LITERACY ASSESSMENT IN MULTILINGUAL CONTEXTS: A REVIEW OF CURRENT APPROACHES

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Abstract

The assessment of literacy skills in multilingual contexts has become an important focus in the era of globalisation, where individuals increasingly interact in multiple languages. Multilingual literacy not only includes reading and writing skills, but also involves understanding culture and linguistic context. This paper reviews current approaches to multilingual literacy assessment, including the integration of computer-based technology and personalisation of assessment based on individual experience. Technology-based approaches allow for more in-depth analysis through big data and adaptation to participants' language abilities, while personalised approaches consider social, economic and educational factors. While these assessment approaches bring many benefits, they also face challenges in ensuring equity and inclusion for participants from different language backgrounds. This review emphasises the importance of using current approaches to support the development of more inclusive education policies to improve the literacy skills of multilingual communities globally.

Keywords: Assessment, Literacy Skills, Multilingual Contexts, Overview of Current Approaches.

Introduction

Literacy skills are one of the basic competencies that are very important in the lives of individuals in the 21st century. Literacy is not only limited to the ability to read and write, but also includes the ability to understand, evaluate and use information in various forms and contexts. Literacy helps individuals communicate effectively, make informed decisions and solve problems in everyday life (Fiteriadi et al., 2024); (Judijanto & Aslan, 2025); (Hapinas et al., 2025); (Purike & Aslan, 2025). In addition, literacy affects academic achievement and the ability to adapt to the changing demands of the world of work. Literacy also enables the development of critical thinking skills and creativity, which are key to individual success in an era dominated by technological innovation and globalisation (Li & Seltzer, 2020).

Collectively, a society's literacy skills determine its level of social, economic and cultural progress. Societies with high literacy levels tend to be more innovative, productive and inclusive, as their citizens are able to actively participate in public discussions and decision-making that affect their collective lives. Literacy is also a key tool for strengthening social awareness, fighting for individual and community rights, and reducing poverty and inequality (Kim & Jang, 2022) . In addition, literacy skills help people face global challenges, such as climate change, public health and social conflict, in a more constructive way. By building a highly literate society, a nation can create a generation capable of supporting sustainable development and ensuring shared prosperity (Hamp-Lyons & Qian, 2021) .

With the development of globalisation, literacy is becoming increasingly complex as it involves multiple languages and cultures. Therefore, assessing literacy skills in a multilingual context is a significant challenge. Increased human mobility, cultural exchange and interaction between different language communities have created a dynamic multilingual society. This calls for a more comprehensive approach to assessing literacy skills, given that students or individuals may have to operate in more than one language on a daily basis. Research shows that multilingual literacy can affect academic achievement, social integration and future employment opportunities (Jewitt & Kress, 2020) .

However, to date, there are still various challenges in multilingual literacy assessment. One of them is the lack of assessment tools that can accurately measure literacy skills in multiple languages without bias. In addition, differences in assessment systems and educational curricula across countries often complicate international comparisons and policy formulation that can effectively support multilingual literacy learning (Shohamy & Menken, 2021) .

Recent approaches have been developed to address these challenges, such as the use of digital technologies, adaptive assessment methods and the integration of cognitive and affective assessments. For example, digital platforms can provide more flexible and contextualised literacy assessments using different languages. In addition, recent studies have tried to develop assessment tools that can be customised to individuals' language and cultural backgrounds, as well as the use of data analytics to gain deeper insights into literacy skills (Garcia & Lee, 2021) . However, more research and development is needed to improve the validity, reliability and practicality of multilingual literacy assessment tools. Current approaches should be continuously reviewed and evaluated to ensure that they are able to capture the complexity of literacy skills in multilingual contexts (Lee & Llosa, 2021) .

Therefore, this study aims to review current approaches to multilingual literacy assessment, analyse their strengths and weaknesses and provide recommendations for the development of more effective and inclusive assessment tools. Thus, it is expected

to support the development of better educational policies and promote global literacy improvement.

Research Methods

The review in this study used the literature method. The literature research method, or literature review, is a research approach that involves collecting, evaluating, and analysing various existing sources of information to answer a research question or support a scientific argument. This method is commonly used to formulate theoretical frameworks, understand previous research trends, and identify gaps in existing knowledge that require further research (Cooper, 2010) ; (Creswell, 2013) . In literature research, researchers review books, journal articles, research reports, and other scholarly publications relevant to the topic under study. The process involves critically selecting these sources, organising the information, and synthesising the findings to draw conclusions or develop new insights based on the accumulated evidence. This technique tends to be more cost-effective and can provide in-depth insights without the need to collect field data directly (Kitchenham, 2004) .

Results and Discussion
Approaches to Assessing Multilingual Literacy

Multilingual literacy is one of the essential skills in the era of globalisation, where individuals are required to use and understand various languages effectively in everyday life, both in social, cultural and professional contexts. Multilingual literacy includes not only the ability to read and write in more than one language, but also how one understands and interprets meaning, conveys ideas, and interacts in various cross-linguistic environments. To measure one's ability in multilingual literacy, a comprehensive and structured approach is needed that is able to capture various aspects of linguistics and communication (Moschkovich & Zahner, 2021) .

The first approach is through individualised language assessment. At this stage, each individual's language skills are assessed separately in each language. This includes testing reading, writing, speaking and comprehension skills. Standardised measurement tools, such as international language proficiency tests, can be used to determine an individual's level of proficiency in a language. This evaluation helps to identify the extent to which an individual has mastered a language in depth (Zhang & Zhang, 2023) .

The second approach is the analysis of cross-language interaction. Multilingual literacy depends not only on mastery of one language, but also on an individual's ability to code-switch fluently. This approach includes assessing how individuals use different languages simultaneously in conversation or writing to convey ideas clearly. In this context, the evaluation also highlights a person's flexibility in adjusting language use according to specific communication situations (King & Fogle, 2021) .

The third approach is cultural context-based assessment. Multilingual literacy is not solely about linguistic structures, but also involves understanding the cultural values and social contexts attached to each language. This assessment can be done by providing tasks that require individuals to demonstrate an understanding of cultural nuances in the use of a particular language, such as idioms or typical communication styles (Conklin & Pellicer-Sánchez, 2023) .

The fourth approach involves using technology to assess multilingual ability. In the digital age, technology-based platforms, such as language processing apps or software, can help assess individuals' abilities in multilingual literacy. For example, artificial intelligence (AI)-based tools can facilitate a more accurate evaluation of an individual's reading, writing and speaking skills in multiple languages through data analysis (Kunnan & Grabowski, 2023) .

The fifth approach is collaborative task-based assessment. Multilingual literacy often involves group work or interaction with individuals who speak multiple languages. One way of assessing multilingual ability is through cross-language collaborative tasks, where individuals are assessed on their ability to work together in multilingual teams, solve problems, and convey effective messages (Anderson & Chung, 2023) .

The sixth approach is the measurement of development over time. An individual's multilingual literacy may undergo changes based on experience, exposure to new languages and education. To provide a proper assessment, longitudinal evaluation methods that follow the development of an individual's language skills over time are needed. This provides a more accurate perspective of the dynamic nature of multilingual skills (Lee & Llosa, 2021) .

The seventh approach focuses on assessing pragmatic competence. Pragmatic aspects include an individual's ability to use language effectively according to specific communication purposes. This evaluation includes how a person can speak persuasively, build interpersonal relationships, or argue in the various languages he/she speaks by considering social and cultural norms (Solano-Flores & Chia, 2021) .

The eighth approach is the use of individual portfolios as an evaluation tool. A portfolio is a collection of one's work in different languages, such as essays, letters, speeches or other multilingual communication products. Through these portfolios, multilingual ability can be assessed thoroughly based on concrete evidence of literacy skills that have been possessed (Canagarajah & Dovchin ., 2023)

The ninth approach is real environment-based assessment. Often, an individual's multilingual literacy skills are most apparent when the individual interacts in real situations or environments, such as a workplace, school, or multilingual community. Assessment through direct observation or simulation of real situations can provide a more contextualised picture of one's multilingual skills (Taguchi & Roever, 2022) .

Thus, using the various approaches above, multilingual literacy skills can be assessed more comprehensively and accurately. This assessment is not only important

for measuring individual competence, but also for identifying areas of development that can support further mastery of multilingual literacy. The combination of diverse approaches allows the evaluation to take into account cultural nuances, social contexts, and technical and pragmatic aspects inherent in language skills.

Suitability of the Approach to Various Multilingual Contexts

It is important that approaches to language learning or management are tailored to the multilingual context. Each region, community or group has a unique diversity of languages, so the approach applied must take into account various local factors. The accuracy in choosing an approach will ensure that each language gets its own recognition and function, without giving rise to the dominance of one particular language. Multilingualism is not just the ability to speak many languages, but also how these languages coexist and influence each other positively (Cenoz & Gorter, 2022) .

In a multilingual context, an inclusive approach is very relevant. This approach emphasises openness to all languages in a society. For example, the intercultural approach allows different languages to be interacted and learnt with mutual respect. This approach not only improves language skills, but also builds intercultural understanding in multilingual societies (Horner & Alvarez, 2020) .

It is also important to consider a locally-based approach. This approach involves utilising local languages as the main medium for learning or communication. Local languages are often the cultural identity of a community, so their use gives a sense of respect for local cultural roots. In multilingual contexts, locally-based approaches also help communities maintain their languages which are sometimes threatened by the dominance of global or national languages (Canagarajah & Dovchin ., 2023)

The approach also needs to consider technological aspects that can support multilingual learning. Technology, such as apps or digital platforms, can be used to facilitate language learning more efficiently. In multilingual societies, the utilisation of technology enables wider access to language learning, especially if there is a need to learn a particular language that is rarely understood in the surrounding community. With a technology-based approach, individuals can learn independently while accessing global resources (Smith & Brown, 2021) .

However, the success of a multilingual approach also depends on sensitivity to social relations in the community. The approach should be able to maintain a balance between majority and minority languages. If the approach tends to ignore minority languages, then the richness of multilingualism may lose its meaning. Therefore, multilingual programmes or policies should promote equality without ignoring the needs of each language group (Wei & Lin, 2020) .

On the other hand, an approach in a multilingual context also plays a role in instilling the value of tolerance. Language is often a tool for understanding other people's perspectives and experiences. A tolerance-orientated approach helps

multilingual communities to accept each other's differences without conflict. Thus, language is not only a communication tool, but also a means to build peace and harmonious relationships between languages (Klingner & Eppolito, 2022) .

Approaches tailored to multilingual contexts must take into account long-term goals. These goals include the preservation of local languages while giving global languages room to interact. Strategies orientated towards sustainable multilingual development help prevent the extinction of a particular language while providing advantages in cross-cultural communication. Therefore, the approach adopted should be flexible and adapt to changing times (Deardorff & Arasaratnam-Smith, 2020) .

Overall, an appropriate approach in multilingual contexts is one that reconciles local needs with global demands while maintaining inclusivity. Multilingual contexts are not challenges, but opportunities to utilise diversity as a common strength. With the right approach, multilingualism can serve as a bridge, enrich social interaction and strengthen cultural identity in society.

Conclusion

The assessment of literacy skills in multilingual contexts is becoming increasingly relevant in a complex globalised society. Multilingual literacy involves an individual's ability to read, write and understand texts in multiple languages, including the application of cultural elements and local contexts. In this assessment, it is important to consider the interaction between the first language (L1) and the second language (L2) and how these abilities influence each other. Recent approaches show that multilingual literacy not only measures the technical aspects of reading and writing, but also takes into account the cognitive, social and cultural aspects of individuals.

In addition, new approaches to multilingual literacy assessment are more oriented towards technology integration and personalisation. Computer-based assessment allows for more detailed evaluation, including big data-based analyses to understand individual learning patterns. This technology helps to create adaptive assessment instruments according to participants' language abilities. On the other hand, the personalisation approach encourages assessors to recognise individuals' unique experiences of language learning, including the influence of socio-economic factors, education and access to language resources.

Finally, the development of multilingual literacy assessment approaches presents new challenges in ensuring equity. Assessments must be fair to participants from diverse linguistic backgrounds, while taking into account their linguistic identity. By utilising current approaches such as adaptive technology and individual-based focus, multilingual literacy assessment can be more inclusive and accurate. This review of recent approaches encourages further development in education policy, aimed at improving literacy in a dynamic multilingual society.

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