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Shaping the Future of Martial Arts: Inclusive Practices Through Delphi Insights

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Executive Summary

Introduction: Martial arts, encompassing both traditional and contemporary disciplines, have experienced a significant rise in global popularity. They offer physical, mental, and social benefits, attracting diverse practitioners. However, ensuring inclusivity in martial arts practices—so individuals of all abilities, genders, ages, and backgrounds can benefit—is a crucial concern. This report explores the current state of inclusivity in martial arts, analysing the challenges and opportunities for creating accessible and equitable practices.

Objective: This research aims to identify the essential knowledge, skills, and attitudes necessary for fostering inclusivity in martial arts settings. It seeks to comprehensively understand how martial arts practices can be made more accessible and inclusive for all participants.

Methods: A three-stage Delphi study was conducted to gather expert opinions from a cohort of 41 identified experts. The Delphi method was chosen for its iterative approach to achieving consensus among a group of experts.

Results: The study identified several key areas: Knowledge - the most important aspects include awareness of health conditions and disabilities, adaptive martial arts techniques, and understanding the individual needs of each student; Skills - adaptability, communication skills, and the ability to work with all age groups and genders were ranked as the most critical skills; Attitudes and Values - caring, commitment, and empathy were seen as essential attitudes for fostering inclusivity.

Conclusions: Inclusive martial arts instruction requires a holistic approach integrating knowledge, skills, and attitudes. By focusing on adaptive techniques individual needs and creating an inclusive learning environment, martial arts instructors / coaches / teachers (hereafter ‘teachers’) can provide safe and supportive settings that promote all students' physical, emotional, and psychological well-being. This approach not only benefits individuals with disabilities but also enhances the overall quality of martial arts education, fostering a culture of empathy, respect, and inclusivity.

SDG Keywords: Access to education; Disability and Inclusion; Good health and well-being; Inclusion and education; Inclusive; Quality education

Introduction

Martial arts, encompassing a diverse range of combat practices, have experienced a significant rise in global popularity. Traditional disciplines such as Karate, Taekwondo, Kung Fu, and more contemporary forms like Brazilian Jiu-Jitsu and Mixed Martial Arts have extended beyond their cultural origins to achieve worldwide recognition. The widespread appeal of martial arts can be attributed to various factors, including the pursuit of physical strength, the integration of philosophical and ethical values, and their pervasive presence in popular culture through media, including film, television, and sports events. As the martial arts community continues to attract a diverse array of practitioners, the need to ensure inclusivity—providing equitable access and benefits for individuals of all abilities, genders, ages, and backgrounds—has emerged as a crucial issue. This report explores the current state of inclusivity in martial arts, analysing the challenges and opportunities for creating more accessible and equitable practices.

The global popularity of martial arts has steadily increased over the past few decades, with millions of practitioners worldwide. This growth is evidenced by the proliferation of martial arts schools and academies across nearly every country, the incorporation of martial arts into international competitions such as the Olympics and Asian Games, and the increasing prevalence of martial arts-themed media. Martial arts have not remained confined to their regions of origin; they have evolved and adapted as they have spread globally, integrating with local cultures and customs. For example, Japanese Judo has roots in Jiu-Jitsu and Wrestling and has developed into a unique martial art with an international following. Similarly, MMA, which synthesises elements from various martial arts, such as Judo, Russian Sambo, Muay Thai, Western Boxing, and others, has become a mainstream sport with millions of fans and participants (see Table 1).

Table 1: Participation Statistics (*according to Worldmetrics.org*)

- **Taekwondo:** This is the most widely practised martial art globally, with over 70 million practitioners.
- **Karate:** Practiced by an estimated 50 million people worldwide.
- **Judo:** One of the most commonly practised martial arts, with over 20 million practitioners.
- **Brazilian Jiu-Jitsu:** Experienced a significant surge in popularity in recent years, with over 7 million practitioners worldwide.
- **Muay Thai:** A popular martial art with approximately 1.5 million practitioners globally.
- **Kung Fu / Wushu:** Encompasses over 100 different styles and is practised by millions worldwide.
- **Aikido:** Has an estimated 1 million practitioners globally.
- **Capoeira:** A martial art with over half a million practitioners worldwide.
- **Kickboxing:** Gained popularity as both a sport and a fitness activity, with millions of practitioners worldwide.
- **Escrima (Arnis or Kali):** Maintains a substantial following with hundreds of thousands of practitioners.

Several factors contribute to the widespread appeal of martial arts. First, they offer a distinctive combination of physical exercise, self-defence skills, and mental discipline, attracting individuals seeking comprehensive personal development (Jennings, 2019). Second, the philosophical and ethical principles inherent in martial arts—such as respect, humility, perseverance, and self-control—appeal to those pursuing personal growth beyond mere physical fitness (Bolelli, 2010). Third, martial arts have been extensively popularised through entertainment media, with iconic figures like Bruce Lee, Jackie Chan, Chuck Norris, and more recent MMA athletes such as Ronda Rousey, inspiring successive generations of practitioners (Bowman, 2021). Additionally, martial arts are often perceived as an inclusive and accessible exercise suitable for individuals of varying fitness levels, ages, and abilities, appealing to a broad audience (Origua Rios, 2018).

Martial arts are associated with numerous physical, mental, and social benefits, which are well-supported by both academic research and practitioner testimonials. Physically, martial arts training can enhance cardiovascular health, muscular strength, flexibility, coordination, and balance. Regular practice contributes to overall physical fitness, aiding in weight management, improving posture, and reducing the risk of injury. These benefits are particularly salient in the contemporary context of sedentary lifestyles and associated health issues such as obesity and cardiovascular diseases (Bu et al., 2010; Moore et al., 2020; Pedrini & Jennings, 2021).

Beyond the physical domain, martial arts are renowned for their mental and emotional advantages. Studies have indicated that martial arts practice can alleviate stress, anxiety, and depression while boosting self-esteem, self-confidence, and emotional regulation. The structured nature of martial arts training, which often includes goal-setting, progression through belt ranks, and the acquisition of technical skills, instils a sense of achievement and purpose in practitioners. Furthermore, the meditative elements of specific martial arts, such as Tai Chi and Aikido, promote mindfulness and mental clarity, contributing to overall psychological well-being (Ciaccioni et al., 2023; Samsudin et al., 2024).

Socially, martial arts cultivate a sense of community and belonging. Training typically occurs in group settings, where practitioners collaborate, support each other, and develop mutual respect through shared experiences (Bailey et al., 2023). Martial arts schools and clubs can serve as inclusive environments that foster camaraderie, cooperation, and social interaction. For children and adolescents, martial arts can be a valuable avenue for social development, imparting respect, discipline, and teamwork. Moreover, the self-defence component of martial arts can empower individuals, especially those who may feel vulnerable, by equipping them with the skills and confidence necessary for personal protection (Vertonghen & Theeboom, 2010).

Despite the broad appeal and associated benefits of martial arts, there is a growing acknowledgement of the need for greater inclusivity within this field. Historically, martial arts have been dominated by non-disabled male practitioners, perpetuating stereotypes and barriers that can marginalise women, individuals with disabilities, older adults, and members of underrepresented communities. To fully harness the potential benefits of martial arts for all, addressing these barriers and promoting inclusive practices within martial arts schools, organisations, and competitions is imperative.

Inclusivity in martial arts necessitates ensuring that individuals of all abilities, genders, ages, and cultural backgrounds can participate safely and meaningfully. For individuals with physical or intellectual disabilities, adaptive martial arts programmes and modified training methods are crucial. These adaptations may involve alterations to the training environment,

equipment, or techniques to accommodate diverse needs and abilities (Bailey & Angit, 2023). The development of para-martial arts, analogous to para-sports in other domains, represents a step towards recognising and celebrating the achievements of martial artists with disabilities on an equal basis with their non-disabled peers. Developments directed at other marginalised communities are likely to follow (Bailey & Sweeney, 2023).

Gender inclusivity is another critical consideration, as martial arts have traditionally been viewed as male-dominated. Efforts to advance gender equality in martial arts encompass creating safe and supportive environments for female practitioners, addressing issues such as harassment and discrimination, and ensuring equal opportunities for women in training, competition, and leadership roles within martial arts organisations. The accomplishments of female martial artists in various disciplines, from Judo to MMA, have played a role in challenging stereotypes and inspiring more women and girls to engage in martial arts (Maor, 2019).

Age inclusivity is equally important, as martial arts benefit individuals across the lifespan. For children and adolescents, martial arts provide a structured environment for physical, mental, and social development. For older adults, martial arts can be adapted to promote mobility, balance, and overall well-being. Promoting participation among all age groups necessitates programs tailored to different age demographics' specific needs and abilities (Linhares et al., 2022).

Finally, cultural inclusivity involves acknowledging and respecting the diverse cultural backgrounds of martial arts practitioners. Martial arts have deep roots in various cultural traditions, and their global practice today reflects a complex tapestry of cultural influences. Embracing this diversity entails fostering an environment that prioritises cultural exchange and mutual respect, allowing martial arts to function as a bridge between diverse cultural communities.

The worldwide popularity of martial arts and their extensive physical, mental, and social benefits underscores the importance of ensuring these practices are accessible to all individuals. However, achieving true inclusivity in martial arts requires concerted efforts to dismantle existing barriers and create environments where individuals of all abilities, genders, ages, and cultural backgrounds can participate meaningfully. By fostering inclusivity, martial arts can continue to serve as a powerful tool for personal development, empowerment, and community-building. This report will further investigate the current state of inclusion in martial arts and propose strategies to cultivate more inclusive practices within this dynamic and evolving field.

Methods and Materials

Study Design

The approach chosen for eliciting an expert group's view was a 3-stage 'Delphi' study, which involves a series of iteratively modified questionnaires to a group of experts until consensus is reached or until opinions are stable across survey rounds. Delphi is a widely used research method for eliciting and refining group judgement based on the rationale that a group of experts is better than one expert when exact knowledge is unavailable. The primary reason for employing this method in this study is that it allows experts to share their ideas, individually and as part of a group, in a manner that avoids potential confrontation of their views. Anonymity throughout the process and multiple rounds of controlled feedback help

the research team limit the influence of peer comments. The process is summarised in Figure 1:

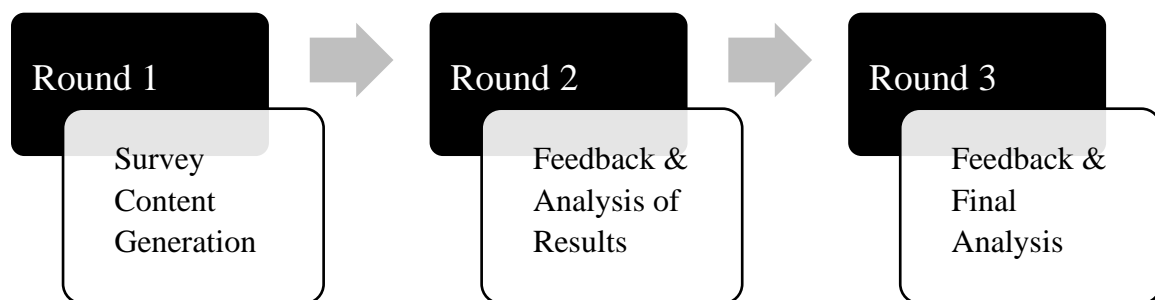


Figure 1: the Delphi process followed in the present study

The survey was administered electronically using a specialist survey application (<https://www.surveymonkey.com>). Data-gathering took place during June and September 2024.

The requested responses were as follows:

Round 1: lists of statements

Round 2: scoring agreement with statements for each list with a 7-point Likert Scale

Round 3: ranking agreement with selected statements for each list

The statements ranked most important at the end of this process were considered the contents of the final lists.

Delphi First Round

In the first round, an open-ended survey was distributed to the expert panel. The objective was to gather a broad array of perspectives regarding the knowledge, skills and attitudes/values necessary for successful practice in inclusive martial arts settings. The experts were asked to answer three core questions:

- What are your views on the knowledge necessary to work successfully in inclusive martial arts settings?
- What are your views on the skills necessary to work successfully in inclusive martial arts settings?
- What are your views on the attitudes and values necessary to work successfully in inclusive martial arts settings?

The research team analysed the responses, identifying key themes, recurring ideas, and areas of divergence or agreement. These findings helped shape a more structured questionnaire for subsequent rounds. This led to the second round of the Delphi study, which was to build up the consensus.

Delphi Second Round

Based on the themes that developed from Round 1, the second round involved distributing a more structured questionnaire to the experts. This questionnaire aimed to quantify the level of agreement on the themes identified earlier. Participants were asked to rate the statements related to knowledge, skills, and values using a 5-Likert scale (1 = strongly disagree, 5 = strongly agree).

- Knowledge- They were then asked to rate the importance of this knowledge for inclusive practice.
- Skills- Experts rated the skills needed for effective practice in inclusive martial arts.
- Attitude and Values- Experts were asked to evaluate its significance in promoting martial arts inclusivity.

Delphi Third Round

The third and final round of the Delphi process focused on refining the expert consensus by ranking the importance of the items related to knowledge, skills, and attitudes/values. In this round, the experts were provided with a summary of the group's responses from Round 2, including the overall ratings and areas where divergence or lower levels of consensus were observed.

In this round, experts were asked to review and refine their previous ratings and rank the items in each category according to their perceived importance. Experts were asked to rank the knowledge areas, essential skills, and attitudes/values they considered most critical for inclusive martial arts practice. By this stage, the objective was to identify which items in each variable (knowledge, skills, and attitudes/values) should be prioritised when working in inclusive martial arts settings. The final ranking clarified which competencies the expert panel viewed as the most crucial.

The responses from Round 3 were analysed to determine the consensus on the rankings, using statistical measures such as the median rank and interquartile range to assess agreement (Lei et al., 2023). This ranking process allowed the research team to establish a prioritised list of the key competencies required for inclusive martial arts practice, with items that achieved the highest levels of agreement ranked accordingly (Bailey & Sweeney, 2023).

Ethical Considerations

All the procedures in this study followed the ethical standards of the World Medical Association Declaration of Helsinki Ethical Principles for Medical Research Involving Human Subjects. This study was approved by the Institutional Ethics Committee at UCSI University (Code no: UCSI/ IEC-2024-FOSSLA-0009), and all methods used were per these guidelines. We performed this study after obtaining informed consent from all participants. All participants were fully informed about the study, and they could withdraw at any point without penalty. The collected data were saved in storage, with limited access only possible by the research team. The study demonstrated the research paradigm's beneficence, non-maleficence, autonomy, and justice by protecting participants' rights and welfare during all stages of the research process.

Demographic

30% of the experts were female, while 70% were male. This gender distribution highlights a majority of male participation. However, a notable proportion of female experts contributed their insights to the study, ensuring that a range of gendered perspectives were included in the analysis. The panel of experts in this Delphi study represented a diverse range of nationalities, ensuring a comprehensive array of perspectives on the topic. The distribution of experts' citizenship and age group is presented in Figure 3 and Figure 4, respectively.

Figure 2: Gender of Experts

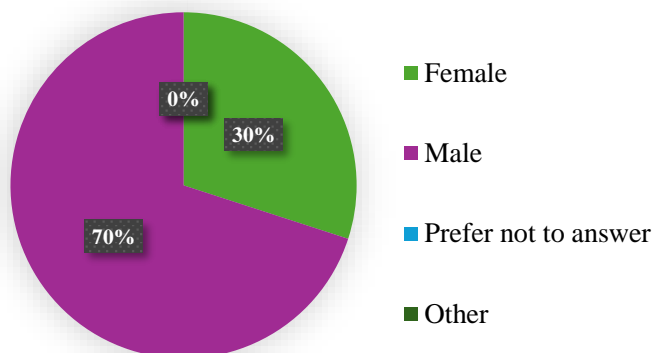


Figure 3: Nationality of Experts

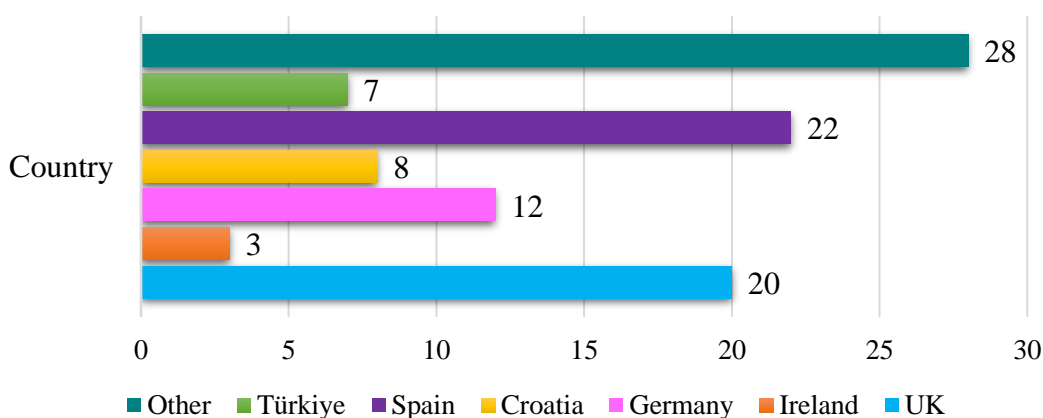
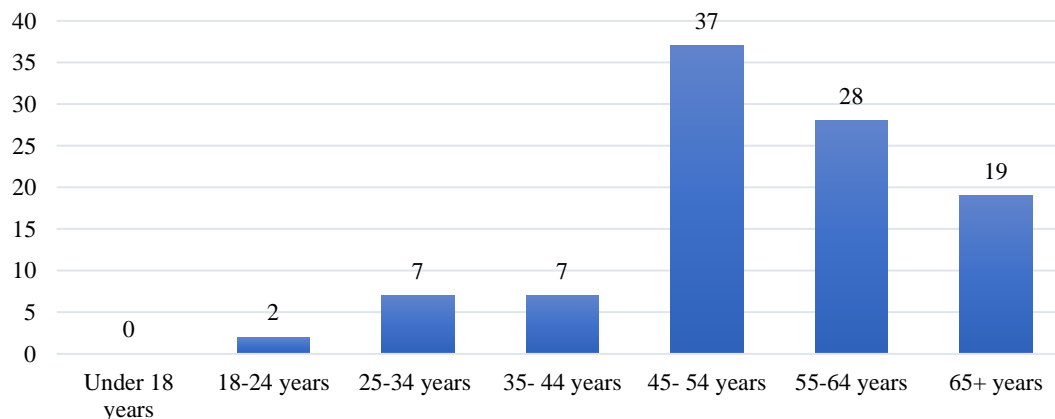


Figure 4: Age of Experts



Results

This study aimed to gather comprehensive insights from a carefully selected panel of experts regarding the essential knowledge, skills, attitudes, and values required to work effectively in inclusive martial arts environments. Utilising a multi-round Delphi method, the study engaged experts in a structured process designed to refine and rank a series of statements related to these areas. Through three iterative rounds, the experts contributed to formulating and prioritising key components, ultimately enabling us to reach a consensus on the most critical aspects of inclusive martial arts practice. In the first round, experts provided open-ended responses, which were then synthesised and refined in subsequent rounds to create a more focused set of statements. In the final round, experts were asked to rank the most agreed-upon statements. By analysing these rankings, we identified the most important knowledge, skills, and attitudes necessary for effectiveness in inclusive martial arts settings. The following sections present a detailed account of the evolving response patterns and consensus-building process observed throughout the three rounds.

Knowledge Necessary for Inclusive Martial Arts Settings

The first phase of the study aims to identify the core knowledge areas deemed fundamental for working effectively in inclusive martial arts settings. During the initial round, participants were asked to enumerate the key knowledge areas they considered essential for this context. Their responses encompassed a wide range of areas, including technical martial arts knowledge, pedagogical principles, and health-related insights. The findings from this phase indicate a strong consensus among experts regarding the importance of understanding various health conditions, the ability to adapt martial arts techniques to suit diverse needs, and an acute awareness of students' personalised requirements. These insights underscore the necessity for teachers to possess a well-rounded knowledge base that integrates both martial arts and pedagogical competences. Table 2 provides a detailed presentation of the consensus rankings of the identified knowledge areas across the three rounds of expert input.

Table 2: Research Question 1: What are your views on the KNOWLEDGE necessary to work successfully in inclusive martial arts settings?

Round 1	Round 2	Round 3
Adaptations of practices Adaptive Martial Arts Techniques Application of technique Awareness of health conditions and disabilities Basic movements Basic psychology Core principles of specific martial arts Diagnosis of different kinds of disabilities Knowing the needs of each student Laws of physics Philosophies of martial arts Principles of effective pedagogy Principles of Inclusion Principles of Personality Development Principles of self-defence Principles of supportive environments Safe practice Safeguarding principles Training principles and processes	Adaptations of practices Adaptive Martial Arts Techniques Application of technique Awareness of health conditions and disabilities Basic movements Basic psychology Core principles of specific martial arts Diagnosis of different kinds of disabilities Knowing the needs of each student Laws of physics Philosophies of martial arts Principles of effective pedagogy Principles of Inclusion Principles of Personality Development Principles of self-defence Principles of supportive environments Safe practice Safeguarding principles Training principles and processes	1. Awareness of health conditions and disabilities (15.78) 2. Adaptive Martial Arts Techniques (15.43) 3. Adaptations of practices (15.38) 4. Knowing the needs of each student (14.08) 5. Basic movements (13.35) 6. Application of technique (12.54) 7. Basic psychology (12.27) 8. Diagnosis of different kind of disabilities (11.27) 9. Core principles of specific martial arts (10.92) 10. Principles of Inclusion (10.51)

For the *knowledge* of inclusive martial arts, "Awareness of health conditions and disabilities (15.78)," "Adaptive Martial Arts Techniques (15.43)," and "Adaptations of practices (15.38)" ranked highly among expert responses, which aligns with broader calls for more inclusive practices within educational and physical activity settings (Bailey & Sweeney, 2023). This underscores the need to incorporate adaptive physical education principles into martial arts training. It highlights the importance of using tailored instructional methods to meet the varied needs of learners, especially those with disabilities (Lieberman & Houston-Wilson, 2024). Integrating structured approaches to inclusivity into martial arts curricula fosters a learning environment sensitive to individual differences. This includes not only physical adaptations but also an understanding of the psychological and emotional dimensions of student engagement (Kahu & Nelson, 2018). "Knowing the needs of each student" reflects the necessity for tailored teaching strategies that acknowledge and accommodate individual differences and capabilities. This approach advocates for flexible and inclusive teaching methods that adapt to students' diverse learning styles and abilities. The importance of such differentiation aligns with established recommendations for differentiated instruction in inclusive educational environments. These recommendations encourage educators to modify content, processes, and learning outcomes to meet the unique needs of each student, thereby fostering an equitable learning environment.

Gathering insights from experts can significantly shape curriculum development and content design (Bailey et al., 2021). These findings highlight the need for educators and trainers to integrate a comprehensive understanding of physical and mental health conditions into the curriculum. This integration ensures that instructional methods are inclusive and responsive to the diverse needs of all learners. Doing so enables them to create learning environments that are not only accessible but also supportive of the myriad physical, emotional, and psychological needs of all learners (Bailey et al., 2021).

Skills Necessary for Inclusive Martial Arts Settings

Inclusive martial arts instruction requires a diverse set of *skills* that enable teachers to cater to the needs of all participants, regardless of age, gender, or ability level. Table 3 outlines the skills identified as essential by the expert panel, highlighting the importance of adaptability and communication as the most highly ranked abilities.

Table 3: Research Question 2: What are your views on the SKILLS necessary to work successfully in inclusive martial arts settings

Round 1	Round 2	Round 3
<p>Able to work with all age groups and genders</p> <p>Adaptability</p> <p>Assessment</p> <p>Basic Coaching Skills</p> <p>Communication skills</p> <p>Conflict resolution</p> <p>Cooperation</p> <p>Developing Creativity</p> <p>Goal-setting</p> <p>How to create achievable challenges</p> <p>Life skills</p> <p>Listening skills</p> <p>Motivation</p> <p>Providing feedback</p> <p>Questioning</p> <p>Reflective practice</p> <p>Sense of humour</p> <p>Time management</p>	<p>Able to work with all age groups and genders</p> <p>Adaptability</p> <p>Assessment</p> <p>Basic Coaching Skills</p> <p>Communication skills</p> <p>Conflict resolution</p> <p>Cooperation</p> <p>Developing Creativity</p> <p>Goal-setting</p> <p>How to create achievable challenges</p> <p>Life skills</p> <p>Listening skills</p> <p>Motivation</p> <p>Providing feedback</p> <p>Questioning</p> <p>Reflective practice</p> <p>Sense of humour</p> <p>Time management</p>	<ol style="list-style-type: none"> 1. Adaptability (16.54) 2. Communication skills (15.63) 3. Able to work with all age groups/genders (14.69) 4. Basic Coaching Skills (14.54) 5. Assessment (12.69) 6. Cooperation (11.60) 7. Conflict resolution (10.97) 8. Developing Creativity (10.49) 9. Goal-setting (9.71) 10. Motivation (9.34)

Table 3 identifies adaptability (16.54) as the most critical skill for teachers in diverse and inclusive environments. This underscores the need for teachers to adjust their teaching methods to accommodate the varying needs of participants, such as those with physical or mental health challenges. Research in inclusive education consistently emphasises the value of adaptive skills in fostering student success, particularly in settings where individual needs are highly diverse (Peters, 2004). Communication skills (15.63), ranked as the second most important skill, underscore the crucial role of clear and empathetic communication in inclusive martial arts settings, emphasising the need for teachers to effectively convey instructions, offer feedback, and engage in supportive dialogue with students from diverse backgrounds, ensuring that every participant feels understood and included (O'Leary et al., 2020). The ability to work with all age groups and genders (14.69), ranked third, further emphasises the importance of creating a welcoming and supportive atmosphere for all participants, regardless of their age, gender, or ability level. UNESCO (2020) underscores the significance of inclusive practices in physical education and sports, advocating for adaptable environments that cater to diverse participants, enhancing social cohesion and well-being. Creating an inclusive educational environment, including sports, is instrumental in promoting equity and respect for diversity. It ensures that individuals from varied backgrounds can participate fully and feel valued (Sharma & Loreman, 2019).

Other relevant skills identified by the experts, such as conflict resolution (10.97) and cooperation (11.60), are also essential for managing group dynamics and ensuring that inclusive classes run smoothly. The importance of fostering a collaborative environment where students support one another cannot be overstated in settings that value inclusivity. Additionally, creativity (10.49) and goal-setting (9.71) emerged as important skills, reflecting the need for teachers to inspire and motivate their students, tailoring lessons to individual progress and fostering a growth mindset. Lower-ranked but still significant skills such as listening skills (9.29), life skills (6.29), and providing feedback (5.37) play a complementary role in promoting an inclusive learning environment (Bailey et al., 2013). These skills contribute to a student-centred approach, ensuring teachers remain responsive to their students' needs and provide meaningful, constructive guidance.

Attitudes and Values Necessary for Inclusive Martial Arts Settings

The final findings focus on the attitudes and values necessary for inclusive martial arts settings and are presented in Table 4. The expert panel had reached a consensus on 26 key attitudes and values, emphasising care, commitment, and empathy.

Table 4: Research Question 3: What are your views on the ATTITUDES & VALUES necessary to work successfully in inclusive martial arts settings

Round1	Round 2	Round 3
Caring Character Commitment Courage Discipline Eagerness to learn Empathy Equality Fair play Friendship High expectations Honesty Honour Human rights Integrity Kindness Modesty Open-mindedness Persistence Professionalism Protect the vulnerable Respect Responsibility Tolerance Tradition Trust	Caring Character Commitment Courage Discipline Eagerness to learn Empathy Equality Fair play Friendship High expectations Honesty Honour Human rights Integrity Kindness Modesty Open-mindedness Persistence Professionalism Protect the vulnerable Respect Responsibility Tolerance Tradition Trust	1. Caring (22.68) 2. Commitment (21.85) 3. Character (20.91) 4. Empathy (20.47) 5. Eagerness to learn (17.94) 6. Courage (17.91) 7. Discipline (17.68) 8. Equality (17.41) 9. Fair play (16.00) 10. Honesty (15.24)

Caring (22.68), Commitment (21.85), Character (20.91), and Empathy (20.47) were ranked as the top three attitudes, suggesting that successful teachers in inclusive settings need to exhibit a strong sense of care and dedication toward their students. These values align with the emotional and relational aspects of teaching, where empathy and understanding are essential (Aldrup et al., 2022). Eagerness to learn (17.94) was also ranked highly, indicating that inclusive martial arts settings require teachers to continuously learn and grow, particularly in how they relate to and support their students. This highlights the importance of an open-minded and student-centred approach in inclusive settings. These attitudes are crucial in creating a supportive environment where all participants can thrive. Teachers with comprehensive knowledge across these domains can create inclusive, safe, and supportive environments that promote all students' physical, emotional, and psychological well-being (Bailey et al., 2021).

Summary of Findings

the findings from this study emphasise that effective inclusive martial arts instruction requires a comprehensive integration of knowledge, skills, and attitudes that support a holistic approach to student development. By focusing on adaptive techniques individual needs and fostering an inclusive learning community, teachers can create safe and supportive environments that promote all students' physical, emotional, and psychological well-being (Bailey et al., 2021). This holistic approach not only benefits students with disabilities but also enhances the overall quality of martial arts education, fostering a culture of empathy, respect, and inclusivity.

Conclusion

This study emphasises the critical importance of fostering inclusivity within martial arts practices by integrating essential knowledge, skills, and attitudes. It substantially benefits the TMA4ALL project by outlining strategies for engaging learners from diverse backgrounds, abilities, and ages in a unified learning experience. By leveraging the project's multinational scope, these inclusive practices can strengthen connections between martial arts styles across Europe and Asia, laying the groundwork for systematic change within the wider martial arts community.

The collaborative nature of the Delphi methodology brings together experts to unify martial arts practices around a common goal: improving participants' lives. The findings demonstrate the potential for change at various levels:

Individual Level: The report encourages personal growth and mindset shifts among practitioners and teachers by promoting adaptive techniques and an inclusive mindset that embraces empathy, commitment, and understanding.

Group Level: Implementing inclusive practices can improve group dynamics and more cohesive martial arts settings, enhancing group collaboration and fostering respect.

Organisational Level: The report provides a framework for structural and policy changes, guiding martial arts organisations to create more inclusive environments through training programmes, safeguarding principles, and adaptable facilities.

Historically, martial arts have been dominated by non-disabled male practitioners, creating barriers that exclude many individuals. To harness the full potential of martial arts for all, it is imperative to address these barriers and cultivate inclusive environments. This study identifies key areas for change, including awareness of health conditions and disabilities, adaptive martial arts techniques, and understanding individual needs. Adaptability, communication, and working with diverse groups are essential for creating supportive learning environments. Attitudes like caring, commitment, and empathy are central to fostering a culture of inclusivity.

Through the TMA4ALL project, inclusive coaching in martial arts can have an evidence-based impact, offering opportunities for collaboration and the exchange of best practices. Teachers equipped with this comprehensive set of competencies can create safe, adaptable environments that promote all students' physical, emotional, and psychological well-being. By implementing these inclusive practices, martial arts can become a powerful tool for personal development, empowerment, and community building, ensuring that individuals of all abilities, genders, ages, and cultural backgrounds fully experience the benefits of martial arts.

Reference

- Aldrup, K., Carstensen, B., & Klusmann, U. (2022). Is empathy the key to effective teaching? A systematic review of its association with teacher-student interactions and student outcomes. *Educational Psychology Review*, 34(3), 1177-1216.
- Bailey, R. P., & Angit, S. (2022). Conceptualising Inclusion and Participation in the Promotion of Healthy Lifestyles. *International Journal of Environmental Research and Public Health*, 19(16), 9917.
- Bailey, R. P., & Sweeney, R. (2023). Principles and strategies of inclusive physical activity: A European Delphi study. *Journal of Public Health*, 31(12), 2021-2028.
- Bailey, R.P., Glibo, I., & Scheuer, C. (2021). Effective elements of school-based provision for the promotion of healthy lifestyles: A European Delphi study. *Health Behavior and Policy Review*, 8(6), 546-557.
- Bailey, R.P., Hillman, C., Arent, S., & Petitpas, A. (2013). Physical activity: an underestimated investment in human capital? *Journal of Physical Activity and Health*, 10(3), 289-308.
- Bailey, R.P., Samsudin, N., & Ries, F. (2023). *What works? Evidence-based guidance regarding physical activity and mental health in adolescents*. ENGSO Youth.
- Bolelli, D. (2010). *On the warrior's path: philosophy, fighting, and martial arts mythology*. North Atlantic Books.
- Bowman, P. (2021). *The invention of martial arts: popular culture between Asia and America*. Oxford University Press.
- Bu, B., Haijun, H., Yong, L., Chaohui, Z., Xiaoyuan, Y., & Singh, M. F. (2010). Effects of martial arts on health status: a systematic review. *Journal of Evidence-Based Medicine*, 3(4), 205-219.
- Ciaccioni, S., Castro, O., Bahrami, F., Tomporowski, P. D., Capranica, L., Biddle, S. J., ... & Pesce, C. (2023). Martial arts, combat sports, and mental health in adults:

- A systematic review. *Psychology of sport and exercise*, 102556.
- Florian, L., & Black-Hawkins, K. (2011). Exploring inclusive pedagogy. *British Educational Research Journal*, 37(5), 813-828.
- Jennings, G. (2018). *The Psychology of Martial Arts*. Lutterworth Press.
- Kahu, E. R., & Nelson, K. (2018). Student engagement in the educational interface: Understanding the mechanisms of student success. *Higher Education Research & Development*, 37(1), 58-71.
- Lei, B., Janssen, P., Stoter, J., & Biljecki, F. (2023). Challenges of urban digital twins: A systematic review and a Delphi expert survey. *Automation in Construction*, 147, 104716.
- Lieberman, L. J., Grenier, M., McNamara, S., Houston-Wilson, C., & Brian, A. (2024). Identifying essential content in the introduction to adapted physical education class. *International Journal of Kinesiology in Higher Education*, 1-13.
- Linhares, D. G., dos Santos, A. B., dos Santos, L. L., Pardo, P. J. M., de Souza Cordeiro, L., de Castro, J. B. P., & de Souza Vale, R. G. (2022). Effects of taekwondo on health in older people: A systematic review. *Retos: nuevas tendencias en educación física, deporte y recreación*, (46), 36.
- Maor, M. (2019). Fighting gender stereotypes: Women's participation in the martial arts, physical feminism and social change. *Martial Arts Studies*, 7, 36-48.
- Moore, B., Dudley, D., & Woodcock, S. (2020). The effect of martial arts training on mental health outcomes: A systematic review and meta-analysis. *Journal of bodywork and movement therapies*, 24(4), 402-412.
- O'Leary, E. S., Shapiro, C., Toma, S., Sayson, H. W., Levis-Fitzgerald, M., Johnson, T., & Sork, V. L. (2020). Creating inclusive classrooms by engaging STEM faculty in culturally responsive teaching workshops. *International Journal of STEM Education*, 7, 1-15.
- Origua Rios, S., Marks, J., Estevan, I., & Barnett, L. M. (2018). Health benefits of hard martial arts in adults: a systematic review. *Journal of sports sciences*, 36(14), 1614-1622.
- Pedrini, L., & Jennings, G. (2021). Cultivating health in martial arts and combat sports pedagogies: A theoretical framework on the care of the self. *Frontiers in Sociology*, 6, 601058.
- Peters, S. J. (2004). *Inclusive education: An EFA strategy for all children*. Washington, DC: World Bank, Human Development Network.
- Samsudin, N., Bailey, R. P., Ries, F., Hashim, S. N. A. B., & Fernandez, J. A. (2024). Assessing the impact of physical activity on reducing depressive symptoms: a rapid review. *BMC sports science, medicine and rehabilitation*, 16(1), 107.
- Sharma, U., Armstrong, A. C., Merumeru, L., Simi, J., & Yared, H. (2019). Addressing barriers to implementing inclusive education in the Pacific. *International Journal of Inclusive Education*, 23(1), 65-78.
- Stine, J. G., Long, M. T., Corey, K. E., Sallis, R. E., Allen, A. M., Armstrong, M. J., ... & Schmitz, K. H. (2023). American College of Sports Medicine (ACSM) International Multidisciplinary Roundtable report on physical activity and

nonalcoholic fatty liver disease. *Hepatology Communications*, 7(4), e0108.

UNESCO. (2020). COVID-19 Educational Disruption and Response. Retrieved from <https://en.unesco.org/covid19/educationresponse>

Vertonghen, J., & Theeboom, M. (2010). The social-psychological outcomes of martial arts practise among youth: A review. *Journal of sports science & medicine*, 9(4), 528.