

Systematic Review

The Role of Culture in Education and the Social Environment: A Multilevel Analysis of Social Group Problems—A Systematic Review of the Findings of World Scientists

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Abstract

This article systematically analyzes the problems of various social groups at many levels, studying the importance of culture in education and the social environment, and identifying research trends among world scientists over the past 5 years (2022–2026). A systematic literature review was conducted in January 2026 using the PRISMA 2020 methodology, as a result of which 109 peer-reviewed, indexed publications from Scopus, Web of Science, and ERIH+ were selected and analyzed. As a result, the most current research trend was identified to use cultural intelligence theory, measurement tools, scales, and concepts in the analysis of multi-level problems of various social groups. The main conclusion: culture in education and its social environment in the context of social groups has not been studied systematically enough; therefore, cultural intelligence measurements can contribute to the understanding of the causes of problems of various social groups involved in the educational process in four dimensions: (1) metacognitive, (2) cognitive, (3) motivational, and (4) behavioral. The development of cultural intelligence in an individual person promotes a dialogue between different social groups that is constructive, open, and based on mutual empathy. Originality of the study: a systemic analysis of multi-level problems of social groups in the context of education, culture, and social environment was carried out, determining theoretical and empirical aspects and their contradictions.

Keywords: culture in education; cultural intelligence; social groups

1. Introduction

The consequences of global geopolitical conflicts are problems with the integration of refugees into the societies of other countries, and the integration of their children into educational institutions that have a culture that is foreign to them. As a global issue, this situation has been brought up many times in history, which is why, after World War II, in 1945, the societies of states established the United Nations Organization (hereinafter—the UN), the main goal of which is to promote world peace in the world. However, even the UN has not been able to resolve the long-standing Russian–Ukrainian war conflict, promoting diplomatic negotiations with various initiatives.

At the MONDIACULT 2025 international conference in Barcelona, the discussion continued on a deeper level, where participants expressed concerns about today's global challenges—climate change, ecological disasters resulting from human activity, viral pandemics, uncontrolled urban expansion, unethical use of artificial intelligence, and digital



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technologies. At the same time, the role of culture was highlighted in terms of promoting sustainable development, ensuring peace and stability, protecting the social environment, as well as education based on cooperation with museums and libraries, offering students the opportunity to learn about the values of cultural heritage. The final document mentions a key thematic framework: to create learning experiences that promote the realization of human rights, the appreciation of traditional knowledge, and the promotion of cultural diversity, while strengthening language skills, critical and creative thinking, intercultural understanding, as well as the preservation and protection of cultural and natural heritage for present and future generations ([UNESCO 2025](#)).

In 2024, the President of the European Commission, Ursula von der Leyen, outlined new directions for the European Commission in her strategic planning document “The European Choice. Policy Guidelines 2024–2029.” One of them is to focus on the things that are at the heart of our European way of life—our culture and history—so that people—especially the younger generations—can more easily benefit from our rich and diverse cultural heritage ([European Commission and von der Leyen 2024](#)).

In line with these guidelines, a new project, Cultural Literacies’ Value in Europe—CliVie, was launched in 2024 under the CORDIS Horizon Europe program, which will run from 2024 to 2027. The leading institution in this project is the University of Helsinki, and the participants are 13 partners from 8 countries: Finland, Lithuania, Poland, Germany, the Netherlands, the Czech Republic, Italy, and Latvia. Upon reviewing the published documentation of the project, a case study design was identified, which is based on the Theory of Change (ToC) methodology and the Social Return on Investment (SROI) methodology, to improve young people’s understanding of the value of cultural literacy in social cohesion, using arts-based education. The project “maps” arts-based education in the context of cultural literacy acquisition in different learning environments and at different stages of a young person’s education; “evaluates” arts-based education to help identify and assess their actual outcomes; “evaluates” arts-based education activities by calculating their impact; and “practices” different pedagogical approaches by developing an innovative set of practices and materials. In the CLiViE project, participants focus on the socio-emotional domain, as it provides a framework that best promotes cultural literacy through arts education. In this way, social inclusion is promoted as a result ([Ahson 2024](#); [European Commission 2024](#)). The CLiViE project has an identifiable pedagogical approach that uses the tangible and intangible cultural heritage of the host nation to integrate minority students into their cultural environment.

It is necessary to conduct a systematic review of the scientific literature to identify the problems of various social groups related to cultural aspects in education and its social environment. A secondary task of the study is to clarify the main differences in the opinions of scientists from different continents.

The European Framework of Reference for Skills for Development of the Organisation for Economic Co-operation and Development (OECD) emphasizes the ability to self-regulate socio-emotionally as a basic condition for the integration of different social groups in a multicultural society and educational environment ([OECD 2019](#)). And the main goal of education is to acquire competitive skills, which are later used in the labor market.

Historically, in 1974, Chet A. Bowers was critical of educational innovations that are presented as progressive, but in practice make the learning process superficial and instrumental, without paying due attention to the cultivation of spiritual values in the personality ([Bowers 1974](#)). The author raises issues about the goals of education in a democratic society and emphasizes the importance of culture in preserving individual freedom and social well-being. However, the importance of culture in education needs to be proven through empirical research. So far, there have been attempts to measure

cultural intelligence by developing various scales and their modifications (Earley and Ang 2003; Ang et al. 2007, Deng et al. 2025). However, they are not specific to the educational environment, but to the business environment.

The OECD Skills Development Strategy, developed in 2019, was supplemented five years later by the OECD Learning Compass 2030. A tool for the future of education and skills (OECD 2024). It can be seen as a correction of the original idea of skills development in the name of economic growth: “The OECD Learning Compass 2030 is a changing learning system that sets out an intended vision for the future of education. It supports broader educational goals and provides orientation points towards the future we want: individual and collective well-being” (OECD 2024). It is unthinkable without the social well-being of each social group. Constructive dialogue is necessary between students, their parents and teachers, school management, staff, and the community. Also, in higher education, dialogue between students, professors, and potential employers—social partners—is important.

Social and emotional well-being and values as a cultural foundation of education in Latvia have been the focus of research by the leading researcher at the RTU Liepāja Academy, Professor Dr. paed. Pāvels Jurs, involving other researchers, in the creation of an important monograph—“The Transformation of the Value of Education” (Jurs and Bethere 2025). The novelty of which is the multidimensional and multi-perspective reflection of the value of education, linking it both with the individual’s efforts to find fulfillment in their lives and with the trends of societal well-being and social growth. In addition, the value of education has been studied in connection with social returns, which promote the personal well-being of people, as well as the economic growth and sustainability of the country (Jurs and Bethere 2025). This is an attempt to once again invite politicians to listen to the insights of scientists about setting an educational goal that is based on culture and its values. Chapter 2 of the monograph: Understanding and Transformation of Education as a Value in the Context of Culture (Pavītola et al. 2025) analyzes various approaches to understanding the concept of ‘culture’: 1. Dimensions of the transformative learning approach (Mezirow 2009): (a) psychological, (b) changes in values and attitudes, (c) changes in behavior; 2. Psychocultural approach (Bruner 1996): (a) in the macro dimension—culture as a value in the context of systems of rights, obligations, power; (b) in the micro dimension—individuals construct their own realities and meanings to adapt to the cultural system. 3. Culture as a model, boundaries, critical dialogue (Matusov and Marjanovic-Shane 2017). 4. Decoding culture—learning to interpret and assign meaningful meaning to information found in its system of signs and symbols through the process of internalization/externalization (Valsiner et al. 2021). The authors of the monograph developed in Latvia have not examined cultural intelligence, which has been studied in world science, as a phenomenon that is developed through the educational process and that promotes understanding between different social groups in communication.

Therefore, the goal of a systematic literature study is not only to find the current meanings of the concept of ‘culture’ in the context of the education and social environment well-being of different social groups in the last 5 years, but also to determine empirical measurement tools. Taking into account that culture, in the social sense, is absolutely everything, because the human world exists only through care, it is the cultivation of human existence (cultura—Latin processing, upbringing, education) (Kūle and Kūlis 1998).

This systematic review has been registered with Inplasy and is available online: (<https://inplasy.com> No: INPLASY202640040, accessed on 12 April 2026).

The results of the study reflect only the most current research trends among scientists around the world in 2022–2026. They do not include all possible trends that have developed over the past 10–20 years.

This study used 109 scientific, peer-reviewed publications indexed in Scopus, Web of Science, and ERIH+ databases. They met the inclusion criteria using the PRISMA 2020 methodology. All 109 publications were analyzed by performing (1) bibliometric mapping and (2) contextual content analysis. The results showed that the most frequently used concept in the studies of 109 scientific publications was “cultural intelligence”. It was concluded that this concept is used in the context of educational and social environment problems of various social groups, in four dimensions: (1) metacognitive, (2) cognitive, (3) motivational, and (4) behavioral. The development of cultural intelligence in an individual person promotes a dialogue between different social groups that is constructive, open, and based on mutual empathy. Cultural intelligence in the context of problems of various social groups is important for effective solutions.

2. Methods

Research question: “What are the meanings of the term ‘culture’ in the context of education and the social environment over the past 5 years (2022–2026), and which of them is the most relevant?” To answer this, the author conducted a systematic literature review for 2022–2026 on 30 January 2026, using the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) methodology (Page et al. 2021) and systematic review strategies (Silniece and Mārtinsone 2016). Three scientific databases were selected for the study: SCOPUS, Web of Science, and ERIH+. Justification—in accordance with the guidelines set out by the author’s scientific institution, Riga Technical University, for researchers in the handbook “Science Guide” (Riga Technical University 2025), to ensure high quality and citation of publications, which would later promote the competitiveness of the university in rankings. The selected databases include indexing and metrics tools, as well as qualitative research, across many scientific fields from around the world. They were selected by carefully assessing the quality of both scientific journals and publications. Using the Boolean operator “OR”, a series of keywords were entered into the databases: ‘culture’ OR ‘cultural’ OR ‘culture’s’, which helped select publications by title, keywords, and abstract. To narrow down the publications of general relevance to the sample to be analyzed, a pre-screening was performed according to the PRISMA 2020 methodology, according to 6 inclusive criteria:

- (1) The publication corresponds to the years 2022–2026 (the last 5 years);
- (2) The article has a DOI link or an ISBN for the book;
- (3) The publications are in an indexed source;
- (4) The publication is open access;
- (5) The publication was selected as a result of the database filter ‘social sciences’, ‘educational sciences’, ‘education’, etc.;
- (6) The subject of the publication, keywords in the annotation include the words: ‘culture’, ‘cultural’, ‘cultures’, ‘culture’s’, ‘cultures’, etc.

The PRISMA 2020 methodology recommends choosing publications in English. The authors evaluated this criterion in the context of the relevance of the content of the selected publications. As a result, such a criterion was not included, since all publications were in English, but the two that were in Spanish (with abstracts in English) (Díaz-Pacheco et al. 2025; Oliveira and Gillanders 2024). Those were fully translated and included, since their content is relevant to the research topic. This expressed empathy and understanding, and prevented potential discrimination based on language.

As a result of the evaluation, $n = 161$ studies were selected from the Scopus database, $n = 62$ from the ERIH+ database, and $n = 8$ from the Web of Science (see Figure 1). A total of $n = 231$ publications were selected from the three scientific publication databases. As a result of the first screening process, no duplicates were detected. A second screening

process was initiated for all $n = 231$ publications. In it, they were assessed according to 2 exclusion criteria:

- (1) The publication is not available for full-text review (the author's scientific institution does not subscribe to the website where the article is posted, so it cannot be obtained, despite the open-access status) ($n = 15$).
- (2) The publication has not been cited 1 time (except for 2025–2026) ($n = 92$) (The exception for the last two years is justified by the fact that the Journal Impact Factor calculates citations based on articles published in the previous two years; the citation process includes the following stages: publication discovery, use in the development of new research, manuscript preparation, peer review, and publication within 18–24 months).

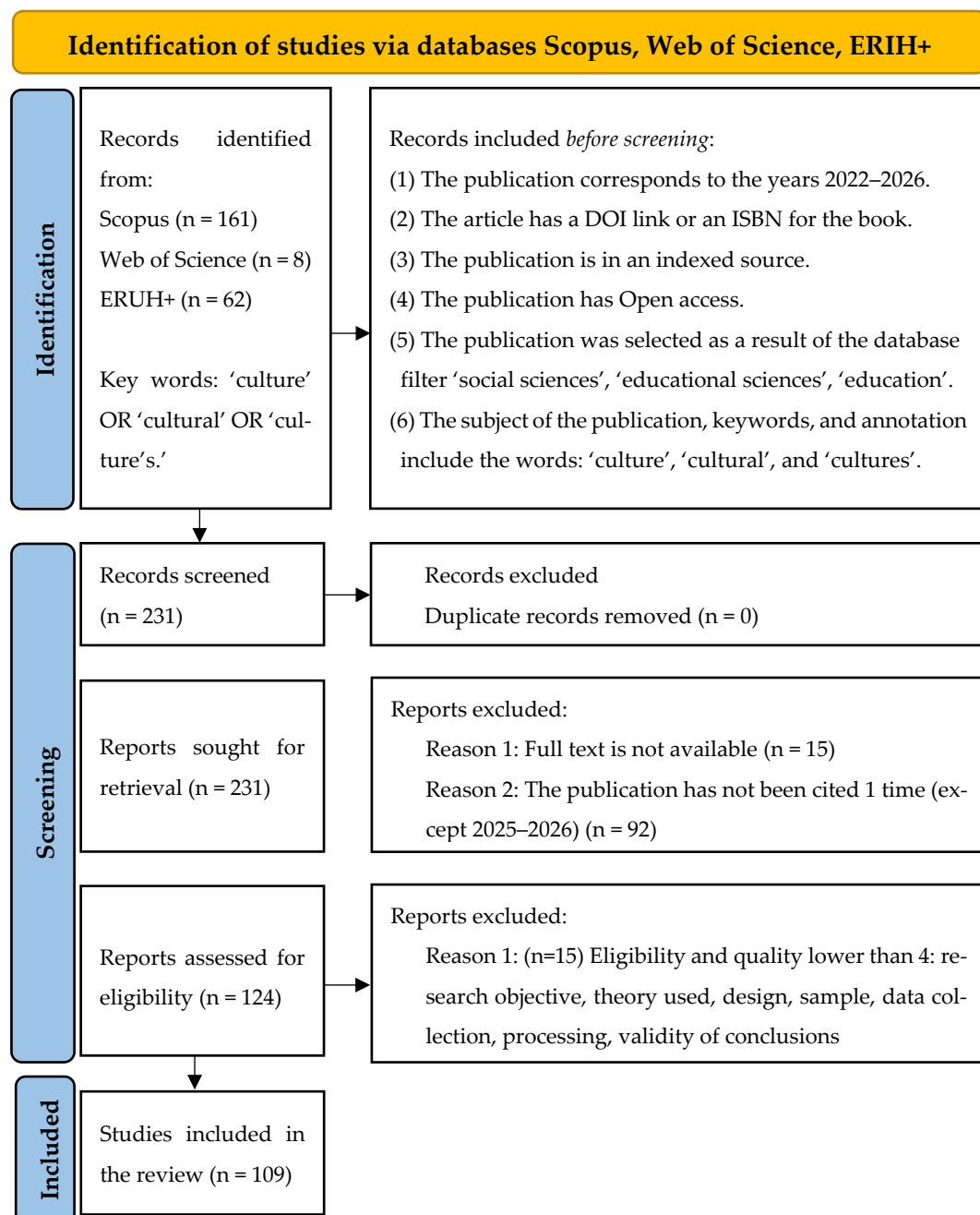


Figure 1. Search protocol (adapted from Page et al. 2021).

A total of $n = 107$ publications that did not meet the criteria were excluded. For the remaining $n = 124$ publications, the full texts were assessed according to the methodological quality of the content. Therefore, a tabular protocol was created, with the following bibliometric indicators for publications: (1) full citation with DOI; (2) number of citations; (3) relevance and problematic of the study; (4) theoretical basis; (5) methodology and design; (6) definitions of concepts; (7) main conclusions; (8) information about the country represented by the author; (9) author's notes on the thematic category of the publication and its usefulness for further research; (10) evaluation on a 5-point quality criteria system (1—low quality: the research problem is not linked to topicality and there is no evidence of a theoretically based research design, sampling, data acquisition, processing and conclusions; 2—poor quality: the research problem is justified, but the design is based on an inappropriate theoretical basis, which calls into question the reliability of further sampling, data acquisition and processing and the argumentation of conclusions; 3—medium quality: the research problem, design, theoretical basis are satisfactory, sampling, data acquisition is justified, but its processing is not sufficiently justified and the conclusions are poorly argued, therefore, they cannot serve to generate new conclusions in the authors' study; 4—good quality: the research problem, design, theoretical basis, sampling, data acquisition and processing are sufficiently justified, but the conclusions do not indicate a deep interpretation; 5—high quality: a good and reasoned approach is evident in all stages of the research, the results are deeply interpreted in the conclusions, linking them to theory.) As a result, publications were excluded ($n = 15$) whose assessment was 3 and below. As a result of qualitative screening, ($n = 109$) publications were included for the content analysis of the study (see Figure 1).

In response to the research question, "What are the meanings of the term "culture" in the context of education and the social environment over the last 5 years (2022–2026) and which of them is the most relevant?", a qualitative (Silniece and Mārtinsone 2016) full-text content analysis of publications was used in two stages: (1) bibliometric mapping; (2) contextual concept analysis. A two-level mixed-type design content analysis will help to obtain more valid, substantiated results based on the latest scientific literature over the past 5 years.

3. Results

In the context of multi-level geopolitical, socio-economic, educational, and environmental processes of the world's global society, culture is gaining increasing importance, which is also purposefully updated in several UNESCO forums, conferences, adopting declarations, and framework documents (UNESCO 2025). Also, this is a result of the systematic review conducted on 30 January 2026. The 109 publications selected indicate the increasing relevance of culture, looking at the time perspective (see Figure 2).

3.1. Bibliometric Trends

In total, 10 publications are from 2022, 29 publications are from 2023, 32 from 2024, 36 from 2025, and 2 in the first month of 2026, January.

The identification of the geographical locations of the authors of the 109 publications is difficult, as 82 (75%) publications were written by researchers from one country, while 27 (25%) publications were written by authors from different countries of the world. The 109 publications have a total of 308 authors, of which 12 authors can be identified in 2 publications simultaneously, while 115 authors have collaborated in writing one publication in one of the 27 international publications. One of them (Kalyuga 2026) has indicated that he represents universities in two countries—Australia and the United Kingdom—and is also among the 23 authors who wrote their publication alone. One publication has

10 authors (Semião et al. 2023), which makes it difficult to determine the geographical location of this publication.

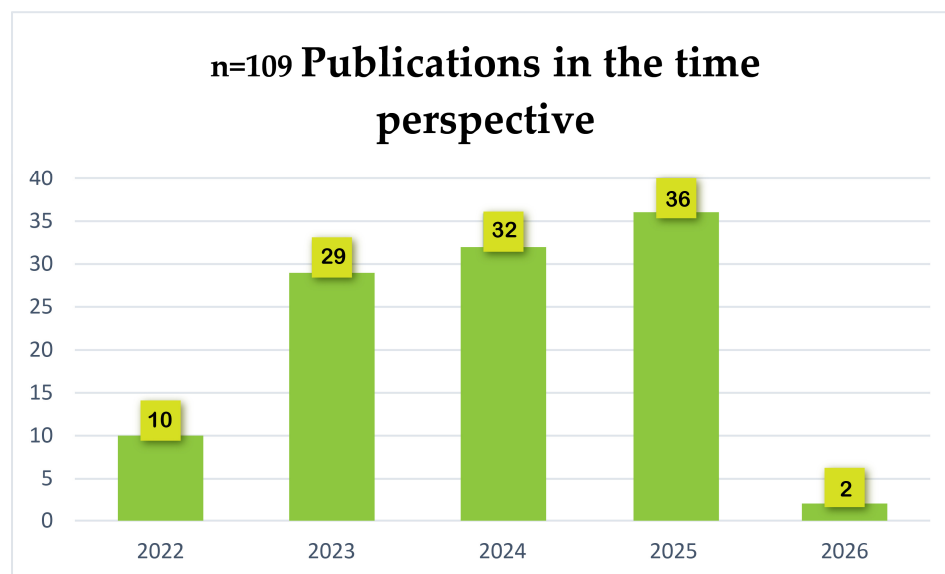


Figure 2. Number of publications in the time perspective.

The largest number of publications comes from (see Figure 3) Europe: $n = 30$ (Great Britain (1), Netherlands (3), Bosnia and Herzegovina (1), Spain (5), Portugal (2), France (10), Germany (1), Norway (2), Finland (2), Sweden (1), Czech Republic (1), and Cyprus (1)); the wider Asian region has the second largest number of publications: $n = 23$ (Turkey (1), United Arab Emirates (1), Malaysia (2), Thailand (1), Indonesia (3), Vietnam (1), China (8), Hong Kong (1), Taiwan (1), Japan (2), and Iran (2)); a similar number of publications can be identified in North America: $n = 20$ (USA (16) and Canada (4)); while few come from South America and Latin America together: $n = 4$ (Mexico (1), Panama (1), Brazil (1), and Peru (1)); a similar number of publications are from Africa: $n = 3$ (Morocco (1), Ethiopia (1), and Zimbabwe (1)); the smallest number is from Oceania: $n = 2$ (Australia (2)). Of the 82 publications, most are identifiable in Europe (37%), followed by Asia (28%) and the USA (24%), and the remaining regions together account for 11%.

Of the 33 countries, researchers from 16 countries collaborated the most in the creation of 27 international publications: USA ($n = 9$), Spain ($n = 5$), Norway ($n = 4$), Germany ($n = 4$), Australia ($n = 3$), United Kingdom ($n = 3$), Israel ($n = 3$), Netherlands ($n = 3$), Brazil ($n = 3$), India ($n = 3$), Sweden ($n = 3$), Italy ($n = 2$), China ($n = 2$), Denmark ($n = 2$), Poland ($n = 2$), and Portugal ($n = 2$). One researcher represents universities from two countries: Australia and the United Kingdom. Researchers from the remaining 17 countries collaborated only once in the creation of one publication. It is the publications of this group that show international trends in the common interests of researchers in scientific research. The authors who work in international research groups the most are from the USA ($n = 9$). This highlights recent research trends: (1) cultural intelligence and intercultural competence (measurement, development, impact on education) (Ge et al. 2024; Richter et al. 2023; Sternberg et al. 2022); (2) global teams and leadership (emotional intelligence, conflict management) (Davaei et al. 2022); (3) digital and international forms of learning (COIL) (Hackett et al. 2023); (4) education and cultural literacy (literacy, photovoice, parental views) (Ratka-Pauler et al. 2024; Sacco et al. 2025; Straub et al. 2025); (5) sustainability and cultural factors in behavior (Kellberg et al. 2023). Scientists from Spain ($n = 5$) have studied the following topics: (1) the social and economic importance of cultural heritage (Cabrera-Martínez et al. 2023); (2) assessment of intercultural competence

in education (Del Carmen Mardones et al. 2024); (3) multicultural team performance and individual factors (Guzmán-Rodríguez et al. 2023); (4) transfer of cultural intelligence among young people (Kačāne et al. 2023); (5) arts and cultural education in teacher training (Oliveira and Gillanders 2024).

Other topical trends highlighted by international researchers: (1) Israel–Netherlands: eco-humanism and democratic culture (Aloni and Veugelers 2024); (2) Africa–Australia–Norway: enacting culturally responsive pedagogy (Anlimachie et al. 2025); (3) Brazil–United Kingdom: history of mythology, and modern astronomy education (Ferreira et al. 2025); (4) United Kingdom–Sweden–India–China–Coty: cultural intelligence and local embeddedness (Gyensare et al. 2025); (5) Denmark–Sweden–Brazil–Luxembourg–Australia: languages and literacies in science education (Kersting et al. 2025) (cultural literacy aspect); (6) Finland–Lithuania: cultural literacy in schools (Lähdesmäki et al. 2022); (7) Poland–United Arab Emirates: new ecological paradigm and multicultural identity, mindset, values (Mosanya and Kwiatkowska 2023); (8) Norwegian and German researchers: the role of culture in chemistry class (Rüschepöhler et al. 2024); (9) Portugal–Brazil: teachers’ perspectives on students’ cultural diversity (Semião et al. 2023); (10) United Kingdom and Germany: cross-cultural training on cultural competence and cultural intelligence (Urgun et al. 2025); (11) Cyprus–Sweden: cultural and linguistic capital (Karpava and Ringblom 2023); (12) France–Israel–Norway: language culture—understanding the moral of the story (Baker et al. 2023).

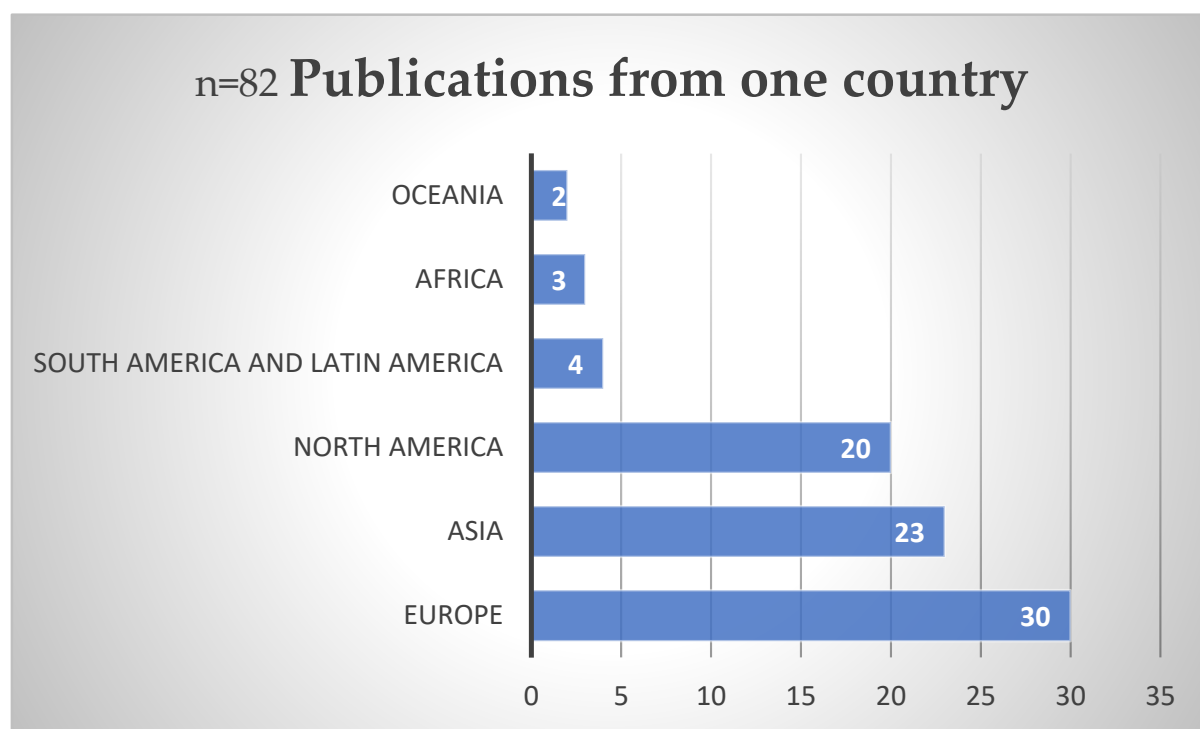


Figure 3. 82 Publications from one country.

Average citations of 109 publications: in 2022: $n = 163$ (total citations): 10 (publications in this year) = 16.3 (average value); in 2023: $n = 394:29 = 13.6$; in 2024: $n = 138:32 = 4.3$; in 2025: $n = 138:36 = 3.8$; in 2026: $n = 0:2 = 0$. Looking at the average indicators, the highest citation rate of publications is in 2022 (16.3), and the lowest is in the full year of 2025. This proves the fact that it is more useful to assess the citation rate of a publication and, accordingly, the interest of other researchers in its content 2–3 years after its publication. However, there are also exceptions, for example, the 2025 publication: “Enacting culturally responsive pedagogy for rural schooling in Ghana: A school-community-based enquiry”

(Anlimachie et al. 2025) has been cited 18 times to date (Table 1). This shows that the topic in which “Enacting culturally responsive pedagogy” is conceptualized is very topical and marks the latest theoretical trend in the field of culture in relation to education.

Table 1. The most cited publications and the most topical.

Title of Publication	Autor(s)	Year of Publication	Number of Citations
1. The effectiveness of Collaborative Online International Learning (COIL) on intercultural competence development in higher education.	Hackett et al.	2023	163
2. The influence of cultural intelligence and emotional intelligence on conflict occurrence and performance in global virtual teams.	Davaei et al.	2022	60
3. Facilitating Cross-Cultural Adaptation: A Meta-Analytic Review of Dispositional Predictors of Expatriate Adjustment.	Han et al.	2022	37
4. Cultural Intelligence: What Is It and How Can It Effectively Be Measured?	Sternberg et al.	2022	25
5. Reviewing half a century of measuring cross-cultural competence: Aligning theoretical constructs and empirical measures.	Richter et al.	2023	23
6. Cultural heritage for sustainable education amidst digitalisation.	Orphanidou et al.	2024	22
7. Intercultural communicative competence in higher education through telecollaboration: typology and development.	Gutiérrez-Santiuste and Ritacco-Real	2023	20
8. Enacting culturally responsive pedagogy for rural schooling in Ghana: A school-community-based enquiry	Anlimachie et al.	2025	18
9. Nationalism Education In Elementary School: A Systematic Literature Review.	Saputra et al.	2023	18
10. Learning Cultural Literacy through Creative Practices in Schools: Cultural and Multimodal Approaches to Meaning-Making.	Lähdesmäki et al.	2022	17
11. Practice-based knowledge perspectives of cultural competence in social work.	Osborn and Karandikar	2023	17
12. Teachers’ perspectives on students’ cultural diversity: A systematic literature review.	Semião et al.	2023	17
13. Cultural Imaginaries and Complex Thinking: Impact of Cultural Education on the Development of Perceived Achievement of Complex Thinking in Undergraduates.	Vázquez-Parra et al.	2023	17
14. New Ecological Paradigm and third culture kids: Multicultural identity configurations, global mindset, and values as predictors of environmental worldviews.	Mosanya and Kwiatkowska	2023	14
15. Education for rural development: Forty years on.	Robinson-Pant	2023	14

Table 1 includes studies with a citation count greater than $n < 14$. The $n = 8$ studies included in the table and their topics have already been discussed above as the result of international collaboration of the authors and current trends (Hackett et al. 2023; Davaei et al. 2022; Sternberg et al. 2022; Richter et al. 2023; Anlimachie et al. 2025; Lähdesmäki et al. 2022; Semião et al. 2023; Mosanya and Kwiatkowska 2023). The most cited of them ($n = 163$) is the topic “The effectiveness of Collaborative Online International Learning (COIL) on intercultural competence development in higher education” (Hackett et al. 2023). The second most cited ($n = 60$) topic is “The influence of cultural intelligence and emotional intelligence on conflict occurrence and performance in global virtual teams” (Davaei et al. 2022). But the third most cited ($n = 37$) topic is “Facilitating Cross-Cultural Adaptation: A Meta-Analytic Review of Dispositional Predictors of Expatriate Adjustment” (Han et al. 2022). Topics of the other publications not mentioned so far: “Cultural heritage for sustainable education amidst digitalisation” ($n = 22$) (Orphanidou et al. 2024); “Intercultural communicative competence in higher education through telecollaboration: typology and development” ($n = 20$) (Gutiérrez-Santiuste and Ritacco-Real 2023); “Nationalism Education In Elementary School: A Systematic Literature Review” ($n = 18$) (Saputra et al. 2023); “Practice-based knowledge perspectives of cultural competence in social work” ($n = 17$)

(Osborn and Karandikar 2023); “Cultural Imaginaries and Complex Thinking: Impact of Cultural Education on the Development of Perceived Achievement of Complex Thinking in Undergraduates” (n = 17) (Vázquez-Parra et al. 2023).

The main keywords that characterize the thematic trends of the most cited publications are as follows: (1) Cultural intelligence; (2) Intercultural competence; (3) Cultural diversity; (4) Intercultural communication; (5) Cross-cultural adaptation; (6) Global mindset; (7) Cultural competence; (8) Cultural imaginaries and complex thinking; (9) Cultural heritage for sustainable education and nationalism education; (10) Cultural literacy through creative practices in schools; (11) Enacting culturally responsive pedagogy.

According to the research methodology, the 109 studies can be divided into the following categories (see Appendix A): 1. quantitative (n = 45) (systematic review (n = 15), quasi-experiment (n = 1), and empirical/other quantitative designs (n = 29)); 2. qualitative (n = 51) (theoretical (n = 18), quasi-experiment (n = 3), and empirical/other qualitative designs (n = 30)); 3. mixed-methods (n = 13).

The most cited study (n = 18) (Anlimachie et al. 2025) marks the latest research trend. It is particularly noteworthy because it not only conducts a quasi-experiment in the 6th grade of a comprehensive school, but also studies the context: the school community and its impact on the students’ learning process. The qualitative design of the study is an ethnographic case study based on the participatory approach of the school and social community. The study data were obtained from various social groups: (1) from students (individual homework was studied, including drawings, biographies, and diaries, and the class was observed); (2) from teachers (reflective essays and focus group discussions were studied); (3) from the school principal (interview), (4) from students’ families (household visits and focus group discussions), and (5) from the immediate community (observations were made).

3.2. Thematic Synthesis by Social Group

All 109 publications are analyzed in Table A1, which includes the following sections: (1) authors of publications in alphabetical order; (2) year; (3) title; (4) research design; (5) research sample: social groups or theoretical research; (6) context of the research problem; (7) main conclusion; (8) assessment of the quality of the research. Unfortunately, it is not possible to offer a statistical summary based on precise data on how many participants can be identified in each social group, because this is not precisely indicated in individual studies. Therefore, a qualitative content analysis of the studies will be carried out further, guided by the research problem, aim, questions, social group context, and conclusions.

All 109 studies can be divided into the following categories: (1) theoretical studies, which contain reviews of the systematic literature or analyze theoretical concepts intended for teachers or education policy makers. But in empirical studies, the identifiable samples are made up of various social groups: (2) children and pupils; (3) university students, pedagogy students, and future teachers; (4) teachers, university lecturers, and professors; (5) educational management/administration; (6) educational social environment community; (7) companies, organizations, social workers, and the general public. Some studies cover more than one category: Anlimachie et al. (2025); Effendi (2023); Ghaemi and Boroushaki (2025); Kung et al. (2022); Mills et al. (2025); Ratri et al. (2025); Robinson-Pant (2023); Stephenson and Patel (2025); Zheng and Guo (2024).

1. Theoretical studies are dominated by cultural and intercultural theoretical constructs, which are defined multidimensionally, emphasizing the cognitive and emotional aspects of the personality psyche in the context of the social environment. They significantly affect learning and cooperation in the educational process (Cong-Lem 2025; Kalyuga 2026; Ketemaw et al. 2024). The studies examine the context of both formal and informal

education. It should be especially emphasized that intercultural competence develops best in dialogical interaction and social practice, which indicates the collective and situational nature of learning (McMyler 2022; Moffett 2025; Slors 2023). Many studies have analyzed the linguistic aspect of language—reading literacy, which is closely related to cultural literacy based on cultural context. The integration of language and culture in education is meaningful and helps students learn, while also developing intercultural communication skills (Erstad et al. 2023; Kersting et al. 2025; Ma and Lucietto 2024), which, in turn, also promotes the development of multilingual skills, multimodality and the ability to reflect on a metacognitive level (Fernández-García 2024; Griffith and Lim 2024). However, the idea of culture as a static phenomenon can create a risk of exclusion or limitation in the educational process (Hodgson and Harris 2022; Dervin 2025). Theoretical research emphasizes inclusive, culturally appropriate, and critically reflective pedagogy that promotes openness, empathy, social justice, and global citizenship (Shih 2024; Romero and Bobkina 2024; El-Gabry 2026), as well as the importance of culture and creativity in knowledge creation and interdisciplinary learning (Leonido et al. 2023; Ferreira et al. 2025; Villatoro Moral et al. 2026). Multimedia learning approaches expand opportunities for intercultural understanding (Ge et al. 2024; Urgan et al. 2025). Critical thinking is also essential, helping to evaluate educational content and related ideologies to promote a deeper understanding of the relationships between culture, identity, and power (Juzwik et al. 2025), as well as the need to align theoretical concepts with empirical measurement to ensure consistent knowledge development (Richter et al. 2023). In theoretical studies, cultural competence is also seen as a basis for social cohesion, national identity, and sustainable development of society (Lubińska 2024; Saputra et al. 2023; Semião et al. 2023; Stein et al. 2025).

2. Children and students (preschool, primary school, secondary school). The development of preschool children and school students in the context of education in the selected studies is viewed more through the discourse of culture, language, and identity, emphasizing the need to move from a deficit approach to an approach that respects the personalized resources and experiences of students (Abugasea Heidt and Svrcek 2025). A transformative educational approach is the basis for building a sustainable and democratic society that takes into account values and develops students' agency and social involvement (Aloni and Veugelaers 2024). Research shows that culturally appropriate pedagogy should be implemented in close cooperation with the family and community. This significantly affects students' motivation and academic achievements, because learning is based on the context of their social and cultural environment (Anlimachie et al. 2025). Activities integrated into the learning process, such as the interpretation of visual narratives, also promote students' moral thinking and cultural understanding (Baker et al. 2023), while collaborative learning promotes the quality of academic results and develops cultural intelligence (Bećirović 2023).

STEAM approaches are increasingly used in inclusive education, which develop students' communication, collaboration, and sociocultural skills and contribute to more effective achievement of learning outcomes (Chansaengsee 2024), while students' emotional and affective states significantly affect the development of cultural competence and the ability to cooperate in diverse environments (Chao 2025). Pedagogical approaches that integrate technology and emphasize cultural aspects in the process of creative self-expression ensure student responsibility and active participation (Chappell and Hetherington 2024). However, teaching materials also play a significant role, which often lack deep intercultural reflection and do not promote students' critical understanding of culture (Coelho 2024), although it is precisely the understanding of literature and the ability to analyze that can significantly expand students' worldview and promote awareness of the global context and understanding of connections (Dias 2022). In preschool education, the integration of language and cultural context is important, which helps to build knowledge and develop

children's interest (Hattan et al. 2025). But students' cultural and linguistic capital, as a resource, promotes personality development. Only teachers should use it professionally in the implementation of the learning process (Karpava and Ringblom 2023). The development of students' identity through environmental education can motivate them to behave and act socially responsibly (Kellberg et al. 2023). If learning takes place in a dialogical and creative way, then children are able to understand the principles of democracy at an early age (Lähdesmäki 2022; Lähdesmäki et al. 2022). However, if the different communication skills of different students are not taken into account, then educational inequality increases (Mills et al. 2025). However, culturally appropriate pedagogical approach activities, such as music making and dance, can strengthen the sense of belonging and motivation of adolescents who have difficulties with this (Pickard 2025); this also applies to the formation of indigenous belonging and identity in preschool children (Zheng and Guo 2024). Similarly, integrating the traditions and expressions of the local cultural community into the curriculum strengthens students' sense of belonging, identity, and motivation to engage not only in the learning process, but also in social environment activities (Ratri et al. 2025), which also promotes social change and informal learning in the community (Robinson-Pant 2023). Preschool children's learning experiences are subjective and shaped by interactions with their environment (Rodriguez Leon 2023). Culturally appropriate teaching and learning also positively impact literacy and language development (Sinclair 2025). However, creative and dialogic pedagogical approaches, such as drama and role-playing, promote students' imagination, creative self-expression, communication skills, and socio-emotional well-being (Stephenson and Patel 2025), while visual methods, such as Photovoice, help students to understand cultural concepts more deeply (Straub et al. 2025). However, the use of cultural heritage in education is a pedagogical challenge, as it requires greater mastery, interactivity, and student involvement in the cognitive process (Xiao and Yoon 2024). In turn, students' reading development is influenced by both individual and school factors: teacher support and adaptive teaching approaches, and student motivation (Zhang et al. 2024).

3. University students, teacher education students, and prospective teachers: Intercultural competence and cultural intelligence, which has four dimensions: metacognitive, cognitive, motivational, and behavioral, are essential in the preparation of university students, pedagogical students, and future teachers. They influence students' attitudes, emotional and social well-being, cooperation, and the development of professional skills (Alkar 2025; Davaei et al. 2022; Jurásek and Wawrosz 2023a, 2023b; Sternberg et al. 2022, 2023). Situational learning in intercultural experiences is effective because it promotes the development and adaptation of cultural intelligence (Da Silva Teixeira and Klein 2024; Hackett et al. 2023). The included studies highlight the emphasis on culturally appropriate approaches, reflection, and social justice in teacher education, as this can help in future work with culturally and socially diverse groups of students (Ghaemi and Boroushaki 2025; Del Carmen Mardones et al. 2024; Del-Olmo-Ibáñez et al. 2023; Rutt and Mumba 2023). However, in practice, there are challenges: a lack of time, insufficient knowledge of culture, and limited resources (Anuas et al. 2024). Students' own cultural experiences and acculturation also influence their identity and solutions to cultural belonging and social inclusion challenges (Guerra Ayala et al. 2025; Mosanya and Kwiatkowska 2023). Therefore, the integration of cultural heritage, art, and creativity in the process of implementing study content is also important, which promotes students' critical thinking, identity development, and social capital (Cabrera-Martínez et al. 2023; Vázquez-Parra et al. 2023; Orphanidou et al. 2024; Oliveira and Gillanders 2024).

According to the authors of the study, international cooperation of students in the form of digital telecollaboration promotes intercultural communication and the development of competences (Gutiérrez-Santiuste and Ritacco-Real 2023), while targeted promotion of

cultural understanding and pedagogical interventions improve students' self-confidence and academic results (Li and Wei 2024; Peng 2024). But creativity and various forms of general intelligence are closely related to the development of cultural intelligence and to students' ability to collaborate in intercultural environments (Sadrnia and Shahnazari 2023). The effective use of students' individual resources, teamwork, and intercultural cooperation directly contributes to the development of innovation (Bücker and Korzilius 2024; Sousa et al. 2023). But students' attitudes towards diversity can also be negative, related to ethnocentrism or prejudice (Kung et al. 2022). Therefore, the development of cultural intelligence is essential to the preparation of new teachers and is also related to academic self-efficacy and professional growth (Tesfaye et al. 2025).

4. Teachers and university lecturers, professors: Culturally appropriate pedagogy and intercultural competence are central to the professional practice of teachers, university lecturers, and professors, promoting inclusive, equitable, and student-centered learning (Ghaemi and Boroushaki 2025; Okken et al. 2022; Masunungure and Maguvhe 2025). However, in practice, various challenges must be addressed: limited availability of resources, insufficient cultural knowledge, and inconsistency between theoretical beliefs and their implementation in practice (Braden et al. 2025; Koro and Hagger-Vaughan 2025). The attitude and emotional involvement of teaching staff also significantly affect students' academic performance, well-being, and social inclusion (Díaz-Pacheco et al. 2025). But metacognitive reflection, empathy, and creative pedagogical approaches promote deeper student engagement in meaningful learning (Nigar and Kostogriz 2024; Stephenson and Patel 2025). Culturally based communication skills are essential for teachers because they reduce the causes of intercultural misunderstandings among students (Tiawati et al. 2023). Multimodal and culturally sensitive pedagogical approaches that respect students' different forms of communication and identities are relevant (Mills et al. 2025). Cultural competencies are integrated with digital capabilities because this expands students' learning opportunities (Xu et al. 2025). Creativity through artistic expression promotes community involvement in the learning process, develops communication skills, identity, and cooperation (Stephenson and Patel 2025; Robinson-Pant 2023). Coordination and leadership play a crucial role in supporting the integration of culture and art in education (Van Meerkerk 2025). Intercultural competence should be developed at both the individual and collective levels, as it promotes mutual and collective responsibility (Jerinic-Ivic et al. 2025). It is essential to ensure the connection of the learning content with the cultural context and identity, as this promotes the motivation, participation, and sense of belonging of those involved in the learning process (Ratri et al. 2025; Zheng and Guo 2024). This is more difficult to implement in the natural sciences, where the cultural dimension is still insufficiently integrated (Rüschepöhler et al. 2024).

5. Educational management/administration. Educational leadership plays a crucial role in organizing a culturally appropriate and collaborative pedagogical approach, where the school and community are partners in the academic achievement and well-being of students in the educational social environment (Anlimachie et al. 2025; Busch and Rajwade 2024). Effective educational leadership is based on cultural values and the strengthening of community engagement, which significantly affect the development of student character and the quality of education (Effendi 2023; Redondo-Sama et al. 2025). At the same time, educational leaders must both address and responsibly ensure the systematic implementation of culturally appropriate pedagogy and the professional development of teachers. This is a way to address the challenges associated with the increasing diversity of students' ethnic and cultural backgrounds (Ghaemi and Boroushaki 2025). Educational leadership should also promote a creative and dialogue-based learning approach in the professional activities of teachers in their schools, as this strengthens the conscious and

responsible involvement of all parties involved in the learning process, and the creation of shared meaning in different situations (Stephenson and Patel 2025). But there is also a dependence on the amount and intensity of management support for school resources. This affects the implementation of education that takes into account culture in its broadest sense (Van Meerkerk 2025). A clear and coherent understanding of intercultural competencies and their effective measurement is also important. Educational leadership needs to make data-based decisions. But the mismatch between theoretical and practical approaches hinders the effective planning and organization of administrative educational processes (Richter et al. 2023).

6. Educational social environment community (parents, families). The role of parents in education is important. The development of a student's personality takes place in interaction with the family and community environment. This forms the motivation for learning, attitude, and belonging. Parents can influence their children's academic performance by cooperating with the school. Parents can also provide cultural capital (Anlimachie et al. 2025). Parents' involvement in the school and their child's learning process is intrinsically motivated and based on values. It is parents who can provide emotional closeness and participate in the creation of shared experiences (Ratka-Pauler et al. 2024). This is especially important at an early age, when reading and storytelling should be learned (Maplethorpe and Jang 2024). Parents also promote students' socio-cultural experience in intergenerational interaction. This helps to develop cultural competence and communication skills (Kačane et al. 2023). Parents are mediators between individual and broader experiences in the social environment. It is they who, with their attitude, help the child to create meanings in the learning process (Rodriguez Leon 2023). Parents influence their children's value orientation and character development, in accordance with their cultural understanding and moral principles (Effendi 2023). They support creativity, strengthen identity, and social skills (Stephenson and Patel 2025). Parental involvement is important in the daily learning process. They are intermediaries who influence their child's educational experience, academic results, and socio-emotional development (Robinson-Pant 2023).

7. Employees of companies, organizations, social workers, and the general public. It is in organizations and the business environment that cultural intelligence and emotional intelligence have been studied the longest, because they promote effective cooperation, adaptation, and work performance in an intercultural environment (Mammadov and Wald 2025; Han et al. 2022; Kokubun et al. 2025a, 2025b). Cultural intelligence promotes inclusion in the work team and helps develop a sense of belonging, which positively affects employee engagement and retention in organizations (Gyensare et al. 2025; Presbitero et al. 2025). The ability to create joint projects is important in teamwork. Their effective implementation is closely related to the mutual understanding of the people involved, which improves cooperation and results (Guzmán-Rodríguez et al. 2023; Randel and Alexandra 2024). However, individual attitudes such as ethnocentrism or perceptions based on cultural traditions can affect the entire organizational environment and productivity (Kung et al. 2022).

In the wider society, interpersonal interaction through social networks in the digital environment promotes the development of cultural empathy, tolerance, and the ability to adapt to various challenges (Chen and Chen 2025), while social learning in informal environments is an important driver and initiator of social change (Robinson-Pant 2023). In turn, cultural competence is important in social work, which is perceived as a dynamically changing and reflective process, determined by personal experience (Osborn and Karandikar 2023). In the wider society, culture and its creative aspect are recognized as important factors for sustainable social development, as they simultaneously promote

both the development of skills and pro-social behavior, which, in turn, promotes economic growth (Sacco et al. 2025).

3.3. The Most Current Cross-Disciplinary Construct: Cultural Intelligence

The most current research trend among scientists around the world over the past 5 years is ‘cultural intelligence’ in the context of the problems of various social groups. Cultural intelligence has been studied in various ways in publications by 46 authors: Alkar (2025); Anuas et al. (2024); Bećirović (2023); Bücken and Korzilius (2024); Chao (2025); Chen and Chen (2025); Da Silva Teixeira and Klein (2024); Davaei et al. (2022); Del Carmen Mardones et al. (2024); Effendi (2023); Ge et al. (2024); Guerra Ayala et al. (2025); Gutiérrez-Santiuste and Ritacco-Real (2023); Guzmán-Rodríguez et al. (2023); Gyensare et al. (2025); Hackett et al. (2023); Han et al. (2022); Jerinic-Ivic et al. (2025); Jurásek and Wawrosz (2023a, 2023b); Kačāne et al. (2023); Kalyuga (2026); Ketemaw et al. (2024); Kokubun et al. (2025a, 2025b); Kung et al. (2022); Ma and Lucietto (2024); Mammadov and Wald (2025); McMyler (2022); Moffett (2025); Mosanya and Kwiatkowska (2023); Okken et al. (2022); Peng (2024); Presbitero et al. (2025); Randel and Alexandra (2024); Redondo-Sama et al. (2025); Richter et al. (2023); Romero and Bobkina (2024); Sadrnia and Shahnazari (2023); Slors (2023); Sousa et al. (2023); Sternberg et al. (2022, 2023); Tesfaye et al. (2025); Urgan et al. (2025); Vázquez-Parra et al. (2023).

Cultural intelligence in the social environment of education is best described by the study “Youth and Intergenerational Transmission of Cultural Intelligence in Latvia, Spain and Turkey” (Kačāne et al. 2023). Researchers from three countries have focused on the everyday interactions of young people in their surroundings, studying their modes of perception and participation, their experiences with cultural diversity and cultural interaction, which are treated as cultural capital, as well as intergenerational relations and their dynamics that shape the cultural intelligence of young people. The results of the authors’ study indicate that cultural intelligence is inherited, with openness and experience playing significant roles and being crucial for adapting to various forms of intergroup communication, for example, intercultural processes. In this context, the authors use the following concepts: cultural intelligence, cultural capital, and levels of cultural literacy. However, they are not deciphered and defined in detail in the article.

In the interdisciplinary discourse of history and social sciences, Moffett (2025) analyzes the microclimate of social societies, in which the acceptance and recognition of an individual of a species in a group takes place according to the features determined by its identity markers: specific gestures, rituals, style of dressing, and perception of common belonging. An important finding is that the larger the group, the more the needs of each of its individuals are satisfied. Cultural intelligence is mentioned in the study in the context of the importance of cultural complexity, social learning, and the formation of social complexity.

The concept of cultural intelligence (hereinafter—CQ) is defined as a multidimensional competence that allows an individual to function effectively in a culturally diverse environment (Earley and Ang 2003; Ang et al. 2007; Sousa et al. 2023; Deng et al. 2025). A slightly modified definition: cultural intelligence is a multidimensional sociomental construct that allows a person to effectively explore and understand different cultures for the benefit of the entire organization. The cultural intelligence model integrates several intelligences. It includes a person’s flexibility, level of knowledge of another culture, ability to notice nuances of similarities and differences, and act according to the correct interpretation of observations (Jurásek and Wawrosz 2023a). Similarly, Jerinic-Ivic et al. (2025) highlight individual and organizational cultural intelligence. Ketemaw et al. (2024) construct a cultural intelligence structure from cognitive, normative, and symbolic components that

play a crucial role in interpreting and understanding events so that multicultural teams can thrive, adopting innovations and solving problems through the exchange of knowledge and opinions. Several studies correlate with this concept (Guzmán-Rodríguez et al. 2023; Kung et al. 2022; Presbitero et al. 2025; Randel and Alexandra 2024; Mammadov and Wald 2025), which show that individuals with cultural intelligence develop an open and tolerant attitude, improving the level of performance in a multicultural team through dialogue. But Bücken and Korzilius (2024) define cultural intelligence as knowledge, skills, and metacognitive abilities developed in specific cultural (intercultural) contexts. In turn, Richter et al. (2023), in a systematic literature review of 52 items on the measurement of intercultural competence and their coherence with theoretical constructs, conclude that the main elements—skills and behaviors—are consistent across all theories of cultural intelligence, arguing that demonstrating cultural intelligence includes skills related to learning from social experiences, critical appreciation of cultural and background differences between oneself and others, and successful interaction with culturally different others (Richter et al. 2023). Sternberg et al. (2023) define cultural intelligence as a person's ability to adapt when faced with problems that arise in interactions with people or artifacts from cultures other than one's own. Davaei et al. (2022) conclude that cultural intelligence and emotional intelligence reduce the occurrence of interpersonal conflicts in the process of task performance. Chen and Chen (2025) emphasize that cultural intelligence significantly influences cross-cultural adaptation, ensuring effective interaction in different environments and promoting cross-cultural adaptation through empathy.

Slors (2023) views cultural intelligence in the context of the genesis of history, indicating that a complex distribution of roles requires two sets of attitudes: one must take into account the ability to distribute roles so that the distributed participants can focus on their roles without applying unnecessary cognitive effort to the tasks and roles of others. The second must take into account the ability to use rules and norms as a means of coordinating various tasks and roles.

In the context of an organizational collective, cultural intelligence is mentioned together with cultural flexibility, intercultural norms, and cultural humility. In the tripartite concept of cultural intelligence, the metacognitive component corresponds to understanding, the cognitive component reflects knowledge, and the behavioral component refers to skills. In the later developed four-element structure of cultural intelligence, basic motivation and affective learning processes also play an important role (Chao 2025).

Alkar (2025) uses the concept of cultural intelligence in the context of multicultural personality traits, intercultural sensitivity, psychological well-being, and cultural adaptation of the personality. Gutiérrez-Santiuste and Ritacco-Real (2023) construct their own concept of cultural intelligence as 3 dimensions: behavioral (intercultural agility), affective (intercultural sensitivity), and cognitive (intercultural understanding). But Ge et al. (2024) concluded that cultural intelligence in intercultural communication allows for a better understanding and appreciation of the opinions of different cultures, while the elements of intercultural competence—attitudes and skills—are crucial in forming attitudes towards ethnic minorities. Guerra Ayala et al. (2025) interpret the cognitive dimension as referring to changes in people's thinking about their culture of origin and the host culture, while the emotional dimension includes factors such as belonging, cultural identity, and emotional stress associated with adaptation. Gyensare et al. (2025) highlight cultural intelligence in their study, which can promote local inclusion, adaptation to the social system, improve access to affective, relational, and informational resources, and, as a result, promote well-being and growth at work. Mammadov and Wald (2025) study the impact of cultural intelligence and emotional intelligence on the degree of internationalization. The authors believe that in an international context, cultural intelligence, emotional intelligence, and

global thinking are essential cognitive competencies. This concept is correlated with the construct of Mosanya and Kwiatkowska (2023), in which cultural intelligence is mentioned in the context of communication and diversity, global thinking, cultural flexibility, cosmopolitanism, and an expanded worldview, analyzing the sense of identity and relationships with others of children whose parents live an internationally mobile lifestyle. Such children develop a hybrid identity, which is not based on the culture of either the parents or the host country, and over time creates a problem in the formation of a sense of belonging.

Peng (2024) extensively analyzes the concept of cultural intelligence in the context of emotional intelligence, emphasizing that cultural intelligence encompasses a wide range of skills that are applicable in different contexts, including the ability to perceive, reason, and behave appropriately and intelligently in the context of cultural differences. Like many other authors, he mentions four factors of cultural intelligence: metacognitive (refers to a person's ability to learn and understand other cultures), cognitive (knowledge of rules, traditions, and customs in different cultural contexts), motivational (ability to focus attention and energy on acquiring cultural knowledge), and behavioral (functioning in an intercultural environment). These are complemented by dimensions of a multidimensional model of well-being: self-acceptance, life purpose, personal growth, positive relationships, autonomy, and environmental management. The results of Peng's (2024) study indicate a significant correlation between critical thinking, cultural intelligence, and psychological well-being in achieving a meaningful and purposeful life.

With other theoretical nuances, Jurásek and Wawrosz (2023b) mention the four dimensions of cultural intelligence as mutually influencing aspects. The cognitive aspect consists of knowledge about systems, cultural values, and religious beliefs, arts, crafts, or principles of nonverbal behavior that are applicable in other cultures; the metacognitive aspect consists of the control of processes that a person uses to acquire and understand certain knowledge; the motivational aspect is reflected in the mental ability to concentrate and maintain attention, energy for the performance of a certain task or achieving a goal; and the behavioral aspect is the individual's ability to adapt a wide repertoire of verbal and nonverbal expressions in interactions with people from different cultures. The authors do not confirm the hypothesis that cultural intelligence is influenced by cultural identity.

Kokubun et al. (2025a) emphasize the close relationship of cultural intelligence with social and emotional intelligence and a healthy lifestyle. According to the theory of self-regulated learning strategies, which is based on motivation and metacognition, emotional competence and metacognitive competence correlated with five lifestyles, while emotional competence of self-emotional assessment correlated with two lifestyles. The authors concluded that, in addition to the ability of intelligence to understand and use emotions, it is also necessary to understand different cultures, checking and correcting the accuracy of knowledge about them. But Kokubun et al. (2025b) researchers have discovered for the first time in world science the correlation of cultural intelligence with changes in the volume of gray matter in the brain; correlations between the behavioral dimension of cultural intelligence (including verbal, nonverbal, culturally appropriate words, tone, gestures, facial expressions, and body language) and the entire brain, frontal, limbic, occipital, and parietal, while the motivational dimension (expressed positive, objective evaluation) correlates with the subcortical brain. In turn, the metacognitive and behavioral dimensions correlate with task performance.

Urgun et al. (2025) examine physical training strategies to determine the most effective approaches to developing cultural competence and cultural intelligence through sports, adapting programs that focus on cultural and sports-related knowledge, skills, and communication. The authors believe that this can help coaches navigate cultural differences, developing cultural competence and cultural intelligence.

Kalyuga (2026) views the basis of cultural intelligence–intelligence as an emergent natural information processing system, which, when moving from biological to cultural evolution through three stages ((1) non-cumulative; (2) cumulative; (3) large-scale cumulative), requires another element in the cognitive architecture: a clearly expressed intention to learn. Then, the connection between cognition and motivation appears, which helps to consciously control the effortful cognitive processes in working memory in the learning process. The author questions the idea of independent and universal intelligence test measurements from the cultural context, since personality is fundamentally dependent on accumulated cultural knowledge, which motivates learning, perceptual, and cognitive means for survival. Signs of cultural intelligence are reading intentions, social learning, and communication as cognitive skills. But habits, which can be called traditions, reflect a persistent level of tradition that does not yet constitute a culture as such, which is complex, intricate in its structure, and potentially generates unique combinations of variations that are related to the memory capacity of the brain (Kalyuga 2026). The article by Vázquez-Parra et al. (2023) presents the results of measuring the perceived achievement of complex thinking competence in a group of university students studying a subject on Mexican cultural education. The aim was to determine whether there is a correlation between the level of complex thinking and its sub-competences with the acquisition of cultural knowledge. As a result, a statistically significant correlation was found between the two variables, showing that cultural training correlates with the students' perceived achievement of the complex thinking competence and its sub-competencies. These results contribute both to educational theory related to the development of formative tools for competencies and skills and to the reevaluation of cultural acquisition (Vázquez-Parra et al. 2023).

From an educational perspective, cultural intelligence is seen as a crucial factor in improving the quality of teaching and developing intercultural competence (Sousa et al. 2023). Romero and Bobkina (2024) promote the development of cultural intelligence in English lessons by engaging students in reflective analysis to recognize and respect different cultural perspectives. In Sadrnia and Shahnazari's (2023) concept, related to the context of translation, cultural intelligence develops through three components of creativity: academic, self-evaluation, and artistic. Tesfaye et al. (2025) determine the level of cultural intelligence for educators and its relationship with demographic variables (gender and urban–rural dimensions) in the context of international diversity; the relationship between teacher qualifications and participants' academic self-efficacy. As a result, it is concluded that the included demographic variables do not affect the level of cultural intelligence, but a positive, significant, and weak correlation has been found between academic self-efficacy. For school leaders, researchers recommend providing teachers with intercultural experience, cultural intelligence training, and education (Tesfaye et al. 2025). Ma and Lucietto (2024) believe that cultural intelligence, as intercultural knowledge, is very important for effective communication in a global context, including for STEM students, to expand their scientific capacity and effectiveness. Different cultures have different communication styles. There is a high-context culture with indirect language and situational cues, and a low-context culture with direct language, which influences the communication style to become culturally competent STEM specialists (Ma and Lucietto 2024).

Effendi (2023) and Redondo-Sama et al. (2025) confirm the importance of school principals' leadership in implementing culturally relevant curricula in schools and in developing students' character by setting an example of a personality based on cultural values, spirituality, and nationalism, motivating teachers, and creating a humanistic school culture. In turn, Bećirović (2023) empirically proves that cooperative learning significantly increases students' cultural intelligence and cooperation skills. Hackett et al. (2023) also conclude that international online cooperation promotes the development of cultural intelligence.

Da Silva Teixeira and Klein (2024) emphasize the importance of situational learning in the development of cultural intelligence (cultural quotient, which is an individual's ability to act effectively in a culturally diverse environment).

In turn, Kačāne et al. (2023) emphasize the role of intergenerational transfer, indicating that openness and experience are key factors in the development of cultural competence. This view is complemented by McMyler (2022), who emphasizes the importance of social learning in the transfer of cultural knowledge. Del Carmen Mardones et al. (2024) mention the cultural intelligence scale in the context of measuring the intercultural competence of English language and elementary school pedagogy students. The instrument developed in the study includes personality attitudes, knowledge, and understanding in three conceptual categories: cultural self-awareness, deep cultural knowledge, and sociolinguistic understanding; integrated skills (knowledge processing); and desired internal outcomes with four conceptual categories—adaptability, ethnorelative perspective, empathy, and flexibility. Sternberg et al. (2022) found that cultural intelligence can be measured: (a) with the maximum performance cultural intelligence test, (b) with the typical performance cultural intelligence test and with the openness to experience test; (c) with the fluid intelligence test. They form three separate factors.

Anuas et al. (2024) analyze teachers' perceptions of the challenges of implementing culturally based teaching in language literacy development in remedial education. The authors believe that culturally responsive teaching theory seeks to strengthen the foundations of effective teaching by promoting student engagement in the learning process, strengthening basic reading, writing, and numeracy skills, and, by reflecting the student's cultural values and norms, taking responsibility for the learning process, which together constitute cultural intelligence.

However, Richter et al. (2023) point out the inconsistency of cultural intelligence measurement instruments, although the behavioral component is identified as a universal element in all theories. Sternberg et al. (2023) additionally emphasize the distinction between cultural intelligence as an ability and as a disposition, which indicates the need to clarify the operationalization of the construct. Similarly, Okken et al. (2022) find that the impact of cultural intelligence may be different at different levels of the analysis environment (classroom or school), suggesting the importance of context.

Cultural intelligence is multidimensional, as it integrates cognitive and metacognitive, social and emotional, motivational and behavioral, and lifestyle aspects. Its role in education has been less studied than in other areas: business, tourism, social services, and society in general. However, in the current geopolitical situation, cultural intelligence plays an important role, as it promotes effective intercultural interaction, adaptation, and inclusion, and dialogue between different social groups.

4. Discussion

4.1. Correlation of Research Results with the Introduction's Content

Most of the selected publications correspond to the calls of the UNESCO framework document mentioned in the Introduction for increasing the importance of culture in educational content—the UNESCO Framework for Culture and Arts Education reinforces the commitment to implementing integrated cultural and educational approaches (UNESCO 2025). The creation of synergies between culture and education, as well as the strengthening of language skills, emphasized in the MONDIACULT 2025 outcome document, is widely identifiable in the scientific research of the authors selected as a result of this study (Abugasea Heidt and Svrcek 2025; Braden et al. 2025; Del-Olmo-Ibáñez et al. 2023; Griffith and Lim 2024; Kersting et al. 2025; Koro and Hagger-Vaughan 2025; Li and Wei 2024; Maplethorpe and Jang 2024; Mills et al. 2025; Renn et al. 2024; Sinclair 2025; Tiawati

et al. 2023; Xu et al. 2025; Zhang et al. 2024) and intercultural understanding (Alkar 2025; Bećirović 2023; Bücken and Korzilius 2024; Chao 2025; Cong-Lem 2025; Da Silva Teixeira and Klein 2024; Del Carmen Mardones et al. 2024; Díaz-Pacheco et al. 2025; Ge et al. 2024; Gutiérrez-Santiuste and Ritacco-Real 2023; Hackett et al. 2023; Han et al. 2022; Jerinic-Ivic et al. 2025; Jurásek and Wawrosz 2023a, 2023b; Kačāne et al. 2023; Ketemaw et al. 2024; Li and Wei 2024; Ma and Lucietto 2024; Okken et al. 2022; Peng 2024; Randel and Alexandra 2024; Richter et al. 2023; Romero and Bobkina 2024; Sousa et al. 2023; Tesfaye et al. 2025; Urgun et al. 2025). This also applies to the preservation of cultural heritage (Cabrera-Martínez et al. 2023; Fernández-García 2024; Ferreira et al. 2025; Ge et al. 2024; Maplethorpe and Jang 2024; Mills et al. 2025; Orphanidou et al. 2024; Xiao and Yoon 2024; Zheng and Guo 2024) and transmission to future generations through education (UNESCO 2025). Similarly, the authors of several publications have studied various aspects of intercultural communication in the context of global thinking (world citizenship, globalization, Aloni and Veugelers 2024; Dias 2022; Peng 2024; Mosanya and Kwiatkowska 2023; Ghaemi and Boroushaki 2025; Cong-Lem 2025; Chen and Chen 2025; Sacco et al. 2025) and education. Among the 109 selected publications are also the results of the European Commission's CORDIS HORIZON 2020 research service project DIALLS (Lähdesmäki et al. 2022). They correlate with other studies that have looked at visual, multimodal and creative practices (Baker et al. 2023; Chappell and Hetherington 2024; Dias 2022; Fernández-García 2024; Leonido et al. 2023; Straub et al. 2025; Stephenson and Patel 2025; Pickard 2025). In turn, the topic of socio-emotional learning, highlighted in the CORDIS Horizon Europe 2024–2027 project “The Value of Cultural Literacy in Europe—CliVie”, was also identified in the studies of other authors, where it was also linked to empathy, emotional regulation, intercultural sensitivity and psychological well-being (Abugasea Heidt and Svrcek 2025; Alkar 2025; Baker et al. 2023; Chao 2025; Chen and Chen 2025; Davaei et al. 2022; Díaz-Pacheco et al. 2025; El-Gabry 2026; Fernández-García 2024; Ghaemi and Boroushaki 2025; Guzmán-Rodríguez et al. 2023; Kokubun et al. 2025a; Nigar and Kostogriz 2024; Peng 2024; Pickard 2025; Ratka-Pauler et al. 2024; Stephenson and Patel 2025). Alongside the socio-emotional learning component, concepts related to ‘cultural awareness’ also appear: ‘cultural self-awareness’, ‘awareness’, ‘sensitivity’, ‘reflection’ about culture (Alkar 2025; Chansaengsee 2024; Chen and Chen 2025; Dias 2022; Fernández-García 2024; Ghaemi and Boroushaki 2025; Li and Wei 2024; Shih 2024; Tiawati et al. 2023; Romero and Bobkina 2024). This coincides with the OECD Skills Development Strategy mentioned in the introduction, which emphasizes learning to learn and the skill of socio-emotional self-regulation as basic conditions for the unity of a person's cognitive and affective processes in decision-making and active, transformative action (OECD 2019, 2024). All of this together confirms that it is the cultural component in education that plays a significant role in achieving better academic results in the teaching and learning process.

4.2. Problems with Explanations of the Meanings of the Term “Culture”

When studying the concepts of cultural literacy and cultural competence in the publications, it was revealed that they are not synonymous but have different meanings. However, when familiarizing oneself in detail with, for example, the context of the concept of cultural literacy mentioned in the study of Kačāne et al. (2023), it was revealed that levels of cultural literacy are mentioned, but nowhere in the text are they deciphered or defined. This example is not the only one, because in general, there is a great plurality in the definitions of concepts, and they are often used unjustifiably, without delving into their content, meaning, or even without defining them. For this reason, it was not possible to clearly separate the studies corresponding to one specific concept in the study, finding overlaps in various

combinations. For example, the most current concept, ‘cultural intelligence’, is more often used together with the concept ‘cultural competence’.

The concepts ‘cultural literacy’, ‘cultural competence’, ‘cultural capital’ (also includes social capital, linguistic capital as a resource (Anlimachie et al. 2025; Cabrera-Martínez et al. 2023; Hodgson and Harris 2022; Kačane et al. 2023; Karpava and Ringblom 2023; Sacco et al. 2025)) and ‘cultural intelligence’ were justified as concepts that are directly relevant to the educational environment and the learning process, which also coincides with the recommended direction of the research and political documents mentioned in the Introduction to the article. However, in the process, it was found that a qualitative and in-depth analysis of all four concepts should be marked as a plan for further research, giving preference only to the most current concept, ‘cultural intelligence.’

The research process revealed that the most relevant concept in education in the last 5 years is ‘cultural intelligence’, which can be called quite conditionally, because its creator, P. Christopher Earley, created his construct 24 years earlier (2002) in management and organizational psychology, defining it as an individual’s ability to adapt to a new cultural environment, emphasizing cognitive, motivational and behavioral aspects. But Soon Ang, together with Earley, further developed this construct over the following years (Earley and Ang 2003; Earley et al. 2006; Ang et al. 2007). In educational research, this classic, canonical construct is still actively used as a measurement tool. For teachers or educational researchers to use it, it is not necessary to obtain a certification, like for psychological tests. Therefore, as a measurement tool in the educational context, it has undergone many mutations. Ang and Van Dyne added a fourth dimension to the three-dimensional construct: metacognitive—the Cultural Intelligence Scale (CQS) (Ang and Van Dyne 2008, 2015). This is especially important for use in the educational context, where the metacognitive dimension also includes the processes of self-regulation, self-awareness, self-reflection, and development of action strategies. Cognitive processes are more responsible for knowledge acquisition processes, memory, attention, etc. Only two studies, in addition to the metacognitive, cognitive, motivational, and behavioral dimensions, also examine the physical dimension as a healthy lifestyle (Kokubun et al. 2025a). This affects all other dimensions of the educational process and physical literacy in a linguistic context. It is necessary, for example, for the development of correct sound articulation, diction, and intonation in the language learning process (Stephenson and Patel 2025). The further development of cultural intelligence measurement tools is also the most current trend among scientists around the world. The study identified the following modifications: the development and validation of the Team Cultural Intelligence Scale (Bücker and Korzilius 2024); a CQ-based, developed and adapted instrument for measuring intercultural competence in teacher education (Del Carmen Mardones et al. 2024); of particular note is Richter et al.’s (2023) comprehensive review of how intercultural competence has been measured over the past fifty years to more accurately align theoretical constructs and empirical measurements and modulations of peak and typical performance of cultural intelligence in different contexts in higher education (Sternberg et al. 2022, 2023).

4.3. The Most Current Concept of “Cultural Intelligence” in Education in the Context of Social Groups

In educational research, the measurement of cultural intelligence as a trend has mostly become established at the empirical level through social constructivist and experience-based approaches in the context of intercultural interaction. However, educational research is increasingly using measures of teachers’ cultural intelligence (Hackett et al. 2023; Okken et al. 2022; Tesfaye et al. 2025; Sousa et al. 2023; Jurásek and Wawrosz 2023a, 2023b) to determine how they influence students’ cultural intelligence (Bećirović 2023; Del-Olmo-Ibáñez et al. 2023; Jurásek and Wawrosz 2023a, 2023b; Peng 2024; Sternberg et al. 2022,

2023; Tesfaye et al. 2025; Zhang et al. 2024), which affects learning motivation, general emotional well-being, academic performance, communication, and dialogue culture in the classroom. No less important a role in the development of a school as an organization is played by the principal and his level of intelligence (Effendi 2023; Redondo-Sama et al. 2025; Presbitero et al. 2025), which influences the school culture, communication and working relationships with teachers, which are motivating or not, as well as the formation of student character (Effendi 2023). The influence of the family on student learning, values, language environment, and social and cultural processes is also significant (Anlimachie et al. 2025; Cabrera-Martínez et al. 2023; Maplethorpe and Jang 2024; Ratka-Pauler et al. 2024; Zhang et al. 2024). Pupils and students can also develop their cultural intelligence during visits to museums and other public institutions, for example, by using social scientific or art exhibitions, cultural heritage expositions in museums as a learning environment outside of school (Kellberg et al. 2023; Oliveira and Gillanders 2024; Xiao and Yoon 2024). But in the study by Sousa et al. (2023), the heads of institutions are advised to popularize Erasmus programs or similar practices among their students, because it promotes intercultural learning and student cooperation, concluding that cultural intelligence develops only in communication with representatives of other cultures and the environment (Hackett et al. 2023), as well as through situational learning (Da Silva Teixeira and Klein 2024). In turn, Tesfaye et al. (2025) outline the level of cultural intelligence in relation to demographic variables (gender and urban-rural dimension). Contrary to the aforementioned statements that cultural intelligence develops through an experiential learning process, it is considered to be innate (Kačāne et al. 2023). But this view has not been convincingly and argumentatively proven by studies with a sample size large enough to generalize the results.

Cultural integration in STEM is also a current trend in digital-age education. At the university level, intercultural communication in STEM disciplines is being studied so that STEM students can expand their scientific abilities and effectiveness (Ma and Lucietto 2024). The integration of literacy in science teaching is based on three main principles: linguistic understanding, critical language awareness, and pedagogical modeling (Renn et al. 2024).

In turn, at the preschool level, important research is on early cultural identity, storytelling, creative activities, and social interaction (Maplethorpe and Jang 2024; Ratka-Pauler et al. 2024; Zheng and Guo 2024).

From an educational perspective, cultural intelligence is identified as a significant factor in improving the quality of learning and creating an inclusive environment (Sousa et al. 2023). In addition to cultural intelligence studies, several other studies have discussed Culturally Responsive Pedagogy, which emphasizes the creation of an inclusive and effective learning environment (Anlimachie et al. 2025; Braden et al. 2025; Ghaemi and Boroushaki 2025; Masunungure and Maguvhe 2025; Sinclair 2025; Shih 2024). Overall, these studies confirm the importance of culture in the academic achievements of pupils and students, student engagement in the learning process, and social inclusion, as well as pointing to the professional competence of teachers and systemic support in the educational environment. Teachers' understanding of various developmental disorders of pupils or students is also important in organizing an inclusive educational environment. The most recent and most profound evidence for the impact of cultural intelligence on the quality of the learning process is provided by neuroscience-based experiments (Kokubun et al. 2025b), which revealed correlations between cultural intelligence and brain structures and changes in the brain's gray matter.

4.4. Summary of the Discussion

The summary of the discussion should state that the topics discussed and their contexts closely correlate with the topics and keywords listed in the most cited publications

in the results section, which characterize the most current thematic trends in the context of education: (1) cultural intelligence; (2) Intercultural competence; (3) cultural diversity; (4) intercultural communication; (5) cross-cultural adaptation; (6) global mindset; (7) cultural competence; (8) cultural imaginaries and complex thinking; (9) cultural heritage for sustainable education and nationalism education; (10) cultural literacy through creative practices in schools; (11) enacting culturally responsive pedagogy.

The future direction of research is marked by the question raised by companies, organizations, social services, etc., in sectors not directly related to education about how the cultural intelligence, cultural competence, or cultural literacy of a person (school principal, teacher, university lecturer, etc.) correlates with collective cultural intelligence, etc. This would promote the awareness and responsibility of every participant in the education system in the context of common well-being and academic excellence, as well as promote the effective use of cultural and social capital as a resource in sustainable development.

5. Conclusions

Summarizing the most current trends in 109 studies published over the past five years, the systematic review suggests the following findings:

1. Unity in constructs, but not in theory—the authors agree on the general meaning of cultural intelligence, but its structuring and interpretation differ.
2. Multilevel nature—cultural intelligence is used at different levels: individual, collective, and societal.
3. Most studies emphasize cultural intelligence as a dynamic phenomenon, the development of which can be promoted by learning and interacting with other cultures and the people representing them.
4. The relationship of cultural intelligence with other constructs is pronounced—especially with emotional intelligence, identity, motivation, social learning, cultural competence, cultural literacy, cultural capital, and social capital. However, their analysis goes beyond the limits of the study.

The most important conclusions in the theoretical studies and studies of the problems of social groups are as follows.

1. Theoretical studies:

- (1) Lack of conceptual unity in definitions of concepts;
- (2) Different measurement approaches;
- (3) Insufficient transfer and adaptation of theories from other disciplines in educational sciences.

Cultural intelligence, from its initial constructs in business, social service fields, and contexts, is being actively adopted in the field of education, further modulating diagnostic tools designed for the research of multidimensional, complex, socially integrated phenomena, and where psychology, education, organizational science, and cultural theory intersect. This is relevant at all levels and types of education.

2. In the social group of **children and students**, the main educational trend is culturally responsible, inclusive, and student-centered pedagogy. It integrates language, culture, identity, and heritage as significant and essential learning resources. Students learn effectively if linguistic knowledge and skills are integrated with the cultural context. If student cooperation is promoted, based on constructive, open, and empathetic dialogue, then the learning process is more effective. If student creativity is developed, based on a multimodal approach (e.g., STEAM, drama, visual narratives), then students make faster progress. If the emotional and social aspects of well-being (belonging, motivation, empathy) are given importance in the learning process, then student growth is greater. At the same

time, research emphasizes that promoting social well-being requires closer cooperation between school, family, and community to ensure meaningful and sustainable learning in a diverse society.

3. The latest trends in the social group of **university students, teacher education students, and prospective teachers** over the past five years show that cultural competence and cultural intelligence (four dimensions: (1) metacognitive, (2) cognitive, (3) motivational, and (4) behavioral) are relevant in both academic performance and professional development, especially in a globalized and diverse environment. They can develop not by learning about them theoretically, but only through intercultural experience, cooperation, mobility (COIL, Erasmus), situation-based learning, and reflective practice. Cultural intelligence is closely related to communication skills and the ability to adapt, specifically to a foreign culture and social environment. In turn, the metacognitive and motivational dimensions are closely related to the level of well-being, but the quality of cognitive knowledge contributes to the formation of identity and reduces the risk of conflicts. The development of cultural intelligence in students requires a transversal approach, integrating the cultural context into the study content, which is based on critical thinking, metacognitive self-reflection, and self-awareness, and behavior that is inclusive and socially just.

4. In the social group of **teachers, university lecturers, and professors**, the latest trends of the last five years emphasize that the metacognitive dimension of teachers' cultural intelligence is reflective practice. This is a decisive factor in ensuring inclusive and quality education in multicultural and diverse classrooms. Culturally supportive pedagogy includes empathy, flexible teaching strategies, openness, and the ability to integrate students' linguistic and cultural experiences into the cognitive process and the social environment of the school. The greatest professional challenges for teachers are insufficient knowledge, limited time, a cluttered and complex curriculum that does not meet the needs of students, and setting strict, achievable results that must be achieved within a certain time. Teachers are also concerned about the uncertainty about integrating culture into specific subjects, because culture is too broad a concept and includes too broad a content. The research also emphasizes the collaboration of teachers with the community and educational policy makers, which significantly influences the implementation of innovations and sustainable cultural integration in education in a cross-cutting manner. Teachers are not just transmitters of knowledge. Their function is to be intercultural mediators who are constantly learning and adapting to ensure equitable, meaningful learning. It also promotes the emotional well-being of students.

5. The main challenge for the social group of **educational management and administration** is the sustainable development of education in a diverse society. The problems are caused by the multicultural social environment in the school, the socio-emotional well-being of which largely depends on the leadership qualities of the head. A leader's cultural intelligence and ability to integrate knowledge into practice foster trust and empathy in teachers and students. School leaders and educational organizers have a significant role in the effective implementation of culturally responsible and inclusive pedagogy, which is focused on the effective use of community cultural capital or resources and their involvement in the learning and teaching process. Current research emphasizes the need for clear assessment instruments and ecological strategies that are able to link cultural, social, and educational goals. The main problem is how to ensure both high academic results and social cohesion and justice in the social environment of education.

6. The trends of current needs and challenges of **the educational social environment community** cannot be fully and comprehensively assessed, because out of 109 studies, only 8 apply to this social group. However, from the existing studies, it can be concluded that the involvement of students' parents and the immediate community in achieving

the results of the student's learning process, in building identity, and in promoting social inclusion is an effective use of social capital. Cultural capital, which is formed in the family (language, traditions, values, intergenerational experience), significantly influences the motivational dimension of children's cultural intelligence, which helps to form learning priorities and create attitudes towards education. But close cooperation between school and family promotes more meaningful and culturally context-based learning, which also creates well-being for all parties involved or social groups. Informal forms of learning, such as storytelling and shared reading activities, for children and their parents, are as important as formal education, as they develop language, identity, and socio-emotional skills. The process of educational transformation is effective if culturally based activities take place not only through planned interventions, but also through everyday interaction in the community, where open dialogue between different social groups is important, which helps to respect different experiences and promotes a sense of belonging and a respectful attitude towards the cultural heritage of older generations.

7. A group of **employees of companies, organizations, social workers, and the general public**. In its context, the content of the dimensions of cultural intelligence has been studied for a long time to ensure effective individual and collective development. Regulation of intercultural relations is a prerequisite for work productivity. A higher level of cultural intelligence promotes work performance, conflict reduction, involvement in the team, and the development of a sense of belonging. This helps not only to adapt to another culture or to be accepted into one's own culture, but also improves the overall dynamics and innovation potential of the team. Cultural diversity in itself does not guarantee better results, since the management attitude, approach, reflection on common work practices, and the ability to build open mutual trust in the cooperation process are crucial. Cultural intelligence correlates with emotional intelligence, well-being, and physical health. Therefore, teams often choose to consciously develop cultural intelligence dimensions. The most common challenges are ethnocentrism, negative perceptions that create cultural tension, and problems of social adaptation. Creating an inclusive organizational culture is the path to problem-solving.

The educational environment is also both a social and cultural environment, in which all social groups learn together, each from its own discourse. Achieving a holistic balance between all social groups is a long-term goal that should be set by every leader who is a personality, a leader with a high level of cultural intelligence. The future of research is marked by the need to validate and approve cultural intelligence measurement scales for different age groups, educational environments, and processes.

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Abbreviations

The following abbreviations are used in this manuscript:

UN	United Nations
UNESCO	United Nations Educational, Scientific, and Cultural Organisations
CORDIS	Community Research and Development Information Service
EK	European Commission
HORIZON	The European Union's Horizon Europe programme
DIALLS	Dialogue and Argumentation for Cultural Literacy Learning in Schools
CliVie	Cultural Literacies' Value In Europe
ToC	Theory of change
SROI	The Social Return on Investment
OECD	Organisation for Economic Co-operation and Development
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
ISBN	International Standard Book Number

Appendix A

Table A1. 109 publications content analysis and references.

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
1.	Abugasea Heidt and Svrcek	2025	Reframing Education for Multilinguals: Honoring Students' Linguistic, Literacy, and Cultural Assets	Qualitative, theoretical	Multilingual students	To transform the knowledge of multilingual student education, reorienting it from a deficit approach to one that recognizes and utilizes students' linguistic, literacy, and cultural competence.	A humble teacher who allows students to fully express their multicultural identity and utilize their multilingual competencies and cultural values will pave the way for them to succeed both in and out of the classroom.	4
2.	Alkar	2025	The multicultural personality and ethnocentrism tendencies of pre-service teachers in Türkiye	Qualitative, empirical	Prospective social studies teachers	Multicultural personalities and ethnocentrism tendencies of Turkish prospective teachers with a holistic framework: (a) curiosity about different cultures, (b) feelings towards different societies, (c) difficulties of cultural adaptation, and (d) self-culture in personal stories. The concept of cultural intelligence is used in the context of multicultural personality traits, intercultural sensitivity, and psychological well-being.	Teachers did not support living outside one's culture because anxiety appeared in the dimensions of flexibility and emotional balance. Commitment to ethnic traditions and customs is a self-sufficiency approach.	4
3.	Aloni and Veugelers	2024	Ecohumanism, democratic culture, and activist pedagogy: Attending to what the known demands of us	Qualitative, theoretical	Multilingual students	A new value education paradigm that addresses the key challenges for a sustainable future for young people proposes transformative and empowering educational strategies in the context of global environmental, political, social, health, and cultural risks. Three concepts (a) Ecohumanism as a value education paradigm—combining humanistic concerns for human dignity, social justice and democracy with ecological concerns for climate stability, biodiversity and environmental sustainability; (b) education for democratic personality and holistic and transformative democratic culture; and (c) a threefold concept of activist pedagogy that focuses on developing personal agency, promoting political literacy and agency and engaging students in experiential, holistic and active teaching and learning experiences.	In the context of a multidimensional crisis, the idea of a sustainable future, as well as humanization and dehumanization, is the driving force in the development of ecohumanist activism pedagogy.	4

Table A1. Cont.

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
4.	Anlimachie et al.	2025	Enacting culturally responsive pedagogy for rural schooling in Ghana: A school-community-based enquiry	Qualitative, empirical, quasi-experiment	20 students (6th grade), 4 teacher—co-researchers, 22 parents of students, school principal.	Teachers' cultural capital, including: (1) sociocultural knowledge of their students' backgrounds, (2) development of local cultural competencies, and (3) building a culture of school-home collaboration, contributed to success in the rural school.	Culturally appropriate pedagogy has emerged as a new strategy for improving educational outcomes in underserved communities. Rural students' aspirations and priorities for school success were largely influenced by their immediate environment, embedded cultural capital, and significant social others, especially their families and teachers.	5
5.	Anuas et al.	2024	The challenges of implementing culture-based teaching in remedial education: analyses and recommendations	Quantitative, empirical,	252 language teachers	Teachers' perceptions of the challenges of implementing culture-based teaching for language literacy development in remedial education.	Four main problems: (1) teaching materials, (2) curricula, (3) teacher knowledge, and 4) time allocation. The current curriculum does not emphasize cultural elements in remedial education. Cultural teaching cannot be implemented effectively due to the insufficient knowledge of teachers. The preparation of teaching materials and the implementation of content are time-consuming compared to traditional pedagogical approaches. Remedial education should ensure comprehensive, culturally based teaching.	5
6.	Baker et al.	2023	Understanding the moral of the story: Collaborative interpretation of visual narratives	Qualitative, empirical, case study	90 students (9th and 10th grades)	Promoting moral thinking and cultural literacy in young people through the curriculum. Interpreting visual narratives through six layers: from reconstructing the intentions of the characters using semiotic symbolism to expressing the moral of the story clearly using the conceptualization of three core European values (empathy, inclusion, and tolerance).	Asking middle school students to interpret carefully selected wordless texts can be a means of engaging them in moral thinking, in addition to existing approaches based on the study of games and/or moral dilemmas.	5

Table A1. *Cont.*

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
7.	Bećirović	2023	The Relationship Between Cooperative Learning, Cultural Intelligence, EFL Motivation, and Students' Performance: A Structural Equation Modeling Approach	Quantitative, empirical	211 students (7th and 9th grade)	Correlation between learning motivation, interpersonal relationships, cultural intelligence, and academic performance of high school students.	Engaging students in cooperative learning significantly impacts students' cultural intelligence, which is essential for successful collaboration.	5
8.	Braden et al.	2025	Revolutionary love: Centering the full humanity of children in the literacy curriculum	Qualitative, empirical	4 for K–5 (elementary) teachers	How teachers implement literacy pedagogies that engage students despite limited literacy skills. The teachers involved in the study were part of a team of educators focused on implementing culturally responsive pedagogies in primary school classrooms.	The contribution of educators is essential in implementing the content of the state education curriculum in the learning process. Teachers feel limited in their ability to adapt lessons to the diverse needs of their students.	4
9.	Busch and Rajwade	2024	Conceptualizing community scientific literacy: Results from a systematic literature review and a Delphi method survey of experts	Quantitative, systematic review	Community experts	Acquiring scientific literacy at the individual, community, and societal levels.	Guided by the theory of cultural-historical activity, inductive and deductive analysis, seven elements of scientific literacy and their constituent characteristics were obtained.	5
10.	Bücker and Korzilius	2024	Developing and validating a team cultural intelligence scale	Quantitative, empirical	541 students: individual and multicultural team	Using a social cognitive framework, the study describes the further development of the Team Cultural Intelligence Scale and a six-step validation procedure that measures the abilities required for cross-cultural teams.	The study emphasizes the irreplaceable contribution of the team to the development of the collective and the organization. It is very important for multicultural teams to use the strengths of each individual, shifting the dynamics of team members towards mutual learning and interdependence in creativity, which leads to innovation.	5

Table A1. *Cont.*

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
11.	Cabrera-Martínez et al.	2023	Social uses, socioeconomic benefits, and indicators in cultural heritage: A correlational study	Quantitative, empirical	401 university students	University students' opinions: cultural heritage assessment, accessibility, national identity, and social equality. The study validates the social capital heritage research scale.	The correlation of the impact of cultural heritage with identity and social capital is moderate, as other influencing factors than simple student attendance frequency must be taken into account. What is important is the student's education, motivation, emotional involvement, family values, and historical, sociopolitical context.	4
12.	Chansaengsee	2024	STEAM approach for improving 21st-century skills of multicultural students attending inclusive classroom	Qualitative, empirical, quasi-experiment	16 students (6th grade) + 3 students with autism	Inclusive education is an environment where general education and special needs students learn together, and where collaboration with teachers and parents allows for the development of communication, cooperation, and socio-cultural awareness.	STEAM as a project-based, integrated approach can improve both learning outcomes and achievement, as well as communication, collaboration, socio-cultural awareness, and skill sets in an inclusive classroom.	4
13.	Chao	2025	Advancing Our Understanding of Cultural Competence: An Affective Learning Processes (ALPs) Model	Qualitative, theoretical	Students	The Affective Learning Processes model for the development of cultural competence, which explains how affect (emotions) influences learning in intercultural situations. Cultural competence generally refers to the ability to manage intercultural relationships. It enables individuals to function effectively in diverse cultural environments. The concept of cultural intelligence focuses on how to promote positive cooperation in collective work, effectively build a multicultural team, and improve its performance.	Cultural competence encompasses two distinct states: (a) relationship building and (b) relationship prevention or preventive maintenance. Affect-driven outcome expectations: joy or anxiety, anger structure attention, learning, and strategies chosen.	4

Table A1. *Cont.*

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
14.	Chappell and Hetherington	2024	Creative pedagogies in digital STEAM practices: Natural, technological, and cultural entanglements for powerful learning and activism	Qualitative, empirical	Students (7–15 years old)	The context of ocean literacy explores the integration of the natural, cultural, and technological environments through which the cognitive process occurs.	Creative pedagogy and digital technologies (AR/VR) can enhance students' social engagement and responsibility, promote behavioral and attitudinal change. Creative learning is conceptualized as a nature-culture-technology nexus, rather than a nature-culture binary. The task of educators is to shift from authoritative teaching to engaging students in the cognitive process.	4
15.	Chen and Chen	2025	Cultural sustainability through social networks: a moderated mediation model exploring the psychological dimensions of cultural dissemination	Quantitative, empirical cross-sectional	1200 social media users	Research context: The role of social media diversity in promoting cultural sustainability. Participants' cultural interaction diversity on these platforms, level of cultural empathy, cultural adaptability, and sustainability of cultural practices were assessed.	The results highlight the potential of social media as a tool for cultural preservation and adaptation in the context of globalization. Educators and trainers can integrate the results of this study into curricula and professional development programs to improve cultural empathy and adaptability among students and staff.	5
16.	Coelho	2024	Using FREPA to encourage critical intercultural reflections: A case study of intercultural competence in EFL textbooks for grades 3 and 4 in central Portugal	Mixed methods	Students	In terms of learning resources, it has been said that the cultural content provided in English as a foreign language textbooks is often superficial and mainly fact-based, focuses only on knowledge levels, and does not use a reflective approach, contrary to recent language research referenced in educational guidelines.	The results suggest that most of the content analyzed is unlikely to foster deep critical reflection on intercultural interaction, as its approach is based on the exchange of facts. It is therefore argued that policymakers, textbook authors, and publishers would benefit from more extensive training in critical cultural understanding.	4

Table A1. Cont.

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
17.	Cong-Lem	2025	Intercultural communication in second/foreign language education over 67 years: A bibliometric review	Quantitative, systematic review	Theoretical concepts (second language education concept)	Professional development of educators on culturally responsive materials and intercultural competence-focused learning outcomes in language education.	Digitally mediated learning (telecollaboration, e-learning) is emerging as a significant trend that allows intercultural experiences to be developed even without physical mobility.	5
18.	Da Silva Teixeira and Klein	2024	The Development of Cultural Intelligence (CQ) in Situated Learning	Qualitative, empirical, netnography	12 Bachelor of Management students	The study aims to investigate how situated learning contributes to the development of cultural intelligence during international experiences.	The main findings show that cultural intelligence develops primarily through situational learning in everyday activities and interactions with locals and foreigners of different nationalities.	5
19.	Davaei et al.	2022	The influence of cultural intelligence and emotional intelligence on conflict occurrence and performance in global virtual teams	Quantitative, empirical	810 Bachelor's and Master's degree business students.	The study investigates how cultural intelligence (CQ) and emotional intelligence (EQ) influence the occurrence of interpersonal, task, and process conflicts.	Team members' cognitive quality and emotional feeling reduce the occurrence of three different types of intra-group conflict	5
20.	Del Carmen Mardones et al.	2024	Instrument to Evaluate Intercultural Competence in Pedagogy Students	Quantitative, empirical, nonexperimental	521 pedagogy students	The current educational reality involves developing intercultural competence during and after training to influence educational practices that promote positive classroom interactions with culturally and linguistically diverse students. Based on the intercultural competence pyramid model, the cultural intelligence scale is translated, operationalized, and constructed for use by teacher education students.	It is important to integrate intercultural interaction into higher education transversally.	5
21.	Del-Olmo-Ibáñez et al.	2023	Perception of future Spanish primary education teachers on their multicultural and multilingual competencies and the sustainability of the educational system	Quantitative, empirical	116 prospective primary school teachers	Research objective: to assess prospective primary school teachers' self-awareness of their role in integrating international students into school and society; to determine how much importance they attach to multiculturalism and multilingualism to develop the communicative competence of their international students	Without language and cultural literacy, the sustainability of the education system is impossible. The majority of respondents recognize communicative competence as a critical factor for academic success and social inclusion.	4

Table A1. Cont.

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
22.	Dervin	2025	Intercultural self-defence: A resource book for students, teachers and researchers	Quantitative, systematic review Book	Theoretical philosophy for students and teachers	In a multicultural context, the idea of self-defense is a critical landmark in intercultural communication education and research, revealing limitations that can distort understanding and hinder development.	Ignoring language in intercultural research/education is not innocent: it can have ethical and sociopolitical consequences (exclusion, lack of inclusion of minority voices, inappropriate policies).	4
23.	Dias	2022	Thinker, Learner, and Practitioner: Using an Insider's Lens to Explore Critical, Cultural, and Global Consciousness Through Multicultural Literature	Qualitative, empirical, case-study	12 students (13–14 age)	A class study that explored the potential of multicultural literature to expand adolescents' worldviews and shape their perceptions as global citizens.	The concepts of time, space, place, and identity detail a deliberate and purposeful pedagogy as learners interact with literacy both within and outside the classroom community.	5
24.	Díaz-Pacheco et al.	2025	Intercultural sensitivity of teachers towards the immigrant community: A mixed research with three public schools	Mixed methods	102 teachers	As a result of the rapid increase in immigration, traditional pedagogical training in Chilean public schools is inadequate. Teachers' attitudes, representations, and emotional positions towards immigrant students significantly affect: academic performance, well-being, social inclusion, and the sustainability of the education system.	The findings show that the participating teachers have a moderate-to-high degree of intercultural sensitivity, with the most highly valued dimensions being commitment and enjoyment in interaction.	5
25.	Effendi	2023	Strategy for the Principal's Transformational Leadership Approach in Strengthening the Character of Indonesian Students	Qualitative, empirical, case-study	3 principals, 3 senior teachers, 5 parents, 2 school council/committee representatives, 1 school superintendent	Cultural, humanistic, and nationalistic approaches to school principals' support for transformational leadership, outlining three frameworks for character development.	Indonesian principals in inclusive, character-building schools should prioritize cultural values, spirituality, and nationalism, as this significantly enhances students' character development.	4
26.	El-Gabry	2026	From awareness to understanding: translating mental health literacy into inclusive and empathic practice	Quantitative, systematic review	Theoretical concept for teachers	Mental health literacy (MHL) encompasses both cognitive and cultural aspects. Low MHL contributes to stigma, reinforcing misconceptions, social distancing, and discrimination, discouraging help-seeking. In education, MHL goes beyond knowledge to include empathy, emotional intelligence, and inclusiveness.	Reducing stigma is not possible without empathy, cultural awareness, and inclusive pedagogy. Educational institutions are social communities where emotional intelligence and compassion are built.	4

Table A1. *Cont.*

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
27.	Erstad et al.	2023	Reading in the digital age. Differences and commonalities across research approaches	Qualitative, theoretical	Theoretical concept for teachers	Reading is a cornerstone of education, influenced by culture and tradition. Different definitions of reading persist across disciplines and theoretical paradigms.	Different perspectives on reading can overcome the simplistic dichotomy of print and digital reading in today's public discussions and promote a more nuanced understanding of literacy.	4
28.	Fernández-García	2024	Musical input and a multiliteracies approach to facilitate intercultural EFL learning	Qualitative, theoretical	Theoretical concept for teachers	Incorporating multilingual pedagogy into language learning programs with musical elements. Traditional language teaching approaches reduce culture to factual information, underdeveloping intercultural communicative competence, and rarely using multimodal and affective resources to promote empathy, critical thinking, and cultural sensitivity.	Creating meaningful learning in language classes is a priority in a multicultural context. It is necessary to meet the needs of students to make realistic connections in today's digital world. The principles of multilingual pedagogy are an effective tool for promoting the development of intercultural skills among learners of English as a foreign language.	4
29.	Ferreira et al.	2025	Greek astromythology: Intersections between mythology, history, and modern astronomy education	Quantitative, systematic review	Theoretical concept for teachers	A comparative assessment of the interaction between Greek astromythology and astronomy education as an interdisciplinary and cross-cultural contribution.	The use of mythology as a historical and cultural aspect of visible constellations and planets can make a significant contribution to scientific literacy and teaching, especially in introductory astronomy courses typically designed for primary and secondary schools. Exploring this interaction at the school level can also contribute to the reflection, implementation, and evaluation of consistent teaching and learning indicators towards critical education.	4

Table A1. Cont.

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
30.	Ge et al.	2024	Video-streamed Intangible Cultural Heritage, Ethnic Perceptions, and Cross-cultural Competence in China	Quantitative, empirical	Theoretical concept for teachers	The ability of Chinese ethnic minority-related video streaming content to improve intercultural competence and perceptions of ethnic minority communities among Chinese ethnic majority users.	Intercultural attitudes and skills served as positive predictors of participants' affinity towards ethnic minorities, suggesting that more favorable intercultural attitudes and skills contribute to greater sympathy towards ethnic minorities.	5
31.	Ghaemi and Boroushaki	2025	Culturally responsive teaching in diverse classrooms: A framework for teacher preparation programs	Mixed-methods	150 prospective teachers, 15 faculty members, and 10 program administrators	The importance of culturally responsive teaching (CRT) in heterogeneous classrooms offers a comprehensive framework for teacher development programs designed to enhance effective teaching for diverse student groups.	The cultural competence of teachers should be improved, emphasizing the need for a continuous focus on social justice, equity, and culturally sustainable pedagogy, promoting equality literacy and critical self-reflection to ensure that educators are prepared to address the needs of diverse learners.	5
32.	Griffith and Lim	2024	Teaching intercultural communicative competence in the foreign language classroom	Qualitative, theoretical	Theoretical concept for teachers	The main reasons for teaching culture in language lessons and how cultural training and understanding contribute to intercultural communicative competence and the role of teachers in teaching culture in language lessons.	The teacher's task is to find appropriate and suitable materials and to develop meaningful tasks that engage the student while promoting deeper intercultural understanding. • Provide knowledge and information about the target culture • Make the task relevant to their own lives • Make connections between students' first and second language experiences • Incorporate higher-order thinking skills • There are no fundamentally correct answers, or at least there are multiple answers	4

Table A1. Cont.

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
33.	Guerra Ayala et al.	2025	Social isolation among indigenous college students in Peru: The role of language, culture, and acculturation	Quantitative, empirical	202 students of the university	Cultural differences between indigenous communities and urban university environments, and the historical and institutional marginalization of indigenous people.	Psychological acculturation significantly reduces isolation and increases the explanatory power of the model to 85.6%. Gender, cultural affiliation (Quechua/Aymara), and academic performance have no statistically significant effects. Acculturation acts as a protective factor, but it does not mean loss of identity.	5
34.	Gutiérrez-Santiuste and Ritacco-Real	2023	Intercultural communicative competence in higher education through telecollaboration: typology and development	Mixed-methods	20 students of the university	Intercultural communicative competence is understood as an individual's ability to adapt communication and behavior effectively and appropriately when interacting in an intercultural context.	Behavioral communication is the dominant learning process. It is followed by affective and, finally, cognitive communication.	5
35.	Guzmán-Rodríguez et al.	2023	Individual characteristics on multicultural team performance: Does the role played by leaders and team members matter?	Quantitative, empirical	304 company members, 111 leaders	The impact of individual characteristics such as cultural sensitivity, adaptability, cohesiveness, and cultural diversity on the performance of a multicultural team	There is a positive relationship between cultural sensitivity, adaptability, cohesion and team performance. Cultural diversity did not show a significant effect on team performance. Leaders and participants had different perceptions of the factors that affect team performance.	4
36.	Gyensare et al.	2025	Fostering assigned expatriates' thriving at work through cultural intelligence and local embeddedness: The role of relational attachment	Quantitative, empirical	234 company members	How cultural intelligence helps you achieve local inclusion. Challenges before going abroad.	Cultural intelligence promotes local inclusion, which in turn promotes work productivity and the creation of a sense of belonging.	5

Table A1. Cont.

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
37.	Hackett et al.	2023	The effectiveness of Collaborative Online International Learning (COIL) on intercultural competence development in higher education	Qualitative, empirical, quasi-experiment	108 students of the university	Self-assessed intercultural competence of university students. Measurements with the Cultural Intelligence Scale and the Multicultural Personality Questionnaire.	The effectiveness of Collaborative Online International Learning (COIL) has been proven and confirmed.	5
38.	Han et al.	2022	Facilitating Cross-Cultural Adaptation: A Meta-Analytic Review of Dispositional Predictors of Expatriate Adjustment	Quantitative, systematic review	expatriates on work assignment	A meta-analytic review of cultural empathy, flexibility, cognitive intelligence, and emotional intelligence in expatriate adaptation.	Various cultural variables (cultural distance, cultural tension, gender inequality in the host country) affect relationships. Sociocultural factors may mitigate some of these effects.	5
39.	Hattan et al.	2025	Exploring the Power and Possibility of Contextually Relevant Social Studies–Literacy Integration	Mixed-methods	92 students (1st grade) 6 teachers	Development of first graders' social studies knowledge and reading skills using an integrated learning unit jointly developed and implemented by a teacher and researcher in the context of a rural community.	Vocabulary can be a powerful bridge to cultural and content knowledge when local and community knowledge is the focus of lessons and texts, demonstrating that contextually appropriate integration of social studies and literacy is a promising practice for building content knowledge and interest in first-grade classrooms.	5
40.	Hodgson and Harris	2022	The Genealogy of “Cultural Literacy”	Qualitative, theoretical	Theoretical concept for teachers, policy makers	Cultural literacy is used as a normative and hegemonic tool to define a “common national culture”—this contradicts the reality of contemporary multicultural and multilingual societies.	The idea of a “common culture” is not neutral; it creates exclusion rather than inclusion. In modern society, culture is plural, dynamic, and full of conflicts; cultural literacy cannot be reduced to a single list of knowledge.	4

Table A1. *Cont.*

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
41.	Jerinic-Ivic et al.	2025	Intercultural competence in the context of intercultural service encounters: A multilevel and dynamic approach	Qualitative, empirical, case-study	Language teachers like company	A multi-level and dynamic approach to the analysis of intercultural competence to understand how its components operate at the individual and collective levels.	Not only the “right people”, but team practices (information flow, coordination, shared responsibility between phases) are crucial.	5
42.	Jurásek and Wawrosz	2023a	How Does Self-Efficacy in Communication Affect the Relationship Between Intercultural Experience, Language Skills, and Cultural Intelligence	Quantitative, empirical, cross-sectional study	109 students of the university	Cultural intelligence related to travel experience, intensity of social contacts, and foreign language skills.	Cultural intelligence is a multidimensional sociomental construct that allows a person to effectively explore and understand different cultures for the benefit of the entire organization.	5
43.	Jurásek and Wawrosz	2023b	What Makes People Abroad Satisfied? The Role of Cultural Intelligence, Cultural Identity, and Culture Shock	Quantitative, empirical, cross-sectional study	180 students of the university	Cultural intelligence (CQ) is the ability to function effectively in different cultural contexts; CQ is structured into 4 dimensions: metacognitive, cognitive, motivational, and behavioral.	Culture shock mediates the relationship between CQ and life satisfaction (CQ reduces culture shock; culture shock reduces satisfaction). Cultural identity does not mediate the relationship between CQ and life satisfaction.	5
44.	Juzwik	2025	White Christian nationalism, biblical proof-texting, and literacy curriculum and instruction	Qualitative, theoretical	Theoretical concept for teachers	The professional role of teachers in the White Christian Nationalist movement and the need for educators to have a deeper understanding of the ideology of this movement and its impact on literacy.	Recommendations for literary literacy education: In teacher education, deliberately include depictions of ethno-religious nationalism in text selection to promote critical understanding.	4

Table A1. Cont.

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
45.	Kačāne et al.	2023	Youth and Intergenerational Transmission of Cultural Intelligence in Latvia, Spain, and Turkey	Qualitative, empirical, case-study	31 family cases (10 in Latvia, 10 in Catalonia/ Spain, 11 in Turkey), 97 participants (young people, parents, grandparents).	The process of formation of cultural intelligence of young people (14–25), openness to intergroup communication, analyzing everyday interaction in neighborhoods, experiences with cultural diversity, forms of participation, and the role of intergenerational relations in this process	Openness and experience with diversity are crucial for young people's adaptability in intergroup communication; broader intercultural experiences can help reduce stereotypes and improve communication. Cultural capital more often functions as a mechanism of social differentiation, while CQ develops through acquiring and using intercultural knowledge in everyday practices.	5
46.	Kalyuga	2026	Evolutionary Perspective on Intelligence in Natural and Artificial Information Processing Systems	Qualitative, theoretical	Theoretical concept for teachers, policy makers	Intelligence as an emergent, natural information processing system, which, as it moves from biological to cultural evolution through the 3 stages, requires another element in the cognitive architecture: a clearly expressed intention to learn (motivation).	Personality is fundamentally dependent on accumulated cultural knowledge, which provides motivation for learning, perceptual and cognitive means for survival. Signs of cultural intelligence: reading intentions, social learning and communication as cognitive skills. But habits, which can be called traditions, reflect a persistent level of tradition, which does not yet constitute culture as such, which is complex and its degree of complexity is related to the memory capacity of the brain.	5
47.	Karpava and Ringblom	2023	Cultural and Linguistic Capital of Second-Generation Migrants in Cyprus and Sweden	Qualitative, empirical, narrative study	20 students of high school	All resources and values can be described as linguistic and cultural capital, which can provide migrants with certain advantages in their new country of settlement. Heritage language and knowledge of another culture are important components of this linguistic and cultural capital.	Storytelling proved to be an effective method of narrative research, providing deeper insight into the complex process of language development and support, offering participants the opportunity to reflect on their own personalities, language, and culture.	4

Table A1. Cont.

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
48.	Kellberg et al.	2023	Fostering students' willingness to act pro-environmentally through an identity-oriented socio-scientific exhibition on the energy transition	Qualitative, empirical, quasi-experiment	185 students (8th–10th grade)	Successful communication of the importance of and increased participation in the global energy transition to carbon-free energy sources depends on the entire society, including the socio-cultural identities and personal values of all those involved.	Providing students with a wide range of opportunities for identity work outside the school context fosters their willingness to act globally, and that contemporary social science museum exhibitions are thus a useful way to supplement formal education.	4
49.	Kersting et al.	2025	From founding voices to future visions: Languages and literacies in science education	Qualitative, theoretical	Theoretical concept for teachers, policy makers	Science education; languages and literacy; science literacy; multimodality; multilingualism	Languages and literacy, understood in their multimodal and plural forms, continue to play a crucial role in science education research and practice.	4
50.	Ketemaw et al.	2024	Managing Diversity and Multi-Cultural Collaboration: A Systematic Review	Quantitative, systematic review	Theoretical concept for teachers, policy makers	The structure of cultural intelligence from cognitive, normative and symbolic components that play a crucial role in interpreting and understanding events so that multicultural teams thrive, adopting innovations and solving problems through the exchange of knowledge and opinions.	The link between perceived inclusion in a work group and the growth of cultural intelligence is stronger for people who perceive greater cultural diversity.	data
51.	Kokubun et al.	2025a	Cultural and emotional intelligence correlate with healthy lifestyles	Quantitative empirical, cross-sectional	Members of the public (30–79 years old)	Cultural intelligence is closely related to social and emotional intelligence and a healthy lifestyle.	There is little research on the relationship between cultural intelligence and a healthy lifestyle.	5
52.	Kokubun et al.	2025b	The brain that understands different cultures: MRI-measured brain structure correlates with cultural intelligence	Quantitative empirical, cross-sectional	310 adults (22–83 years old)	Brain gray matter volume across the brain, in specific regions related to Metacognitive, Motivational, and Behavioral Cultural Intelligence.	Correlations between the behavioral dimension of cultural intelligence (including verbal, nonverbal, culturally appropriate words, tone, gestures, facial expressions, and body language) and the entire brain, frontal, limbic, occipital, and parietal, while the motivational dimension (expressed positive, objective evaluation) correlates with the subcortical brain. In turn, the metacognitive and behavioral dimensions correlate with task performance.	5

Table A1. Cont.

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
53.	Koro and Hagger-Vaughan	2025	Collaborative curriculum making at a local level: The Culture and Language Integrated Classrooms (CLiC) project	Qualitative, empirical, case-study	7 teachers of language	Teachers experience a tension between their belief in the importance of the cultural dimension and the daily opportunity to implement it under the pressure of prescriptive curriculum and assessment.	More holistic formative assessment tools are needed that can map progress in the intercultural learning dimension. The connection between language and culture must be strengthened.	5
54.	Kung et al.	2022	Mixed Reactions to Multicultural (vs. Colorblind) Diversity Approach Signals: A Lay Theories of Culture Perspective	Quantitative, empirical, experimental	96 +169 students of the university; 199 adults	Individuals' cultural mindset and reactions to organizational signals about a multicultural approach to diversity.	A fixed cultural mindset is negatively related to organizational attractiveness, ethnocentrism is a self-defense mechanism that mediates negative reactions.	4
55.	Leonido et al.	2023	Art education: Two decades of creation, evaluation, and application of an interdisciplinary method of artistic literacy	Qualitative, theoretical	Theoretical concept for art teachers	Visual/general arts education lacks systematic, regular, active and interdisciplinary methods that consistently link different art fields to each other and to other fields of knowledge.	The MILMESA program promotes active participation of students in the construction of knowledge in curricula and at the same time interacts with institutions and their interlocutors to apply differentiating factors. MILMESA can be used in any field of artistic cultural pedagogy, as its matrix provides for interaction with other areas of art, which in turn integrate into other areas of knowledge.	5
56.	Li and Wei	2024	Building cultural confidence: A framework for cross-cultural communication in foreign language education	Mixed-methods	77 students of university	Improving cultural self-awareness in foreign language education through targeted interventions. Cultural self-awareness theory. Cultural integration in language curricula using role-playing methods in interventions.	A culturally focused intervention significantly improved students' cultural self-awareness and related indicators.	5

Table A1. Cont.

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
57.	Lubińska	2024	Aiming high in heritage language education: The case of de jure policy for complementary Polish State Schools abroad	Qualitative, theoretical	Theoretical concept for teachers, policy makers	The Polish government educational opportunities for Polish immigrants and their descendants.	The Polish language and culture are positioned as both a right and a resource for cultural pluralism and multilingualism.	4
58.	Lähdesmäki	2022	Attributes Of Democratic Culture As Represented In Young Children's Drawings	Qualitative, empirical	125 children (5–6 years old)	Cultural literacy context. Knowledge about democratic education at an early age and creative teaching tools for acquiring it.	Pedagogical insight: drawing in peer groups is a multimodal process of dialogue, where “dialogic chains of thought” also occur visually; teachers should recognize this as real training in democratic participation.	5
59.	Lähdesmäki et al.	2022	Learning Cultural Literacy through Creative Practices in Schools: Cultural and Multimodal Approaches to Meaning-Making	Qualitative, empirical	1906 children, students (5–15 years old)	The role of dialogue and creativity in the process of learning cultural literacy.	Even very young children are able to deal with complex and abstract ideas/emotions if learning is dialogic and creative.	5
60.	Ma and Lucietto	2024	Cross-cultural communication across STEM disciplines	Qualitative, theoretical	Theoretical concept for teachers, policy makers	Cultural intelligence, as intercultural knowledge, is also crucial for effective communication in a global context for STEM students to expand their scientific capacity and effectiveness.	Different cultures have different communication styles. There is a high-context culture with indirect language and situational cues and a low-context culture with direct language that influences communication style to become culturally competent STEM professionals.	4
61.	Maplethorpe and Jang	2024	Growing Our Roots: Exploring the Home Language and Literacy Environment within the Context of Indigenous Ways of Knowing	Qualitative, empirical	Community-based; 22 grandparents, adults and children, teacher	Preschool level. Children's early language and literacy development, in relation to cultural traditions, identity, community, and intergenerational experiences/trauma.	Oral traditions, storytelling, picture book viewing, and conversations are important for children's language development in a cultural context.	5

Table A1. Cont.

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
62.	Masunungure and Maguvhe	2025	Barriers to teaching in culturally and linguistically diverse classrooms in mainstream secondary schools: data	Qualitative, empirical	12 teachers of high school	Teachers' difficulties in creating culturally responsive classrooms that provide equal opportunities.	Meaningful and sustainable learning depends on teachers having sufficient knowledge and using culturally and linguistically diverse strategies. Culturally responsive pedagogy is characterized by teachers who are committed to cultural competence and who position themselves as both facilitators and learners.	4
63.	Mammadov and Wald	2025	The Role of Cultural Intelligence and Emotional Intelligence in the Internationalization of SMEs: Does Global Mindset Matter?	Quantitative, empirical, cross-sectional	399 small business managers	The impact of managers' cultural intelligence and emotional intelligence on the degree of internationalization.	In an international context, cultural intelligence, emotional intelligence, and global thinking are essential cognitive competencies.	4
64.	McMyler	2022	Towards an epistemology of cultural learning	Qualitative, theoretical	Theoretical concept for teachers, policy makers	Philosophy of cultural learning. The collective cultural heritage of Australian Aboriginal people as the knowledge and skills by which a representative of the people can be identified.	Cultural learning promotes—the development of a social epistemology (cultural intelligence hypothesis) that individual and group-level dynamics operate in tandem, mutually influencing each other in a way that promotes cultural transfer that is not only accurate and reliable, but also flexible, broad-based, and of sufficient magnitude to preserve, accumulate, and transmit knowledge over time.	4

Table A1. Cont.

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
65.	Mills et al.	2025	Multimodal Language Rights and Indigenous Totemic Identity: Cross-Cultural Participatory Research	Qualitative, empirical, longitudinal	5 teachers, 115 students (5–12 years old)	Australian Aboriginal identity and cultural heritage. Student identity and related space-time configurations in multimodal language practices.	Educational inequality increases when the system fails to incorporate knowledge about cultural forms of communication. Multimodal language rights must be recognized so that students can legitimately combine oral, visual, musical, and dance traditions with modern digital formats.	5
66.	Moffett	2025	What is a society? Building an interdisciplinary perspective and why that is important	Qualitative, theoretical	Theoretical concept for society	Interdisciplinary discourse of history and social sciences. The microclimate of social societies in which an individual of a species is accepted and recognized in a group according to the characteristics determined by its identity markers: specific gestures, rituals, manner of dressing, and perception of common belonging.	The larger the social group, the more the needs of each of its individuals are met. Cultural intelligence encompasses cultural complexity, social learning, and the importance of social complexity in the context of its formation.	4
67.	Mosanya and Kwiatkowska	2023	New Ecological Paradigm and third culture kids: Multicultural identity configurations, global mindset, and values as predictors of environmental worldviews	Quantitative, empirical, cross-sectional	399 students (21 years old)	Cultural intelligence in the context of contact and diversity, global thinking, cultural flexibility, cosmopolitanism, and a broadened worldview. The sense of identity, relationships with other students whose parents live an internationally mobile lifestyle.	Children of internationally mobile parents develop a hybrid identity that is not based on the culture of either their parents or the host country, which over time creates a problem with the formation of a sense of belonging.	5
68.	Nigar and Kostogriz	2024	Navigating affective and sensory fluidity in plurilingual and intercultural pedagogies in English language and literacy classrooms	Qualitative, empirical, hermeneutic phenomenology, narrative enquiry	16 English teachers	The interaction of affect and productive pedagogical practices in English language and literacy classrooms.	Teacher self-doubt, determination, empathy directly impact pedagogy and teacher professional development. Inclusive environments that support the dimension of global citizenship must be created. Cultural responsiveness: authenticity, humor, empathy + creative approaches (sensory engagement, aesthetics, visualization, translanguaging) create deeper engagement and more meaningful learning experiences.	4

Table A1. *Cont.*

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
69.	Okken et al.	2022	The relationship between intercultural teaching competence and school and classroom level characteristics	Quantitative, empirical, cross-sectional	155 primary school teachers	Cultural intelligence in teachers' ability to respond to the challenges of intercultural learning environments in their work with students. Research context: educational effectiveness research factors that promote five dimensions of intercultural learning competence: openness, classroom management, enriched lesson design, social initiative, and storytelling.	The five dimensions are aspects of teacher behavior, which include openness, cultural intelligence, intercultural competence, differentiation and communication strategies, student-centered teaching approach, and general classroom management skills to create a safe learning environment and trust as a core competency. A significant relationship was found at the classroom level, but not at the school level.	5
70.	Oliveira and Gillanders	2024	Cultural and arts education in focus according to the perceptions of future teachers	Mixed-methods	107 prospective teachers	Primary school teachers' perceptions of the importance of cultural and artistic education. Identifying discrepancies between beliefs and actions.	Primary school teachers have low cultural participation, as they rarely visit museums, exhibitions and theatres. More active participation is observed in concerts.	4
71.	Orphanidou et al.	2024	Cultural heritage for sustainable education amidst digitalisation	Quantitative, systematic review	820 students	Interlinking cultural heritage, skills, competences, and digitalization within a sustainable education framework. Digital and cultural heritage competences of young people—for a new, hybrid learning model that connects digital skills with digital cultural heritage.	Students have uneven digital literacy and habits of using digital tools, low understanding of tangible and intangible cultural heritage. This threatens the formation of a dimension of identity and belonging in the personality. Cultural heritage in education is not a "duty", but a tool, if used purposefully. Therefore, a new pedagogical approach to digital cultural heritage is needed.	4

Table A1. *Cont.*

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
72.	Osborn and Karandikar	2023	Practice-based knowledge perspectives of cultural competence in social work	Qualitative, empirical, cross-sectional, descriptive	10 social workers	Cultural competence skills are based on professional and personal experiences, especially in situations with cultural differences.	A broad understanding of culture as part of an open stance—culture is perceived very broadly—beyond ethnicity and race. It includes the environment, family, identities, organizations, etc. Cultural competence is a dynamic, reflexive, and organizationally conditioned process, not a list of skills to be learned once.	4
73.	Peng	2024	Enhancing cross-cultural well-being: a mixed methods study on critical thinking, cultural intelligence, and eudaimonic well-being in arts students' cultural identity development	Mixed-methods	65 students	The concept of cultural intelligence in the context of emotional intelligence. Cultural intelligence and its four factors: metacognitive, cognitive, motivational, and behavioral. Dimensions of a multidimensional model of well-being: self-acceptance, life purpose, personal growth, positive relationships, autonomy, and environmental management.	Critical thinking, cultural intelligence, and well-being interact and influence individuals' perceptions of themselves and their cultural identity, which is multidimensional because it encompasses a combination of social and psychological attributes. This perspective emphasizes the pursuit of a meaningful and fulfilling life, highlighting self-actualization, personal growth, and the pursuit of virtue and excellence.	5
74.	Pickard	2025	Moving to Belong: A Qualitative Study of Culturally Responsive Dance for Adolescent Motivation and Physical Activity using the COM-B Framework	Qualitative, empirical, interpretative	89 students (12–16 years old)	A culturally responsive dance program, integrated into the context of school programs, influences adolescents' motivation for physical activity, participation, psychosocial factors (belonging, self-confidence, emotional regulation), and behavior change patterns.	A culturally responsive, school-based dance intervention created a sense of belonging, recognition, and equity, especially for gender and cultural minorities, and can significantly increase adolescents' motivation and participation in physical activity, while also supporting psychosocial well-being.	4

Table A1. Cont.

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
75.	Presbitero et al.	2025	Employee engagement and retention in multicultural work groups: The interplay of employee and supervisory cultural intelligence	Quantitative, empirical, longitudinal	170 employees, 161 employees (representatives of cultural minorities).	The interaction between employee and manager cultural intelligence. How does it affect work engagement and intention to stay in multicultural work groups?	A manager's cultural intelligence positively influences employee engagement and also influences intention to stay at work.	5
76.	Randel and Alexandra	2024	From cultural intelligence to workgroup inclusion through synchrony preference and perceived workgroup similarity	Qualitative, empirical, longitudinal	420 employees	Social Identity Theory: How cultural intelligence influences perceptions of work group inclusion, considering the human tendency to adapt one's behavior, pace, and communication rhythm to others in interpersonal interactions to create coherent and fluid collaboration and similarity in work style, culture, or ethnicity	Inclusion is promoted more by shared work practices and a similar work style than by a common cultural background. Collaboration should be structured in such a way that people find a common rhythm of work and harmony in their work style. Cultural intelligence as an ability allows individuals to recognize, adapt to, and utilize cultural diversity.	5
77.	Ratka-Pauler et al.	2024	The role of parents' beliefs regarding their children's literacy acquisition	Qualitative, empirical	25 parents (1st grades)	Parents' beliefs about shared literacy activities in the family with preschool children using the Theory of Planned Behavior.	Parents' motivation is influenced by intrinsic values: joy, autonomy, creativity, and child development benefits, rather than a direct orientation to school requirements. Literacy activities are perceived as a social and emotional ritual, not just as an educational activity.	4
78.	Ratri et al.	2025	Fostering cultural competence: Developing an English syllabus for young learners in the Indonesian EFL context	Mixed-methods	27 students (4th grade); teachers, experts	A 4th-grade English syllabus that integrates local culture to simultaneously strengthen students' identity and improve English language acquisition.	The developed syllabus serves as teaching guidelines in a situation where there is no nationally mandated syllabus, and is designed as familiar content based on the local cultural context. The integration of local culture helps to simultaneously (a) maintain identity and (b) increase motivation and participation, as the learning content is familiar to students.	5

Table A1. *Cont.*

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
79.	Redondo-Sama et al.	2025	Leading schools through dialogue: the role of principals in schools as Learning Communities	Qualitative, empirical	11 school principals	Essential aspects of educational leadership that promote progress through dialogic leadership in the face of educational challenges. The actions of a school principal who deeply values the knowledge of others and draws on the cultural intelligence of families and students.	Dialogic leadership improves student academic performance, strengthens social cohesion, fosters sense-making, and a shared “educational dream.” Leadership is grounded in evidence, enthusiasm, and a moral purpose—to provide “the best education for all children.”	4
80.	Renn et al.	2024	Fostering educator buy-in of language and literacy in the science classroom	Qualitative, empirical, descriptive	15 teachers of STEM	Integration of literacy in science teaching. The content of the module for university educators, integrated into three science education methods courses, is developed based on three main principles: linguistic understanding, critical language awareness, and pedagogical modeling.	Effective teacher preparation programs should provide educators not only with language knowledge, but also with specific information about local language variations and community norms.	4
81.	Richter et al.	2023	Reviewing half a century of measuring cross-cultural competence: Aligning theoretical constructs and empirical measures	Quantitative, systematic review	160 experts	A comprehensive review of how intercultural competence has been measured over the past fifty years to more accurately align theoretical constructs and empirical measurements.	There is a significant theory-measurement discrepancy: instruments with different names often measure similar dimensions, but sometimes the same name hides different content. This hinders the accumulation of knowledge. The most significant dimensions in measuring intercultural competence have been identified: open-mindedness/openness, respectfulness, cross-cultural motivation, and social/behavioral flexibility.	5
82.	Robinson-Pant	2023	Education for rural development: Forty years on	Qualitative, empirical, field research	Community-based; 40 students, teachers, community persons	An alternative perspective on the relationship between education and social change. Theoretical framework—social transformations and unplanned/incidental learning, other actors, and the impact of digital communication on everyday life.	The dominant discourse often equates education with teaching and social change with planned development interventions.	4

Table A1. Cont.

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
83.	Rodriguez Leon	2023	Sensing and configuring the world with text: Bringing neo-Vygotskian thinking into dialogue with more-than-human literacies in early childhood	Qualitative, empirical, field research, ethnographic	Community-based; children (3–4 years old)	To place neo-Vygotskian thinking in dialogue with more-than-human literacies and, based on vignettes obtained through ethnography, to understand the “in-between-ness” between the child and the socio-material environment in moments of encounter with the text, to see how subjectively and relationally constructed experiences, the child’s orientation/intentionality, and possible transformations are created in micro-moments.	Different children experience the same literary activity differently, as the event is refracted through the prism of their experience. Intentionality is not a fixed property; it is formed in an event where the child subjectively perceives socio-material signals and “configures” what to do next.	4
84.	Rutt and Mumba	2023	Examining preservice science teachers’ implementation of language- and literacy-integrated science through a cultural-historical activity theory lens	Qualitative, empirical	3 future high school science teachers	How and why three prospective science teachers implement (or do not implement) language- and literacy-integrated science teaching in linguistically diverse classrooms, analyzing the contextual factors that support or limit this implementation using Cultural-Historical Activity Theory.	As schools become more linguistically diverse and standards require greater attention to how language is used, it is becoming imperative that all secondary school science teachers be trained in how to teach in linguistically diverse classrooms.	5
85.	Romero and Bobkina	2024	Towards a stance de-centring model for the foreign language classroom: Training 21st-century agents of change	Qualitative, theoretical	Theoretical model for teachers	Pedagogical approaches in foreign language lessons. Teachers should actively engage learners in reflective analysis to recognize and respect different cultural perspectives. Classroom activities should encourage self-reflection and discussions about cultural biases and assumptions. Educators can use communication accommodation theory, cultural intelligence theory (Earley and Ang 2003), or Hofstede’s cultural dimensions theory (Hofstede 2001).	The foreign language classroom can become an environment to systematically drive the transition from ethnocentrism to ethnorelativism, developing awareness-empathy-action, and thus cultivating “agents of change” in hybrid societies.	4
86.	Rüschepöhler et al.	2024	Secondary school teachers’ beliefs about the role of culture in chemistry class and their ways of considering and engaging in it	Qualitative, empirical	7 chemistry teachers	What role do public high school chemistry teachers attribute to culture in the teaching and learning process of chemistry?	Teachers often have a high cultural awareness in general school life, but they often perceive chemistry lessons as a space where culture has little or “near zero” influence. This creates tension, uncertainty and the potential for discriminatory practices.	4

Table A1. *Cont.*

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
87.	Sacco et al.	2025	Culture and creativity, skills building, and growth: What have we missed?	Quantitative, empirical, cross-sectional	Adults (16–65 years old)	Culture and creativity—an undervalued growth factor related to the development of skills (problem solving, literacy, numeracy) and socially sustainable growth.	Culture and creativity should be perceived as a factor of socially sustainable growth that can simultaneously affect both the “supply side” (skills/productivity) and the “demand side” (change in pro-social attitudes and behavior).	4
88.	Sadrnia and Shahnazari	2023	Predicting Translation Students’ Cultural Intelligence through Different Types of Creativity	Quantitative empirical, correlation, regression	103 students (19–36 years old)	Cultural intelligence in the context of language translation. The main types of creativity that can predict the cultural intelligence of translators in intercultural interaction.	Multiple regression analysis revealed that among the various components of creativity, academic, self-esteem, and artistic creativity were the best predictors of cultural intelligence in translation students.	5
89.	Saputra et al.	2023	Nationalism Education In Elementary School: A Systematic Literature Review	Quantitative, systematic review	Theoretical concept for primary school teachers, policy makers	Nationalist education in primary school: Impact on students.	Nationalist education in primary school is a deliberate action of educational institutions that forms students’ understanding, knowledge and attitudes to “love and defend the country”, and is implemented through: Jerinic-Ivics, social sciences/humanities, literature, character education, innovations.	4
90.	Semião et al.	2023	Teachers’ perspectives on students’ cultural diversity: A systematic literature review	Quantitative, systematic review	Theoretical concept for teachers, policy makers	Teachers’ concepts of students’ cultural diversity and inclusive practices in the school environment	Teachers perceive diversity as a challenge, especially linguistic barriers, behavioral difficulties, and the influence of family context. But diversity can be an added value that enriches learning and coexistence. Typical inclusive practices: differentiation, translation of materials, creating a safe environment for bilingualism, individual support, digital tools, family involvement, student voice, etc.	4

Table A1. *Cont.*

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
91.	Shih	2024	Culturally responsive curriculum: A systematic overview	Quantitative, systematic review	Theoretical concept for teachers, policy makers	The essence of a culturally responsive curriculum: origins, theoretical foundations, main features, benefits, and implementation principles—in the context of Taiwanese education.	The curriculum should integrate cultural themes, flexible teaching strategies, diversified assessment forms, and culturally sensitive teacher-student interactions; in Taiwan, this is also linked to multicultural policies and cultural recognition of indigenous/new immigrant families.	4
92.	Sinclair	2025	Exploring the Effects of Culturally Responsive Instruction on Reading Comprehension, Language Comprehension, and Decoding with Bayesian Multilevel Models	Quantitative, empirical, quasi-experiment	263 students (1st–3rd grade)	Structured literacy instruction and culturally responsive pedagogy. Is there a transfer of knowledge and skills from localized, personalized curriculum to standardized tests?	All three groups improved in all three skills over the course of the study (10 weeks), which means that the control conditions had a positive effect on the students.	5
93.	Slors	2023	Explaining the Cultural Evolution of Large-Scale Collaboration: Conventionality as an Alternative for Collective Intentionality	Qualitative, theoretical	Theoretical philosophy	The cultural intelligence hypothesis (cultural intelligence) studies large-scale cultural evolution in collective intentionality (collaboration within a larger group) in the context of the genesis of history.	The emergence of complex societies can best be understood in terms of the human tendency toward what is called “conventionality”: a set of non-strategic attitudes that stabilize and standardize human interactions so that role divisions, institutions, norms, and conventions can emerge as group-level phenomena.	4
94.	Sousa et al.	2023	Assessing Cultural Intelligence and Its Antecedents in the Portuguese Higher Education Context	Quantitative, empirical	445 university students in STEM	level of cultural intelligence and its origins in a Portuguese engineering higher education institution.	Portuguese institutions have an interesting level of understanding of other people’s cultural preferences. Institutional leaders should try to promote Erasmus programs or similar practices that promote intercultural learning and student cooperation.	5

Table A1. Cont.

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
95.	Stein et al.	2025	Culturally responsive-sustaining education and student engagement: A call to integrate two fields for educational change	Quantitative, systematic review	Theoretical concept for teachers	Educational challenges: student mental health crisis, growing inequality, ability to engage in learning. An approach that is psychologically sound and socially just is needed. New York State Education Department Culturally Responsive-Sustaining Education Framework.	Engagement research focuses on measurable indicators (behavior, participation, achievements), risking ignoring the context of power/racism/inequality; while Culturally Responsive-Sustaining Education helps to understand engagement also as a matter of justice and identity.	4
96.	Stephenson and Patel	2025	Activating (oracy) embodied-dialogic and cultural literacies through drama worldbuilding pedagogy across the primary curriculum	Mixed-methods	34 teachers and 1080 children (7–9 years old), 5 artist-educators; also school management and community	Imaginative, culturally relevant learning using Drama Worldbuilding and translanguaging approaches. Communication and cultural literacy, which contribute to the creation of transdisciplinary, localized learning content, influence student learning. Physical literacy ect. in language learning.	Drama Worldbuilding creates a dialogic space where communication is collective, and where the importance is not accuracy but shared meaning-making. Students develop a sense of self-identity, engagement, socio-emotional dispositions, communication confidence, and the ability to resolve conflicts. Preferred language learning framework—"Cultural Literacies and Embodied-Dialogic Learning Framework."	4
97.	Sternberg et al.	2023	Cultural Intelligence Deployed in One's Own vs. in a Different Culture: The Same or Different? data	Quantitative, empirical, correlation	148 students of the university, 20 years old	Higher education. Cultural intelligence measurements with maximal, high internal consistency performance (assesses an individual's problem-solving abilities), typical performance (openness to experience, the ability to navigate cultural environments), and fluid intelligence tests.	It is meaningful to measure intercultural competence as both an attitude/disposition and an ability, as they provide complementary information.	5
98.	Sternberg et al.	2022	Cultural Intelligence: What Is It and How Can It Effectively Be Measured?	Quantitative, empirical, correlation	114 students of the university	Maximum performance cultural intelligence tests: (1) an individual's cultural intelligence in another culture; (2) an individual's cultural intelligence when receiving a stranger in the context of their own culture.	Cultural intelligence in both contexts is the same construct.	5

Table A1. *Cont.*

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
99.	Straub et al.	2025	Beyond The Snapshot: Fostering Cultural Literacy In The Classroom With Photovoice	Qualitative, empirical, participatory action research	36 students 6th grade	The effectiveness of the Photovoice workshop as a pedagogical strategy. Sample—36 gifted 6th-grade students (aged 11 to 12 years).	The Photovoice + cyanotype workshop promoted students' cultural literacy by helping them add meaning to the abstract concept of culture through visual storytelling and discussions.	5
100.	Tesfaye et al.	2025	Exploring cultural intelligence and academic self-efficacy among teacher trainees in a context of intra-cultural diversity	Quantitative, empirical, cross-sectional	167 students of college	The level of cultural intelligence of Ethiopian teacher trainees, its relationship with demographic variables (gender and urban-rural dimension) in the context of international diversity.	The included demographic variables do not affect the level of cultural intelligence. There is a significant and weak correlation between cultural intelligence and academic self-efficacy. Pre-service teachers need intercultural experience and cultural intelligence training.	5
101.	Tiawati et al.	2023	How the language competence of international students is culturally oriented when learning Indonesian language	Qualitative, empirical, case-study	Students, teachers	The connection between learning Indonesian and cultural awareness, for promoting intercultural understanding and communication, and developing students' communicative competence.	Integrating culture into language teaching is essential for developing effective communication in a foreign language and reducing misunderstandings.	4
102.	Urgun et al.	2025	Exploring the impact of cross-cultural training on cultural competence and cultural intelligence: a narrative systematic literature review	Quantitative, narrative systematic review	Theoretical concept for teachers of sports	Physical training strategies from various fields to determine the most effective approaches to developing cultural competence and cultural intelligence in sport.	Conclusion: Sports-adapted programs that address cultural and sports-related knowledge, skills, and communication can help coaches navigate cultural differences.	5

Table A1. Cont.

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
103.	Van Meerkerk,	2025	Networker and intermediary: The role of the culture coordinator in schools	Qualitative, empirical, case-study	7 teachers— School coordinators of culture	The role of the Netherlands school cultural coordinator in the pedagogical process, arts and cultural education policy.	The implementation of art and cultural activities by the school cultural organizer depends on the support, permission, and funding of the principal. The content of school activities is influenced more by internal than external influences. If the content of art/cultural education is based on the activities of a single cultural coordinator and the favor of the principal, then the system is structurally weak.	5
104.	Vázquez-Parra et al.	2023	Cultural Imaginaries and Complex Thinking: Impact of Cultural Education on the Development of Perceived Achievement of Complex Thinking in Undergraduates	Quantitative correlation, descriptive	64 students	Measuring the perceived achievement of complex thinking competence in a group of university students taking a course on Mexican cultural education.	Cultural training correlates with students' achievement of complex thinking competence and its sub-competences: systemic, scientific, critical, and innovative.	5
105.	Villatoro Moral et al.	2026	Medieval-Themed Video Games For History Teaching: A Systematic Review	Quantitative, systematic review	Theoretical concept for teachers	Medieval-themed video games in history teaching. Pedagogical approaches, game types and representations, opportunities and limitations for promoting culturally critical and historically reflective learning.	There is great potential for the development of cultural literacy if video games are used as objects of analysis in the pedagogical process and teaching is structured, reflective, and mediated under the guidance of the teacher. Currently, the pedagogical use of educational video games is fragmentary, without a consistent connection to learning objectives and the development of historical thinking.	5

Table A1. *Cont.*

No.	Author	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
106.	Xiao and Yoon	2024	A post-occupancy evaluation of the space utilization of cultural heritage in children's education	Mixed-methods	183 students (7–14 years old)	The physical preservation, revitalization, and educational impact of Chinese cultural heritage on children. Six elements of assessment: preservation of historical context, improvement of environmental quality, completion of infrastructure, achievement of educational goals, children's participation in activities, and sustainable development.	The physical quality of the space is high, but the educational potential is not fully utilized. Strengths: restoration of historical elements, infrastructure. Weaknesses: active participation of children, regularity and creativity of educational activities, depth of cultural narratives (historical events, folklore). Experts and children's assessments differ: experts focus on authenticity and preservation, children on interactivity, safety, accessibility, and play elements. Sustainable cultural heritage transmission requires: integrating children's voices in planning, interdisciplinary cooperation, and a systematic evaluation framework.	5
107.	Xu et al.	2025	Culture-DPACK: A TPACK scale for evaluating Chinese language teachers' perceptions of integrated literacies	Mixed-methods	91 teachers, professors	The Culture-DPACK scale (a self-assessment instrument) measures Chinese language teachers' perceptions of their competencies in integrating literacy: digital, pedagogical, and cultural literacy. The lack of cultural dimensions in the TPACK scales limits their applicability to language learning, creating the need for a new, more comprehensive measurement tool.	In addition to Chinese language education, the Culture-DPACK model applies to various disciplines, emphasizing multiple literacy skills. These literacy skills are essential for multilingual and interdisciplinary education.	5

Table A1. Cont.

No.	Autor	Year	Title of Article	Design	Social Groups	Context	Conclusions	Quality
108.	Zhang et al.	2024	Factors influencing students’ reading literacy in Morocco: A multilevel analysis	Quantitative, meta-analysis	5800 students	Student, family, and school-level factors influencing Moroccan students’ reading proficiency using a multilevel approach consistent with the nested structure of PISA data.	About 40.5% of the variation in reading proficiency is explained by school-level factors. The most significant student-level factors: metacognitive strategies (understanding and remembering), reading self-concept, expected professional status, teacher support and adaptive teaching, and duration of early childhood education. Family socio-economic status is not statistically significant, which can be explained by the language environment at home as a stronger factor. Significant school-level factors: school location (urban vs. rural), private/public school, proportion of highly educated teachers.	5
109.	Zheng and Guo	2024	Constructing the early-stage framework of cultural identity enlightenment in kindergarten heritage education	Mixed-methods	48 children (4–6 years old), 26 teachers	How heritage education promotes the formation of cultural identity in 3–6-year-old children.	An early cultural identity “enlightenment” framework for heritage education has been developed to help teachers avoid fragmented activities and serve as a formative assessment tool (based on observed children’s expressions).	5

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