



Global Trends in Culturally Responsive Teaching: A Systematic Literature Review

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ABSTRACT

Population growth has led to increasing cultural and ethnic diversity. However, these differences often cause conflict. Therefore, it is essential for individuals to learn to accept diversity as a source of richness and strength in maintaining harmony and cooperation among nations. Misunderstandings may lead to conflict, disharmony, and further miscommunication. One way to address these challenges is through the implementation of Culturally Responsive Teaching (CRT) in education. CRT is an approach that empowers students intellectually, emotionally, and socially through cultural references to convey knowledge, develop skills, and shape behavior. The purpose of this study was to analyze global research trends on CRT during the 2014–2024 period to identify patterns, publication dynamics, and future directions in this field. The results showed a growing trend in the number of publications related to CRT. Most studies involved undergraduate students as participants, with interview sheets being the most commonly used instruments, supported by data analysis based on triangulation. This study provides a theoretical contribution by mapping the direction and development of CRT research globally over the past decade, as well as a practical contribution through policy recommendations aimed at strengthening the implementation of culturally responsive teaching from primary to higher education levels. The findings also offer valuable insights for future CRT implementation and educational policy development.

Keywords: *culturally responsive teaching, education, multiculturalism, ethnopedagogy, SLR*

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INTRODUCTION

The rapid growth of the world's population has increased cultural and ethnic diversity across nations (Bongaarts, 2015; Gu et al., 2021). This diversity creates complex social dynamics, including within educational settings, where learners come from various cultural backgrounds. Therefore, education plays a vital role in fostering mutual respect and understanding through culturally responsive teaching approaches.

Technological advancement has not only brought positive impacts but also created new challenges within the educational context. The rapid development of digital communication facilitates cross-cultural exchange, which, on one hand, enriches students' global perspectives but, on the other hand, may lead to gaps in understanding and cultural bias in the classroom. Hence, it is essential for individuals to recognize diversity as a source of strength in promoting harmony and cooperation among nations, as misunderstandings can lead to conflict and disharmony (Cremin, 2016; Huda, 2019).

In this context, teachers' multicultural competence becomes crucial. It encompasses understanding cultural diversity, developing an inclusive mindset, and integrating cultural values effectively into the learning process (Zufriady et al., 2025). One of the effective strategies to cultivate appreciation and respect for diversity in heterogeneous societies is the implementation of Culturally Responsive Teaching (CRT) in education..

CRT empowers students intellectually, emotionally, and socially through cultural references to foster holistic learning and development (Min et al., 2022). It seeks to create a learning environment where diversity is acknowledged and respected, recognizing students' cultural values, beliefs, and practices as integral parts

of learning. CRT enables teachers to appreciate the diverse backgrounds of their students by incorporating relevant cultural values into learning strategies and materials to enhance student motivation and engagement (Chuang et al., 2020).

The implementation of CRT is essential to foster a learning atmosphere where all students are recognized for their individuality (Sari & Alifarani, 2025). By understanding and respecting students' cultural diversity, teachers can create an environment that allows each learner to reach their full potential. CRT also encourages a democratic and engaging learning experience that respects the diverse values and perspectives students bring into the classroom (Al Alaleeli, 2022). By integrating cultural elements into instruction, teachers can make learning materials more relevant and meaningful for students. Furthermore, this approach can enhance collaboration among learners while strengthening mutual respect and appreciation.

Previous studies on culturally responsive teaching (CRT) have been widely explored. Integrating ethnochemistry into the CRT approach enhances students' chemistry learning by fostering cultural awareness, critical thinking, collaboration, and empathetic communication. Students reported feeling more engaged and motivated when studying chemistry that reflected their cultural backgrounds (Rahmawati & Ridwan, 2017). Another study in music education found significant improvement after students completed CRT-based music courses. Qualitative findings indicated that this progress was due to the use of ethnic music and native languages, the diverse roles of local music teachers, and collective musical engagement (Guan et al., 2023). CRT has the potential to substantially increase student engagement and motivation. Respondents noted that students tend to be more active and participative when their cultural backgrounds are incorporated into the learning process (Idrus et al., 2023).

The main challenge in implementing CRT lies in the need for teachers' active participation. Teacher involvement is influenced by internal and external factors, including personal beliefs, knowledge of students, and the prevailing testing culture within schools (Kong et al., 2022). Several elements also shape teachers' ability to implement CRT, such as exposure to culturally diverse learners, participation in professional learning, personal and professional experiences, and commitment to social justice in education (Nguyen & Huynh, 2021) (Min et al., 2022).

Although research on CRT has grown rapidly over the past two decades, most studies remain concentrated in local contexts such as the United States, Canada, and Australia, with limited exploration across Asia, Africa, and Europe (Bostwick et al., 2025). Cross-national reviews that examine global trends and research directions in CRT are still scarce, particularly in understanding how this approach adapts to different sociocultural contexts. Furthermore, few studies have employed a Systematic Literature Review (SLR) to map global trends in CRT research. This gap highlights the need for studies that not only investigate CRT implementation in practice but also trace its conceptual development at the international level to strengthen theoretical foundations and inform multicultural education policies for the future..

The urgency of this study lies in improving the quality of education and ensuring that every learner feels valued and supported throughout the learning process, regardless of their background. Differences in background can often trigger conflict and bullying among students; thus, CRT serves as an essential solution to address these issues (Salle-finley et al., 2024). Education should function as a means of providing equitable opportunities for all learners to grow and achieve their full potential while nurturing tolerance, respect for diversity, and a strong sense of unity in multicultural societies.

This study explores emerging global patterns and developments in the implementation of CRT across educational contexts, distinguishing it from previous works. Unlike prior studies, this research exclusively reviews Scopus-indexed articles published between 2014 and 2024 to ensure both quality and contemporary relevance. The 2014–2024 timeframe is strategically chosen because it represents a critical decade in the conceptual and empirical advancement of CRT. This period is marked by increased global attention to social justice, inclusive education, and cultural diversity in curricula following the adoption of the Sustainable Development Goals (SDGs). After 2014, many countries began aligning their education policies with the

principles of diversity and equity This study specifically investigates CRT research using multiple analytical dimensions to examine the content of selected articles.

The purpose of this study is to analyze global research trends in CRT from 2014 to 2024 to identify key trends, publication patterns, and future research directions. The analysis includes the annual growth of CRT publications, the journals that published them along with their quartile rankings, the diversity of research designs, instruments employed, data analysis techniques, and reported findings. It is anticipated that the results of this study will serve as a foundation for implementing culturally responsive teaching practices in educational contexts worldwide

METHOD

Research Design

This study employs a Systematic Literature Review (SLR) approach. A systematic literature review is recognized as a crucial component of the research synthesis process, aiming to conduct a transparent and structured search for relevant studies. This approach allows readers to understand how studies were identified and how the review findings align with existing evidence (Cooper et al., 2018). An SLR adopts standardized procedures for data extraction and evaluates the quality of included studies based on predetermined criteria (Agrawal et al., 2024). Consequently, SLRs provide an in-depth and objective summary of the current state of knowledge on a specific topic or research question. The research question guiding this study is: What are the global trends in CRT research during 2014–2024?

The PRISMA protocol was adopted to ensure a systematic and transparent review process (Page et al., 2021). The protocol provides guidelines for identifying, screening, and including relevant studies, resulting in a comprehensive and organized approach to literature synthesis (Paschou et al., 2020) (Güzel et al., 2024). PRISMA consists of four stages: identification, screening, eligibility, and inclusion (Zhong et al., 2022).

The identification stage involved determining keywords and search terms across databases, including books, encyclopedias, and prior studies. The keywords used were “culturally responsive teaching” and “CRT.” The literature search was conducted using the Scopus database with the assistance of the Publish or Perish (PoP) software, covering the period from 2014 to 2024. This stage yielded 61 studies.

The screening stage applied inclusion criteria to filter relevant journal articles. Only articles closely related to the research topic were considered, based on title and abstract analysis. Other sources such as books and conference proceedings were excluded. Articles must be in English. After screening, 48 articles were retained.

During the eligibility stage, Scopus-indexed journal articles ranked from Q1 to Q4 were selected for full-text review to ensure relevance to the research topic. The journal quartiles (Q1–Q4) were verified using the *Scimago Journal Rank* (scimagojr.com). This stage resulted in 43 eligible articles, all meeting high academic standards and rigorous peer-review processes. The final inclusion stage of the PRISMA model confirmed the selection of 43 articles that fully met the established research criteria.

Research Subject

The subjects of this systematic literature review consist of 43 Scopus-indexed journal articles (Q1–Q4) that passed all PRISMA stages identification, screening, eligibility, and inclusion. The flow of article selection through these four PRISMA stages is illustrated in Figure 1

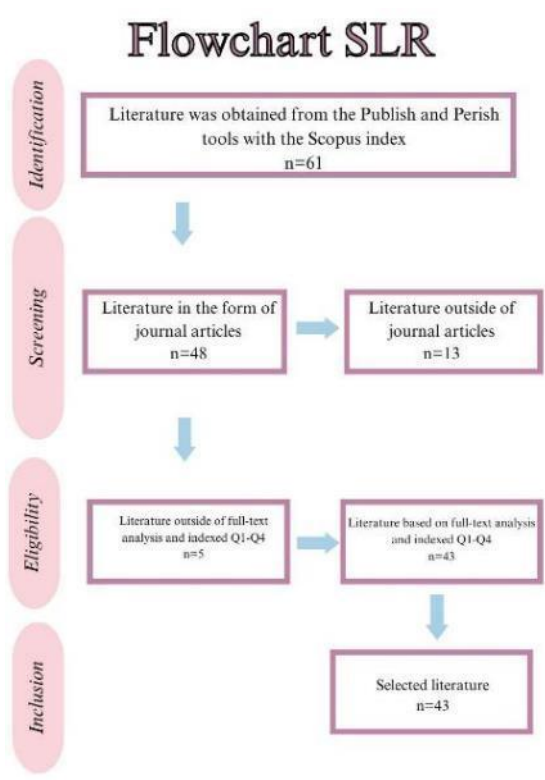


Figure 1. Flowchart SLR using PRISMA
Source: Authors' analysis, 2025

Research Instruments

The instrument used in this study is an adaptation of the tool developed by Susetyarini & Fauzi (2020), yang mencakup pedoman analitis yang sesuai dengan aspek yang diamati (Tabel 1). The aspects analyzed consisted of: (1) the number of publications per year, (2) journal names and quartile rankings, (3) types of research, (4) research subjects, (5) data collection instruments, and (6) data analysis methods. Aspects (1), (2), and (7) are not predefined due to the absence of previous studies that serve as references for these categories, while aspects (3), (4), (5), and (6) are defined prior to the data collection process. Aspect (2) is divided into 3 sub-aspects including general research (2a), quantitative research design (2b), and qualitative research design (2C).

Table 1. Aspects and Categories used as Analysis in Research

Aspects	Category	
Type of Research (2a)	A.1-R&D A.2-CAR	A.3-Quantitative Research A.4-Qualitative research A.5-Mixed Method
Types of Quantitative Research (2b)	B.1-Observational Studies B.2-Correlational Research B.3-Survey Research B.4-Pre-experiment	B.5-True Experiment B.6-Quasi Experimental Research B.7-Ex Post Facto B.8-Quantitative Descriptive Research
Types of Qualitative Research (2c)	C.1-Ethnography C.2-Case Study C.3-Document Study	C.4-Natural Observation C.5-Interview C.6-Phenomenology

Aspects		Category
Subject	D.1-Early Childhood	D.13-Senior High School Grade 10
	D.2-Elementary School Grade 1	D.14- Senior High School Grade 11
	D.3-Elementary School Grade 2	D.15- Senior High School Grade 12
	D.4-Elementary School Grade 3	D.16- Senior High School students (undefined classes)
	D.5-Elementary School Grade 4	D.17-Undergraduate Students
	D.6- Elementary School Grade 5	D.18-Postgraduate Students
	D.7-Elementary School Grade 6	D.19-Early Childhood Education Teacher- Kindergarten Teacher
	D.8-Elementary school students (undefined classes)	D.20-Elementary School Teacher
	D.9-Junior High School Grade 7	D.21-Junior High School Teacher
	D.10-Junior High School Grade 8	D.22-Senior High School Teacher
	D.11-Junior High School Grade 9	D.23-Teacher (not defined as an elementary, junior high, or high school teacher)
	D.12-Junior High School Students (undefined classes)	D.24-Principal
Data Collection Instruments	E.1-Questionnaire Sheet	D.25-Lecturer
	E.2-Observation Sheet	D.26-Undefined
	E.3-Remembering Test	E.5-Expert Validation Sheet
	E.4-Interview Sheet	E.6-Others
Data Analysis Methods	F.1-Mean	E.7-Undefined
	F.2-Percentage	F.6-ANCOVA
	F.3-N-gain	F.7-Correlation
	F.4-Test T	F.8-Triangulation
	F.5-ANOVA	F.9- Others
		F.10-Undefined

Note: Table 1 shows the aspects and categories analyzed in this study.

Source: Authors' analysis, 2025

Data Analysis

Data analysis involved categorizing each article according to the predetermined aspects and established criteria. This classification process aimed to facilitate a deeper understanding of the reviewed literature and ensure that the analysis was conducted systematically and in an organized manner. The collected data were then visually presented using bar charts, which allowed clear representation of comparisons and trends in the literature. This visual presentation not only supported data interpretation but also provided more comprehensive insights into the study's findings. Conducting a systematic literature review requires careful planning, structured methodology, and adherence to rigorous standards, including topic selection, determining the type of review, conducting a comprehensive search, evaluating study quality, and synthesizing results, thereby contributing to the academic community and advancing scientific knowledge (Majidi & Majidi, 2024).

RESULTS AND DISCUSSION

Publication Trends by Year

The number of articles published refers to the total publications produced each year during the review period. Figure 2 shows an increasing trend in CRT-related publications from 2015 to 2024, although this trend fluctuates.

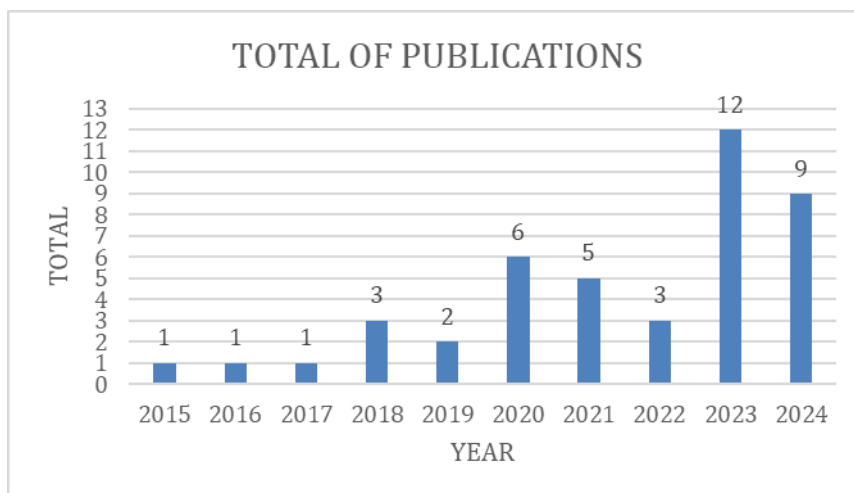


Figure 2. Number of Publications
Source: Authors' analysis, 2025

The increase in CRT research is largely driven by classroom diversity and issues related to racism (Kehl, 2024). Demographic changes across countries affect immigrants, backgrounds, races, and physical differences such as skin color (Min et al., 2022). This highlights the importance of adopting teaching approaches that embrace inclusivity and respect cultural diversity. CRT is considered a strategy to address educational gaps by creating inclusive classrooms, providing equitable content, and offering opportunities to develop students' social values (Muñiz, 2019). By recognizing and respecting students' cultural backgrounds, teachers can foster a learning environment that promotes inclusivity and equity for learners from diverse communities.

The growing number of CRT studies is expected to positively impact education. This research helps bridge the gap between educational theory and classroom practice, ensuring that pedagogical approaches are implemented more effectively and contribute to overall education quality improvement (Coburn & Penuel, 2016). Research plays a vital role in education development for several reasons: (1) study findings provide guidance for teachers to implement more effective and relevant teaching practices, (2) research serves as a strong foundation for developing sound educational policies with positive outcomes, and (3) research can shift teachers' thinking paradigms and encourage continuous innovation (Susetyarini & Fauzi, 2020).

Journal Distribution and Journal Index

Table 2. Classification of Journals and Scopus Index

Number	Journal	Scopus Index
1	<i>Asia-Pacific Journal of Teacher Education</i>	Q1
2	<i>Teacher Education and Special Education</i>	Q1
3	Teaching and Teacher Education	Q1
4	Online Learning	Q1
5	<i>Identity: An International Journal of Theory and Research</i>	Q1
6	British Journal of Educational Technology	Q1
7	educational review	Q1
8	Distance Education	Q1

Number	Journal	Scopus Index
9	British Journal of Educational Psychology	Q1
10	psychology in the school	Q1
11	Early Childhood Education Journal	Q1
12	Teaching and Teacher Education	Q1
13	<i>Cultural Diversity & Ethnic Minority Psychology</i>	Q1
14	<i>English Teaching & Learning</i>	Q1
15	<i>Urban Education</i>	Q1
16	International Journal of Music Education	Q1
17	Asia-Pacific Journal of Teacher Education	Q1
18	Teaching in Higher Education	Q1
19	system	Q1
20	<i>Identity: An International Journal of Theory and Research</i>	Q1
21	Learning, Culture and Social Interaction	Q1
22	International Journal of Educational Research Open	Q1
23	<i>Canadian Journal of Science, Mathematics and Technology Education</i>	Q2
24	Education Sciences	Q2
25	<i>Education and Urban Society</i>	Q2
26	Journal of Language Teaching and Research	Q2
27	<i>Action in Teacher Education</i>	Q2
28	Frontiers in Psychology	Q2
29	<i>Education and Urban Society</i>	Q2
30	<i>Education Sciences</i>	Q2
31	Theory and Practice in Language Studies	Q2
32	<i>Journal of Urban Mathematics Education.</i>	Q2
33	Teaching Education	Q2
34	<i>portal: Libraries and the Academy</i>	Q2
35	Cogent Education	Q2
36	<i>Education</i>	Q2
37	The Educational Forum	Q2
38	<i>Transportation Research Record</i>	Q2
39	Curriculum Studies in Health and Physical Education	Q2
40	PRIMUS	Q3
41	Eurasian Journal of Educational Research	Q3
42	IAFOR Journal of Cultural Studies	Q4
43	New Educational Review	Q4

Note: Table 2 shows scopus indexed journals that publish CRT topics.

Source: Authors' analysis, 2025

The distribution of journals and quartiles is shown in Table 2. A total of 43 Scopus-indexed journals were included across quartiles Q1–Q4. This table allows for analysis of distribution based on quartiles. The quartile distribution analysis revealed several findings. For instance, 22 journals (51.2%) were classified as Q1. Journals in Q2 totaled 17 (39.5%) and, while still reputable, their research impact on society is slightly lower than that of Q1 journals. Q3 and Q4 comprised 4 journals (9.3%).

Determining journal quartiles is essential to understand how frequently journals are cited and their impact on society. Quartiles are typically calculated by dividing the total number of citations received in a year by the number of publications produced by the journal in the same year. Therefore, the more citations a journal receives, the higher its quartile ranking (Daud et al., 2020). Citations indicate the attention a study receives from other researchers and reflect the significance and impact of a journal article. Consequently, citation counts serve as a fundamental metric for indicators such as impact factor and journal ranking (Barat et al., 2023).. These indicators are important because many scholars tend to prefer journals with higher impact factors and stronger reputational rankings (Gong et al., 2023).

Types of Research

Figure 3 presents the types of research used by scholars in studies on CRT. Qualitative research exceeds quantitative research in number. Qualitative studies are frequently used because they provide rich, detailed insights that help in understanding the issues under investigation. Instead of focusing on numerical data, this approach emphasizes interpreting and explaining interconnections within social dynamics (Queirós et al., 2017). Qualitative research allows scholars to explore social dynamics in the context of culturally responsive learning in depth. It provides more nuanced insights into how this approach can effectively support student learning across diverse backgrounds.

Qualitative research is often selected because it facilitates in-depth examination of participants' feelings, perspectives, and personal experiences (Rahman, 2016); enables a holistic understanding of human experiences in specific contexts (Norman K & Yvonna S, 2002); captures diverse perspectives, meanings, and experiences, making knowledge in qualitative research derived from meanings generated through various events (Richardson, 2012); allows data collection through direct, subjective, and detailed interaction, eliciting participants' perceptions and emotions (Rumsey et al., 2016); and provides flexible structures, enabling researchers to adapt and reconstruct study designs as needed (Maxwell, 2016).

Quantitative research in CRT trends includes 12 studies, ranking second after qualitative research. Quantitative approaches are often chosen due to ease of statistical analysis and the ability to compare findings with previous studies (Haviz & Ridho, 2019). Moreover, quantitative research offers precision through numerical data and enables clear explanations of relationships between variables while simplifying complex problems (Waruwu, 2023).

This study also found six reports employing mixed methods in CRT research. Mixed methods are increasingly recognized across disciplines as an effective research approach (Coyle et al., 2018). Moreover, mixed methods have been widely applied in educational research (Şahin & Ozturk, 2022). This approach demonstrates methodological flexibility, allowing effective combination with other research designs (Plano Clark & Ivankova, 2016). Mixed methods facilitate a cohesive approach to addressing complex real-world problems (Ivankova & Wingo, 2018). Researchers use mixed-method designs to collect, examine, and integrate quantitative and qualitative data, allowing them to draw more credible and compelling conclusions (Tashakkori & Creswell, 2007). Moreover, this approach enables exploration of multiple perspectives on the same issue, providing contextual insights derived from real-life experiences and cultural factors (Meissner et al., 2011).

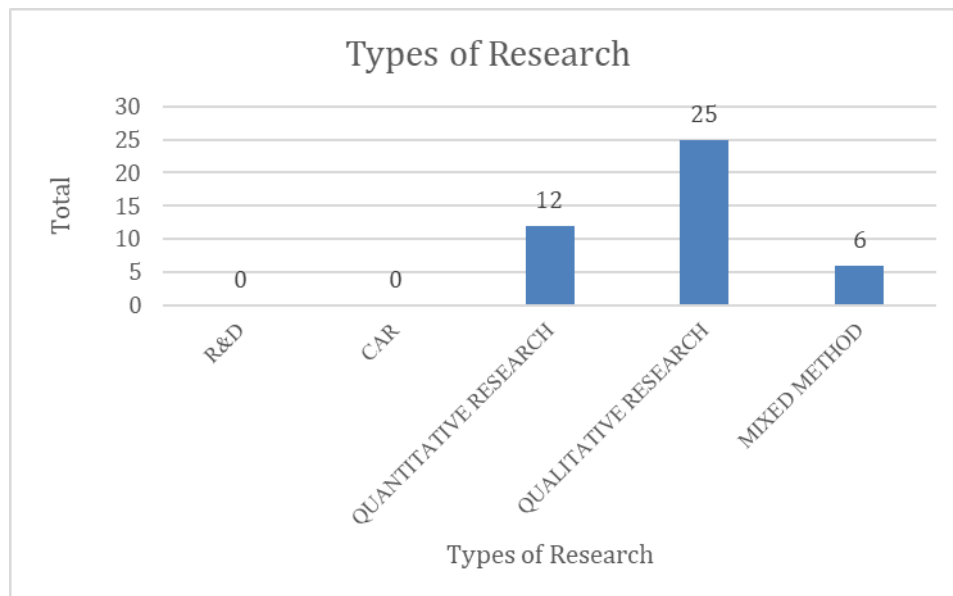


Figure 3. Types of Research
 Source: Authors' analysis, 2025

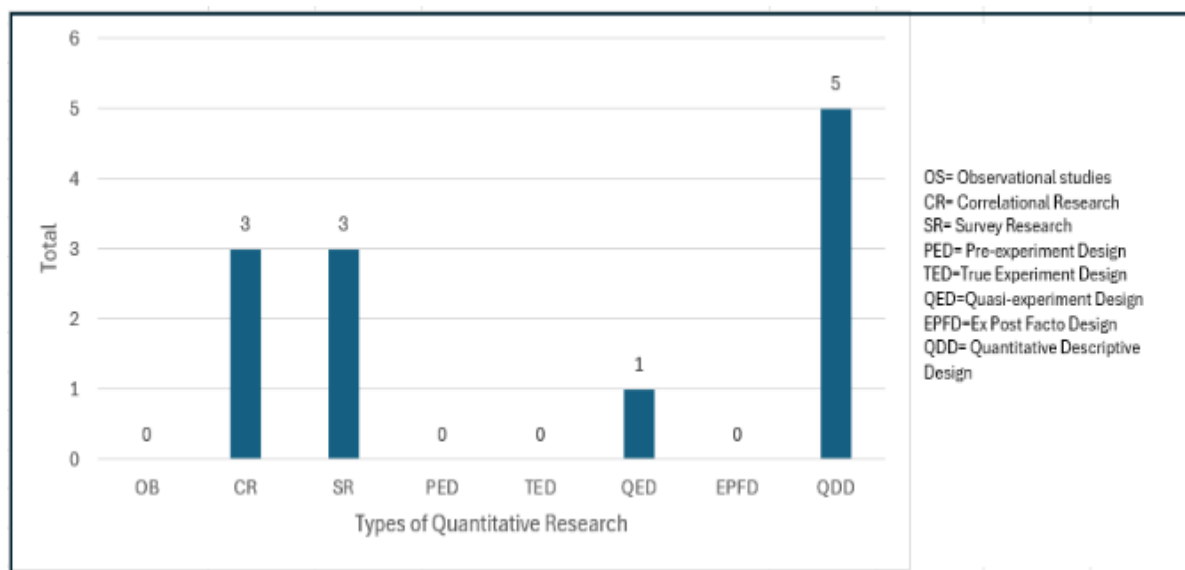


Figure 4. Distribution of Quantitative Research Types
 Source: Authors' analysis, 2025

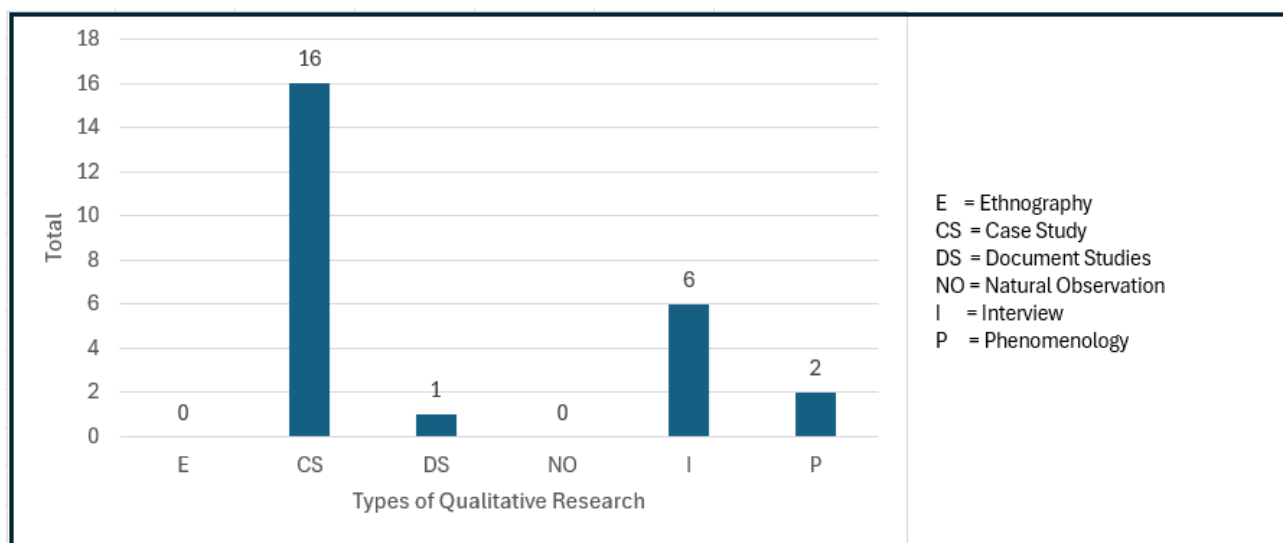


Figure 5. Distribution of Qualitative Research Types
Source: Authors' analysis, 2025

This study also illustrates the distribution of quantitative and qualitative research types (see Figures 4 and 5). Within the quantitative category, descriptive designs are the most frequently used in studies on culturally responsive teaching (CRT). Descriptive designs help clearly depict the phenomena under investigation using numerical representations. These studies aim to explain numerical data without focusing on hypothesis testing (Wahyudi, 2022). Quantitative descriptive research summarizes studies that describe and characterize subjects in alignment with contextual conditions during the research period (Hakiki et al., 2023).

A quantitative descriptive study on CRT also found variations in teachers' self-efficacy levels. The findings revealed that some teachers reported greater confidence in establishing relationships with students than in other aspects of CRT (Copeland Solas & Kamalodeen, 2022). Another study using quantitative descriptive research examined assessment tools for CRT implementation, identifying 18 assessment instruments available for educators. Approximately 44% of the reviewed tools focused on teachers' self-efficacy in CRT, 28% on CRT actions or implementation, and 28% on teachers' cultural humility or competence (Lawson et al., 2024).

Correlational research investigates relationships between two or more variables within a population or examines the same variable across multiple populations (Curtis et al., 2016). Correlational designs are non-experimental approaches where researchers use statistical methods to analyze and describe relationships between variables (Creswell & Creswell, 2018). Correlational studies on CRT demonstrated significant relationships between collective teacher efficacy (CTE) and culturally responsive teaching self-efficacy (CRTSE). Teachers showed lower confidence in their schools' ability to serve students with diverse backgrounds and inclusiveness (Chu & Garcia, 2021). Another study found that CRT self-efficacy positively related to students' mathematics competence. Students' perceptions of equitable treatment in the classroom also positively correlated with mathematics competence. Heritage and intercultural learning were positively associated with school belonging and life satisfaction (Ialuna, 2024).

Survey research is a widely used quantitative method in social and health sciences. This design involves systematic steps to collect data from a sample or entire population, aiming to describe participants' opinions, perceptions, beliefs, behaviors, and demographic profiles (Creswell & Hirose, 2019). Surveys commonly employ Likert scales, which consist of statements rather than questions, where respondents indicate their level of agreement or disagreement (Mellinger & Hanson, 2020). Likert scales are broadly applied to assess individual perceptions, attitudes, and knowledge (Vogt & Johnson, 2016). Surveys in CRT research

highlight the importance of integrating teachers' multicultural perspectives and attitudes to ensure all students benefit regardless of cultural background. (Abacioglu et al., 2020).

Quasi-experiments evaluate the relationship between interventions and outcomes using non-randomized designs. This approach is cost-effective and requires fewer resources than randomized controlled trials (RCTs) (Schweizer et al., 2017). In quasi-experiments, researchers control the treatment but cannot randomly assign participants (Mafrudloh et al., 2022). Researchers administer interventions to experimental groups to assess changes in students' academic performance compared to control groups. This approach provides more accurate results by comparing pre- and post-intervention outcomes. CRT interventions incorporating ethnochemistry have been found to enhance students' cognitive learning outcomes and promote more meaningful learning experiences. In contrast, CRT fosters greater student engagement by making them feel respected and valued in the learning process (Wardani et al., 2023).

Qualitative CRT research includes approaches such as case studies, interviews, phenomenological studies, and document analysis. Case studies enable researchers to explore programs, events, activities, processes, or individuals in depth. These cases are bounded by time and activity, and researchers collect rich data through multiple procedures over extended periods (Creswell & Creswell, 2018). Case study research requires in-depth approaches because the field is often dynamic, requiring consistent application of sensitivity, observation, critical thinking, and creativity (Priya, 2021).

Case study research on CRT found that applying CRT principles in pre-calculus instruction created a more student-centered learning environment, increased engagement, improved learning outcomes, and demonstrated faculty positivity toward CRT. However, challenges remained in shifting from traditional, lecture-based teaching to more responsive and active methods, as some faculty continued to rely on one-way instruction (Ellington et al., 2021).

Interviews are data collection methods used to gather quantitative and qualitative information through structured or unstructured questions (Taherdoost et al., 2016). In qualitative research, interviews aim to capture participants' descriptions of specific questions (Taherdoost, 2022). This design provides contextual explanations and allows exploration of life experiences through in-depth interaction (Doody & Noonan, 2013). Interviews in CRT research revealed that minority-ethnic teachers initially lacked experience or training to teach diverse students. However, by engaging with minority communities, they could explore local culture and develop inclusive pedagogical practices (Nguyen & Huynh, 2023). Other interviews with K–12 teachers showed strong commitment to culturally responsive teaching. Educators reported high confidence in teaching students from diverse backgrounds and expected positive outcomes from proactive efforts to meet varied student needs (Bonner et al., 2018).

Phenomenology is a research approach designed to explore the essence of a phenomenon by investigating individuals' lived experiences (Rabundika, 2025; Neubauer et al., 2019). It aims to capture the essence of experiences without interpretation or theorizing (Husserl, 2014), describing both the meaning and lived experience (Teherani et al., 2015). A phenomenological study involving EFL instructors revealed varying levels of engagement and understanding in courses integrating CRT principles. Findings indicated that instructors had limited exposure to courses designed to enhance cultural knowledge, apply culturally relevant pedagogy, foster cross-cultural engagement, and encourage positive attitudes toward student diversity. Nonetheless, they reported positive experiences with two core CRT components—sociocultural awareness and constructivist perspectives on teaching. This suggests that TEFL programs have not fully integrated culturally responsive teaching development among instructors, despite opportunities to prepare teachers for culturally responsive practice across educational levels (Meihami, 2023).

The term “documents” refers to various materials, including visual media such as photos, videos, and films, as well as written texts, all of which provide valuable data for qualitative analysis (Merriam & Tisdell, 2016; Flick, 2010). Document studies involve examining various materials, including books, institutional reports, newspaper articles, and journal publications (Morgan, 2022). CRT research using document analysis

has shown that CRT implementation can enhance students' understanding and engagement while fostering appreciation of cultural diversity in educational contexts (Hutchison & McAlister-Shields, 2020).

Research Subject

The subjects in CRT research include various groups such as undergraduate students, teachers, instructors, and graduate students. As shown in Table 3, the majority of subjects are undergraduate students. Selecting undergraduates may be based on the number of practical programs implementing CRT within a university's higher education curriculum, including activities that model CRT behaviors in multicultural education courses (Acquah & Szelei, 2020). These findings indicate that critical education courses focusing on equity, which integrate CRT modeling activities, enable students to deepen and expand their understanding of CRT, critically reflect on and reconstruct prior knowledge, and apply these insights in future teaching practice.

Undergraduate students, particularly pre-service teachers, also serve as subjects in studies on culturally responsive teaching. One study surveyed 191 pre-service teachers regarding their CRT competency assessment. The study found that teacher practices demonstrated strong competence in culturally responsive teaching, especially in developing attitudes and fostering skills. However, there is still a need to enhance their ability to create inclusion and meaningful learning experiences. Additionally, the study revealed notable differences in competence between male and female teachers, with female educators demonstrating higher proficiency levels (Caingcoy et al., 2022).

CRT research among undergraduate students is critical for meeting teacher needs and preparing future educators to become culturally responsive practitioners. Observations and interviews were conducted with four pre-service teachers to investigate their experiences implementing CRT in English as a Second Language (ESL) classrooms. Findings indicated that all participants had positive perceptions of CRT implementation, which contributed to increased student engagement and motivation. Respondents reported that students became more active and engaged when their cultural backgrounds were integrated into instruction (Idrus et al., 2023).

Table 3. Distribution of Research Subjects

Article Code	Research Subject
A	Undergraduate Students
B	Undergraduate Students
C	Senior High School Teacher
D	Undergraduate and Graduate Students
E	Graduate Students
F	Elementary School Teacher, Junior High School Teacher, Senior High School Teacher
G	Undergraduate Students
H	High School Teacher
I	Undergraduate Students
J	Senior High School Teacher
K	Undergraduate Students
L	Elementary and Junior High School Teachers
M	EFL (English as a Foreign Language) Teachers for Elementary and Junior Senior High School Teachers
N	Senior High School Teacher

Article Code	Research Subject
O	Ethnic Minority Teachers (not defined as elementary, junior high, or high school teachers)
P	Undergraduate Students
Q	Undergraduate Students
R	High school students (undefined classes)
S	Elementary School Teacher
T	Teacher (not defined as an elementary, junior high, or high school teacher)
U	Undergraduate Students
V	Undergraduate Students
W	Elementary School Teacher
X	Undergraduate Students
Y	Junior High School Teacher
Z	Undergraduate Students
AA	Undergraduate Students
AB	Junior High School Teacher
AC	Lecturer
AD	4th-grade elementary school students
AE	Lecturer
AF	Early Childhood Education Teacher, Elementary School Teacher, Junior High School Teacher, Senior High School Teacher
AG	Undergraduate Students
AH	High school students (undefined classes)
AI	High School Teacher
AJ	Kindergarten Teacher
AK	Undergraduate Students
AL	Undergraduate Students
AM	Undergraduate Students
AN	Undergraduate Students
AO	Undergraduate Students
AP	4th-grade elementary school students
AQ	Elementary School Teacher, Junior High school Teacher, Senior High School Teacher

Note: Table 3 shows the research subjects in the articles analyzed in this study.

Source: Authors' analysis, 2025

Research Instrument

The instruments used for data collection closely align with the research design, whether quantitative, qualitative, or mixed methods. In research, an instrument refers to a carefully designed and systematically planned tool used to collect, measure, and analyze data, ensuring relevance and coherence (Oben, 2021). Common instruments in quantitative research include observation sheets (Salmia, 2023), questionnaires (Rahi, 2017), measurement tools used in experimental research (Jailani, 2023), and test sheets (Ramadhan et al., 2020). In qualitative research, frequently used instruments include interview protocols, observation checklists,

document analysis guides, case study plans, and focus group guides. In the context of CRT research, the most commonly employed instruments consist of interview guides, tests, questionnaires, observation sheets, and other tools that facilitate data collection (Table 4).

An interview sheet consists of a series of questions intended for discussion during qualitative interviews. It serves as a guide for researchers in posing questions to respondents, providing a systematic and structured framework (Jailani, 2023). Designing interview sheets ensures that respondents' answers remain focused on the research objectives, making the questions more specific (Richards, 2015). Test sheets consist of a series of questions or tasks designed to evaluate the skills, knowledge, intelligence, abilities, or talents of individuals or groups. In this study, multiple-choice formats were used (Yaqin & Pramukantoro, 2013).

A questionnaire is a data collection tool comprising a series of questions posed to respondents. Questions can be closed-ended, offering predefined answer choices, or open-ended, allowing respondents to share answers based on personal perspectives and experiences (Creswell & Creswell, 2018). Questionnaires are designed to collect qualitative information from a population, which can later be converted into quantitative or numerical data for analysis (Amin, 2005). Using questionnaires is advantageous because it saves researchers' time and improves response accuracy and autonomy for participant (Oben, 2021). As discussed, studies on culturally responsive teaching have utilized instruments appropriate to each research methodology.

Table 4. Distribution of Research Instruments

Code	Instruments
A	Interview Sheet and Observation Sheet.
B	Questionnaire Sheet
C	Interview Sheet
D	undefined
E	Interview Sheets, Observation Sheets, and Document Analysis.
F	Questionnaire Sheet
G	Questionnaire Sheet
H	Interview Sheet
I	Questionnaire Sheet
J	Questionnaire Sheet
K	Interview Sheet
L	Questionnaire Sheets.
M	Interview Sheet and Observation Sheet.
N	Interview Sheet
O	Interview Sheets, as well as additional data from documents, field notes, and lesson plans.
P	Questionnaire Sheet, Observation Sheet, and Interview Sheet.
Q	Interview Sheet.
R	Interview Sheets, Questionnaire Sheets, Class Notes
S	Questionnaire Sheet
T	Questionnaire Sheet
U	Interview Sheets, Observation Sheets
V	Interview Sheets, Observation Sheets, and Teacher Efficacy Evaluation Forms.
W	Questionnaire Sheet, Observation Sheet, Interview Sheet, Teacher Journal

Code	Instruments
X	Undefined
Y	Observation Sheet and Interview Sheet.
Z	Questionnaire Sheets.
AA	Undefined
AB	Questionnaire Sheet and Interview Sheet.
AC	Interview Sheet
AD	Questionnaire Sheets and Test Sheets
AE	Interview Sheet.
AF	Questionnaire Sheet
AG	Questionnaire Sheet and Observation Sheet
AH	Questionnaire Sheet, Observation Sheet
AI	Questionnaire Sheet and Interview Sheet
AJ	Interview Sheets, Questionnaire Sheets, and Observation Sheets
AK	Questionnaire Sheets, Interview Sheets, and Observation Sheets.
AL	Interview Sheet and Observation Sheet
AM	Student Learning Journal, Interview Sheet, Intercultural Assignment
AN	Questionnaire Sheet and Interview Sheet
AO	Interview Questionnaire Sheet
AP	Questionnaire Sheet
AQ	Interview Sheets, Observation Sheets

Note: Table 3 shows the research instruments used in each article analyzed in this study.
Source: Authors' analysis, 2025

Data Analysis

Data analysis is an ongoing process in research that involves examining participant information and following the steps outlined in the research design. This process includes organizing and preparing data, conducting initial reviews, coding data, developing codes into descriptive and thematic analyses, using computer software, presenting findings in tables, charts, and figures, and interpreting results (Creswell & Creswell, 2018). According to Figure 6, the most commonly used data analysis method in global trends of Culturally Responsive Teaching (CRT) research is triangulation. Triangulation involves intentionally using multiple methods to gain a more comprehensive understanding of a phenomenon (Ma & Norwich, 2007). It is a practical technique in qualitative research that enhances the credibility and rigor of findings (Shea, 2022). Triangulation also strengthens validity (Moran-Ellis et al., 2006). Although each source may contain some level of bias, combining multiple sources helps balance these biases. Comparing at least two different sources reduces the likelihood of drawing incorrect conclusions (Vogl et al., 2019).

Other data analysis methods include thematic analysis, Cronbach's alpha, descriptive and inferential statistical analysis, NVivo coding, Wilcoxon signed-rank tests, MANOVA, multivariate regression, Mann-Whitney U tests, and Giorgi's five-step method. Global CRT research has employed a variety of analytical methods. This diversity allows future researchers to select appropriate analyses to ensure the validity of their studies.

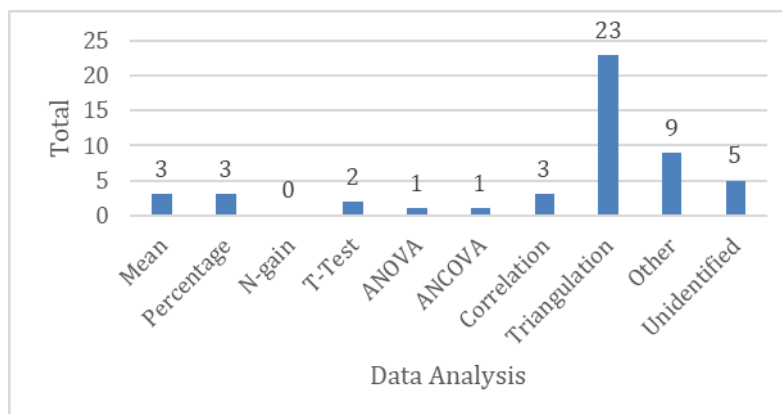


Figure 6. Data Analysis Distribution

Source: Authors' analysis, 2025

Contributions of Culturally Responsive Teaching to Learning

CRT approaches should be integrated into instructional practice, as they have been shown to produce positive outcomes. For example, CRT can enhance the quality of interactions and relationships between teachers and students (Hu et al., 2021), improve student understanding and engagement, and help students appreciate cultural diversity in educational contexts (McAlister-Shields et al., 2021). It can also increase student participation and academic performance (Ellington et al., 2021), boost motivation, and expand social skills (Meléndez-Luces & Couto-Cantero, 2021). CRT approaches that incorporate local wisdom have been shown to help individuals maintain life balance and promote sustainable development (Noviana et al., 2023).

The growing volume of academic publications on CRT reflects a profound paradigm shift in global educational discourse, positioning cultural context as a central variable in pedagogical efficacy. This surge is evidenced by studies acknowledging that culturally neutral pedagogy often overlooks and may exacerbate disparities in learning outcomes (Parkhouse et al., 2023). Recent research has focused on mapping the processes by which educators transition to culturally responsive practices (Parkhouse et al., 2023). Consequently, the global expansion of CRT discourse compels policymakers and researchers to move beyond normative definitions toward a nuanced understanding of how students' cultural identities and backgrounds can be leveraged as epistemic resources in classrooms.

The transformative implications of these publication trends include enhanced teacher agency and the development of integrated pedagogical frameworks. Research indicates that effective CRT implementation significantly increases teacher agency, especially when teaching students from ethnically diverse minority groups (Nguyen & Huynh, 2023). Participation in culturally responsive learning requires instructional adaptation in new environments, including variations in teacher-student relationships, classroom settings, learning standards and objectives, and the conceptual frameworks guiding successful teaching and learning (Aslam et al., 2020).

Moreover, the increase in publications has facilitated the development of more comprehensive frameworks, such as Culturally Responsive Pedagogical Knowledge (CRPK), which offers an integrated model for teacher preparation beyond basic cultural competencies (Ogodo, 2024). This framework emphasizes that CRT encompasses not only classroom practices but also the underlying knowledge, beliefs, and dispositions that inform pedagogical decisions. Thus, the expansion of research serves as a catalyst for standardizing and legitimizing CRT as a core component of contemporary teacher education..

The growth of CRT publications functions as an empirical roadmap for promoting social justice and equity in global education. Studies have begun developing valid instruments to measure CRT practices in classrooms, which are critical for program evaluation and accountability (Franco et al., 2024). Moreover, CRT is increasingly recognized as a crucial framework for cultivating cross-cultural competence and social justice

beliefs among pre-service teachers—an essential prerequisite for addressing the challenges of a globalized society (Kilicoglu et al., 2023). Therefore, this surge in publications reflects not only a temporary trend but also the methodological and ethical imperative to embed cultural responsiveness at the core of educational reform, ensuring that education systems actively promote equity and inclusivity.

Despite these positive trends, some limitations remain. CRT research is still dominated by qualitative studies, participant selection is uneven, and research instruments are not always clearly described. Future researchers should consider three recommendations. First, expand the methodological scope of CRT studies, as current research relies heavily on qualitative approaches. Second, select participants from foundational or beginner levels. Third, provide clear descriptions of research instruments and data analysis methods to ensure alignment with research hypotheses and design.

CONCLUSIONS AND RECOMMENDATION

This study analyzed 43 internationally reputable articles (Scopus-indexed Q1–Q4) addressing global trends in Culturally Responsive Teaching (CRT) from 2014 to 2024. The review indicates an overall increase in CRT-related publications, although fluctuations occur across years. Qualitative research dominates the field, with undergraduate students as the primary participants and interviews as the most frequently used data collection instrument. Data analysis commonly relies on triangulation.

Theoretically, this study contributes by mapping the global development and focus of CRT research, enriching the conceptual framework on the relationships among cultural responsiveness, teacher agency, and inclusive education. Practically, the findings provide a foundation for policymakers and educators to strengthen the implementation of culturally responsive teaching across educational levels and to design professional development programs that emphasize multicultural competence and inclusivity.

However, this study has limitations regarding the database scope (limited to Scopus), the publication period (2014–2024), and the diversity of research subjects, which are largely concentrated in higher education. These limitations may affect the generalizability of the findings. Future research should consider conducting cross-database bibliometric analyses, such as using Web of Science or Dimensions, extending the publication period to include trends beyond 2024, and incorporating primary and secondary education contexts to gain a more comprehensive understanding of CRT implementation. Additionally, future studies should explore the relationships among CRT, teacher agency, and inclusive learning through diverse research approaches to generate deeper and more applicable insights. The findings also offer valuable insights for future CRT implementation and educational policy development.

Credit authorship contribution statement

First Author: Conceptualization, Methodology, Investigation, Writing Original Draft. Second Authors: Data Curation, Formal Analysis, Validation, Review and Editing. Last Author: Data Curation, Formal Analysis, Validation, Review and Editing.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Ethical Declaration

All participants provided informed consent prior to their involvement in the study. They were informed about the study's objectives, procedures, confidentiality of their responses, and their right to withdraw from participation at any time without any negative consequences.

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