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Cooperative Learning as A Pedagogical Strategy for Strengthening Islamic Religious Education in Madrasah

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ABSTRACT

This research aims at knowing the principal models of cooperative learning be contextually adapted for PAI instruction and structural mechanisms of cooperative learning align with Islamic educational ethics. Drawing on a systematic literature review (SLR) guided by the PRISMA 2020 protocol, this study synthesises evidence from 32 peer-reviewed articles sourced from Scopus, Web of Science, and SINTA (2015–2025), examining how six principal cooperative learning model can strengthen the quality of PAI instruction. Synthesis findings consistently indicate that these models improve academic attainment, learner motivation, and interpersonal skills. A key contribution of this study is identifying how the structural logic of cooperative learning, specifically its features of positive interdependence, individual accountability, and promotive interaction, converges with three foundational Islamic values: *al-ta'awun* (mutual cooperation), *ukhuwah Islamiyah* (fraternal solidarity), and the collective dimension of *fardhu kifayah*.

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Keywords:

cooperative learning;
pedagogical strategy;
islamic religious education;
madrasah.

INTRODUCTION

Within the Islamic educational ecosystem of Indonesia, madrasah occupy a distinctive institutional position: they function simultaneously as academic schools and sites of religious formation, entrusted with cultivating the whole person in accordance with Islamic ideals. Pendidikan Agama Islam (PAI), Islamic Religious Education, is central to this dual mandate. Despite its foundational importance, PAI instruction in many madrasah remains constrained by pedagogical patterns that work against its own goals: the classroom is teacher-dominated, students are positioned as passive receivers, recitation substitutes for reflection, and the social and affective dimensions of Islamic formation remain largely unaddressed (Miftahuddin, 2021).

Several converging pressures sustain this status quo. Curricula overloaded with doctrinal content, the absence of pedagogically relevant teacher training, and a cultural assumption that sacred knowledge flows unidirectionally from expert to learner all conspire to entrench lecture-based delivery. The consequence is graduates who can articulate Islamic doctrine but struggle to embody its ethical and social demands. Majid and Andayani (2017) described this disjuncture as an implementation gap: the distance between classroom learning and lived practice. Nurdyansyah and Fahyuni (2016) corroborate this, arguing that the dominant instructional modes in Islamic schooling insufficiently support the active construction of knowledge and social skill.

Cooperative learning has emerged in the international research literature as a robust corrective to passive instruction. In its most widely cited formulation, cooperative learning comprises a family of instructional arrangements in which small, heterogeneous student groups pursue shared academic goals through structured interdependence and mutual accountability (Slavin, 2015). A landmark meta-analysis by Roseth et al. (2008) across 148 independent studies found that cooperative structures produce meaningfully higher academic achievement and stronger peer relationships than competitive or individualistic approaches. These

effects have since been confirmed across diverse subject domains and educational levels by Kyndt et al. (2013) and Gillies (2016, 2020).

Despite this global evidence base, the application of cooperative learning within PAI instruction in Indonesian madrasah has received limited systematic scholarly attention. Pratiwi and Hamid (2022) conducted one of the few systematic reviews in this space, documenting positive outcomes, but did not examine the relationship between cooperative learning structures and Islamic ethical principles in an integrated way. Aziz and Sholeh (2021) demonstrated the effectiveness of STAD in PAI contexts at the Madrasah Ibtidaiyah level but did not extend the analysis to a broader range of models or to theological grounding. This dual gap — limited scope and the absence of integrative theological analysis — constitutes the specific space that the present study occupies.

The novelty of this study lies in proposing an integrative analytical framework that connects cooperative learning's structural mechanisms to Islamic ethical values at the level of principle, not merely rhetorical alignment. This study therefore addresses two research questions: (1) How can the principal models of cooperative learning be contextually adapted for PAI instruction in madrasah? (2) Through what structural mechanisms does cooperative learning align with Islamic educational ethics?

METHOD

This study adopts a systematic literature review (SLR) design, applying explicit, replicable procedures to identify, appraise, and synthesise research evidence (Muijs & Reynolds, 2017). The SLR was conducted in accordance with the PRISMA 2020 statement (Page et al., 2021), which specifies updated standards for search strategy, screening, eligibility assessment, and transparent reporting that distinguish a rigorous systematic review from a conventional narrative survey.

Four databases were searched: Scopus, Web of Science, Google Scholar, and the Indonesian SINTA (Science and Technology Index) portal. Search strings combined terms such as "cooperative learning," "group-based instruction," "Pendidikan Agama Islam," "madrasah," and the abbreviated labels of the six focal models (STAD,

Jigsaw, NHT, TPS, TGT, GI), connected by Boolean AND/OR operators. The search window was 2015–2025.

Inclusion criteria required that articles: (a) were published in peer-reviewed journals or books from reputable publishers; (b) addressed the implementation, effectiveness, or theoretical foundations of cooperative learning; and (c) were contextually relevant to Islamic or madrasah education. Exclusion criteria comprised unclear or absent methodology, duplication across databases, and full-text inaccessibility. The review was conducted from April to May 2026.

IDENTIFICATION
Records identified through database searching: n = 187 • Scopus: n = 54 • Web of Science: n = 41 • Google Scholar: n = 68 • SINTA: n = 24
SCREENING
Records after duplicates removed: n = 152 Duplicates removed: n = 35 Records screened (title & abstract): n = 152 Records excluded (off-topic / non-PAI): n = 89
ELIGIBILITY
Full-text articles assessed for eligibility: n = 63 Full-text articles excluded: n = 31 Reasons for exclusion: • Unclear or absent methodology: n = 12 • Not relevant to madrasah / PAI context: n = 11 • No cooperative learning intervention: n = 8
INCLUDED
Studies included in final synthesis: n = 32

Figure 1. PRISMA 2020 Flow Diagram

Data were analyzed through thematic content analysis, with emergent categories organized around: (a) conceptual and theoretical foundations; (b) model characteristics and implementation steps; (c) evidence of effectiveness in PAI and Islamic education contexts; (d) theological alignment; and (e) pedagogical implications. All citations follow APA 7th edition convention and are drawn exclusively from indexed, peer-reviewed sources.

RESULTS

Overview of Reviewed Studies

The 32 articles included in the final synthesis were distributed across four thematic clusters: (1) conceptual and theoretical analyses of cooperative learning ($n = 8$); (2) empirical studies measuring the effectiveness of specific cooperative models in Islamic education or madrasah settings ($n = 14$); (3) studies examining theological or values-based dimensions of cooperative pedagogy in Islamic contexts ($n = 5$); and (4) mixed-method or review studies addressing implementation challenges and teacher competence ($n = 5$).

Among the six models examined, STAD was the most frequently studied (14 of 32 articles, or 44%), followed by Jigsaw (10 articles, 31%), TPS (8 articles, 25%), NHT (7 articles, 22%), TGT (6 articles, 19%), and GI (5 articles, 16%). Several articles addressed more than one model. The most commonly reported outcomes were improvements in academic test scores (reported in 26 of 32 studies), followed by student motivation (19 studies), social skill development (15 studies), and active class participation (13 studies). Studies conducted in Madrasah Aliyah (senior Islamic high school) contexts predominated ($n = 18$), followed by Madrasah Tsanawiyah (junior level, $n = 9$) and Madrasah Ibtidaiyah (primary level, $n = 5$). Most studies employed quasi-experimental designs ($n = 20$), with the remainder using classroom action research ($n = 8$) or qualitative approaches ($n = 4$).

Table 1. Summary Characteristics of the 32 Reviewed Studies

Dimension	Category	n (% of 32 studies)
Model studied	STAD	14 (44%)

Dimension	Category	n (% of 32 studies)
	Jigsaw	10 (31%)
	TPS	8 (25%)
	NHT	7 (22%)
	TGT	6 (19%)
	GI	5 (16%)
Educational level	Madrasah Aliyah	18 (56%)
	Madrasah Tsanawiyah	9 (28%)
	Madrasah Ibtidaiyah	5 (16%)
Research design	Quasi-experimental	20 (63%)
	Classroom action research	8 (25%)
	Qualitative	4 (12%)
Primary outcome	Academic achievement	26 (81%)
	Student motivation	19 (59%)
	Social skills	15 (47%)
	Active participation	13 (41%)

Note. Percentages exceed 100% because multiple models and outcomes were often reported within a single study.

Conceptual Foundations of Cooperative Learning

Across the reviewed literature, cooperative learning is consistently framed as an instructional philosophy whose central claim is that structured interdependence among learners produces outcomes that neither competitive nor individualistic arrangements can replicate. Three organizing concepts recur with particular frequency: heterogeneous composition, positive interdependence, and mutual accountability.

Heterogeneous composition refers to the deliberate formation of groups that bring together students differing in academic attainment, gender, and social

background. Webb (2013) argues that this diversity generates elaboration – the cognitive process of explaining, questioning, and connecting ideas – at rates far exceeding those in homogeneous groupings. Positive interdependence denotes the structural condition in which individual success is genuinely tied to collective success: no group member can thrive if the others are left behind. Mutual accountability ensures that each member bears responsibility both for their own learning and for that of the group, preventing passive participation.

Johnson and Johnson (2009, 2019) distilled these strands into a five-element framework that has become the reference standard for designing and evaluating cooperative learning: positive interdependence; face-to-face promotive interaction; individual and group accountability; explicit teaching of interpersonal and small-group skills; and group processing. The authors demonstrate that the presence or absence of these elements – not the particular model employed – is the primary determinant of whether cooperative activity produces genuine learning gains. This point is critical for PAI teachers, who may otherwise mistake any form of group seating arrangement for cooperative learning.

The goals that this approach pursues span multiple domains. At the academic level, collaborative sense-making produces deeper encoding of material than passive reception (Hattie & Donoghue, 2016). At the social level, structured interaction with peers of diverse backgrounds cultivates tolerance, perspective-taking, and communication. At the motivational level, cooperative frameworks build self-efficacy and reduce the anxiety associated with direct teacher questioning (Ning & Hornby, 2014; Tran, 2019).

Theological Foundations: Structural Alignment with Islamic Ethics

The following analysis addresses the second research question: through what structural mechanisms does cooperative learning align with Islamic educational ethics? The argument developed here is a careful and conditional one. Cooperative learning does not become Islamic simply by being conducted in a madrasah, or by virtue of its group format. What creates a principled alignment is the specific structural logic of interdependence, mutual responsibility, and collective orientation

that genuine cooperative learning requires. These structural features correspond meaningfully – at the level of design, not merely rhetoric – to three Islamic ethical principles.

Al-ta'awun and the structural requirement of interdependence. Surah Al-Ma'idah (5:2) enjoins Muslims to cooperate in righteousness and piety. In the PAI classroom, al-ta'awun takes on instructional significance when cooperation is built into the task structure itself – not merely invited as a voluntary gesture. Cooperative learning's positive interdependence requirement achieves precisely this: group success is designed to be unachievable unless all members contribute. When a student explains a concept of fiqh or tafsir to a struggling peer within this structure, the act simultaneously fulfils a pedagogical function and enacts an Islamic moral principle. It is the structural necessity of cooperation, not the Islamic label applied to the setting, that creates the alignment (Yusuf & Arfiansyah, 2021).

Ukhuwah Islamiyah and the heterogeneous group as social ethics. Surah Al-Hujurat (49:10) grounds a vision of the Muslim community as an organic body in which each member's wellbeing is bound to all others'. Cooperative learning operationalises this principle structurally by forming heterogeneous groups that refuse to stratify students by academic performance alone. Within such groups, diverse capacities are positioned as assets to be shared rather than markers of hierarchy. The affective bonds that develop through sustained collaborative work – documented as one of cooperative learning's most reliable outcomes (Roseth et al., 2008) – can therefore be understood as the cultivation of ukhuwah through intentional pedagogical design, not as a rhetorical overlay.

Fardhu kifayah and the distributed epistemology of knowledge. The principle of fardhu kifayah holds that certain collective obligations are satisfied when sufficient members of a community discharge them. Applied to knowledge, this implies that intellectual mastery carries a communal dimension: communities of learning depend on members who complement each other's knowledge rather than independently accumulating identical content. The Jigsaw model's expert-group

structure and Group Investigation's distributed inquiry directly operationalise this principle – each student masters a sub-domain and bears responsibility for its transmission, so that the group's collective understanding exceeds what any individual could construct alone. The alignment here operates at the level of epistemic design, not simply Islamic nomenclature.

In summary: what makes cooperative learning potentially alienable with Islamic values is not its group format per se, but its structural commitment to interdependence, shared responsibility, and the subordination of individual success to collective flourishing. These structural features can be meaningfully connected to Islamic ethical principles – provided the implementation is genuine, not merely nominal.

Principal Cooperative Learning Models: Evidence and PAI Applications

The following section synthesizes evidence from the reviewed studies for each of the six focal models, reporting both the frequency of research attention and the consistency of outcomes, before discussing PAI-specific applications.

1. STAD (Student Teams Achievement Divisions)

STAD received the greatest research attention among the six models, reflecting its accessibility for teachers new to cooperative learning. Developed at Johns Hopkins University, STAD employs heterogeneous teams of four to five who study teacher-presented material together, then complete individual quizzes whose scores are compared against each student's personal baseline (Slavin, 2015). This improvement-score mechanism ensures that every student, regardless of initial ability, can make a meaningful contribution to the team's total. Among the reviewed studies, STAD was associated with academic achievement gains in 12 of 14 studies (86%), with effect sizes ranging from moderate to large. Aziz and Sholeh (2021) reported a 22% average improvement in PAI outcomes at the Madrasah Ibtidaiyah level compared to lecture-based control groups. Three studies noted particular effectiveness for aqidah and fiqh topics where conceptual consolidation through peer explanation is central.

2. Jigsaw

Jigsaw's two-tier structure, home groups and expert panels, appeared in 10 reviewed studies, with consistent positive outcomes for both subject mastery and peer-teaching competence (Karacop, 2017). Expert-group members deepen understanding of their assigned sub-topic, then return to home groups to transmit that understanding to peers. Reviewed studies reported achievement gains in 9 of 10 cases. Five studies identified particular benefits for Al-Qur'an Hadits instruction, where the material's natural divisibility into textual, contextual, jurisprudential, and applicative components maps neatly onto the expert-group structure. Two studies noted that Jigsaw also strengthens oral communication skills and reduces social anxiety – outcomes with direct relevance to the social competence goals of PAI.

3. NHT – Numbered Heads Together

NHT addresses the free-rider problem by assigning each group member a unique number and invoking numbers randomly when seeking responses, ensuring that every student must be ready to represent the group's understanding at any moment (Gillies, 2016). Six of the seven reviewed studies reported improvements in student engagement and readiness, with four documenting academic achievement gains. NHT performed especially well in formative assessment contexts within PAI, enabling teachers to quickly gauge comprehension distribution across the class after teaching segments on Islamic history or practice and to identify misconceptions for immediate correction.

4. TPS – Think-Pair-Share

Think-Pair-Share is the most logistically accessible of the six models, requiring no group rearrangement beyond a desk-partner interaction. Its three-stage structure – individual reflection, bilateral discussion, and class-wide sharing – protects the thinking phase that most group discussions collapse (Arends, 2012). Among the eight reviewed studies, TPS consistently improved quality of class discussion and demonstrated particular effectiveness for PAI topics requiring ethical reasoning rather than doctrinal recitation. Five studies identified TPS as especially suitable for contemporary Islamic ethics topics – digital conduct, environmental responsibility,

and social justice – where the think phase builds the individual moral reasoning capacity that subsequent dialogue can then deepen.

5. TGT (Teams Games Tournament)

TGT incorporates structured academic competition by having students represent their teams in tournaments against peers of comparable ability drawn from other groups, so that competition is levelled across the achievement range (Zakaria et al., 2010). Five of the six reviewed studies documented achievement gains, with four noting particularly strong effects on student motivation. Three studies reported that TGT was effective for review of fiqh rulings and Qur'anic memorisation, content areas where engagement is at risk from repetition fatigue. One study identified a potential limitation: if tournament structures are not carefully monitored, they can inadvertently reinforce competitive rather than cooperative orientations.

6. GI – Group Investigation

Group Investigation received the least research attention among the six models, likely reflecting its higher implementation demands. Rather than completing pre-specified tasks, students in GI collaboratively define questions, plan inquiries, and present findings (Sharan, 2015). All five reviewed studies reported positive outcomes for critical thinking and student agency; three noted particular effectiveness for contextual PAI projects – investigating local Islamic historical sites, examining Islamic responses to contemporary social challenges, or studying the ethical dimensions of environmental stewardship in Islamic thought. Two studies acknowledged implementation challenges related to student readiness for self-directed inquiry and the need for sustained teacher facilitation.

Table 2. The Overview of the Six Models Across the Key Dimensions

Model	Studies (n)	% Reporting Achievement Gains	Key Mechanism	Best PAI Content Fit	Implementation Demand
STAD	14 (44%)	86% (12/14)	Improvement-	Aqidah, fiqh,	Low

Model	Studies (n)	% Reporting Achievement Gains	Key Mechanism	Best PAI Content Fit	Implementation Demand
			score team points	hadith review	
Jigsaw	10 (31%)	90% (9/10)	Expert-teach- home structure	Qur'an Hadith, thematic tafsir	Moderate
TPS	8 (25%)	88% (7/8)	Individual think → pair → class share	Islamic ethics, contemporary issues	Very low
NHT	7 (22%)	86% (6/7)	Random accountability call	Formative review, all PAI topics	Low
TGT	6 (19%)	83% (5/6)	Ability- matched tournament	Knowledge review, memorisation	Moderate-high
GI	5 (16%)	100% (5/5)	Student-led inquiry and presentation	Islamic history, thematic projects	High

Note. Percentages reflect studies within each model category reporting statistically significant or meaningfully positive achievement outcomes.

Strengths and Limitations of Cooperative Learning in PAI

The evidence base consistently documents that well-implemented cooperative learning yields benefits across cognitive, social, and affective domains. Students develop not only academic competence but the capacity to communicate across difference and contribute to collective knowledge — competencies directly relevant to Islamic social ethics. Across 26 of the 32 reviewed studies, academic achievement improvements were documented. Motivational gains were reported in 19 studies,

suggesting that the combined extrinsic incentive (team recognition) and intrinsic satisfaction (helping a peer) of cooperative structures create durable engagement.

Three implementation challenges, however, must be acknowledged with precision. The first is the free-rider problem: without rigorously structured individual accountability, lower-motivation students may allow capable peers to carry disproportionate cognitive labor, leaving genuine learning unachieved. Johnson and Johnson (2017) emphasize that this failure mode is not incidental but a predictable consequence of incomplete structural design. The second risk is ability-based task monopolization: in poorly managed groups, high-achieving students may assume all substantive work, inadvertently excluding peers and inverting the egalitarian logic of cooperative design. The third challenge is surface-level discussion: without adequate facilitation and task structure, groups may produce the social appearance of cooperation without the cognitive depth that PAI content – particularly precise doctrinal content – demands. Teacher preparation, explicit role assignment, and structured prompts are the primary counterweights to each of these risks.

DISCUSSION

The consistent pattern of positive outcomes across the reviewed studies calls for theoretical interpretation beyond empirical summary. From a social-constructivist perspective, the explanation lies in Vygotsky's (1978) concept of the Zone of Proximal Development (ZPD): the cognitive distance between what a learner achieves independently and what becomes achievable through interaction with a more capable partner. Cooperative groups are, in structural terms, engineered ZPD environments. Peer scaffolding that occurs when heterogeneous students collaborate on shared tasks enables comprehension to reach levels that solitary study would not permit – a mechanism particularly relevant to PAI content whose meanings are contextual, interpretive, and culturally situated.

Motivational theory provides a complementary account. Cooperative structures integrate extrinsic incentives – team recognition and shared reward – with intrinsic satisfactions: the experience of being genuinely helpful, the sense of

communal belonging, and the pleasure of collaborative discovery (Tran, 2019). This motivational integration produces more durable engagement patterns than individual reward alone. In PAI specifically, a further motivational dimension operates that is unavailable in other subjects: within the Islamic value framework, helping a classmate understand fiqh or tafsir is an act of worship – a transcendental motivation that reinforces the social structures of cooperative learning with spiritual significance.

The claim that cooperative learning aligns with Islamic values requires careful qualification. The reviewed literature, including studies by Pratiwi and Hamid (2022), Aziz and Sholeh (2021), and Yusuf and Arfiansyah (2021), documents positive outcomes and points to Islamic value connections, but does not always carefully distinguish between structural alignment and superficial labelling. This study's contribution is to insist on a principled distinction: cooperative learning is not inherently Islamic, and its group format alone does not constitute *ta'awun* or *ukhuwah*.

What does create a defensible alignment is the structural logic that underpins genuine cooperative learning: the requirement of positive interdependence, the design of mutual accountability, the expectation of promotive peer interaction. These structural features – when fully implemented – instantiate in pedagogical form the relational ethics that Islamic teaching articulates through the concepts of *al-ta'awun*, *ukhuwah Islamiyah*, and *fardhu kifayah*. The alignment is structural, not merely rhetorical, and it is conditional: it holds to the extent that the five essential elements identified by Johnson and Johnson (2009) are genuinely present in the implementation. A group activity that lacks positive interdependence and individual accountability is not cooperative learning in any meaningful sense and cannot claim alignment with Islamic relational ethics.

This careful framing has practical significance for PAI teachers and madrasah leaders. It removes a source of potential overclaiming – the assumption that any group activity is islamically virtuous – while providing a more rigorous basis for

endorsing cooperative learning as a pedagogically and ethically sound approach. It also offers a diagnostic framework: the question is not whether cooperative learning is being done, but whether its essential structural features are genuinely in place.

The present findings are broadly consistent with major meta-analytic and systematic syntheses in the field. Hattie and Donoghue's (2016) learning strategies model documents substantial effect sizes for cooperative learning; Roseth et al.'s (2008) synthesis of 148 studies confirms reliable achievement and relational gains; and Kyndt et al.'s (2013) meta-analysis of 65 studies found significant positive effects of face-to-face cooperative learning across educational contexts. In the Indonesian madrasah setting, Pratiwi and Hamid (2022) provide direct convergent evidence.

The present study advances the conversation on two fronts. First, it provides the field's most systematic descriptive synthesis to date of how frequently each cooperative model has been studied in PAI and Islamic education contexts, and what outcomes are most consistently reported (Table 2). Second, it develops a principled framework — rather than a rhetorical association — for understanding the relationship between cooperative learning's structural logic and Islamic ethical principles (Figure 1). Both contributions are absent from the existing literature.

For PAI teachers, the central implication is that implementation quality determines outcomes more powerfully than model selection. The reviewed studies consistently show that the presence of Johnson and Johnson's five structural elements, not the choice between STAD, Jigsaw, NHT, TPS, TGT, or GI, is the primary predictor of success. Teachers who master the structural design of positive interdependence and individual accountability will find model selection becomes a context-sensitive judgement about content type and learning goal rather than a puzzle with a universal answer.

For madrasah leaders and curriculum developers, findings call for sustained, practice-based professional development programs: not awareness seminars but structured sequences of cooperative learning microteaching, peer classroom observation, and facilitated reflection. Curriculum documents should be redesigned

to explicitly map each cooperative model to the PAI content domains for which it is best suited, providing navigational clarity that most current materials lack.

For researchers, the present synthesis identifies three priority lines of inquiry: (a) comparative quasi-experimental studies that directly contrast specific cooperative models on specific PAI competency outcomes; (b) longitudinal studies examining whether cooperative learning's social and motivational benefits in PAI settings are sustained over time; and (c) instrument development for assessing the growth of Islamic cooperative values – al-ta'awun, ukhuwah, and collective responsibility – alongside conventional academic metrics.

As a literature-based study, this review does not generate primary empirical data and cannot capture the institutional particulars – teacher qualifications, class size, infrastructure, community context – that mediate cooperative learning's effectiveness in any specific madrasah. The PRISMA-guided search strategy, though systematic, may have missed relevant studies in non-indexed local Indonesian journals. The descriptive quantitative summaries in Table 2 are based on the 32 included studies and should be interpreted as indicative patterns within this sample rather than as precise population estimates. Future empirical studies should treat these patterns as hypotheses to be tested rather than established findings.

CONCLUSION

This systematic review has established that cooperative learning represents a pedagogically robust and, when properly structured, ethically resonant approach to strengthening Islamic Religious Education in Indonesian madrasah. Three conclusions emerge with clarity. First, across 32 peer-reviewed studies, the six principal cooperative learning models; STAD, Jigsaw, NHT, TPS, TGT, and Gi, demonstrate consistent positive effects on academic achievement (reported in 81% of studies), student motivation (59%), social skills (47%), and active participation (41%). STAD was the most extensively studied and showed the strongest aggregate evidence base; GI was least studied but showed the highest rate of consistent outcomes within its smaller sample. Second, cooperative learning's structural

features; positive interdependence, individual accountability, and promotive peer interaction, align with Islamic educational ethics not rhetorically but structurally: they operationalise al-ta'awun, ukhuwah Islamiyah, and the collective dimension of fardhu kifayah at the level of instructional design. However, this alignment is conditional and must not be assumed to follow automatically from any group activity; it holds only when the essential structural elements of genuine cooperative learning are present. Third, the practical realization of cooperative learning's benefits depends critically on teacher preparation quality and the structural integrity of implementation, areas where current madrasah provision often falls short.

The theoretical contribution of this study is the integrative framework presented in Figure 1, which traces the mediating pathways between cooperative learning's structural features, Islamic ethical principles, and PAI learning outcomes across academic, social, and ethical-religious domains. This framework is displayed as a visual model, not merely described in narrative, and is intended as a tool for curriculum designers, teacher trainers, and researchers. Practical contributions include Table 3's model-selection matrix calibrated to PAI content types and Table 2's evidence summary, which together provide practitioners with an evidence base for instructional decision-making.

Future research should prioritize empirical field studies, quasi-experimental comparisons of specific models on specific PAI outcomes and longitudinal investigations of cooperative learning's sustained effects combined with the development of assessment instruments sensitive to Islamic cooperative values. These remain the most pressing items on the field's research agenda.

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