

## Capoeira as Embodied Intercultural Pedagogy: A Quasi-Experimental Study in Youth Shelters

Jose Schenone-Bromley<sup>1</sup>, Linett Velasquez-Jimenez<sup>2\*</sup>

<sup>1</sup> General Estudios, Universidad de Ciencias y Humanidades (UCH), Lima, Peru

<sup>2</sup> Department of Engineering, Image Processing Research Laboratory (INTI-Lab), Universidad de Ciencias y Humanidades (UCH), Lima, Peru

\*Corresponding Author: [lvelasquez@uch.edu.pe](mailto:lvelasquez@uch.edu.pe)

**Citation:** Schenone-Bromley, J., & Velasquez-Jimenez, L. (2025). Capoeira as Embodied Intercultural Pedagogy: A Quasi-Experimental Study in Youth Shelters, *Journal of Cultural Analysis and Social Change*, 10(4), 4410-4423. <https://doi.org/10.64753/jcasc.v10i4.3804>

**Published:** December 30, 2025

### ABSTRACT

Intercultural education is a key element in the comprehensive development of adolescents, particularly in vulnerable contexts. However, educational programs often prioritize academic learning, relegating socioemotional and cultural development. In this context, capoeira, an Afro-Brazilian art that combines music, dance, wrestling, and ritual, is presented as an innovative embodied pedagogy strategy capable of strengthening social and intercultural competencies. The objective of this study was to evaluate the impact of a capoeira program on adolescents residing in a shelter in Lima, Peru. A quasi-experimental mixed-gender design was used with a non-equivalent control group (n=31) and a qualitative component based on interviews and participant observation. The quantitative results showed significant improvements in social attitudes and social thinking in the experimental group ( $p < 0.001$ ). At the qualitative level, adolescents reported greater confidence, cooperation, and cultural integration, as one participant expressed: "In the roda, I learned to trust and listen." Data triangulation confirmed the effectiveness of capoeira as a socio-educational resource. In conclusion, capoeira not only promotes well-being and inclusion, but also constitutes an innovative contribution to applied intercultural education by integrating body, music, and community in a transformative learning process.

**Keywords:** Adolescents, capoeira, intercultural education, non-verbal communication, social inclusion

### INTRODUCTION

In recent decades, the comprehensive education of adolescents in vulnerable contexts has gained growing interest in the fields of education, psychology, and intercultural communication. Various studies have shown that the development of social skills and intercultural competencies—such as cooperation, communication, conflict resolution, and self-esteem—acts as a key protective factor in the social and educational integration of young people (Allen, 2021; Peng & Dervin, 2023). However, conventional support programs often focus on formal academic instruction, neglecting socioemotional and cultural development, creating a gap in the comprehensive development of this population.

The literature on intercultural communicative competence (ICC) has emphasized the importance of articulating attitudes, knowledge, and skills to foster understanding between people from different cultural backgrounds. Freire (1997) proposed a foundational framework that has been taken up and updated in recent research highlighting reflexivity, global citizenship, and cultural openness as central axes (Peskoller, 2025). In this same vein, Holliday (2018) underscored the need to design educational experiences that transcend the transmission of content, while Gruber & Wagner (2024) demonstrating how innovative methodologies, such as virtual reality,

can create immersive environments for intercultural education. These contributions highlight the urgency of exploring alternative strategies that integrate body, culture, and community in learning processes.

Within this context, capoeira, an Afro-Brazilian art that combines dance, wrestling, music, and ritual, is presented as a practice with great pedagogical potential. Recent research has documented its benefits for physical, emotional, and social health, as well as for the construction of cultural identities (de Paula Machado Pasqua & de Toledo, 2025; Köhler et al., 2025). In particular, its playful and cooperative nature fosters verbal and nonverbal communication, strengthens group cohesion, and promotes recognition of cultural diversity (Delamont & Stephens, 2021). However, studies analyzing capoeira as an intercultural pedagogy applied in institutional settings are still scarce, which limits the understanding of its educational value beyond its sporting or recreational uses.

This research aimed to evaluate the impact of a capoeira program on the development of social and intercultural skills among adolescents residing at a shelter in Lima, Peru.

A quasi-experimental mixed-method design complemented by interviews and participant observation was used to capture both quantitative changes and the subjective experiences of participants. In doing so, the study seeks to provide empirical evidence and pedagogical reflections that contribute to contemporary debates on intercultural education, proposing capoeira as an innovative embodied pedagogy strategy aimed at the social inclusion and well-being of adolescents in vulnerable situations.

## LITERATURE REVIEW

The development of social and communication skills in adolescents is an increasingly relevant field of research, especially when analyzed from the perspective of intercultural education. In this area, it has been shown that interaction with different cultural contexts acts as a protective factor against social exclusion and contributes to the comprehensive education of young people (Alexander et al., 2014; Allen, 2021; Peng & Dervin, 2023). From a historical perspective, Freire's work (1997) laid the foundations for a critical pedagogy that understands education as an emancipatory process, oriented toward critical consciousness and social transformation. This approach has been taken up by contemporary authors who highlight the relevance of connecting critical pedagogy with intercultural education as an emancipatory praxis (López et al., 2024), demonstrating that intercultural education should not only focus on cognitive content but also on transformative experiences.

In this sense, intercultural communicative competence (ICC) has established itself as a fundamental framework. Freire (1997) defined it as the ability to interact with people from different contexts through attitudes, knowledge, and skills that allow for negotiating meanings in a respectful and reflective manner. Subsequent research has enriched this framework, positioning ICC as a dynamic, constantly evolving process that integrates reflexivity, global citizenship, and cultural openness (Peng & Dervin, 2023). Deardorff (2006, 2020) proposed widely accepted models that place ICC on a continuum of attitudes, skills, and outcomes, underlining the importance of curiosity, active listening, and cultural interpretation as core competencies. These models emphasize that intercultural competence is not limited to the classroom but requires environments of authentic and situated interaction (Allen, 2021; Holliday, 2018).

At the same time, it is recognized that contemporary intercultural pedagogy cannot be separated from the notion of embodied pedagogy, understood as that which articulates body, mind, and culture in learning processes. This perspective has its roots in the studies of proxemics, kinesics, and performance (Birdwhistell, 2010; Goffman, 1959; Turner, 1969), and has been revitalized in recent research that highlights the relevance of nonverbal communication and embodiment as mediators of learning (Anggraini et al., 2023; Barlit et al., 2024; Carmichael & Mizrahi, 2023). From this approach, the roda of capoeira can be understood as an immersive and ritualized learning space that generates communion, symbolic equality, and intercultural negotiation, following the logic of the liminal processes described by Turner (1969).

Interest in embodied pedagogy has found fertile ground in intercultural education applied to adolescents, as it has been shown that bodily and artistic practices enhance self-esteem, emotional regulation, and group cooperation (Becheva et al., 2023; Chen & Chung, 2023; Croom, 2022). Systematic studies have documented the benefits of martial arts such as taekwondo or judo in positive youth development and self-regulation (Alif et al., 2024; Lee & Lim, 2025; Morales et al., 2021), as well as the contributions of dance and other expressive practices in strengthening identity and non-verbal communication (Cetre Vásquez et al., 2025; Chappell et al., 2021). In this comparative framework, capoeira occupies a unique place by articulating Afro-Brazilian music, dance, wrestling, and ritual. Authors such as Delamont & Stephens (2021) have described how capoeira constitutes a space for identity construction, while more recent research has highlighted its ability to link cultural diversity with socio-emotional learning (de Paula Machado Pasqua & de Toledo, 2025; Köhler et al., 2025).

Likewise, it has been pointed out that the integration of experiential methodologies is key in intercultural education. Gruber & Wagner (2024) showed that virtual reality can function as an immersive environment for intercultural citizenship, creating collaborative learning experiences that transcend the transmission of content.

Similarly, the capoeira roda, as an immersive bodily space, allows for negotiating roles, expressing emotions, and constructing shared meanings. This parallel legitimizes the analysis of capoeira as an innovative educational resource within the framework of embodied intercultural pedagogies.

Literature has also linked sports and movement arts with the development of socio-emotional skills in adolescence. Concepts such as Positive Youth Development (PYD) and Social Emotional Learning (SEL) highlight how participation in structured physical activities can promote confidence, resilience, and social skills (King, 2025; Qian et al., 2025; Sindiani et al., 2025). Combat arts have been shown to be particularly effective in fostering self-control, discipline, and cooperation (Lane, 2025; McDonough Smith et al., 2025). Studies with vulnerable populations have shown that these experiences strengthen self-perception and promote social integration (Anderson-Butcher et al., 2025; Botha et al., 2025). Along these lines, research with boxing and muay thai confirms their effectiveness as well-being and mental health strategies (Bozdarov et al., 2023; Croom, 2022), which supports the relevance of exploring capoeira as an intervention that combines physical, emotional, and social benefits.

On the other hand, arts and movement-based interventions have been the subject of systematic reviews that highlight their contributions to well-being and inclusion. Chappell et al. (2021) underlined the role of dance in health throughout life, while Golden et al. (2024) and Frasco et al. (2025) showed how arts-based strategies contribute to mental health in global contexts and in conflict situations. These findings connect with more specific proposals that highlight the importance of bodily expression in educational contexts, where non-verbal communication acts as a vehicle for interaction and cohesion (Kucuk, 2023; Lim & Chon, 2023).

In the particular case of capoeira, recent studies have consolidated evidence of its positive impact on physical and socio-emotional health (Köhler et al., 2025), its potential to promote cultural diversity (de Paula Machado Pasqua & de Toledo, 2025), and its ethical dimension as a community practice (Kurtz, 2025). This triple dimension—health, culture, and ethics—supports the interest in incorporating it into educational environments that seek not only to teach content but also to generate transformative intercultural experiences. Across adolescence, education, and movement research highlights the importance of understanding embodiment as a central dimension of learning. Studies in psychology and pedagogy confirm that the use of embodied methodologies fosters resilience, emotional regulation, and social integration in vulnerable youth (Gómez-Paniagua et al., 2025; Hu et al., 2025). From this perspective, this study fits into an emerging line of research that combines intercultural pedagogy, embodiment, and PYD, proposing capoeira as an educational strategy that not only develops social skills but also generates belonging, recognition, and resilience in host institutional contexts.

In summary, the literature review shows that current intercultural education demands transcending exclusively cognitive approaches to integrate experiential practices that link body, culture, and community. The dialogue between critical pedagogy (Freire, 1997; López et al., 2024), communicative intercultural competence (Deardorff, 2006, 2020; Peng & Dervin, 2023; Peskoller, 2025), and embodied pedagogy (Birdwhistell, 2010; de Paula Machado Pasqua & de Toledo, 2025; Delamont & Stephens, 2021; Turner, 1969) allows us to position capoeira as an innovative and transnational alternative for the socio-emotional and intercultural strengthening of adolescents in vulnerable situations. At the same time, its comparison with other bodily and artistic practices (Bozdarov et al., 2023; Croom, 2022; Lee & Lim, 2025) reinforces its relevance as a replicable and adaptable model in educational and social programs of global reach.

## METHODS

This study adopted a convergent mixed-method design with a quasi-experimental core and a non-equivalent control group, linked to a concurrently collected phenomenological qualitative component. The evaluative logic was based on two complementary axes: (a) the processual model of intercultural competence development (as a construct that integrates attitudes, knowledge, and skills) to define variables and expected outcomes; and (b) principles of educational program evaluation, prioritizing the analysis of pedagogical effectiveness (change in social skills and indicators of intercultural competence) within a real institutional context. This combination allowed for the assessment not only of the magnitude of change attributable to the intervention, but also of its embodied pedagogical mechanisms—linking musicality, ritual, and cooperation of the roda—which emerge in the accounts and observations of the process.

The population of interest was adolescents residing in a shelter in Lima, Peru. The sample consisted of 31 participants between the ages of 12 and 17, assigned based on institutional availability to an experimental group ( $n = 15$ ) and a control group ( $n = 16$ ). Non-probability convenience sampling was used and included all eligible residents during the intervention period. Inclusion criteria (continuous residence at the center, institutional authorization, and voluntary assent) and exclusion criteria (medical restrictions on physical activity or absenteeism exceeding 25% of sessions) were established. To reduce contamination bias, the control group did not participate in capoeira activities or similar physical-expressive workshops during the study.

The protocol was institutionally authorized, and informed consent was obtained from legal guardians and the adolescents' assent. Data were anonymized using alphanumeric codes, and confidentiality and secure storage of information were guaranteed. The intervention lasted 12 weeks, with two 60-minute sessions per week. Each session was structured into four phases: warm-up with musicality, technical practice, capoeira roda, and reflective closing.



**Figure 1. Diagram of the roda used in capoeira sessions during the intervention**

Source: Prepared by the authors.

Figure 1 (Roda diagram) presents the implemented spatial arrangement: a circular configuration that institutionalizes symbolic equality, role rotation (singing, clapping, playing, berimbau), and regulated cooperation. This organization not only standardized the pedagogical presentation (play and music dosages), but also served as a methodological device to elicit turn-taking, active listening, emotional regulation, and nonverbal coordination behaviors that contribute to socioemotional and intercultural development. To ensure the fidelity of the intervention, the instructor certified the weekly teaching sequence, and an observer recorded compliance with phases and timing; minor adaptations (e.g., variations in musical repertoire due to instrument availability) were documented without altering the pedagogical objectives.

The quantitative component assessed pre- and post-intervention changes using the Goldstein Social Skills Questionnaire (Peruvian adaptation), a 50-item instrument with a five-point Likert scale covering communication, self-control, assertiveness, and problem-solving. The questionnaire was administered at week 0 and week 12 under the supervision of a psychopedagogical expert to standardize instructions and conditions. Internal consistency in this sample was verified using Cronbach's alpha for each dimension; assumptions of normality (Shapiro–Wilk) and homoscedasticity (Levene) were inspected.

The primary analysis included within-group paired t-tests and between-group comparisons adjusted for baseline using ANCOVA (post-score as dependent variable and pre-test as covariate), with estimation of effect sizes (Cohen's  $d$ /partial  $\eta^2$ ) and 95% confidence intervals. As a robustness analysis, the models were recalculated excluding cases with absenteeism >25%, and the sensitivity of the results to simple imputation for missing data (when applicable) was inspected. Data processing was performed in SPSS v26.

The qualitative component was collected concurrently throughout the intervention through semi-structured interviews and participant observation. Interviews (12 guiding questions) were conducted with center representatives and staff who had daily contact with the adolescents to explore perceptions about social interaction, communication (verbal and nonverbal), self-esteem, cooperation, cultural integration, discipline and coexistence, emotional regulation, conflict resolution, the influence of music/rhythm, and institutional dynamics.

**Table 1**

**Guide Questions Used in Interviews with Representatives**

| No. | Guide question   | Objective of the question                                  |
|-----|--|--|
| 1   | What changes have you observed in adolescents' social interactions after participating in capoeira sessions? | Identify improvements or setbacks in social skills.        |
| 2   | Have you noticed variations in the verbal and non-verbal communication of the participants?                  | Evaluate the development of comprehensive communication.   |
| 3   | Do you think that practicing capoeira has influenced the self-esteem and confidence of adolescents?          | Analyze the impact on self-perception and personal safety. |
| 4   | Have you seen evidence of greater cultural integration and respect for diversity among participants?         | Measure acquired intercultural competencies.               |
| 5   | How would you describe the role of capoeira in group discipline and coexistence?                             | Identify changes in behavior and rules of coexistence.     |
| 6   | What changes have you noticed in teenagers' ability to work as a team?                                       | Evaluate cooperation and collaboration skills.             |
| 7   | Have you observed improvements in adolescents' emotional management?   | Measure progress in self-control and emotional regulation. |
| 8   | Do you think capoeira has helped develop conflict resolution skills?   | Analyze ability to manage disagreements.                   |
| 9   | What role do you think music and rhythm have played in learning and participation?                           | Explore the influence of cultural components of capoeira.  |
| 10  | How has the relationship between the teens and the shelter staff changed during the program?                 | Observe changes in institutional dynamics.                 |
| 11  | What impact do you think capoeira has had on the overall motivation of the participants?                     | Assess levels of interest and commitment.                  |
| 12  | What recommendations would you make to improve the implementation of the program?                            | Collect suggestions to optimize the intervention.          |

*Source:* Prepared by the authors.

Table 1 (Guiding Questions and Objectives) organizes each question along with its analytical objective, facilitating the link between qualitative domains and quantitative dimensions. All interviews were recorded and transcribed; analysis was conducted in ATLAS.ti 23 following three phases: open coding to identify initial concepts; axial coding to group categories linked to social skills and cultural integration; and selective coding to organize core categories and relationships between them.

Theoretical saturation was applied when no new categories emerged after the tenth interview. In parallel, participant observation—during sessions and socializing—recorded patterns of proxemics, shared rhythmicity, turn-taking, spontaneous cooperation, and signs of emotional regulation; these field notes were triangulated with the narratives and psychometric results.

Method integration was carried out at two levels. At the construct congruence level, qualitative categories (e.g., "confidence in taking turns in the roda," "listening and body synchrony," "pride in collective achievement") were aligned with the quantitative dimensions of the instrument, allowing statistical changes to be interpreted in light of observable pedagogical mechanisms.

At the meta-inference level, the effect sizes of improvements were contrasted with the density and centrality of associated qualitative codes (social interaction, nonverbal communication, self-esteem, and cultural integration), examining convergences and potential dissonances. This convergent approach provided interpretive validity by connecting large-scale results with the embodied cultural processes that explain them.

Finally, risks and safeguards were documented. No clinically relevant adverse events were recorded; scheduled breaks, hydration, and exercise adaptation to individual conditions were implemented. To mitigate social desirability biases, interviews were conducted by an evaluator not involved in instruction; observation included discrete, non-participatory segments.

The study complied with the ethical principles of beneficence, autonomy, and justice, and with local regulations applicable to work with adolescents in residential centers. In sum, the convergent design with a quasi-experimental core, the didactic standardization explained in Figure 1, and the analytical traceability clarified in Table 1 ensure a

rigorous approach capable of capturing measurable changes and their embodied pedagogical correlates, providing solid and transferable evidence for intercultural education in vulnerable contexts.

## RESULTS

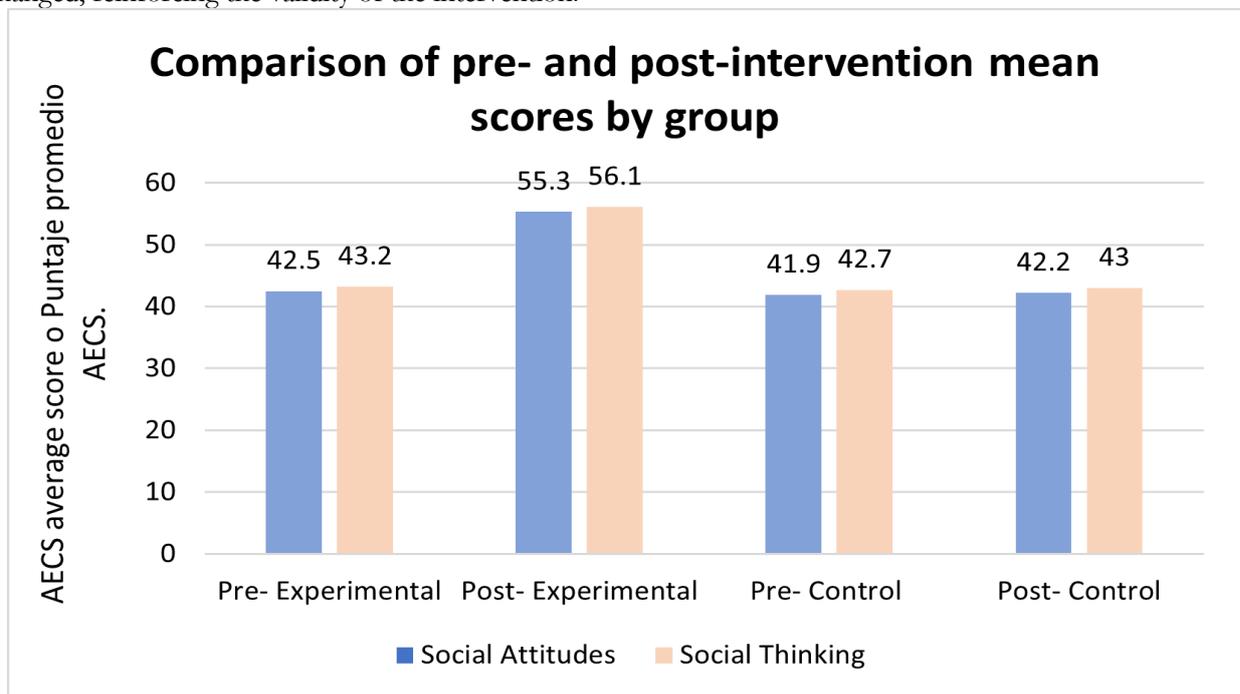
Analysis of data obtained from the Adolescent Social Skills Scale (AECS) confirmed the significant impact of the capoeira intervention in the experimental group compared to the control group. In the social attitudes dimension, the mean increased from 42.5 to 55.3, a difference of +12.8 points ( $t = 7.25$ ;  $p < 0.001$ ), while in the social thinking dimension, the mean increased from 43.2 to 56.1, a difference of +12.9 points ( $t = 7.69$ ;  $p < 0.001$ ). In both cases, the effect sizes were high ( $d > 1.80$ ), confirming that the change was substantive rather than marginal. In contrast, the control group showed minimal and non-significant variations ( $p > 0.05$ ), remaining stable throughout the intervention period.

**Table 2**  
Pre- and post-intervention results by group (AECS)

| Dimension        | Cluster      | Media Pre | Media Post | Diferencia | t (gl)   | p - value | Cohen's d | 95% CI Diferencia | Dimension        |
|------------------|--------------|-----------|------------|------------|----------|-----------|-----------|-------------------|------------------|
| Social Attitudes | Experimental | 42.5      | 55.3       | +12.8      | 7.25(14) | <0.001    | 1.87      | [8.9, 16.7]       | Social Attitudes |
| Social Thought   | Experimental | 43.2      | 56.1       | +12.9      | 7.69(14) | <0.001    | 1.98      | [9.2, 16.6]       | Social Thought   |
| Social Attitudes | Control      | 41.9      | 42.2       | +0.3       | 0.85(15) | >0.05     | 0.08      | [-0.6, 1.2]       | Social Attitudes |
| Social Thought   | Control      | 42.7      | 43.0       | +0.3       | 0.91(15) | >0.05     | 0.09      | [-0.7, 1.3]       | Social Thought   |

Source: Own elaboration

Table 2 clearly shows the contrast between both groups: while the experimental group shows robust and statistically significant improvements in both dimensions of the AECS, the control group remains practically unchanged, reinforcing the validity of the intervention.



**Figure 2.** Average AECS scores pre and post intervention by group.

*Source:* Prepared by the authors.

Graph showing the magnitude of the changes. A pronounced increase is observed in the experimental group in both social attitudes and social thinking, in contrast to the stability of the control group. This visual pattern reinforces the idea that participation in capoeira generated substantial progress, compared to the lack of changes in those who did not participate in the intervention.

Beyond the statistical significance, these increases were reflected in observable transformations in the adolescents' daily practice. During the sessions, participants in the experimental group showed greater willingness to participate in the capoeira roda, spontaneously accepting turns to participate. Changes in group dynamics were also recorded: adolescents who initially remained isolated began to collaborate in collective activities, and those who usually displayed competitive attitudes began practicing cooperative forms. These behaviors observed during the roda coincide with the improvements in AECS scores, demonstrating that the intervention not only produced a measurable but also tangible effect on the group's social interactions.

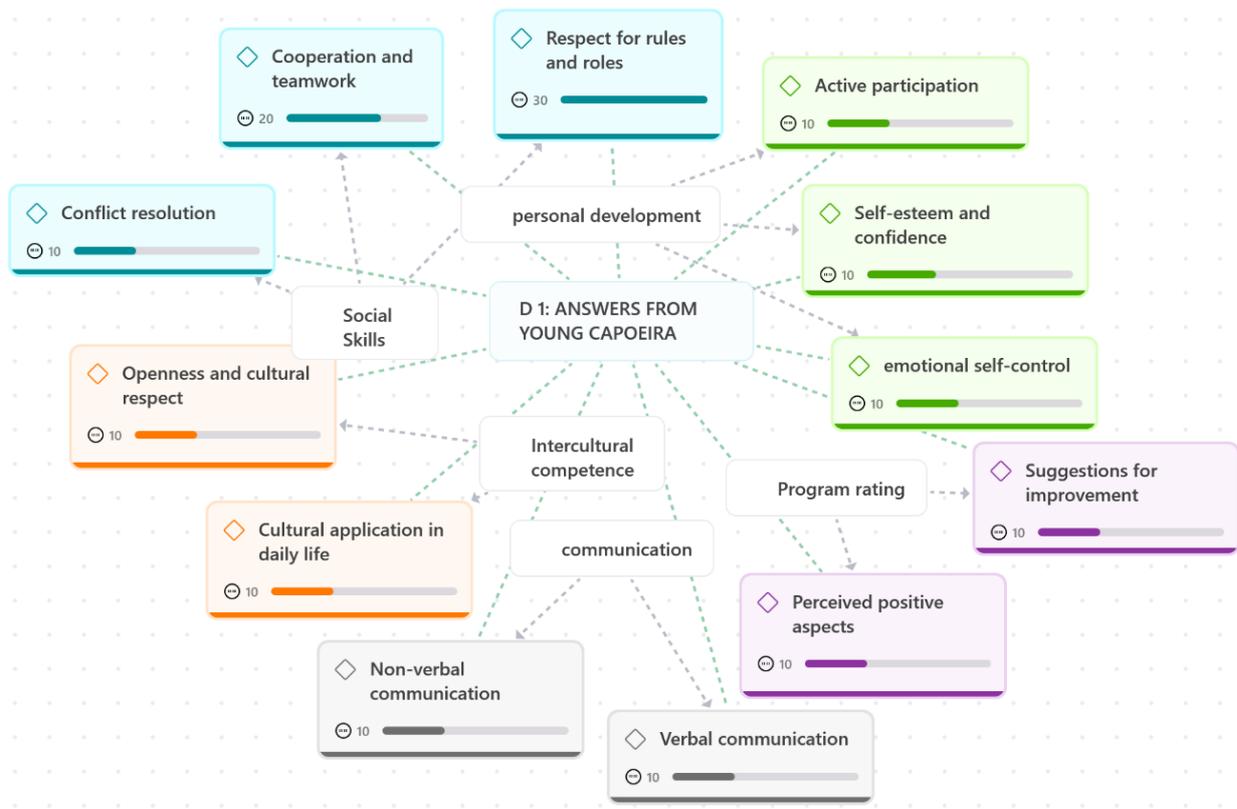
The qualitative analysis, based on semi-structured interviews and participant observation, provided a deeper understanding of the adolescents' lived experiences. Based on the analysis in ATLAS.ti 23, five main categories were identified: self-esteem, communication, cooperation, cultural integration, and emotional regulation. These categories complement the quantitative findings and offer a more complete picture of the change process.

**Table 3**  
**Integration of quantitative and qualitative findings (QUAN-QUAL matrix)**

| Quantitative Dimension (AECS) | Improvement detected (score) | Associated qualitative evidence                 | Emerging Categories (ATLAS.ti)                              |
|-------------------------------|------------------------------|---|---|
| Social Attitudes              | +12.8 ( $p < 0.001$ )        | "Now in the roda I learned to trust and listen" | Social interaction, trust, cooperation                      |
| Social Thought                | +12.9 ( $p < 0.001$ )        | "I feel more courageous to show what I know."   | Self-esteem, non-verbal communication, cultural integration |
| No variation in control       | 0.3 (ns)                     | "We remain the same, without new activities"    | Stability, lack of motivation                               |

*Source:* Prepared by the authors based on interviews and participant observation.

Table 3 summarizes how statistically significant changes in attitudes and social thinking correspond to adolescents' voices. For example, the statement "Now in the roda I learned to trust and listen" directly reflects the improvement in social attitudes, while "I feel more courageous to show what I know" aligns with the increase in social thinking. These coincidences reinforce interpretive validity by showing that the quantitative scores are echoed in the participants' testimonies.



**Figure 3.** Coding map generated in Atlas.ti from interviews with adolescent representatives from the capoeira program.

*Source:* Prepared by the authors.

Figure 3 shows the coding map generated in ATLAS.ti, in which the nodes of self-esteem and social interaction are presented as central categories, with dense connections to communication and cultural integration. This structure suggests that personal confidence and group interaction were the fundamental axes of change, and that these were articulated with respect for diversity and the ability to express oneself verbally and corporally. The density of nodes in self-esteem and social interaction confirms that personal empowerment and collective construction were interdependent processes, which supports the relevance of considering capoeira as an embodied intercultural pedagogy.

Beyond the lessons learned during the roda, a symbolically significant moment was the awards ceremony that concluded the program. This event became a milestone of external and community validation, where the adolescents received recognition for their effort and perseverance. The testimonials collected during the awards ceremony highlight its motivational impact: "I'd never been congratulated like that before for something I did as a group," said one participant, while another noted: "Receiving the medal made me feel that everything I learned was worth it."



**Figure 4. Teenagers receiving awards at a capoeira tournament.**

*Source:* Photographic record of the project.

Figure 4 documents this moment of public recognition, which served as a ritual closing to the pedagogical experience. Beyond the athletic achievement, the ceremony reinforced the adolescents' self-esteem and sense of belonging, consolidating their learning of discipline, cooperation, and cultural pride. When combined with the quantitative and qualitative results, this milestone demonstrates how capoeira extends beyond the institutional space, generating sustained effects on participants' identity and motivation. Taken together, the findings show a clear convergence between statistical results, narrated perceptions, and observational evidence. The capoeira program not only produced measurable improvements in social skills but also generated transformations experienced and shared by the adolescents, consolidating its value as an intercultural pedagogical strategy embodied in contexts of vulnerability.

## DISCUSSION

The findings of this study confirm that capoeira, understood as a bodily, cultural, and pedagogical practice, constitutes an effective tool for strengthening social and intercultural skills in adolescents in vulnerable situations. The combination of quantitative and qualitative results reinforces this conclusion: on the one hand, statistically significant improvements were identified in the dimensions of social attitudes and social thinking; on the other, perceived advances were documented in interaction, verbal and nonverbal communication, self-esteem, and cultural integration. This convergence demonstrates that capoeira not only impacts measurable indicators but also transforms the subjective experience of adolescents, creating conditions for embodied and situated learning.

These findings are in line with research that highlights the need to rethink the design of intercultural educational programs to transcend the transmission of content and prioritize lived experiences. Allen (2021) and Holliday (2018) argue that pedagogical approaches should promote critical reflection and culturally situated interaction, overcoming models focused solely on theoretical knowledge. The capoeira experience responds to this orientation by generating a dynamic learning space where music, movement, and ritual are articulated as pedagogical resources that foster cooperation, active listening, and the construction of shared meanings.

In this sense, the capoeira program functioned as a catalyst for reflexivity, as documented by Peng & Dervin (2023) in virtual exchange projects and by Peskoller (2025) in the analysis of curricular materials. In both cases, it is emphasized that intercultural communicative competence is not limited to the acquisition of knowledge, but involves processes of questioning cultural assumptions and openness to otherness. In our intervention, adolescents were exposed to an Afro-Brazilian cultural practice that not only introduced distinct artistic and corporal elements but also challenged stereotypes and promoted symbolic integration within a diverse collective.

Qualitative evidence also resonates with research exploring alternative methodologies for promoting intercultural citizenship. Gruber & Wagner (2024), for example, demonstrated that virtual reality allows young people to experience belonging and engagement in immersive environments. Similarly, the capoeira roda offered a symbolic and corporeal space in which adolescents negotiated roles, experienced cooperation, and consolidated affective bonds, confirming that interculturality can be built both in virtual environments and in face-to-face corporeal practices.

The symbolic and motivational component takes on particular relevance in this study. The experimental group's participation in a community tournament and the subsequent award ceremony illustrate how public recognition reinforces socioemotional learning. Byram (2018) and Poole (2019) emphasize that intercultural education should be understood as a practice that contributes to the construction of global citizenship and identity negotiation in real-life contexts. The award ceremony, documented in Figure 4, acted as a social validation ritual that strengthened the adolescents' self-esteem and sense of belonging, consolidating learning beyond the institutional space.

The results also align with the literature examining the impact of bodily and artistic practices on socio-emotional development. Research in martial arts and alternative sports shows benefits for self-esteem, emotional regulation, and group cooperation (Alif et al., 2024; Croom, 2022; Lee & Lim, 2025). Likewise, systematic reviews confirm that bodily practices contribute to youth mental health and well-being (Bozdarov et al., 2023; Köhler et al., 2025; Morales et al., 2021). In this framework, capoeira is presented as a comprehensive strategy that combines physical, emotional, and cultural benefits, with an added value: its ability to link cultural diversity and identity construction (de Paula Machado Pasqua & de Toledo, 2025; Delamont & Stephens, 2021).

Beyond the individual benefits, this study provides evidence on the relevance of integrating embodied practices into educational and social programs for adolescents in vulnerable contexts. The literature has shown that embodiment and nonverbal communication are essential dimensions in learning processes and social cohesion (Anggraini et al., 2023; Barlit et al., 2024; Carmichael & Mizrahi, 2023). In the observed experience, these dimensions were expressed in adolescents' willingness to participate in the roda, in spontaneous cooperation, and in the bodily synchrony achieved through music. These findings strengthen the argument that intercultural education should be conceived as an embodied and communal practice, and not solely as a cognitive exercise.

However, some limitations must be acknowledged. The small sample size and the fact that the study was implemented in a single center limit the generalizability of the findings. Likewise, the lack of longitudinal follow-up prevents the assessment of the permanence of learning over time. These limitations, however, do not detract from the exploratory contribution of the study, but rather open up new lines of research. Future research could expand the sample, compare capoeira with other artistic or sports practices—such as dance, judo, or boxing—and incorporate longitudinal measurements that allow for the analysis of the sustainability of learning over time. Likewise, a deeper analysis of specific components, such as the influence of musicality or ritual, is recommended to better understand the pedagogical mechanisms that underpin the observed changes.

Overall, the discussion confirms that capoeira stands as an applied intercultural educational strategy, capable of integrating the social, emotional, and cultural dimensions of learning. Its results engage with a diverse literature ranging from critical pedagogy (Freire, 1997; López et al., 2024) to contemporary Positive Youth practices. Development and Social Emotional Learning (King, 2025; Qian et al., 2025; Sindiani et al., 2025), positioning it as an innovative alternative in the field of embodied intercultural education. The experience presented not only validates the effectiveness of capoeira in host contexts but also expands the horizon of possibilities for policies and programs aimed at inclusion, social cohesion, and the comprehensive education of adolescents in vulnerable environments.

## CONCLUSIONS

This study demonstrated that capoeira, conceived as a corporal, cultural, and educational practice, constitutes an effective pedagogical strategy for strengthening social and intercultural skills in vulnerable adolescents residing in a shelter. From a quantitative perspective, statistically significant improvements were recorded in social attitudes and social thinking, confirming that capoeira operates as a tool capable of enhancing cooperation, communication, and mutual respect in institutional settings.

On a qualitative level, participant testimonies and field observations revealed substantial transformations in self-esteem, verbal and nonverbal communication, group interaction, and cultural integration. This evidence reinforces the idea that capoeira transcends technical learning and is configured as an embodied pedagogy that articulates music, movement, and ritual to generate experiences of inclusion, belonging, and openness to diversity.

Beyond the immediate results, this work contributes to the academic and professional discussion on applied intercultural education, demonstrating that an Afro-Brazilian artistic practice can become an innovative resource for psychoeducational and community programs. The experience presented confirms that interculturality can be strengthened through experiential methodologies that integrate body, culture, and community, aligning with the proposals of critical pedagogy and contemporary Positive Youth models. Development and Social Emotional Learning. The findings also suggest relevant practical implications: incorporating capoeira-based activities or other artistic and corporal practices into educational institutions and social programs can promote equity, social cohesion, and the building of global citizenship. From a public policy perspective, this opens the door to considering this type of intervention in the design of strategies for youth inclusion, psychosocial risk prevention, and the promotion of comprehensive well-being.

Finally, it is concluded that capoeira enriches the repertoire of intercultural educational strategies and opens new lines of research aimed at social transformation. Its value lies in integrating cognitive, socioemotional, and cultural dimensions into a single educational process, strengthening both personal identity and collective coexistence. In this sense, it is consolidated as a promising tool for the comprehensive development of young people in diverse contexts and as a replicable model in international initiatives of embodied intercultural education.

### Implications and Limitations

The results of this research have important implications for the creation and implementation of educational programs in situations of social vulnerability. First, it demonstrates that capoeira, as a cultural and embodied practice, can be effectively incorporated into psychoeducational interventions focused on the development of intercultural and social competencies in institutionalized adolescents. Due to its collaborative, ritualized, and musical nature, it enables the creation of embodied learning spaces that go beyond traditional cognitive instruction, thus promoting inclusion, self-esteem, and nonverbal communication.

Second, the mixed methodology used in this research demonstrates the importance of combining psychometric indicators with qualitative analysis to understand the complexity of educational processes in real-life situations. This approach can be replicated in future evaluations of socio-educational programs, especially those that incorporate artistic or embodied practices as a pedagogical core.

Furthermore, the results suggest that host institutions can benefit from incorporating methodologies based on experiential learning that promote active participation, emotional expression, and cultural recognition. In this sense, capoeira is presented as a versatile tool that not only improves individual indicators but also transforms group and institutional dynamics, contributing to the construction of more inclusive and resilient educational communities.

Finally, this study provides empirical evidence that supports the shift toward replicable intercultural pedagogies in the field of social education, opening up new possibilities for the design of public policies that integrate body, culture, and community as pillars of adolescent well-being.

This study constitutes a first systematic approach to the potential of capoeira as an intercultural education strategy in host settings, providing quantitative and qualitative evidence of its effectiveness in strengthening social and communication skills in adolescents. However, it is recognized that the study was conducted with a small sample and in a single residential center, which offers a valuable starting point but invites future research with larger and more diverse populations to contrast and enrich the findings.

Likewise, the lack of longitudinal follow-up raises the possibility of exploring the sustainability of learning over time and its impact on adolescents' educational and social trajectories in future studies. Furthermore, the cultural dimension of capoeira represents both a strength and a challenge: its transfer to other cultural environments can open up opportunities to analyze adaptation and redefinition processes in school, university, or community settings.

Finally, a comparison with other embodied and artistic practices, such as judo, dance, or boxing, is suggested, which would allow for the evaluation of similarities and differences in the development of socioemotional and

intercultural competencies. Thus, this research not only offers encouraging results but also opens up a horizon of possibilities for consolidating innovative proposals for embodied intercultural education.

## ACKNOWLEDGEMENTS

The authors thank the shelter for allowing the implementation of the capoeira program and for providing the necessary conditions for the development of the study.

## REFERENCES

- Alexander, B. K., Arasaratnam, L. A., Durham, A., Flores, L., Leeds-Hurwitz, W., Mendoza, S. L., Oetzel, J., Osland, J., Tsuda, Y., Yin, J., & Halualani, R. (2014). Identifying Key Intercultural Urgencies, Issues, and Challenges in Today's World: Connecting Our Scholarship to Dynamic Contexts and Historical Moments. *Journal of International and Intercultural Communication*, 7(1), 38–67. <https://doi.org/10.1080/17513057.2014.869527>
- Alif, M. N., Komarudin, K., Muhtar, T., & Mulyana, M. (2024). Positive Youth Development (PYD) in Martial Arts Activities: Literature Review. *International Journal of Disabilities Sports and Health Sciences*, 7(4), 914–922. <https://doi.org/10.33438/IJDSHS.1471275>
- Allen, T. J. (2021). Exploring students' perceptions about intercultural communication education: Rethinking the design and facilitation of a course in Japan. *Intercultural Communication Education*, 4(3), 213–233. <https://doi.org/10.29140/ICE.V4N3.475>
- Anderson-Butcher, D., Newman, T. J., & Williams, E. (2025). Empowering Youth Through the Power of Reflective Journaling: Understanding Life Skills from the Reflections of Youth. *Youth*, 5, 60. <https://doi.org/10.3390/youth5020060>
- Anggraini, L., Aryanti, V., Elyanti, Y., & Rani, H. (2023). THE ANALYZING STUDENTS' BODY LANGUAGE WHILE STUDYING IN THE CLASSROOM. *Journal Albion : Journal of English Literature, Language, and Culture*, 5(1), 15–19. <https://doi.org/10.33751/ALBION.V5I1.8074>
- Barlit, L. M., Ostapenko, S. A., & Udovichenko, H. M. (2024). ENGLISH AND UKRAINIAN NON-VERBAL COMMUNICATION: CONTRASTIVE ASPECT. *INTELLIGENCE. PERSONALITY. CIVILIZATION*, 1 (28), 58–70. <https://doi.org/10.33274/2079-4835-2024-28-1-58-70>
- Becheva, M. S. V., Kirkova-Bogdanova, A. G., Kazalakova, K. M., & Ivanova, S. A. (2023). The benefits of sports for the physical and mental health of adolescents. In *Pharmacia* (Vol. 70, pp. 751–756). Pensoft Publishers. <https://doi.org/10.3897/pharmacia.70.e111888>
- Birdwhistell, R. L. (2010). *Kinesics and Context : Essays on Body Motion Communication*.
- Botha, J., Connelly, H. K., Haydricks, M. R., & Johannes Malema, M. (2025). The Impact of Aquatic Programme Activities on the Quality of Life for People with Disabilities in the Western Cape, South Africa. *The Open Public Health Journal*, 18. <https://doi.org/10.2174/0118749445336312240930090044>
- Bozdarov, J., Jones, B. D. M., Daskalakis, Z. J., & Husain, M. I. (2023). Boxing as an Intervention in Mental Health: A Scoping Review. *American Journal of Lifestyle Medicine*, 17, 589–600. <https://doi.org/10.1177/15598276221124095>
- Byram, M. (2018). An essay on internationalism in foreign language education. *Intercultural Communication Education*, 1(2), 64–82. <https://doi.org/10.29140/ICE.V1N2.54>
- Carmichael, C. L., & Mizrahi, M. (2023). Connecting cues: The role of nonverbal cues in perceived responsiveness. *Current Opinion in Psychology*, 53. <https://doi.org/10.1016/J.COPSYC.2023.101663>
- Cetre Vásquez, R. P., Macías Alvarado, J. M., Jessica Marlene, R. A., & Cetre Vásquez, Á. A. (2025). Importancia de la expresión corporal en el desarrollo cognitivo de los estudiantes de educación inicial: Una revisión sistemática. *SPORT TK-Revista EuroAmericana de Ciencias Del Deporte*, 14. <https://doi.org/10.6018/SPORTK.659811>
- Chappell, K., Redding, E., Crickmay, U., Stancliffe, R., Jobbins, V., & Smith, S. (2021). The aesthetic, artistic and creative contributions of dance for health and wellbeing across the lifecourse: a systematic review. *International Journal of Qualitative Studies on Health and Well-Being*, 16(1), 1950891. <https://doi.org/10.1080/17482631.2021.1950891>
- Chen, L., & Chung, J.-Y. (2023). Structural relationship between Taekwondo leader's non-verbal communication and participants' trust, satisfaction, and re-participation intention: Focusing on overseas Taekwondo education. *Korean Journal of Sports Science*, 32(5), 99–109. <https://doi.org/10.35159/KJSS.2023.10.32.5.99>
- Croom, A. M. (2022). Muay Thai, Psychological Well-Being, and Cultivation of Combat-Relevant Affordances. *Philosophies*, 7. <https://doi.org/10.3390/philosophies7030065>

- de Paula Machado Pasqua, L., & de Toledo, E. (2025). Cultural background and diversity: N'golo and Capoeira in play. *Frontiers in Psychology*, 16, 1545060. <https://doi.org/10.3389/FPSYG.2025.1545060/BIBTEX>
- Deardorff, D. K. (2006). Identification and Assessment of Intercultural Competence as a Student Outcome of Internationalization. *Journal of Studies in International Education*, 10(3), 241–266. <https://doi.org/10.1177/1028315306287002>
- Deardorff, D. K. (2020). Manual for Developing Intercultural Competencies. *Manual for Developing Intercultural Competencies*, 116. <https://doi.org/10.4324/9780429244612>
- Delamont, S., & Stephens, N. (2021). The belts are set out: The batizado as a symbolic welcome to capoeira culture. *Ethnography*, 22(3), 351–371. [https://doi.org/10.1177/14661381211035762/ASSET/A343F2D5-2D66-4025-9BF9-B284BFBF2489/ASSETS/IMAGES/LARGE/10.1177\\_14661381211035762-FIG3.JPG](https://doi.org/10.1177/14661381211035762/ASSET/A343F2D5-2D66-4025-9BF9-B284BFBF2489/ASSETS/IMAGES/LARGE/10.1177_14661381211035762-FIG3.JPG)
- Frasco, E., Sherr, L., Dedios Sanguinetti, M. C., Vera San Juan, N., & Burgess, R. (2025). The impact of creative arts-based interventions for mental health in conflict-affected contexts: A systematic narrative review. *SSM - Mental Health*, 7, 100419. <https://doi.org/10.1016/J.SSMMH.2025.100419>
- Freire, P. (1997). *PEDAGOGÍA DEL OPRIMIDO*.
- Goffman, E. (1959). *The presentation of self in everyday life* (A. Books., Ed.).
- Golden, T. L., Ordway, R. W., Magsamen, S., Mohanty, A., Chen, Y., & Ng, T. W. C. (2024). Supporting youth mental health with arts-based strategies: a global perspective. *BMC Medicine*, 22(1), 7. <https://doi.org/10.1186/S12916-023-03226-6>
- Gómez-Paniagua, S., Galán-Arroyo, C., Castillo-Paredes, A., & Rojo-Ramos, J. (2025). A Preliminary Study on the Effect of an Intervention Based on Green Exercise on Mental Health and Physical Fitness of Adolescents. *Healthcare (Switzerland)*, 13. <https://doi.org/10.3390/healthcare13070809>
- Gruber, A., & Wagner, M. (2024). Fostering interdisciplinary intercultural citizenship with virtual reality in a world language virtual exchange project. *Intercultural Communication Education*, 7(1), 1304. <https://doi.org/10.29140/ICE.V7N1.1304>
- Holliday, A. (2018). Designing a course in intercultural education. *Intercultural Communication Education*, 1(1), 4–11. <https://doi.org/10.29140/ICE.V1N1.24>
- Hu, Y., Zhao, L., Sui, W., & Gao, Y. (2025). Research on the mechanism of the impact of physical activity on negative emotions of middle school students, and the chain mediating role of social competence and interpersonal relationships. *Frontiers in Psychology*, 16. <https://doi.org/10.3389/fpsyg.2025.1577987>
- King, D. (2025). SBYD and Social Justice: Defining Quality and Its Impact on Youth Experience. *Youth*, 5, 54. <https://doi.org/10.3390/youth5020054>
- Köhler, R., Anheyer, D., Koch, S., & Ostermann, T. (2025). Capoeira and Its Effects on Health-Related Outcomes—A Systematic Review. In *Journal of Integrative and Complementary Medicine*. Mary Ann Liebert Inc. <https://doi.org/10.1089/jicm.2024.0490>
- Kucuk, T. (2023). The Power of Body Language in Education: A Study of Teachers' Perceptions. *International Journal of Social Sciences & Educational Studies*, 10(3). <https://doi.org/10.23918/IJSSSES.V10I3P275>
- Kurtz, E. V. (2025). Call, Response, and Compromisso: Ethical Practice in Capoeira of Backland Bahia, Brazil. *Journal of the Society for American Music*. <https://doi.org/10.1017/S1752196324000488>
- Lane, A. M. (2025). CALM: Cultivating Awareness, Learning, and Mastery to Reduce Anger and Violence Through Combat Sports. *Youth*, 5, 45. <https://doi.org/10.3390/youth5020045>
- Lee, Y., & Lim, S. (2025). Positive youth development through taekwondo: a journey to the black belt. *Frontiers in Psychology*, 16, 1630461. <https://doi.org/10.3389/FPSYG.2025.1630461/BIBTEX>
- Lim, J., & Chon, H. (2023). The Impact of Non-verbal Communication on Educational Satisfaction and Class Attitude in Skin Care Practical Classes at Beauty Colleges. *The Korean Society of Culture and Convergence*, 45(12), 1243–1252. <https://doi.org/10.33645/CNC.2023.12.45.12.1243>
- López, M. J., De, U., Salvador, E., & Olivar, B. (2024). Freire, Giroux y la pedagogía crítica como praxis emancipadora. *Conjeturas Sociológicas*, 12(33), 98–117. <https://revistas.ues.edu.sv/index.php/conjsociologicas/article/view/2998>
- McDonough Smith, K., Clanchy, K. M., Newman, T. J., & Hemphill, M. A. (2025). Critical Positive Youth Development in Non-Traditional Sport Spaces. *Youth*, 5, 55. <https://doi.org/10.3390/youth5020055>
- Morales, J., Fukuda, D. H., Garcia, V., Pierantozzi, E., Curto, C., Martínez-Ferrer, J. O., Gómez, A. M., Carballeira, E., & Guerra-Balic, M. (2021). Behavioural improvements in children with autism spectrum disorder after participation in an adapted judo programme followed by deleterious effects during the COVID-19 lockdown. *International Journal of Environmental Research and Public Health*, 18. <https://doi.org/10.3390/ijerph18168515>
- Peng, J., & Dervin, F. (2023). “I start to doubt myself when I am watching this”: Moments of (self)-reflexivity in a virtual exchange project between China and Finland. *Intercultural Communication Education*, 6(3), 98–111. <https://doi.org/10.29140/ICE.V6N3.1010>

- Peskoller, J. (2025). The Intercultural Potential of Language Activities: Investigating the Implementation of Intercultural Learning in Three Austrian EFL Textbooks. *Intercultural Communication Education*, 8(1), 2313. <https://doi.org/10.29140/ice.v8n1.2313>
- Poole, A. (2019). Negotiating intercultural spaces and teacher identity in an internationalised school in Shanghai. *Intercultural Communication Education*, 2(2), 59–70. <https://doi.org/10.29140/ICE.V2N2.128>
- Qian, J., Zhang, X., Wang, K., & Liang, J. (2025). The role of social-emotional skills in sports participation and mental well-being across different demographics. *Learning and Individual Differences*, 120. <https://doi.org/10.1016/j.lindif.2025.102695>
- Sindiani, M., Schroeder, H. B., & Dunskey, A. (2025). Social-emotional learning in physical education classes at elementary schools. *Frontiers in Psychology*, 16. <https://doi.org/10.3389/fpsyg.2025.1499240>
- Turner, V. (1969). *The ritual process: Structure and anti-structure*. (A. de Gruyter., Ed.).