

THE ROLE OF PHYSICAL EDUCATION IN DEVELOPING SOCIAL SKILLS AMONG HIGH SCHOOL LEARNERS

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Abstract

This quantitative descriptive-comparative study examined the role of Physical Education (PE) in developing social skills among high school learners in the Metro Public High School District of Dagupan City. The study aimed to (1) determine the mean level of learners' self-reported social skills development in teamwork, communication, and conflict resolution, and (2) assess whether positive social interactions differed between structured PE activities and unstructured recreational activities. A total of 600 Grade 9–12 learners were selected through systematic random sampling. Data were gathered using a validated Self-Report Social Skills Development Survey (Cronbach's $\alpha = 0.89$) and a Systematic Observational Checklist that measured cooperative play and verbal encouragement during two comparable 15-minute activity conditions. Descriptive statistics summarized mean levels and observed frequencies, while a paired-samples t-test tested differences at $\alpha = 0.05$.

Results indicated an overall High level of self-reported social skills development ($\bar{x} = 4.01$), with teamwork rated Very High ($\bar{x} = 4.38$), suggesting strong perceived collaborative competence fostered in PE. Observations revealed that positive social interactions occurred more frequently during structured physical activities ($\bar{x} = 8.67$) than during unstructured recreational activities ($\bar{x} = 4.52$). The paired-samples t-test showed a statistically significant difference between conditions ($p < .001$), leading to rejection of the null hypothesis. These findings confirm that intentional structure and pedagogical design in PE, rather than physical activity alone, significantly strengthen observable positive social behaviors. The study recommends integrating cooperative learning tasks, explicit conflict-resolution routines, and reflective debriefing to maximize PE's contribution to learners' social and emotional development.

Keywords: Physical Education; Social Skills; Teamwork; Communication; Conflict Resolution; Cooperative Play; Structured Activities; Unstructured Recreation; High School Learners

1. Introduction

Physical Education (PE) has long been framed as more than a venue for fitness and motor development; it is a social learning space where adolescents repeatedly negotiate rules, roles, cooperation, and emotions with peers. International literature consistently shows that PE and school-based sport settings can contribute to social competence, including communication, teamwork, empathy, and prosocial decision-making (Jadwiszczak et al., 2025; Bailey, 2006). In adolescence, these skills become increasingly vital because peer relationships strongly shape learners' identity, mental health, classroom engagement, and later employability. Consequently, many contemporary PE frameworks emphasize social and emotional learning (SEL) alongside physical literacy, positioning PE as a context in which learners practice relationship skills through authentic, high-interaction tasks (Promoting Social and Emotional Learning in Physical Education, 2024; Edutopia, 2022). Systematic evidence further suggests that physical activity interventions embedded in school PE or sport environments can improve learners' social competence when tasks are intentionally designed for interaction and reflection (Opstoel et al., 2020; Vella et al.,

2018). These findings highlight PE as a strategic curricular site for the development of social skills during high school, a developmental stage marked by heightened sensitivity to belonging, peer approval, and conflict management.

In the Philippine context, the national curriculum explicitly supports this broadened view of PE. Republic Act 10533 and its Implementing Rules and Regulations mandate a learner-centered, research-based, and collaborative curriculum that develops 21st-century competencies, including interpersonal and self-management skills (Republic Act No. 10533, 2013; DepEd Order No. 43, s. 2013). Within this framework, the K to 12 PE Curriculum Guide emphasizes not only fitness and movement but also social or interpersonal skills such as communication, collaboration, leadership, and cross-cultural competence that emerge through participatory physical activities (Department of Education [DepEd], 2016). More recently, the MATATAG PE and Health Curriculum likewise foregrounds holistic development and the cultivation of communication and collaboration through meaningful movement experiences (DepEd, 2023). At the policy level, DepEd's continuing focus on learner socio-emotional support underscores that schools must intentionally nurture psychosocial well-being and resilience as part of quality basic education (DepEd, 2023a). Related protective policies—such as the Child Protection Policy and the Anti-Bullying Act IRR—reinforce the need for school programs that strengthen respectful interaction, conflict prevention, and prosocial behavior (DepEd Order No. 40, s. 2012; DepEd Order No. 55, s. 2013). Together, these issuances suggest that PE carries a legitimate and expected role in cultivating social skills, particularly those that help prevent bullying, support inclusion, and sustain safe learning environments.

Despite this strong policy and theoretical positioning, a practical gap remains in how PE translates social outcomes into observable behavior. International research indicates that social development in PE is not automatic; rather, it depends on the structure of tasks, the degree of cooperative interdependence, and the teacher's intentional facilitation of reflection and conflict resolution (Jadwiszczak et al., 2025; Promoting Social and Emotional Learning in Physical Education, 2024). For instance, structured PE lessons—characterized by teacher guidance, formal roles, and shared goals—often create predictable opportunities for collaborative problem-solving and verbal encouragement. At the same time, unstructured settings may yield social benefits inconsistently depending on peer dynamics (Simonton, 2020). Recent empirical work comparing structured and unstructured PE contexts shows that structured activities tend to promote teamwork and constructive peer interaction more reliably.

In contrast, unstructured play can encourage autonomy and creativity but may also enable exclusion or conflict without adult scaffolding (Open Public Health Journal, 2025). This distinction is crucial in high schools, where learners bring varying levels of social maturity, competitive tendencies, and prior sport experience into PE classes. Hence, while DepEd curriculum guides call for the development of interpersonal skills through movement, evidence is still needed to clarify *which activity conditions most effectively elicit positive social interactions among* Filipino high school learners—and whether learners' self-perceptions align with their actual behaviors.

Locally, studies on PE in the Philippines have tended to emphasize physical fitness, participation rates, or attitudes toward sport, leaving fewer quantitative investigations focused on social skills as primary outcomes, particularly at the high school level. This gap is notable given persistent national concerns about bullying, peer conflict, and adolescent psychosocial stress, all of which directly involve deficits in communication, empathy, and conflict resolution (DepEd Order No. 55, s. 2013). Moreover, as schools adopt more inclusive education practices, PE becomes one of the most socially demanding learning areas where successful inclusion depends on learners' cooperative capacities and respectful peer engagement (DepEd, 2016). Without systematic local evidence, PE teachers and curriculum planners may rely on incidental learning—assuming that playing together naturally builds social skills—rather than adopting explicit pedagogical strategies. Therefore, establishing Philippine-based data on both perceived and

observed social development in PE is essential to support the evidence-guided implementation of DepEd's holistic, SEL-aligned curriculum directions.

In response to this research space, the present study investigates "The Role of Physical Education in Developing Social Skills Among High School Learners" in the Metro Public High School District of Dagupan City. Specifically, it measures the mean level of learners' self-reported social skills development in teamwork, communication, and conflict resolution. It compares the observed frequency of positive social interaction—cooperative play and verbal encouragement—between structured PE activities and unstructured recreational activities. By examining both subjective perceptions and objective behavioral frequencies, the study generates a more complete picture of PE's social contribution. Additionally, testing differences between activity types answers a key instructional question implicit in DepEd policy: whether structured, curriculum-guided PE provides stronger social learning outcomes than unstructured free play. Ultimately, the findings aim to inform activity design and pedagogy, supporting PE teachers in meeting DepEd's mandate for 21st-century skills, SEL integration, and safe, socially supportive school environments. In doing so, the study contributes local empirical evidence to strengthen curriculum planning and the intentional use of PE as a vehicle for adolescent social development.

2. Method

2.1 Research Design

The study used a descriptive-comparative quantitative research design to determine the role of Physical Education (PE) in developing social skills among high school learners and to compare positive social interactions across activity settings. The descriptive component established baseline levels of learners' self-reported social skills—teamwork, communication, and conflict resolution—through a validated Likert-scale survey and documented the frequency of observable positive social interactions—cooperative play and verbal encouragement—using a systematic observational checklist. The comparative component examined whether the mean observed frequency of positive social interaction differed between structured, curriculum-guided PE activities and unstructured recreational/free-play periods. Because the same 600 learners were observed under both conditions, dependent-samples analysis was appropriate; thus, descriptive statistics summarized means and frequencies, while a paired-samples t-test tested the null hypothesis at the 0.05 level of significance, ensuring conclusions were based on numerical evidence.

2.2 Participants

The study was 600 high school learners from Grades 9 to 12 who were officially enrolled in and actively participating in the required Physical Education (PE) curriculum in the Metro Public High School District of Dagupan City during the academic year of the study. They were selected through systematic random sampling using a master list provided by the District Registrar, with every kth eligible learner chosen until the target sample size was reached to ensure representation across grade levels. Inclusion criteria required that participants be current PE enrollees and regular PE class attendees, while learners who were medically excused from participation for the semester were excluded. Prior to data gathering, informed assent/consent was obtained from all participants, and parental consent was secured for minors, consistent with ethical standards for research involving adolescents.

2.3 Instrumentation

The study used two primary instruments to measure social skills development, using both subjective and objective data. First, a Self-Report Social Skills Development Survey, adapted and validated by three experts in Physical Education and psychology, assessed learners' perceived

competence in teamwork, communication, and conflict resolution using a 5-point Likert scale (1 = Never to 5 = Always); pilot testing with 30 non-participant students yielded a Cronbach's alpha of 0.89, indicating high reliability. Second, a Systematic Observational Checklist was designed to quantify positive social interactions—specifically cooperative play and verbal encouragement—recorded as frequency counts while participants engaged in two comparable 15-minute conditions: one structured PE activity and one unstructured recreational/free-play period; observers were trained, and inter-rater reliability was established to ensure consistent and accurate behavioral recording across settings.

2.4 Data Analysis

Descriptive statistics—specifically the mean and standard deviation—were computed to assess learners' self-reported development of social skills in teamwork, communication, and conflict resolution. At the same time, frequency counts and percentages summarized the observed occurrences of cooperative play and verbal encouragement in both structured and unstructured activity conditions. To test whether a significant difference existed in positive social interaction between the two settings, a paired-samples t-test (dependent-samples t-test) was employed because the same 600 learners were observed in both conditions; results were evaluated at the 0.05 level of significance to decide whether to reject or retain the null hypothesis, and the combined findings served as the basis for proposing evidence-based pedagogical strategies for PE instruction.

3 Results

The study found that high school learners generally demonstrated a strong perception of their social development through Physical Education. Specifically, the overall mean level of self-reported social skills was rated High ($\bar{x} = 4.01$), indicating that students believed PE contributed positively to their teamwork, communication, and conflict-resolution abilities. Notably, teamwork emerged as the most developed domain, obtaining a Very High rating ($\bar{x} = 4.38$). This suggests that the collaborative nature of PE activities provided learners with frequent opportunities to work with peers, coordinate goals, and build shared responsibility. In comparison, communication and conflict resolution also reflected positive development, reinforcing the idea that PE serves as a meaningful setting for social skill practice.

In addition to learners' perceptions, the observational findings provided a concrete picture of how often positive social behaviors were displayed in different activity contexts. Results showed that positive social interaction—measured through cooperative play and verbal encouragement—occurred much more frequently during structured physical activities than during unstructured recreational activities. The mean observed frequency of positive interaction in structured settings was $\bar{x} = 8.67$, whereas in unstructured settings it was substantially lower at $\bar{x} = 4.52$. Thus, while both environments involved physical movement, structured PE sessions appeared to offer clearer expectations, shared goals, and organized peer engagement, which in turn promoted more consistent prosocial behavior among learners.

Finally, when the two observational conditions were statistically compared, the paired-samples t-test confirmed that the difference was not due to chance. The analysis yielded a statistically significant difference ($p < .001$) in the observed frequency of positive social interaction between structured and unstructured activities. Consequently, the null hypothesis was rejected, indicating that activity type and intentional structure played a decisive role in eliciting cooperative and encouraging peer behaviors. Therefore, the findings collectively highlight that although learners view PE as supportive of social skills, the structured design of PE activities is what most strongly translates these skills into observable, positive social interaction.

4. Discussion

The findings on learners' high self-reported social skills development are strongly supported by prior literature that positions Physical Education as a natural context for interpersonal growth. In this study, students rated their overall social skills as High, reflecting perceived competence in teamwork, communication, and conflict resolution. Similarly, research emphasizes that PE settings inherently demand interaction—students coordinate movement, negotiate rules, and respond to peers in real time—making them fertile environments for social learning (Jadwiszczak et al., 2025). Moreover, reviews of PE outcomes confirm that when students repeatedly engage in shared physical tasks, they tend to report gains in communication and cooperation, even when the lesson focuses on skill or fitness development (Bailey, 2006; Vella et al., 2018). Therefore, the learners' positive self-assessments in this study align with the broader view that PE contributes meaningfully to adolescents' social competence.

More specifically, the Very High self-reported teamwork result corroborates evidence that collaborative movement tasks and team games promote learners' sense of collective responsibility. In the present study, teamwork emerged as the strongest perceived domain, suggesting learners recognize PE as a space that reinforces shared goals and mutual support. This matches cooperative learning scholarship, which identifies teamwork as one of the earliest and most consistently developed social outcomes in PE because activities require interdependence, role acceptance, and group problem-solving (PE Scholar, 2025). Likewise, youth sport and PE studies describe team-based tasks as "social laboratories" in which students learn coordinated effort within a structure of rules and expectations (EA Journals, 2025). Thus, the dominance of teamwork in learners' ratings is not only expected but also consistent with theoretical and empirical claims about PE's collaborative nature.

In addition, the study's observation that positive social interaction was far more frequent in structured activities than in unstructured recreation mirrors the argument that structure functions as a social scaffold in PE. The higher mean frequency of cooperative play and verbal encouragement during structured lessons suggests that teacher-guided tasks, formal rules, and explicit objectives generate clearer pathways for prosocial engagement. Related studies note that structured PE contexts consistently provide more predictable opportunities for peer support, feedback, and cooperative problem-solving, whereas unstructured settings may allow interaction but do not reliably produce positive exchanges without guidance (Kinder et al., 2020; Open Public Health Journal, 2025). Furthermore, systematic reviews of PE-based interventions highlight that prosocial behaviors become more visible when lessons intentionally build cooperation and shared accountability into the activity design (Jadwiszczak et al., 2025; Vella et al., 2018). Consequently, the observed patterns in this study reinforce the claim that *how* PE is organized matters as much as the activity itself.

Furthermore, the statistically significant difference between structured and unstructured conditions strengthens this corroboration by showing that the effect is not incidental. The rejection of the null hypothesis confirms that the structured environment activates prosocial behaviors more consistently than free play. This result aligns with earlier work distinguishing between structured and unstructured physical activity contexts, in which structured programs are more strongly linked to guided peer interaction and social influence processes than to leisure or free-choice activity (Kinder et al., 2020; Standage et al., 2012). While unstructured activity can support autonomy and spontaneous peer bonding, the literature warns that its social outcomes vary depending on group dynamics, competitiveness, or exclusion risks, which may depress consistent cooperative behavior (Open Public Health Journal, 2025). Therefore, the significant difference found in this study aligns with international evidence that structure is a key predictor of prosocial interaction frequency.

Notably, the finding that positive behaviors were driven by intentional pedagogy rather than mere participation in physical activity resonates with models explicitly designed for social

development in PE. Approaches such as Teaching Personal and Social Responsibility (TPSR) and cooperative learning stress that social skills flourish when teachers deliberately embed roles, reflection, and shared responsibility into lessons (Escartí et al., 2024; PE Scholar, 2025). Meta-analytic and review evidence shows that TPSR-based programs improve social responsibility, empathy, and cooperative conduct by turning social expectations into teachable moments through structured progression and reflection (Escartí et al., 2024). In light of this, the present study's results validate the need for PE teachers to shape interaction patterns through intentional instructional design rather than relying on "incidental learning."

Finally, the pedagogical implications proposed in this study are corroborated by existing research emphasizing the explicit integration of social-emotional learning (SEL) in PE. The recommendation to increase intentional instruction, employ conflict-resolution routines, and conduct reflective debriefing is consistent with the literature, which shows that structured reflection helps adolescents process peer conflict, regulate emotion, and transfer social skills beyond PE contexts (Escartí et al., 2024; Vella et al., 2018). Moreover, cooperative play and verbal encouragement are repeatedly identified as visible indicators of social competence that can be strengthened through teacher-guided roles, collaboration tasks, and post-activity processing (PE Scholar, 2025; Jadwiszczak et al., 2025). Hence, the study's proposed strategies are grounded in quantitative evidence and aligned with well-supported international models for maximizing PE's social development function.

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