Systematic Literature Review of Formative Assessment in Language Learning

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Abstract. As the integration of learning and assessment as a whole develops, formative assessment in learning is attracting increasing attention. Learning experts agree that assessment is part of shaping a learning culture. This content analysis study comprehensively analyses current research on formative assessment in language teaching, highlighting its important role in improving teaching effectiveness and language learning outcomes. Specifically, the study addresses three main aspects, namely the form of formative assessment and feedback and its influence on language learning. The results show that various forms of formative assessment, such as process-based assessment, portfolio assessment, gamification, mobile technology, and collaborative assessment, have proven effective in increasing student engagement, reducing anxiety, and improving language skills. The forms of feedback such as corrective feedback, continuous feedback, peer feedback, self-feedback, and online feedback all support continuous learning and improve students' language skills. This research emphasizes the need to align assessment practices with various educational environments and calls for closer integration between theoretical and practical approaches. In addition, the review provides valuable insights into formative assessment strategies in language learning and offers guidance for educators, policymakers, and stakeholders in language education.

Keywords: Formative assessment, feedback, language learning.

1 Introduction

Assessment plays an important role in language learning. Formative assessment in language teaching is an important approach to improve the quality of learning and support the continuous development of students' language competence [1]. Unlike summative assessment, which focuses on measuring students' abilities at the end of a lesson, formative assessment also provides constructive feedback for ongoing teaching [2][3]. Formative assessment allows teachers to adjust their teaching methods to suit the needs of individual students better and improve the learning process over time. This more dynamic approach allows teachers to respond to students' needs in real-time [4]. Formative assessment allows educators to understand students' development and learning needs, facilitating the development and implementation of more appropriate teaching innovations. In addition, formative assessment serves as an essential means of reflection for teachers. This process promotes professionalism by identifying aspects that need improvement in teaching, which plays a significant role in improving the quality of teaching practices [5].

Previous studies have highlighted the important role of formative assessment in language learning. For example, formative assessment provides feedback that enables students to improve their learning [2]. In addition, formative assessment has been developed in various digital forms to make it easier for teachers and students [3] [6]. Other research has also attempted to collect evidence of student work that allows students to reflect and encourages students to reach higher achievements [7].

Although various studies have examined the application of formative assessment in language teaching, many challenges still exist in its implementation. Some of these include teachers' need for more understanding of the forms of formative assessment that can be used in language learning and how to provide effective feedback. Therefore, a deeper understanding of formative assessment and its role in language teaching is needed and the collection of more substantial evidence through systematic studies. This study is a content analysis research that reviews relevant research from 2005-2024.

This review covers all language competencies, including listening, reading, speaking, and writing. There are two problem formulations in this study. Firstly, what is the form of formative assessment, and how does it affect language learning? Secondly, what is an effective form of feedback in language learning? Thus, this study aims to analyze the effect of formative assessment in general and on the form of formative assessment and its effect precisely. In addition, the research also examines the forms of feedback and their effectiveness in learning improvement to improve student competence.

2 Research Method

This research is a content analysis research that is conducted using a systematic literature review. According to Dresch et al.,[8] a systematic literature review is a secondary study used to map, locate, critically evaluate, consolidate, and combine the results of relevant primary studies on a particular problem or research topic, as well as to identify gaps to be filled, produce a coherent report or a coherent synthesis.

The type of data in this research is text, specifically articles from the Scopus database. Text data type refers to any information conveyed in written form, be it in words, sentences, or other written parts[9]. The data collection technique is carried out through the following steps, namely identifying keywords, establishing inclusion or exclusion criteria, and evaluating and analyzing previous research on formative assessment in language learning [10]. To ensure the validity of article data obtained from the Scopus database, filtering was done through the Preferred Reporting Items For Systematic Review and Meta-Analysis (PRISMA) diagram [10]. PRISMA diagram can be seen in Figure 1. The explanation of the steps taken in this research is as follows.

2.1 Literature Research

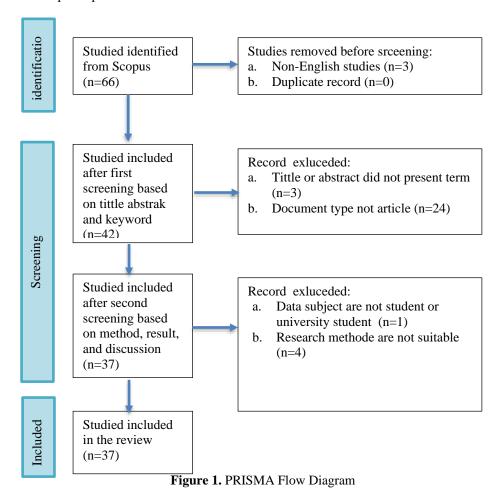
This research uses the Scopus database because it contains high-quality articles and goes through a rigorous review process. The research topic used was formative assessment in language learning. The following research query guided the search in the Scopus database. FA= (("formative assessment" OR "formative evaluation" OR "AfL" OR "assessment for learning") AND ("language learning" OR "language teaching" OR "language teaching and learning") AND ("impact" OR "effect" OR "influence")). The research article filter follows the PRISMA diagram, which can be seen in Figure 1. In addition, the publication period was between 2005-2024, focusing on the formative assessment of language learning.

2.2 Inclusion Criteria and Data Extraction

This study examines the application of formative assessment in language learning. Specifically, this research includes (1) qualitative, quantitative, and mixed-method empirical studies that assess original data on formative assessment practices in language learning, both for various language competencies in first and second languages, (2) studies involving teachers and students in various language learning settings, both in formal schools and language courses. In order to select articles for the Scopus database, the following inclusion and exclusion criteria were applied.

Inclusion Criteria

- a. Research registered in the Scopus database and published from 2005-2024
- b. Research conducted in the context of language learning
- The research focuses on formative assessment carried out in schools or language courses.
- d. Participants were students, university students, teachers, and language course participants.



Initially, 66 studies were recorded based on the search query. During the screening process, by assessing titles, abstracts, and document types, we excluded 24 studies. Furthermore, researchers screened the methods, results, and discussion and excluded five studies. The exclusion criteria were as follows.

Exclusion Criteria

- The study does not focus on formative assessment in language learning in the classroom.
- b. The methods used in the study did not examine language learning competence
- c. The study was not empirical
- d. The study did not analyze the original data

2.3 Data Analysis

Based on the data, the steps taken to investigate formative assessment in language learning are as follows. Firstly, the researcher coded the main points based on the problem statement and research method. More than half of the data related to forms of formative assessment (n=30) and articles on feedback (n=13). Secondly, we coded the forms of formative assessment and feedback. Thirdly, we coded the effect of formative assessment and feedback on improving students' competence in language learning.

2.4 Characteristics of the Selected Studies

Based on the 37 studies analyzed, three types of language are the focus of learning. There were 86% (n=32) studies that discussed English, either as a first or second language, followed by Arabic at 11% (n=4), and 3% (n=1) discussing languages in general. The main objective of this study was to conduct a thorough review of high-quality studies; a sample size of 37 articles was considered appropriate. The types of research included were qualitative, quantitative, and mixed methods. The distribution of the number of studies can be seen in Figure 2.

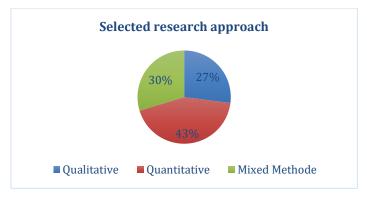


Figure 2. Selected Research Approach

3 Result And Discussion

3.1 Forms of Formative Assessment and its Influence on Language Learning

The researcher isolated various methodological approaches and formative assessment strategies in the data analysis. After data collection, analysis, and coding of 37 selected articles. These findings directly answer problem 1, which provides an overview of the form of formative assessment and its influence on language learning.

Assessment in language learning has undergone significant changes in recent decades. In contrast to the traditional approach that focuses only on assessing the final product (such as exams or assignments), assessment in language learning contexts now pays more attention to the process and development of students' abilities. In a study conducted by [1], assessment in language learning is divided into two main categories: summative assessment and formative assessment, but this research will focus more on formative assessment. The researcher will classify the forms of formative assessment and explain their influence on language learning.

3.1.1 Process-based Formative Assessment

In language learning, formative assessment is vital in developing students' language skills. These assessments focus not solely on the result but on the ongoing learning process, providing immediate feedback and allowing students to reflect and refine their progress over time. The form of formative assessment most commonly found in this study is process-based assessment. The forms of process-based assessment can be seen in Table 1.

One of the primary forms of formative assessment is process-based assessment, which significantly improves student engagement [11]. This type of assessment focuses on diagnosis, inquiry, and reflection, with students actively involved in self-improvement [12]. Through this approach, students receive a final judgment and are directed to continuously improve and develop their language skills throughout the learning process [13]. This leads to developing more effective long-term learning strategies, such as task planning and management, which will support their language learning progression over time.

One of the most significant impacts of process-based assessment is improving speaking skills [14][15][16][17]. Through formative assessments such as group discussions or oral presentations, learners can get immediate feedback that helps them improve their pronunciation, use more appropriate vocabulary, and speak fluently and confidently. This shows that formative assessment can serve as an effective tool to improve and strengthen learners' speaking skills gradually.

In addition, process-based formative assessment also plays an important role in the development of writing skills [18] [19]. Writing tasks are given periodically, accompanied by constructive feedback from the teacher, and help learners correct errors in sentence structure, grammar usage, and organization of ideas in writing. In this study, learners who engaged in the writing revision process based on formative feedback showed significant improvement in the quality of their writing. This indicates that formative assessment helps learners understand the material being learned and strengthens their critical thinking skills and ability to revise their work.

Table 1. Forms of Process-based Formative Assessment

Reference	Form of FA	
Elkhafaifi H.[20]	Pre-listening activities and repeated listening activities	
Ross S.J.[21]	Alternative assessment procedures	
Jones J.[22]	Assessment for learning (AfL). Continuous assessment gives immediate feedback to students and allows them to reflect on and improve their progress.	
Xie Q.; Andrews S.x[23]	School-based assessment emphasized evaluation tailored to the local education context and used to support the learning process.	
Lee I.[24]	Assessment that focuses on the learning process, such as diagnosis, comprehension, and inquiry, to improve students' abilities. This assessment is done "with" students.	
Jiang X.; Sharpling G.[11]	Formative assessment focuses on the process.	
Yi Q.[25]	Formative evaluation focuses on the process by which problems are discovered promptly, corrected, and adjustments made to achieve the desired goals.	
Duque Micán A.; Cuesta Medina L. [26]	Self-assessment evaluates students' vocabulary competence and speaking fluency. This assessment was conducted through student learning logs, field notes, and artifacts in the form of audio recordings.	
Kirkby J.; Keary A.; Walsh L.[27]	Assessment for Learning to support continuous student learning by providing feedback	
Maier U.[3]	Mastery assessment is used to control learning progress and help low-achieving students to repeat important material.	
Yin S.; Chen F.; Chang H. [15]	Peer assessment (PA) is when students assess their peers based on specific criteria. This assessment activity is conducted in the context of classroom-based assessment, which is formative and learning-oriented.	
Patra I.; Alazemi A.; Al-Jamal D.; Gheisari A.[28]	Formative assessment to provide corrective feedback given by teachers in written and verbal form to students.	
Zheng C.; Wang L.; Chai C.S.[16]	Self-assessment-initiated (SAI) and Peer-assessment-initiated (PAI)	
Shaalan D.[29]	Arabic Second Language Learning Environment (L2LE) Instrument	
Williams K.[17]	A rating scale for a paired conversation task to determine whether perceptions of speaking fluency are influenced by various temporal speech features (e.g., speaking rate)	
Liu Z.[12]	Nonlinear Dynamic Individual-Centered Language Assessment (NDICLA), diagnostic assessment, and formative assessment - on cognitive load and learning outcomes	
Nguyen CD.[18]	Formative assessment with written corrective feedback	

3.1.2 Portofolio

Another increasingly popular form of assessment is portfolio assessment. Studies related to the application of portfolios can be seen in Table 2.

Table 2. The Influence of Portofolio Assessment Tecnique

Reference	The Influence of Portofolio Assessment Tecnique		
Sharifi A.; Hassaskhah J. [13]	Portfolio-based assessment and reflection improved students' writing skills. Students focus not only on the results of their writing but also on the process and strategies they use during their writing.		
Zheng Y.; Xu J. [30]	Portfolio assessment positively impacts students' planning, task management, and perseverance in L2 writing.		

Portfolio assessment allows students to document their learning process over time [13] [25]. hese portfolio assessments allow students to assess their progress in more depth and give them space for reflection on the process. Research shows that portfolio-based assessments can improve students' writing skills as they focus on the outcome and the process and strategies used during writing [31]. In addition, portfolios allow students to be more involved in their learning, reduce the anxiety that often arises in traditional assessments, and increase their motivation.

3.1.3 Gamification Formative Assessment

Games are also used in the implementation of formative assessments. The studies related to the use of games in formative assessment can be seen in Table 3.

Table 3. The Forms and Influence of Gamification Formative Assessment

Reference	Form	The Influence
Vallorani	Formative	Gamification can positively support successful
C.M.; Gibert	assessment	assessment in both learning outcomes and
I.; Tuffnell	with	emotionally. One of the main influences is
C. [31]	gamification	lowering affective filters, which are often present
		in traditional assessments. Gamification helps
		reduce students' anxiety, making them more
		confident in the face of assessment.
Rezadoust	Clandestine	Assessment in language learning, especially
Siah Khaleh	assessment	involving technology and more creative methods
Sar H.[32]	games.	such as online games, can significantly positively
		impact the development of students' language
		skills.

The application of gamification in formative assessment has also shown positive results, especially in reducing students' affective barriers, such as test anxiety and fear. Using game elements in learning, as done in Kahoot or Quizizz apps, students become more engaged and motivated to participate in language learning. Research by [33] found that gamification helped reduce students' anxiety and increased their engagement, creating a more interactive and fun classroom atmosphere. Thus, gamification offers a more dynamic approach to overcoming the emotional barriers often arising in traditional assessment.

3.1.4 Mobile and Technology-based Assessment

The use of mobile technology in conducting formative assessments has become widespread. The studies related to mobile and technology assessment can be seen in Table 4.

Table 4. Mobile and Technology-based Assessment

Reference	orm of mobile	The Influence
	and technology-	
	based assessment	
Chou PN.;	A quiz with the	Students using the BYOD approach showed
Chang CC.;	BYOD approach	more stable growth in learning outcomes and
Lin CH.[34]		scored higher on learning retention tests.
Hung H	A clicker	Students showed a more positive perception
T.[35]	application is	of their learning experience, with more
	integrated	interest and engagement in game-based
		learning.
Yulia A.;	Online	The online assessment positively improved
Husin N.A.;	interactive	students' listening, reading, and writing
Anuar	quizzes	skills in English. However, there was no
F.I.[36]		significant effect on speaking skills.
Bacca-Acosta	self-assess	Influences students' learning outcomes and
J.; Avila-	directly through	motivation.
Garzon C.[6]	mobile devices.	
Yassin B.;	Kahoot and	Mobile-based formative assessment
Abugohar	Quizizz.	(MALL) had a significant positive impact on
M.A.[33]		students' overall language proficiency.
Zhang M.;	Computer-based	The results showed that students assessed
Chen W.[37]	collaborative	The results showed that students assessed
	writing	using this approach produced texts that were
		more fluent, of high quality, and more
		phrasally complex. In addition, they
Mohammed	Formative	collaborated more during the writing task.
		Online courses integrated with technology positively impact students' speaking and
T. [38]	assessments	listening skills in Arabic.
	through technology	instelling skills in Arabic.
Sarppa Raje	Low-stakes	This study assessed the effectiveness of
М.:	game-based	game-based quizzes and polls as formative
Tamilselvi A.	quizzes	assessments in promoting active learning
[39]	quizzes	and reducing student disengagement.
Al-Abri A.;	Mentimeter	Mobile-Assisted Language Learning
Ranjbaran	1,1011111110101	(MALL) simplifies learning and increases
Madiseh F.;		student motivation and participation.
Morady		
Moghaddam		
M. [40]		
		-

Mobile and technology-based assessment is also increasingly being applied in language learning. Apps such as Kahoot, Quizizz, and other platforms allow formative assessment to be conducted online, which gives students more flexibility in accessing materials and conducting their self-evaluation [6] [33] [40]. Research shows that mobile-based assessment increases student engagement in learning and accelerates long-term learning retention [16]. With this technology, students can access assessments anytime and anywhere, making learning independently and flexibly easier.

In addition, collaborative assessment, which involves peer assessment and self-assessment, positively impacts student learning. In collaborative assessment, students are allowed to provide feedback on their peers' work, increasing their understanding of the material and improving their social and communication skills stated that peer assessment can enrich students' learning experience, motivate them to be more critical of their work, and encourage more active interaction in the classroom. In addition, self-assessment allows students to be more aware of their strengths and weaknesses, encouraging them to set more explicit learning goals and improve their performance continuously.

Overall, formative assessment significantly impacts language learning as it focuses more on the development and continuous learning process. Compared to summative assessment, which tends to be more final and assesses the result, formative assessment offers more opportunities for improvement and self-reflection. Various forms of assessment, such as corrective feedback, process-based assessment, portfolio assessment, gamification, mobile technology, and collaborative assessment, have been proven effective in increasing student engagement, reducing anxiety, and improving language skills. Existing research shows that formative assessment can help students become more independent in their learning process and more motivated to achieve their language learning goals in a more structured and purposeful way.

3.2 Forms of Feedback and its Influence on Language Learning

Feedback is a fundamental element in language learning, correcting errors and accelerating students' language skill development. Based on existing data, various forms of feedback can be classified into several main categories: corrective feedback, continuous feedback, peer feedback, self-assessment, and online-based feedback. The number of studies related to feedback can be seen in Figure 3. Each of these forms of feedback has a significant influence on students' language development. This analysis will outline the effects of each feedback form, followed by a comparison with other Scopus-indexed research.

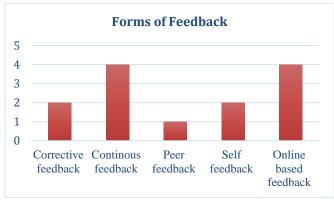


Figure 3. Forms of Feedback

3.2.1 Corrective Feedback

Corrective feedback (CF) is feedback given by the teacher to correct students' language errors. This form of feedback can be given in writing or orally. Research bt [28][27] shows that corrective feedback is critical in helping students correct errors and avoid repeating the same errors. This feedback allows students to correct their grammar, vocabulary, and pronunciation errors in the second language.

The effects of corrective feedback can be classified into Improving Language Accuracy and reducing anxiety. Corrective feedback helps students understand their mistakes and provides an opportunity to correct them directly, improving their language use accuracy. Corrective feedback delivered constructively helps reduce students' anxiety about their mistakes, giving them a sense of security to learn without fear of judgment.

3.2.2 Continuous Feedback

Continuous feedback is provided throughout the learning process, allowing students to improve. Research by [2] [41] [21] [42] shows that continuous feedback has a tremendous positive impact on language learning, allowing students to improve and develop their language skills progressively. In contrast to summative assessment, which only measures the final result, continuous feedback allows students to correct their mistakes as soon as they are recognized.

The effect of continuous feedback is to support long-term learning and reduce anxiety and confidence. Continuous feedback allows students to continuously improve and develop their skills without waiting for a final evaluation. Ongoing feedback helps reduce students' anxiety about the final result and increases their confidence in using language.

3.2.3 Peer Feedback

Peer feedback is how students provide feedback on their peers' work. Research by [15] shows that peer feedback positively impacts students' speaking skills as they assess their friends' speaking ability, which improves their speaking ability. Peer feedback enriches the learning experience by providing opportunities for students to analyze and reflect on their own and their peers' language skills.

The effect of peer feedback is to increase engagement and collaboration while building reflection skills. Peer feedback encourages students to be more engaged in learning, improve collaboration, and deepen their understanding of the learning material. Peer feedback encourages students to be more critical of their abilities and improve their self-reflection skills.

3.2.4 Self Feedback

Self-assessment is a form of feedback where students assess their skills, whether in speaking, writing, or other skills. By involving students in the self-assessment process, they can better recognize their strengths and weaknesses in language and set more explicit learning goals. Research by [16] [14] shows that self-assessment, which eventually results in self-feedback, positively influences students' speaking skill development, as they can evaluate themselves and improve their shortcomings.

The effect of self-feedback is to increase self-awareness and encourage self-directed learning. Self-assessment increases students' self-awareness of their abilities, which enables them to design more effective improvement strategies. Students who engage in self-assessment are more motivated to continue learning and improving themselves, increasing their language learning autonomy.

3.2.5 Online Based Feedback

With the development of technology, online-based feedback has become an increasingly popular form of feedback in language learning. This feedback is provided through online platforms, such as interactive quizzes, discussion forums, or language learning apps that allow students to get immediate feedback [6][3][36]. Yassin, [33] showed that mobile-based formative assessment (MALL) using apps such as Kahoot and Quizizz positively influenced students' language skills, especially listening and speaking skills.

In language learning, online feedback allows students to access materials and feedback anytime and anywhere, increasing flexibility in the learning process. Interactive platforms allow students to get real-time feedback, increasing their engagement and motivation to learn. In addition, online feedback allows learning to continue outside the physical classroom, which is very important in online education.

Overall, various forms of feedback - whether provided by teachers, peers, through self-assessment, or online - significantly impact students' language skill development. Effective feedback accelerates error correction, reduces anxiety, and increases students' motivation to engage more actively in language learning. Feedback provided throughout the learning process enables students to improve and develop their language skills on an ongoing basis. Feedback helps students to correct and improve their speaking and writing skills, which are important in language learning.

Based on this analysis, different forms of feedback in language learning significantly influence students' language skill development. Corrective, peer, self-assessment, and online-based feedback all support continuous learning and improve the quality of students' language skills. Existing research shows that formative feedback helps students correct errors, enriches their learning experience, increases their engagement, and encourages them to become more independent in their language learning.

4 Conclusion

Based on 37 studies on formative assessment in language learning published from 2005-2024, this study reveals that various forms of formative assessment significantly impact language learning as they focus more on the development and continuous learning process. Various forms of assessment, such as corrective feedback, process-based assessment, portfolio assessment, gamification, mobile technology, and collaborative assessment, have been proven effective in increasing student engagement, reducing anxiety, and improving language skills. Existing research shows that formative assessment can help students become more independent in their learning process and more motivated to achieve their language learning goals in a more structured and purposeful way.

As feedback is an important part of formative assessment implementation, it has a significant influence. Corrective feedback, continuous feedback, peer feedback, self-assessment, and online-based feedback all support continuous learning and improve the quality of students' language skills. This research emphasizes the need to align assessment practices with various educational environments and calls for closer integration between theoretical and practical approaches. In addition, the review provides valuable insights into formative assessment strategies in language learning and offers guidance for educators, policymakers, and stakeholders in language education.

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