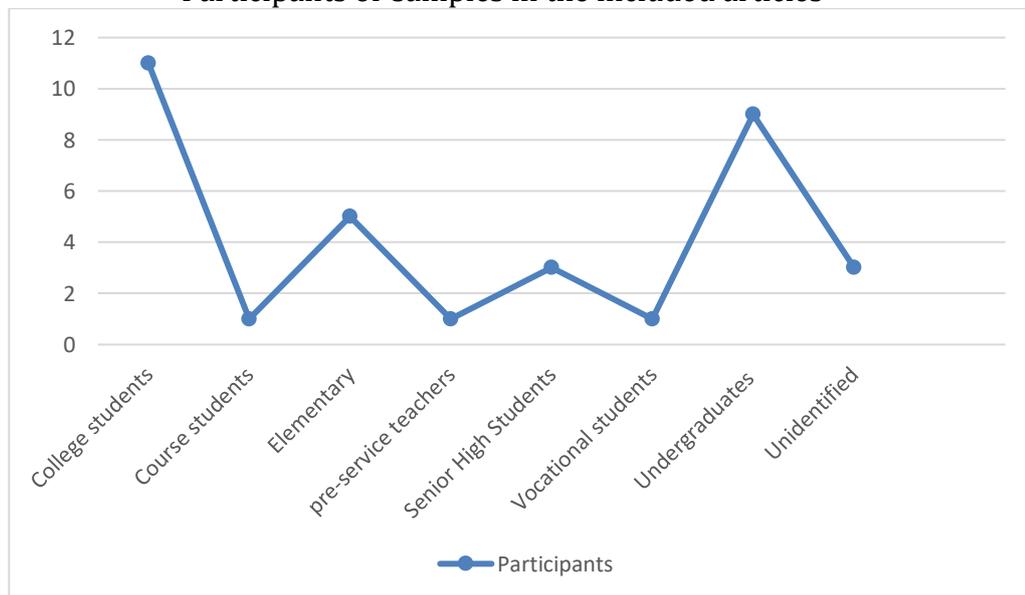
Previous studies have found that researchers in education tend to prefer quantitative research designs over qualitative ones, which is consistent with the higher number of quantitative research studies. This

preference for quantitative research was highlighted in the previous research (Uzunboylu & Aşıksoy, 2014; Yuksel Goktas et al., 2012). Qualitative approaches are relatively new in educational research (Sharma, 2013), but there has been a growing trend towards using qualitative designs, particularly in social research and certain educational issues (Mohajan & Mohajan, 2018). This shift can be attributed to the advantage of qualitative methods in providing detailed and comprehensive descriptions of phenomena. Consequently, the lack of existing qualitative research allows future researchers to utilize qualitative designs and focus their studies on critical thinking skills.

d. Participants or samples in the included articles

When examining the research participants, the majority of studies concentrated on college students (11 studies) and undergraduates (9 studies), followed by elementary school students (5 studies), and a smaller number of studies on senior high school students (3 studies), vocational students (1 study), preservice teachers (1 study) and unidentified participants or samples (3 studies). Figure 5 indicated that the study on problem-based learning in English teaching was more prevalent among tertiary or college students than at other educational levels.

Figure 5:
Participants or samples in the included articles



A literature review on problem-based learning studies reveals that many research participants are college students. Numerous studies have focused on investigating the effectiveness and outcomes of problem-based learning (PBL) within the college setting. These studies have explored various disciplines, including but not limited to medicine, engineering,

business, and social sciences. The emphasis on college students as research participants can be attributed to several factors. One of them is that problem-based learning has gained popularity in higher education institutions due to its potential to enhance students' critical thinking, problem-solving skills, and knowledge retention. As a result, researchers have recognized the value of examining the implementation and outcomes of PBL, specifically within the college context (Deep et al., 2020).

2. RQ2: What are the core conclusions of the available literature?

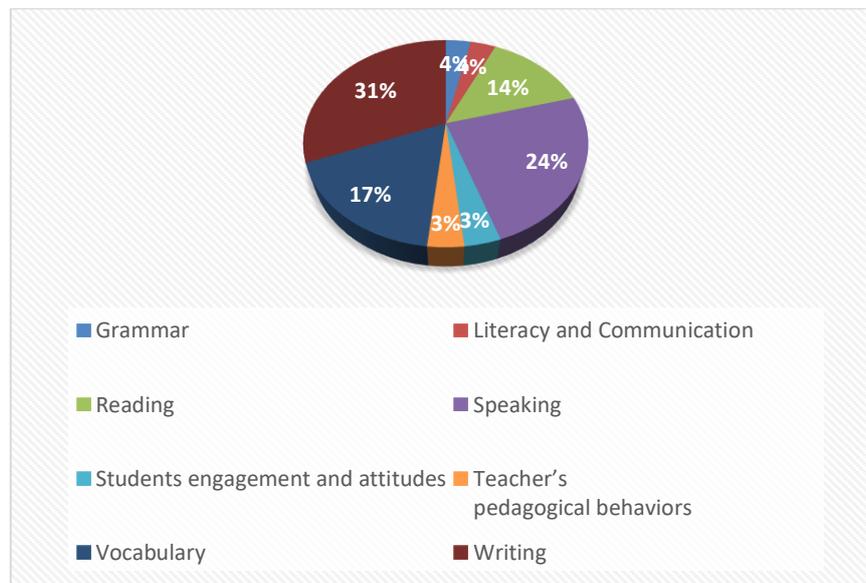
In order to address research question 2, the researchers intentionally performed a thematic analysis on every article and categorized the results as the aspects or topics examined within the articles.

The aspects or topics examined within the articles

Figure 6 revealed the trend of research on problem-based learning based on the aspects or topics examined within the included articles. More than 32% of the researchers centered around teaching writing ((Affandi & Sukyadi, 2016; Aliyu et al., 2016; Binasdevi et al., 2022; Dastgeer et al., 2019; Ghufron & Ermawati, 2018; Kumar & Refaei, 2013; Othman & Shah, 2013b; Prabowo et al., 2021; Suyoga Dharma & Adiwijaya, 2018). Than 24% the researchers focused on problem-based learning in teaching speaking skill (Baresh et al., 2019; Kassem, 2018; Khotimah, 2014; Montafej et al., 2022; Oktadela et al., 2019; Rahmadana, 2020; Wijaya, 2022). Moreover, therewere 17% studies focused on teaching vocabulary (Chen et al., 2021; Iswandari et al., 2017; Lin, 2015; Malebese & Tlali, 2020; Shir Mohammadi, 2017), 14% studies examined in teaching reading skill (Alek, 2019; Berenji et al., 2051; S. Y. Lee et al., 2021; Rahman et al., 2016), 4% studies explored on literacy and communication (Wicaksono et al., 2019) and students engagement and attitudes (J. Lee, 2022), and other studies revealed the result on teaching grammar (Zuhriyah, 2017), teachers' pedagogical behaviors (Chien, 2020; Tang et al., 2020), two studies could not be concluded in certain topics (Ali, 2019; Jin, 2014), and two studies showed the explanation on four skills (Cosgun & Atay, 2021; Muñoz Campos, 2017).

Figure 6:

The aspects or topics examined within the articles



CONCLUSION

The present study involved a review of articles published from 2013 to 2023, focusing on problem-based learning in English teaching. The findings revealed a noticeable increase in publications emphasizing problem-based learning as the main focus in the last three years. Among the numerous publications reviewed, the majority consisted of quantitative research studies. The research subjects predominantly comprised college and undergraduate students, while the most frequently chosen topic was problem-based learning in teaching writing.

The study's results have led to several suggestions for future research. First, it is essential to increase the frequency of qualitative research in various approaches to investigate the advancement of problem-based learning in English instruction. Second, efforts in research and development (R&D) should focus on designing educational materials that enhance students' proficiency in all four language skills. Lastly, researchers are encouraged to choose appropriate tests and research designs that align with their hypotheses when conducting investigations.

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