societies

MDPI

Systematic Review

Building Bridges in Diverse Societies: A Meta-Analysis of Field Experimental Cooperative Learning Studies on Intergroup Relations in Educational Settings

Marselius Sampe Tondok [1,2], Suryanto Suryanto [1,*] and Rahkman Ardi [1]

[1] Faculty of Psychology, Universitas Airlangga, Surabaya 60115, Indonesia; marcelius@staff.ubaya.ac.id (M.S.T.); rahkman.ardi@psikologi.unair.ac.id (R.A.)
[2] Faculty of Psychology, Universitas Surabaya, Surabaya 60293, Indonesia
* Correspondence: suryanto@psikologi.unair.ac.id

Abstract: Cooperative learning has been widely utilized as an intervention to enhance intergroup relations in diverse societies, drawing on intergroup contact theory. Despite numerous field experiments testing its effectiveness in educational contexts, a comprehensive meta-analyses evaluating its overall efficacy has yet to be conducted. This meta-analysis aims to assess the magnitude of the effect of cooperative learning on promoting intergroup relations within experimental field studies conducted in educational settings. The article search was performed according to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines, using predefined inclusion and exclusion criteria across ERIC, ScienceDirect, Scopus, and SpringerLink. Data analysis involved generating forest plots, conducting heterogeneity tests, calculating summary effects using a random effects model, and identifying publication bias. The meta-analysis of 18 field experimental intervention studies, involving 5265 participants, revealed that cooperative learning intervention programs positively impact intergroup relations, with a moderate effect size (ES = 0.33; 95% CI [0.25, 0.40]). Consequently, cooperative learning can be employed as an alternative strategy to bridge gaps, reduce prejudice, and improve relations among groups with diverse social identities in educational settings.

Keywords: cooperative learning; educational settings; field experiments; intergroup relations; meta-analysis

Citation: Tondok, M.S.; Suryanto, S.; Ardi, R. Building Bridges in Diverse Societies: A Meta-Analysis of Field Experimental Cooperative Learning Studies on Intergroup Relations in Educational Settings. *Societies* **2024**, *14*, 221. https://doi.org/10.3390/soc14110221

Academic Editor: Leigh Wilson

Received: 25 August 2024
Revised: 23 October 2024
Accepted: 24 October 2024
Published: 27 October 2024

1. Introduction

Differences in social identity, such as ethnicity, race, religion, age, immigrant status, mental or physical disability, sexual orientation, and other social identities, have influenced intergroup relations within diverse societies. These differences contribute to issues such as prejudice, discrimination, and intergroup conflict [1–6]. Therefore, promoting positive social relations between diverse groups plays a crucial role in reducing prejudice and discrimination, overcoming conflicts, and creating harmony within diverse societies [2,7–9]. The promotion of intergroup relations and the reduction in prejudice, discrimination, and identity-based conflict are closely related to education because they address the fundamental aspects of human behavior, namely learning to live together [7]. For this reason, education is considered crucial in promoting intergroup relations and strengthening social cohesion within diverse societies [10–16]. In the context of a plural society, formal education is seen as a strategic effort to equip individuals with the knowledge, attitudes, and skills necessary for fostering harmonious intergroup relationships [10,12–14,17,18].

To promote more positive intergroup relations and reduce prejudice, various interventions have been carried out. Theoretically, interventions aimed at diminishing prejudice and fostering intergroup relations are underpinned by three conceptual approaches: general socialization theory and social learning theory, intergroup contact theory, and social-cognitive developmental theory [19–21]. Among these approaches, interventions based on intergroup contact theory are the most widely used in a variety of situations, settings, and

samples [2,20,22–25]. Contact between members of different social groups has the potential to reduce prejudice and improve relations between these groups [26–29]. The effectiveness of intergroup contact is enhanced by the presence of four key conditions: equal status, cooperation between groups, common goals, and social and institutional support.

The concept of intergroup contact theory forms the foundation for a small-group teaching method known as cooperative learning [30]. Specifically, cooperative learning brings students together in a setting of mutual interdependence. Individual objectives are structured so that achieving one's own goals contributes to the achievement of others within the learning group, and vice versa [30]. There are various formulations of the definition of cooperative learning. In this meta-analysis, we used the definition proposed by Cooper et al. [31]: "Cooperative learning is an instructional technique that requires students to work together in small, fixed groups on a structured learning task" (Cooper et al., 1990, p. 1). This definition was selected because it is broad yet sufficiently specific to encompass the fundamental attributes of cooperative learning within educational environments.

Collaborative learning and cooperative learning are two approaches that are often used interchangeably [32,33]. Both emphasize interdependence, social interaction, and the promotion of critical thinking [34–36]. However, they differ in focus and structure. Collaborative learning places more emphasis on the process of collaboration and equal participation, while cooperative learning emphasizes structured tasks, division of labor, and individual accountability for specific roles [37]. Although these approaches are often used in different contexts, this study employs the terminology of cooperative learning.

Cooperative learning is founded on the principle of social interdependence, which posits that when students are interconnected, they will work together to accomplish their shared group objectives [38]. The cooperative learning approach includes five main components: (a) constructive dependence; (b) constructive interaction; (c) individual accountability; (d) interpersonal and small group competence; and (e) group processing [32,35,38]. Moreover, cooperative learning is grounded in three constructivist principles: (1) learning occurs within a specific context, (2) students actively engage in the learning process, and (3) they attain their objectives through social interaction, exchanging knowledge and understanding [39]. Cooperative learning is an instructional method extensively adopted and assessed for its efficacy as a substitute for conventional teacher-centered instruction [40,41]. Comprehensive studies conducted via meta-analysis demonstrate that cooperative learning, as a student-centered approach, is more effective than traditional teacher-centered learning methods [40,42–44].

Various previous meta-analytic studies have been conducted in educational settings to determine the impact of cooperative learning on different outcomes. Regarding learning outcomes, cooperative learning generally has a positive impact on learning achievement (Nunnery et al. [45], effect size (ES) = 0.16; Ridwan et al. [44], ES = 0.89; Turgut and Turgut [46], ES = 0.84); chemistry learning outcomes (Bowen [47], ES = 0.37); learning outcomes of STEM/science, technology, engineering, and mathematics (Jeong et al. [48], ES = 0.51).

Additionally, previous meta-analyses have investigated the impact of cooperative learning on non-academic outcomes that contribute to learning, such as attitudes (Alacapınar and Uysal [49], ES = 0,50; Capar and Tarim [42], ES = 0.59; Chen et al. [50], ES = 0.57; Fernández-Espínola et al. [51], ES = 0.38; Liu and Lipowski [52], ES = 0.97; Sugano and Mamolo [53], ES = 0.38) and knowledge content (Swanson et al. [54], ES = 0.55). Several meta-analyses have been carried out in specific country contexts, such as Indonesia (Ridwan et al. [44], ES = 0.89), Iran (Shakerian et al. [55], ES = 1.29) and Turki (e.g., Gürdoğan-Bayır and Bozkur [56], ES = 0.96; Turgut and Turgut [46], ES = 0.84).

Prior research has also assessed the effectiveness of cooperative learning through direct contact (Ridwan et al. [44], ES = 0.89) or indirect contact via a computer (Chen et al. [50], ES = 0.57; Jeong et al. [48], ES = 0.51; Sung et al. [57], ES = 0.52). Furthermore, meta-analyses evaluating the effectiveness of cooperative learning have been conducted with participants from various educational levels: elementary schools (Turgut and Turgut [46], ES = 0.84),

high schools (Ridwan et al. [44], ES = 0.89), elementary and secondary schools (Setiana et al. [58], ES = 0.15), colleges (Kalaian et al. [43], ES = 0.45; Shakerian et al. [55], ES = 1.29), secondary schools and universities (Bowen [47], ES = 0.37).

Based on the findings of previous meta-analyses, it can be concluded that several meta-analytic investigations have assessed the efficacy of cooperative learning in educational environments. These studies encompass diverse outcomes, participant demographics, and cultural or national contexts, resulting in varying effect sizes. However, to the best of our knowledge, no prior meta-analytic studies within educational environments specifically report on the efficacy of cooperative learning in enhancing intergroup relations through field experiment methods.

Although the meta-analysis conducted by Paluck and Green [21] and Paluck et al. [20] revealed that most research on the effectiveness of intervention programs to promote intergroup relations and reduce prejudice used non-experimental methods, laboratory experiments, and field experiments, the distribution of these methods was as follows: non-experimental approaches accounted for 60%, laboratory experiments for 29%, and field experiments for only 11% [59]. Furthermore, the field experiment approach has been acknowledged for providing the most definitive evidence of efficacy in real-world settings [21,60].

Interventions evaluated in controlled settings might not fully reflect outcomes in real-world situations, particularly when considering diverse contexts [61,62]. However, to our knowledge, there have been no previous meta-analytic investigations addressing the efficacy of cooperative learning utilizing field experiment approaches to enhance intergroup relations within educational contexts. Therefore, this meta-analytic study aims to fill this gap by examining the effectiveness of cooperative learning intervention programs employing field experiment methodologies in reducing prejudice and fostering positive intergroup relations within educational settings.

2. Materials and Methods

2.1. Research Design

This study was conducted as a meta-analysis to evaluate the impact of the cooperative learning model on intergroup relations. Independent quantitative studies were systematically selected for inclusion in the analysis. The study adhered to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, following the flowchart developed by Page et al. [63].

2.2. Strategy and Study Selection

We performed searches for articles in both peer-reviewed scientific journals and 'grey' literature identified from online databases. Records were searched across four databases: ERIC (Education Resources Information Center), ScienceDirect, Scopus, and SpringerLink, to identify eligible studies published before November 2023. The search was conducted using a combination of Boolean operators and keywords, including *student** AND "*cooperative learning*" AND "*field experiment**" AND "*intergroup relation**".

2.3. Inclusion and Exclusion Criteria

The articles were selected based on the following inclusion criteria: (1) the intervention centered on cooperative learning; (2) the article was an empirical study with a field experiment design; (3) the research subjects were students; (4) the outcomes were related to prejudice reduction or the promotion of intergroup relations; (5) the article contained statistical data that showed or supported the computation of the effect size; (6) the articles were written in English and were available in full-text. The article search adhered to the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines [63], as outlined in Figure 1. Following the application of suitability criteria, eighteen articles meeting the inclusion and exclusion criteria were identified.

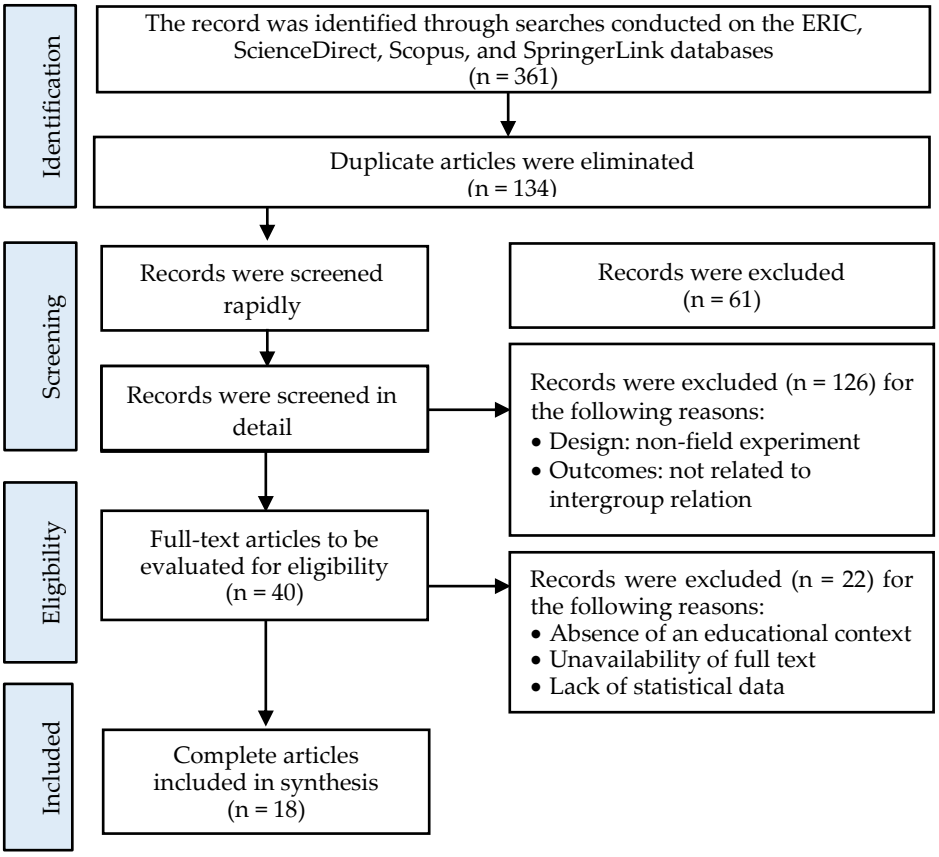

Figure 1. PRISMA flowchart illustrating the process of identifying papers included in the meta-analysis.

2.4. Statistical Analysis: Meta-Analysis

We conducted a meta-analysis to evaluate the impact of cooperative learning on intergroup relations within educational environments. The data analysis included heterogeneity tests, publication bias tests, effect size tests, and moderator variable tests. The heterogeneity test determined whether the studies exhibited the same effect size within the study population, guiding the choice between a random-effects or fixed-effects model. If the data met the assumption of homogeneity, a fixed-effects model was applied; if heterogeneous, a random-effects model was used. Parameters such as Q, τ^2, and I^2 were utilized for heterogeneity testing [64]. According to Cohen [65], effect size classification based on the mean is as follows: (i) an effect size around 0.20 is considered small, (ii) around 0.50 is considered medium, and (iii) around 0.80 is considered large. The meta-analysis in this study was carried out using JASP software version 0.18.3 [66].

3. Results

3.1. Study Characteristics

The meta-analysis dataset includes eighteen field experimental studies on cooperative learning, as detailed in Table 1. The sample sizes ranged from 38 to 1890 participants (mean = 118; standard deviation = 424.60; median = 118). The dataset comprises 5265 participants across all intervention programs grounded in cooperative learning within formal educational settings, evaluated using a field experiment design. Participants included elementary, junior, and high school students, as well as university students from various countries, including the United States (nine studies) [30,67–74], Israel (five studies) [75–79], Australia (three studies) [80–82], and Portugal (one study) [83]. The majority of participants were primary and secondary school students (4940 or 93.99%), while a smaller portion were college/university students (316 or 6.01%). The targeted prejudice and intergroup relations addressed in the studies included ethnic identity (eight studies) [30,71,73,75–78,83],

race (six studies) [67–69,72,74,80], religion (three studies) [79,81,82], and disability (one study) [70]. The intervention program spanned from 1975 to 2021.

Table 1. Characteristics of the 18 studies included in the meta-analysis.

	Author, Year	Country	Sample Size	Participant	Type of the Intergroup Relations
1.	Aboud and Fenwick, 1999 [67]	US	126	5th-grade students	Race
2.	Abu-Rayya, 2017 [75]	Israel	85	College students	Ethnic
3.	Berger et al., 2015 [76]	Israel	247	4th-grade students	Ethnic
4.	Berger et al., 2016 [77]	Israel	322	3rd and 4th grades	Ethnic
5.	Blaney et al. 1977 [68]	US	304	5th-grade students	Race
6.	DeVries and Edwards, 1973 [74]	US	110	7th-grade students	Race
7.	DeVries et al., 1978 [83]	US	558	7th-grade students	Race
8.	Guerra et al., 2013 [83]	Portugal	38	Students aged 9–11 years	Ethnic
9.	Johnson and Johnson, 1982 [70]	US	51	4th-grade students	Physically handicapped
10.	Johnson and Johnson, 1982 [71]	US	76	4th-grade students	Ethnic
11.	Nagar et al., 2021 [78]	Israel	231	Undergraduate students	Ethnic
12.	Rich et al., 1995 [79]	Israel	108	Students aged 11–13 years	Religion
13.	Slavin, 1979 [72]	US	294	6th and 7th-grade students	Race
14.	Van Ryzin et al., 2020 [30]	US	1890	High school students	Ethnic
15.	Walker & Crogan, 1998 [80]	Australia	103	4th–6th-grade students	Race
16.	Weigel et al., 1975 [73]	US	324	Junior and high school students	Ethnic
17.	White and Abu-Rayya, 2012 [81]	Australia	201	1st-year high school students	Religion
18.	White et al., 2014 [82]	Australia	188	1st-year high school students	Religion

The results of the analysis, as shown in Table 2, indicate that the seventeen effect sizes of the analyzed studies were heterogeneous (Q = 20,686.65; $p < 0.001$). Therefore, a random effects model was employed to estimate the average effect of the studies. Furthermore, these findings suggest the presence of moderator variables that may influence the impact of cooperative learning intervention programs on intergroup relations.

Table 2. Heterogeneity Test Results with Random Effects Model.

	Q	df	*p*
Omnibus test of Model Coefficients	61.80	1	0.001
Test of Residual Heterogeneity	20,686.65	17	<0.001

Note. *p*-values are approximate.

3.2. Heterogeneity Statistics

The results of the heterogeneity test using the random effects model are presented in Table 2, providing a comprehensive analysis of the dataset's variability. These findings highlight the diverse range of outcomes observed, offering valuable insights into the overall heterogeneity.

The results of the heterogeneity test, as shown in Table 2, indicate that the seventeen effect sizes of the analyzed studies were heterogeneous (Q = 20,686.65; $p < 0.001$). Therefore, a random effects model was employed to estimate the average effect of the studies under analysis. Furthermore, these findings suggest the presence of moderator variables that may influence the impact of cooperative learning intervention programs on intergroup relations.

3.3. Evaluation of Publication Bias

Publication bias in this meta-analysis was assessed using a funnel plot, Egger's test, and the Rosenthal Fail-safe N test. The result of the funnel plot is depicted in Figure 2.

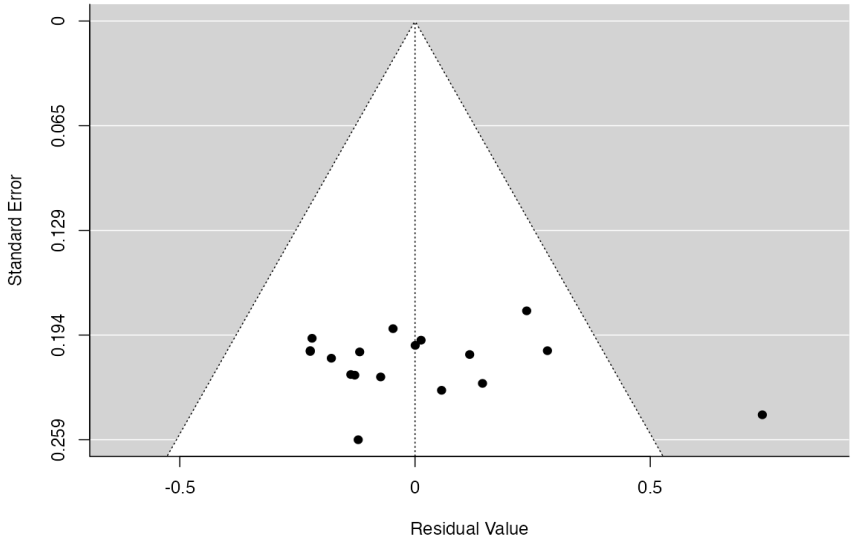

Figure 2. Funnel Plot.

The funnel plot indicates a symmetrical distribution of data; however, one study falls outside the symmetry line. The findings regarding publication bias from the funnel plot are consistent with those from Egger's test, as presented in Table 3.

Table 3. Regression test for Funnel plot asymmetry ("Egger's test").

	z	*p*
sei	0.93	0.35

Egger's test results indicate a symmetrical funnel plot, as the *p*-value is greater than 0.05. Therefore, it can be concluded that there is no evidence of publication bias in the conducted meta-analysis. These findings are further supported by the Rosenthal Fail-safe N analysis presented in Table 4.

Table 4. Heterogeneity Test Results with Random Effects Model.

	Fail-Safe N	Target Significance	Observed Significance
Rosenthal	610,086.00	0.05	<0.001

Table 4 shows that the Fail-safe N value is 610,086, with a significance threshold of 0.05 and an observed significance level of $p < 0.001$. Consequently, there is no indication of publication bias in this meta-analysis.

3.4. The Effect of Cooperative Learning on Intergroup Relations

Among the 18 articles included in the meta-analysis, the results using the Random Effects model reveal a significantly positive impact of cooperative learning intervention programs on intergroup relations ($z = 7.86$; $p < 0.001$; SE = 0.33; 95% CI [0.25, 0.41]). The correlation coefficient ranges from 0.12 to 0.79 (see Figure 3). The effect of cooperative learning intervention programs on intergroup relations falls within the medium range. The summary effect coefficients, which provide a comprehensive overview of the study's findings, are presented in Table 5.

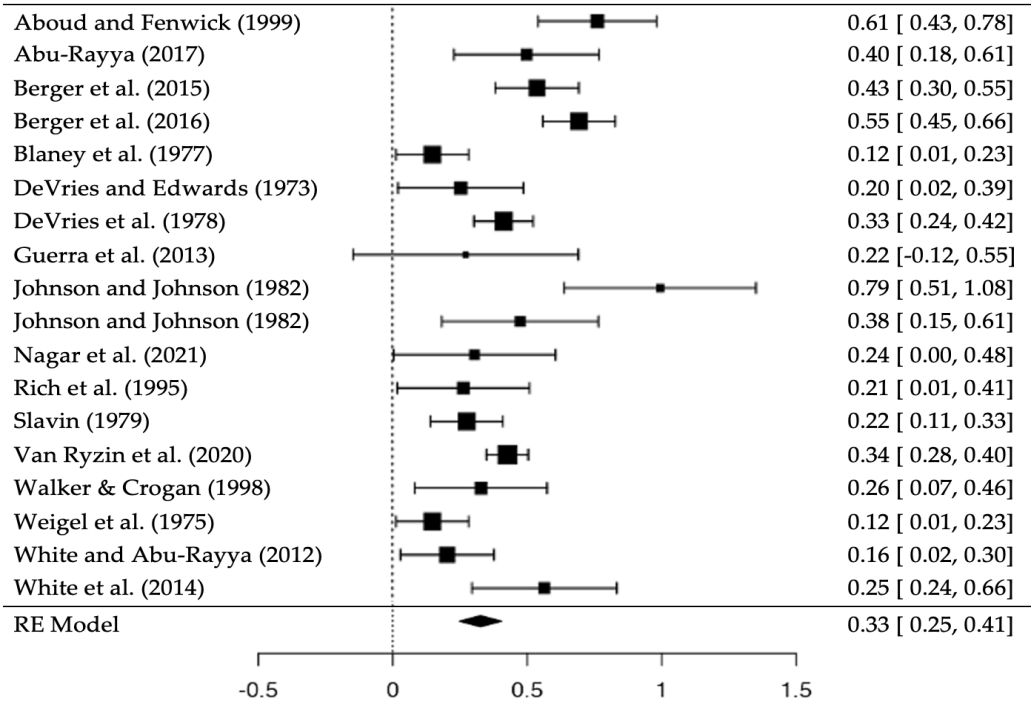

Figure 3. Forest plot visualization.

Table 5. Heterogeneity Test Results with Random Effects Model.

	Estimate	Standard Error	z	*p*	95% Confidence Interval	
					Lower	Upper
intercept	0.33	0.04	7.86	0.001	0.25	0.41

Note. Wald test.

3.5. Evaluation of Moderator Test

A moderator analysis was conducted on subgroups consisting of elementary and middle school students (15 studies) and college/university students (3 studies). The results revealed an effect size of 0.13 with a 95% CI(−0.16, 0.41) and a *p*-value of 0.39, which is greater than 0.05. These findings suggest that cooperative learning interventions aimed at reducing prejudice and enhancing intergroup relations did not produce significant differences between elementary and middle school students and university students.

Additionally, a moderator analysis was conducted on subgroups based on the type of prejudice, including ethnic prejudice (eight studies), racial prejudice (six studies), religious prejudice (three studies), and physical limitations (one study). The moderator test results revealed an effect size of 0.01 with a 95% CI [−0.15, 0.17] and a *p*-value of 0.88, which is greater than 0.05. These findings indicate that the effectiveness of cooperative learning interventions in reducing prejudice and enhancing intergroup relations is not influenced by the type of prejudice.

4. Discussion

4.1. Summary Findings and Relationship to Previous Literature

This meta-analysis rigorously examines the impact of cooperative learning intervention programs utilizing field experiment designs on reducing prejudice and promoting intergroup relations within educational settings. The findings reveal a significant positive effect of these programs on intergroup relations, with an effect size (ES) of 0.33 and a 95% confidence interval (CI) ranging from 0.25 to 0.41. According to the classification criteria established by Borenstein et al. [64] and Cohen [65], this effect size is categorized as

moderate, underscoring the meaningful impact of cooperative learning interventions in fostering positive intergroup relationships.

The results of this meta-analysis, indicating a positive impact of cooperative learning intervention programs on intergroup relations, are consistent with several prior meta-analytic studies conducted in educational contexts. These studies have demonstrated the effectiveness of cooperative learning across various outcomes, reflected in different effect sizes. For example, a meta-analysis by Capar and Tarim [42], which analyzed 26 studies involving participants from preschool to college levels, found that cooperative learning enhances academic achievement with an effect size of 0.59. Similarly, a meta-analysis by Johnson and Johnson [84] showed that, compared to individual learning methods, cooperative learning is more effective in improving academic achievement in students aged 18 years and older, with an effect size of 0.53.

Additionally, a meta-analysis by Bowen [47] of 37 studies involving undergraduate students demonstrated the effectiveness of cooperative learning in STEM (science, technology, engineering, and math) courses, with an effect size of 0.51. The findings from this study, along with previous research, underscore the efficacy of cooperative learning in educational settings. This effectiveness is attributed to cooperative learning's capacity to foster four conditions conducive to intergroup contact: equal status, cooperation between groups, shared goals, and social and institutional support for contact between different groups [85,86]. Conceptually, cooperative learning represents a learner-centered strategy in which students collaborate to achieve shared learning objectives [84]. In these study groups, students from diverse backgrounds interact and negotiate to solve problems or achieve specific learning goals. They utilize cognitive and metacognitive abilities during these interactions and are responsible for both the learning processes and outcomes [87–89]. This cooperative approach not only facilitates a rich exchange of ideas but also fosters a sense of ownership and accountability among students, thereby enhancing the overall effectiveness of the learning experience.

The results of the moderator analysis in this study indicated that the effectiveness of cooperative learning intervention in reducing prejudice and improving intergroup relations was not influenced by the status of the participants (students and college/university students), or by the type of prejudice (ethnicity, race, religion, physical disability). This meta-analysis suggests that cooperative learning intervention programs can be effectively applied to reduce prejudice and improve intergroup relations in educational settings. The findings validate prior research suggesting that interactions among individuals from diverse social backgrounds can diminish prejudice and enhance intergroup relations [26–29]. Specifically, this research emphasizes the critical role of education, particularly formal education, in promoting intergroup relations and strengthening social cohesion in pluralistic societies [10–16].

In the context of intergroup contact theory, the potential for enhancing cooperative learning within the educational process can be realized by ensuring that intergroup contact is optimized under four conditions: equal status, cooperation between groups, the pursuit of common goals, and the presence of social and institutional support. Cooperative learning should be regarded as one of the intervention programs aimed at reducing prejudice and improving intergroup relations in educational settings. This research underscores the critical role of education, particularly formal education, in fostering intergroup relations and strengthening social cohesion in pluralistic societies [10–16]. Interactions between different social groups, characterized by variations in social identity, have influenced prejudice, discrimination, and intergroup conflict [1–5,90,91]

The moderate effect size observed in the field of experimental intervention studies suggests the potential for further development in enhancing the effectiveness of cooperative learning intervention programs within educational settings of diverse societies. To maximize their impact, cooperative learning can be integrated with additional intervention strategies aimed at reducing prejudice and fostering intergroup relations. These strategies may include leveraging entertainment and mass media, employing extended and imaginary contact techniques, and implementing cognitive and emotional training methods [20]. For

cooperative learning interventions to have a widespread impact on relationships among diverse groups in societies, educational institutions must prioritize the inclusion of all students. This can be achieved by mandating participation in intervention programs, such as integrating them into the educational curriculum and making them integral components of the learning process.

4.2. Limitations and Future Directions

This meta-analysis study has four limitations. First, it only included field experimental intervention studies, potentially excluding relevant studies conducted under different conditions or methodologies. This could limit the generalizability of the findings and overlook other potential factors influencing intergroup relations in diverse societies.

Second, there may be a bias in the selection of studies included in the meta-analysis, as it relies on the published literature. Studies with null or negative results may be less likely to be published [92], leading to an overestimation of the effectiveness of collaborative learning interventions on intergroup relations.

Third, the moderator analysis revealed that cooperative learning interventions did not yield significant differences between elementary/middle school students and college/university students. The college/university studies were conducted exclusively in Israel, where cultural differences in educational approaches may exist. Given the small sample size of college/university students, it is challenging to directly compare them to elementary and middle school students, considering the significant differences in cognitive ability and social skills between these age groups.

Fourth, the meta-analysis encompasses various collaborative learning intervention programs, each with its own design, implementation, and context. This heterogeneity could introduce variability in the results and make it challenging to identify specific aspects of collaborative learning interventions that are most effective for reducing prejudice and promoting intergroup relations. These limitations suggest the need for caution when interpreting the findings and highlight areas for further research to enhance the understanding of the effectiveness and optimal implementation of collaborative learning interventions in educational settings.

5. Conclusions

The meta-analysis of eighteen field experimental intervention studies indicates that cooperative learning intervention programs have a positive effect on enhancing intergroup relations in diverse societies, demonstrating a moderate effect size. Therefore, cooperative learning can be utilized as an alternative strategy to build bridges, reduce prejudice and improve relations between groups in educational settings with various social identities, although the moderate effect size suggests potential for further program development.

Author Contributions: Conceptualization, S.S. and M.S.T.; methodology, R.A. and M.S.T.; software, R.A. and M.S.T.; validation, all authors; formal analysis, R.A. and M.S.T.; investigation, M.S.T.; resources, S.S.; data curation, M.S.T.; writing—original draft preparation, M.S.T.; writing—review and editing, S.S., and R.A.; visualisation, M.S.T.; supervision, S.S.; project administration, M.S.T.; funding acquisition, S.S. All authors have read and agreed to the published version of the manuscript.

Funding: This research was funded by the Indonesian Research, Technology, and Higher Education (RISTEKDIKTI) for Doctoral Dissertation Research, governed by Contract No. 751/UN3.LPPM/PT.01.03/2023.

Data Availability Statement: The data that support the findings of this study are available on request from the first author.

Conflicts of Interest: The authors declare no conflicts of interest.

References

1. Chowdhury, N.; Khandoker, A.H. Strategies for Combating Prejudice against Muslims in Australia. *Humanit. Soc. Sci. Commun.* **2024**, *11*, 69. [CrossRef]
2. Littman, R.; Scacco, A.; Weiss, C. Reducing Prejudice through Intergroup Contact Interventions. In *Psychological Intergroup Interventions: Evidence-Based Approaches to Improve Intergroup Relations*; Halperin, E., Hameiri, B., Littman, R., Eds.; Routledge: Abingdon, UK, 2024.
3. Molina, L.E.; Tropp, L.R.; Goode, C. Reflections on Prejudice and Intergroup Relations. *Curr. Opin. Psychol.* **2016**, *11*, 120–124. [CrossRef]
4. Verkuyten, M.; Yogeeswaran, K.; Adelman, L. The Social Psychology of Intergroup Tolerance and Intolerance. *Eur. Rev. Soc. Psychol.* **2023**, *34*, 1–43. [CrossRef]
5. Visintin, E.P.; Rullo, M.; Lo Destro, C. Imagine Being Humble: Integrating Imagined Intergroup Contact and Cultural Humility to Foster Inclusive Intergroup Relations. *Behav. Sci.* **2024**, *14*, 51. [CrossRef]
6. Albarello, F.; Moscatelli, S.; Menegatti, M.; Lucidi, F.; Cavicchiolo, E.; Manganelli, S.; Diotaiuti, P.; Chirico, A.; Alivernini, F. Prejudice towards Immigrants: A Conceptual and Theoretical Overview on Its Social Psychological Determinants. *Soc. Sci.* **2023**, *13*, 24. [CrossRef]
7. Hughes, C. *Understanding Prejudice and Education: The Challenge for Future Generations*; Routledge: London, UK, 2017. [CrossRef]
8. Kite, M.E.; Whitley, B.E., Jr.; Wagner, L.S. *Psychology of Prejudice and Discrimination*, 4th ed.; Routledge: New York, NY, USA, 2023.
9. Imperato, C.; Keum, B.T.; Mancini, T. Does Intercultural Contact Increase Anti-Racist Behavior on Social Network Sites? *Soc. Sci.* **2021**, *10*, 207. [CrossRef]
10. Banks, J.; Banks, C. *Multicultural Education: Issues and Perspectives*, 9th ed.; John Wiley & Sons, Inc.: Hoboken, NJ, USA, 2016.
11. Barrett, M. How Schools Can Promote the Intercultural Competence of Young People. *Eur. Psychol.* **2018**, *23*, 93–104. [CrossRef]
12. Mayhew, M.J.; Rockenbach, A.N.; Bowman, N.A.; Seifert, T.A.; Wolniak, G.C.; Pascarella, E.T.; Terenzini, P.T.; Pascarella, E.T. *How College Affects Students: 21st Century Evidence That Higher Education Works*; John Wiley & Sons: Hoboken, NJ, USA, 2016; Volume 3.
13. Mayhew, M.J.; Rockenbach, A.N. Interfaith Learning and Development. *J. Coll. Character* **2021**, *22*, 1–12. [CrossRef]
14. Raihani, R. Education for Multicultural Citizens in Indonesia: Policies and Practices. *Comp. J. Comp. Int. Educ.* **2018**, *48*, 992–1009. [CrossRef]
15. Tondok, M.S.; Suryanto, S.; Ardi, R. Intervention Program to Reduce Religious Prejudice in Education Settings: A Scoping Review. *Religions* **2022**, *13*, 299. [CrossRef]
16. Fragoso, A.; Fonseca, J. Combating Ageism through Adult Education and Learning. *Soc. Sci.* **2022**, *11*, 110. [CrossRef]
17. Gill, S. Universities as Spaces for Engaging the Other: A Pedagogy of Encounter for Intercultural and Interreligious Education. *Int. Rev. Educ.* **2016**, *62*, 483–500. [CrossRef]
18. Visser, H.J.; Liefbroer, A.I.; Schoonmade, L.J. Evaluating the Learning Outcomes of Interfaith Initiatives: A Systematic Literature Review. *J. Beliefs Values* **2023**, *44*, 1–24. [CrossRef]
19. Beelmann, A.; Heinemann, K.S. Preventing Prejudice and Improving Intergroup Attitudes: A Meta-Analysis of Child and Adolescent Training Programs. *J. Appl. Dev. Psychol.* **2014**, *35*, 10–24. [CrossRef]
20. Paluck, E.L.; Porat, R.; Clark, C.S.; Green, D.P. Prejudice Reduction: Progress and Challenges. *Annu. Rev. Psychol.* **2021**, *72*, 533–560. [CrossRef]
21. Paluck, E.L.; Green, D.P. Prejudice Reduction: What Works? A Review and Assessment of Research and Practice. *Annu. Rev. Psychol.* **2009**, *60*, 339–367. [CrossRef] [PubMed]
22. Tropp, L.R.; White, F.; Rucinski, C.L.; Tredoux, C. Intergroup Contact and Prejudice Reduction: Prospects and Challenges in Changing Youth Attitudes. *Rev. Gen. Psychol.* **2022**, *26*, 342–360. [CrossRef]
23. Van Assche, J.; Swart, H.; Schmid, K.; Dhont, K.; Al Ramiah, A.; Christ, O.; Kauff, M.; Rothmann, S.; Savelkoul, M.; Tausch, N.; et al. Intergroup Contact Is Reliably Associated with Reduced Prejudice, Even in the Face of Group Threat and Discrimination. *Am. Psychol.* **2023**, *78*, 761–774. [CrossRef]
24. Turner, R.N.; Stathi, S. Nostalgic Intergroup Contact and Intergroup Relations: Theoretical, Empirical, and Applied Dimensions. *Curr. Opin. Psychol.* **2023**, *51*, 101585. [CrossRef]
25. Gim, H.; Harwood, J. *What* People *Do* Matters during Intergroup Communication: Immediate and Delayed Effects of Intergroup Contact via Cognitive, Affective, and Behavioral Mediators. *Commun. Monogr.* **2024**, *91*, 482–501. [CrossRef]
26. Allport, G.W. *The Nature of Prejudice*; Addison-Wesley: Reading, MA, USA, 1954.
27. Imperato, C.; Schneider, B.H.; Caricati, L.; Amichai-Hamburger, Y.; Mancini, T. Allport Meets Internet: A Meta-Analytical Investigation of Online Intergroup Contact and Prejudice Reduction. *Int. J. Intercult. Relat.* **2021**, *81*, 131–141. [CrossRef]
28. Pettigrew, T.F. Future Directions for Intergroup Contact Theory and Research. *Int. J. Intercult. Relat.* **2008**, *32*, 187–199. [CrossRef]
29. Pettigrew, T.F.; Tropp, L.R. How Does Intergroup Contact Reduce Prejudice? Meta-Analytic Tests of Three Mediators. *Eur. J. Soc. Psychol.* **2008**, *38*, 922–934. [CrossRef]
30. Van Ryzin, M.J.; Roseth, C.J.; McClure, H. The Effects of Cooperative Learning on Peer Relations, Academic Support, and Engagement in Learning among Students of Color. *J. Educ. Res.* **2020**, *113*, 283–291. [CrossRef]
31. Cooper, J.; Prescott, S.; Cook, L.; Smith, L.; Mueck, R. *Cooperative Learning and College Instruction*; California State University: Long Beach, CA, USA, 1990.
32. Gillies, R.M. Using Cooperative Learning to Enhance Students' Learning and Engagement during Inquiry-Based Science. *Educ. Sci.* **2023**, *13*, 1242. [CrossRef]

33. McInnerney, J.M.; Roberts, T.S. Collaborative and Cooperative Learning. In *Encyclopedia of Distance Learning*, 2nd ed.; Rogers, P.L., Berg, G.A., Boettcher, J.V., Howard, C., Justice, L., Schenk, K.D., Eds.; IGI Global: Hershey, PA, USA, 2009; pp. 319–326. [CrossRef]
34. Butera, F.; Buchs, C. Social Interdependence and the Promotion of Cooperative Learning. In *Social Psychology in Action*; Sassenberg, K., Vliek, M.L.W., Eds.; Springer International Publishing: Cham, Switzerland, 2019; pp. 111–127. [CrossRef]
35. Johnson, D.W.; Johnson, R.T. Cooperative Learning: The Foundation for Active Learning. In *Active Learning—Beyond the Future*; Manuel Brito, S., Ed.; IntechOpen: London, UK, 2019. [CrossRef]
36. Rubtsova, A.; Zheleznyakova, O.; Anosova, N.; Dashkina, A. Collaborative Learning in Teaching Culture Studies to Further Training Program Students. *Educ. Sci.* **2023**, *13*, 642. [CrossRef]
37. Yang, X. A Historical Review of Collaborative Learning and Cooperative Learning. *TechTrends* **2023**, *67*, 718–728. [CrossRef]
38. Johnson, D.W.; Johnson, R.T. An Educational Psychology Success Story: Social Interdependence Theory and Cooperative Learning. *Educ. Res.* **2009**, *38*, 365–379. [CrossRef]
39. Kokotsaki, D.; Menzies, V.; Wiggins, A. Project-Based Learning: A Review of the Literature. *Improv. Sch.* **2016**, *19*, 267–277. [CrossRef]
40. Dyson, B.; Shen, Y.; Xiong, W.; Dang, L. How Cooperative Learning Is Conceptualized and Implemented in Chinese Physical Education: A Systematic Review of Literature. *ECNU Rev. Educ.* **2022**, *5*, 185–206. [CrossRef]
41. Keramati, M.R.; Gillies, R.M. Advantages and Challenges of Cooperative Learning in Two Different Cultures. *Educ. Sci.* **2021**, *12*, 3. [CrossRef]
42. Capar, G.; Tarim, K. Efficacy of the Cooperative Learning Method on Mathematics Achievement and Attitude: A Meta-Analysis Research. *Educ. Sci. Theory Pract.* **2015**, *15*, 553–559. [CrossRef]
43. Kalaian, S.; Kasim, R.; Nims, J. Effectiveness of Small-Group Learning Pedagogies in Engineering and Technology Education: A Meta-Analysis. *J. Technol. Educ.* **2018**, *29*, 20–35. [CrossRef]
44. Ridwan, M.R.; Hadi, S.; Jailani, J. A Meta-Analysis Study on the Effectiveness of a Cooperative Learning Model on Vocational High School Students' Mathematics Learning Outcomes. *Particip. Educ. Res.* **2022**, *9*, 396–421. [CrossRef]
45. Nunnery, J.A.; Shanan, C.; Pamela, A. A Meta-Analysis of a Cooperative Learning Model's Effects on Student Achievement in Mathematics. *Cypriot J. Educ. Sci.* **2013**, *8*, 34–48.
46. Turgut, S.; Turgut, İ.G. The Effects of Cooperative Learning on Mathematics Achievement in Turkey: A Meta-Analysis Study. *Int. J. Instr.* **2018**, *11*, 663–680. [CrossRef]
47. Bowen, C.W. A Quantitative Literature Review of Cooperative Learning Effects on High School and College Chemistry Achievement. *J. Chem. Educ.* **2000**, *77*, 116. [CrossRef]
48. Jeong, H.; Hmelo-Silver, C.E.; Jo, K. Ten Years of Computer-Supported Collaborative Learning: A Meta-Analysis of CSCL in STEM Education during 2005–2014. *Educ. Res. Rev.* **2019**, *28*, 100284. [CrossRef]
49. Alacapınar, F.G.; Uysal, H. Do the Effect of Cooperative Learning in Education. *Res. Educ. Psychol.* **2020**, *4*, 54–72.
50. Chen, J.; Wang, M.; Kirschner, P.A.; Tsai, C.-C. The Role of Collaboration, Computer Use, Learning Environments, and Supporting Strategies in CSCL: A Meta-Analysis. *Rev. Educ. Res.* **2018**, *88*, 799–843. [CrossRef]
51. Fernández-Espínola, C.; Abad Robles, M.T.; Collado-Mateo, D.; Almagro, B.J.; Castillo Viera, E.; Giménez Fuentes-Guerra, F.J. Effects of Cooperative-Learning Interventions on Physical Education Students' Intrinsic Motivation: A Systematic Review and Meta-Analysis. *Int. J. Environ. Res. Public Health* **2020**, *17*, 4451. [CrossRef] [PubMed]
52. Liu, T.; Lipowski, M. Influence of Cooperative Learning Intervention on the Intrinsic Motivation of Physical Education Students—A Meta-Analysis within a Limited Range. *Int. J. Environ. Res. Public Health* **2021**, *18*, 2989. [CrossRef] [PubMed]
53. Sugano, S.G.C.; Mamolo, L.A. The Effects of Teaching Methodologies on Students' Attitude and Motivation: A Meta-Analysis. *Int. J. Instr.* **2021**, *143*, 827–846. [CrossRef]
54. Swanson, E.; McCulley, L.V.; Osman, D.J.; Scammacca Lewis, N.; Solis, M. The Effect of Team-Based Learning on Content Knowledge: A Meta-Analysis. *Act. Learn. High. Educ.* **2019**, *20*, 39–50. [CrossRef]
55. Shakerian, S.; Khoshgoftar, Z.; Rezayof, E.; Amadi, M. The Use of the Jigsaw Cooperative Learning Technique for the Health Science Students in Iran: A Meta-Analysis. *Educ. Res. Med. Sci.* **2020**, *9*, e102043. [CrossRef]
56. Gürdoğan-Bayır, O.; Bozkur, M. Effectiveness of Cooperative Learning Approaches Used in the Course of Social Studies in Turkey: A Meta-Analysis Study. *Eur. J. Educ. Stud.* **2018**, *4*, 171–191. [CrossRef]
57. Sung, Y.-T.; Yang, J.-M.; Lee, H.-Y. The Effects of Mobile-Computer-Supported Collaborative Learning: Meta-Analysis and Critical Synthesis. *Rev. Educ. Res.* **2017**, *87*, 768–805. [CrossRef]
58. Setiana, D.S.; Ili, L.; Rumasoreng, M.I.; Prabowo, A. Relationship between Cooperative Learning Method and Students' Mathematics Learning Achievement: A Meta-Analysis Correlation. *Al-Jabar J. Pendidik. Mat.* **2020**, *11*, 145–158. [CrossRef]
59. Paluck, E.L. How to Overcome Prejudice. *Science* **2016**, *352*, 147. [CrossRef]
60. Green, D.P.; Gerber, A.S. *Field Experiments*; W. W. Norton: New York, NY, USA, 2012.
61. Hsieh, W.; Faulkner, N.; Wickes, R. What Reduces Prejudice in the Real World? A Meta-analysis of Prejudice Reduction Field Experiments. *Br. J. Soc. Psychol.* **2021**, *61*, 689–710. [CrossRef]
62. Levitt, S.D.; List, J.A. Viewpoint: On the Generalizability of Lab Behaviour to the Field. *Can. J. Econ. Can. Déconomique* **2007**, *40*, 347–370. [CrossRef]
63. Page, M.J.; McKenzie, J.E.; Bossuyt, P.M.; Boutron, I.; Hoffmann, T.C.; Mulrow, C.D.; Shamseer, L.; Tetzlaff, J.M.; Akl, E.A.; Brennan, S.E.; et al. The PRISMA 2020 Statement: An Updated Guideline for Reporting Systematic Reviews. *BMJ* **2021**, *372*, n71. [CrossRef] [PubMed]

64. Borenstein, M.; Hedges, L.V.; Higgins, J.P.; Rothstein, H.R. *Introduction to Meta-Analysis*, 2nd ed.; John Wiley & Sons: New York, NY, USA, 2021.
65. Cohen, J. *Statistical Power Analysis for the Behavioral Sciences*, 2nd ed.; Erlbaum: Hillsdale, NJ, USA, 1988.
66. JASP Team. JASP (Version 0.18.3). Available online: https://www.rollapp.com/launch/jasp (accessed on 22 October 2024).
67. Aboud, F.E.; Fenwick, V. Exploring and Evaluating School-Based Interventions to Reduce Prejudice. *J. Soc. Issues* **1999**, *55*, 767–785. [CrossRef]
68. Blaney, N.T.; Stephan, C.; Rosenfield, D.; Aronson, E.; Sikes, J. Interdependence in the Classroom: A Field Study. *J. Educ. Psychol.* **1977**, *69*, 121–128. [CrossRef]
69. DeVries, D.L.; Edwards, K.J.; Slavin, R.E. Biracial Learning Teams and Race Relations in the Classroom: Four Field Experiments Using Teams-Games-Tournament. *J. Educ. Psychol.* **1978**, *70*, 356–362. [CrossRef]
70. Johnson, R.T.; Johnson, D.W. Effects of Cooperative and Competitive Learning Experiences on Interpersonal Attraction between Handicapped and Nonhandicapped Students. *J. Soc. Psychol.* **1982**, *116*, 211–219. [CrossRef]
71. Johnson, D.W.; Johnson, R.T. Effects of Cooperative, Competitive, and Individualistic Learning Experiences on Cross-Ethnic Interaction and Friendships. *J. Soc. Psychol.* **1982**, *118*, 47–58. [CrossRef]
72. Slavin, R.E. Effects of Biracial Learning Teams on Cross-Racial Friendships. *J. Educ. Psychol.* **1979**, *71*, 381–387. [CrossRef]
73. Weigel, R.H.; Wiser, P.L.; Cook, S.W. The Impact of Cooperative Learning Experiences on Cross-Ethnic Relations and Attitudes. *J. Soc. Issues* **1975**, *31*, 219–244. [CrossRef]
74. DeVries, D.L.; Edwards, K.J. Learning Games and Student Teams: Their Effects on Classroom Process. *Am. Educ. Res. J.* **1973**, *10*, 307–318. [CrossRef]
75. Abu-Rayya, H.M. Majority Members' Endorsement of the Acculturation Integrationist Orientation Improves Their Outgroup Attitudes toward Ethnic Minority Members: An Electronic-Contact Experiment. *Comput. Hum. Behav.* **2017**, *75*, 660–666. [CrossRef]
76. Berger, R.; Abu-Raiya, H.; Gelkopf, M. The Art of Living Together: Reducing Stereotyping and Prejudicial Attitudes through the Arab-Jewish Class Exchange Program (CEP). *J. Educ. Psychol.* **2015**, *107*, 678–688. [CrossRef]
77. Berger, R.; Benatov, J.; Abu-Raiya, H.; Tadmor, C.T. Reducing Prejudice and Promoting Positive Intergroup Attitudes among Elementary-School Children in the Context of the Israeli–Palestinian Conflict. *J. Sch. Psychol.* **2016**, *57*, 53–72. [CrossRef]
78. Nagar, I.; Hoter, E.; Hasler, B.S. Intergroup Attitudes and Interpersonal Relationships in Online Contact between Groups in Conflict. *J. Glob. Inf. Technol. Manag.* **2021**, *24*, 208–223. [CrossRef]
79. Rich, Y.; Kedem, P.; Shlesinger, A. Enhancing Intergroup Relations among Children: A Field Test of the Miller-Brewer Model. *Int. J. Intercult. Relat.* **1995**, *19*, 539–553. [CrossRef]
80. Walker, I.; Crogan, M. Academic Performance, Prejudice, and the Jigsaw Classroom: New Pieces to the Puzzle. *J. Community Appl. Soc. Psychol.* **1998**, *8*, 381–393. [CrossRef]
81. White, F.A.; Abu-Rayya, H.M. A Dual Identity-Electronic Contact (DIEC) Experiment Promoting Short- and Long-Term Intergroup Harmony. *J. Exp. Soc. Psychol.* **2012**, *48*, 597–608. [CrossRef]
82. White, F.A.; Abu-Rayya, H.M.; Weitzel, C. Achieving Twelve-Months of Intergroup Bias Reduction: The Dual Identity-Electronic Contact (DIEC) Experiment. *Int. J. Intercult. Relat.* **2014**, *38*, 158–163. [CrossRef]
83. Guerra, R.; Rebelo, M.; Monteiro, M.B.; Gaertner, S.L. Translating Recategorization Strategies into an Antibias Educational Intervention. *J. Appl. Soc. Psychol.* **2013**, *43*, 14–23. [CrossRef]
84. Johnson, D.W.; Johnson, R.T. *Cooperation and Competition: Theory and Research*; Interaction Book Co.: Edina, MI, USA, 1989.
85. Slavin, R.E. Cooperative Learning: Applying Contact Theory in Desegregated Schools. *J. Soc. Issues* **1985**, *41*, 45–62. [CrossRef]
86. Slavin, R.E.; Cooper, R. Improving Intergroup Relations: Lessons Learned from Cooperative Learning Programs. *J. Soc. Issues* **1999**, *55*, 647–663. [CrossRef]
87. Chatterjee, R.; Correia, A.-P. Online Students' Attitudes toward Collaborative Learning and Sense of Community. *Am. J. Distance Educ.* **2020**, *34*, 53–68. [CrossRef]
88. Goodsell, A. *Collaborative Learning: A Sourcebook for Higher Education. University Park: National Center on Postsecondary Teaching, Learning, and Assessment, Pennsylvania State University*; Goodsell, A., Maher, M., Tinto, V., Eds.; National Center on Postsecondary Teaching, Learning, and Assessment, Pennsylvania State University: University Park, TX, USA, 1988.
89. Mende, S.; Proske, A.; Narciss, S. Individual Preparation for Collaborative Learning: Systematic Review and Synthesis. *Educ. Psychol.* **2021**, *56*, 29–53. [CrossRef]
90. Inderasari, A.P.; Tondok, M.S.; Yudiarso, A. Prejudice against Veiled Muslim Women: The Role of Right-Wing Authoritarianism and Intergroup Anxiety. *Psikohumaniora J. Penelit. Psikol.* **2021**, *6*, 33–46. [CrossRef]
91. Tondok, M.S.; Suryanto, S.; Ardi, R. Validation of the General Evaluation Scale for Measuring Ethnic and Religious Prejudice in an Indonesian Sample. *Soc. Sci.* **2024**, *13*, 21. [CrossRef]
92. Page, M.J.; Sterne, J.A.; Higgins, J.P.; Egger, M. Investigating and Dealing with Publication Bias and Other Reporting Biases in Meta-analyses of Health Research: A Review. *Res. Synth. Methods* **2021**, *12*, 248–259. [CrossRef]