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There has been growing concern regarding youth participation in martial arts programs (Vertonghen & Theeboom, 2013). Previous studies have revealed contradictory findings of youth martial arts programs related to a potential increasing physical aggression and violent behaviors as a negative side of youth martial arts practice (Endresen & Olweus, 2005; Mutz's, 2012; Sofia & Cruz, 2017) or producing positive youth developmental (PYD) outcomes as positive side of youth martial arts practice (van der kooi, 2020; Vertonghen & Theeboom, 2010). Little attention has been paid to the "black box" of what causes those outcomes. The black box refers to what and how martial arts are being taught to promote positive youth development (PYD). Little information is available in the literature that unpacks the black box of martial arts pedagogy. An embedded multiple case study design (Yin, 2016) was used to unpack the black box of martial arts pedagogical practices employed in three cases: 1) traditional Taekwondo program, 2) afterschool Taekwondo program, and 3) high school physical education (PE) Taekwondo program. Research participants were purposefully selected who were expected to provide in-depth and detailed information regarding the research topic. In the traditional Taekwondo (case 1), eight (fe)male students, four parents, and two instructors participated in this study. In the afterschool Taekwondo (case 2), five (fe)male students, four parents and an instructor were selected. In the school PE Taekwondo (case 3), four (fe)male students, five program staff, and a PE teacher participated in this study. The average ages of students were 14.5 years old (case 1), 13 years old (case 2), and 15 years old (case 3). Using a mixed method approach, qualitative (interviews, focus groups, lesson reflections, and TARE post-teaching reflection) and quantitative (TARE observation, ToRQ, and PSRQ) data were collected. Qualitative data was

analyzed using concept-driven and data-driven approaches to thematic analysis. A descriptive statistical analysis of quantitative raw data was conducted using measures of central tendency (i.e., mean, median, and mode). In phase one (within case analysis), each case was examined in-depth with the qualitative analysis to unpack the black box of martial arts pedagogy and positive youth developmental experiences. In phase two, (cross-case analysis), a pattern-matching and explanation building was carried out to identify the contrasts and similarities through comparing between the cases. Both the quantitative analysis (descriptive statistics) and the qualitative analysis were used for the comparison. Based on the procedures, findings revealed that the particularities of martial arts pedagogy were related to cultural heritage and promoting explicit life skills education in case 1; adaptive Taekwondo teaching, promoting transfer of Taekwondo life skills in case 2; and integrating restorative practices with Taekwondo teaching in case 3. The teaching strategies that characterized their instruction were directed teaching for case 1, promoting peer teaching for case 2, and facilitating collaborative learning for case 3. Results also showed that PYD experiences were characterized differently among the cases that were a) youth taekwondoists' journey to the black belt that involves systematic goal setting and accomplishment as well as mind-body practices, b) disciplined kids who care about others and their personal life by actively applying the life skills to daily life, and c) recognizing individuals that promotes self-expression in students and positive social interaction. On the other hand, common positive youth developmental outcomes consistently identified across the three cases included a) positive identity (e.g., self-efficacy and sense of belonging), b) cultural competence (e.g., awareness about different cultures), and c) contribution (e.g., personal and community development). Throughout the investigation, it was confirmed that martial arts have potential as a vehicle to promote positive youth developmental outcomes, such as life skills, character

development, and social-emotional learning. Martial arts curriculum can be flexible to adapt needs of teachers and students (e.g., afterschool program and physical education). To conclude, more research needs to 1) pay attention to the potential of the martial arts-based youth development programs, 2) identify the positive youth developmental outcomes, and 3) explore the pedagogical processes that foster such outcomes.

UNPACKING MARTIAL ARTS PEDAGOGY IN SPORT-  
BASED YOUTH DEVELOPMENT

by

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Approved by

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## DEDICATION

This dissertation work is dedicated to my mentors, my family, my friends, my colleagues, and anyone who inspired, encouraged, and supported me during the challenges of graduate school and life.

APPROVAL PAGE

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## CHAPTER I: INTRODUCTION

### **The Core Values of Martial Arts**

Martial arts are as old as human beings (Lewis, 1996). The origin of martial arts was related to the biological and evolutionary nature of human beings that ensured adaptation and survival (Levine, 2005; Tadesse, 2016). Diverse cultures, religions, ethics, customs, and geographical features shaped the development of different types of martial arts (Bowman, 2015; Lewis, 1996). In particular, Eastern martial arts (e.g., Taekwondo) are rooted in Taoism and Buddhism (Cynarski & Lee-Barron, 2014; McCarthy, 2016; Nešković, 2020). For hundreds of years, such philosophy and religion guided warriors (e.g., *Samurai* in Japan and *Hwarang* in Korea) to train to fight and live as true warriors (Cook, 2001). The doctrine being used in Japan is called Bushido, meaning “the way of the samurai” includes eight moral codes: righteousness, heroic courage, benevolence/compassion, respect, honesty, honor, loyalty, and self-control (Masao, 2007). Another exemplary doctrine found in Korea is Hwarang-do, the way of flowering manhood which is governed by the five codes of human conduct (Sesok-ogye) handed down by a Buddhist monk with nine moral virtues: humility, courtesy, wisdom, justice, trust, goodness, virtue, loyalty, and courage (Cook, 2001). To this modern day, eastern martial arts (also called traditional martial arts) have emphasized such ethical and moral guidance in practice for self-improvement, -cultivation, -enlightenment, and -realization (Cook, 2001; Cynarski & Lee-Barron, 2014; Funakoshi, 1981; Lee, 1975; Lewis, 1996; Nešković, 2020).

The infusion of ethical and moral aspects in martial training is not exclusive to the eastern martial arts. Fighting spirits and the ways of the warriors guided by the chivalric code in the West (Euro-America), derived from Christianity (Cynarski & Lee-Barron, 2014).

Chivalry was not just a code for conduct within battles, it was lifestyle for the aristocratic warriors (Lynch, 2014). It influenced humanitarian law and policy that civilian, noncombatants must be protected even in armed conflicts (Schütte, 2015). This is shown in the sports world as the athlete's code of chivalry (Farrell, 2010), as the religious athlete that is a part of the ideology of Pierre de Coubertin's Olympism (Jirásek, 2015); and as the Muscular Christianity movement that promotes spiritual, moral, ethical and physical development through sport and physical activities (Watson, Weir & Friend, 2005).

The western code of chivalry closely parallels the eastern code of Samurai and Hwarang (Cynarski & Lee-Barron, 2014). The doctrines of being a good warrior are alive today as the soldier values and warrior ethos in the military forces of the United States (see U.S.ARMY, n.d.), as boy and girl scout law (Boy Scouts of America, n.d.; Girl Scouts of the USA, 2014), as educational values being taught in martial arts programs (Cynarski & Lee-Barron, 2014), and as life skills or responsibilities in value-based sport programs, such as sport-based youth development programs (SBYD), just to name a few (Hellison, 2011; Holt, 2017; Martinek & Hellison, 2009; Gould & Carson 2008). In modern society, being a warrior does not necessarily mean a person specializing in combat or warfare with fighting skills, it can be defined as the warrior spirit that make persons strong, deal with adversities, care about others, or become a good citizen. This statement is aligned with Gichin Funakoshi's famous quote, "The ultimate aim of karate lies not in victory nor defeat, but in the perfection of the character of its participants" that conveys the shift in mindset that actual combat application has become a secondary purpose for most practitioners in the modern era.



## **Teaching More Than Just Fighting**

Although the purpose of martial arts practice is not just training fighting skills, youth involvement in martial arts practice has been a socially controversial issue in youth sport development, physical education, and violent behavior literature (Endresen & Olweus, 2005; Lafuente, Zubiaur, & Gutiérrez-García, 2021; Sofia & Cruz, 2017). It may be that martial arts practice of using a “human target” to improve fighting skills (Cynarski & Lee-Barron, 2014) leads to concerns among educators about increasing aggression, anger, hostility, and physical violence in youth participants. Given that kicking, punching, throwing, body-checking, or jostling are essential to martial arts (especially, in Mixed Martial Arts, MMA) training and competitions, the positive correlation between MMA participants and increased aggressive behaviors seems understandable. However, the literature demonstrates that martial arts participation is not associated with externalizing behavior in youth (Cubbels, et al., 2016), but rather, tends to reduce aggressive tendencies (Harwood et al, 2017), and decrease levels of anger and aggression (Lafuente, Zubiaur, & Gutiérrez-García, 2021).

Martial arts should not be considered simply a possible channel for aggressive, violent, or externalizing behaviors in youth. On the contrary, martial arts can be a potentially worthwhile intervention for PYD (van der Kooi, 2020; Vertonghen & Theeboom, 2013; Wright, Li & Ding, 2010). Evidence found in literature demonstrates that youth involvement in martial arts lead to positive psycho-social outcomes (Vertonghen & Theeboom, 2010), improve wellbeing of adolescent (Tadesse, 2017) and prosocial behavior and classroom conduct (Lakes & Hoyt, 2004). Just as not all sport programs focus on “winning,” not everyone takes martial arts classes for “fighting,” competition, and self-defense (Bowman, 2019). Martial arts training sometimes focuses on learning about others (Phillips, 2016). This

is particularly true when it comes to traditional martial arts that are strongly underpinned by the philosophy, values, or cultures of the origin nations (Bäck & Kim, 1979) and the learning environment is characterized by respect, discipline, self-control, humility, confidence, responsibility, perseverance, honesty, conflict avoidance and extreme care in contact are strongly stressed (Lakes & Hoyt, 2004; Nosanchuck, 1981; Trulson, 1986). Taken together, the most common research topics in martial arts are prosocial and antisocial behaviors, aggression, and resilience for decades (van Der Kooi, 2020).

### **Martial Arts and Youth Development**

Although a number of martial arts scholars have explored youth developmental outcomes of martial arts participation, more attention has been paid to benefits of martial arts training that correct and fix what is considered wrong with youth's behavior (e.g., reducing aggressive behaviors). Through a SBYD (a field of Sport-based youth development evolved from PYD framework) lens, youth are seen as "resources" for fostering competencies rather than as "problems" to be managed (Damon, 2004; Lerner et al., 2005). SBYD literature has demonstrated "what is worth doing" (Hellison, 2011, p. 3) for PYD. They are theoretical and conceptual frameworks/models that provide ideas on what best practices can be for effective programming (e.g., design, implement, and evaluate) and teaching strategies. The teaching personal and social responsibility (TPSR) model has been widely used in SBYD that give youth program leaders a sense of how to create physical activity lessons and teach life skills to foster social emotional competences in youth (Hellison, 2011).

In fact, martial arts have the potential for PYD as well (van Der Kooi, 2020; Vertonghen & Theeboom, 2013), but little is known about how martial arts can be used as an asset-based approach to PYD. What makes martial arts practice unique is having

philosophical, cultural, and traditional components of origin nations in lessons. These values are implicitly addressed in martial arts practice so youth developmental outcomes of martial arts practice are still ambiguous (van Der Kooi, 2020) and not well understood (Vertonghen & Theeboom, 2013). Just as traditional, philosophical or cultural values are often taught implicitly through traditional martial arts, researchers implicitly address the “process” of martial arts related instructional or pedagogical strategies. This unknown is conceptualized as the “black box” by Vertonghen and Theeboom (2013) that illustrates the understanding of the underlying process within youth martial arts participation are absent in martial arts research and the need for examining mediating factors (e.g., the type of guidance, characteristics of the participants, and social contexts).

The importance of unpacking the black box has been emphasized in SBYD (Holt, 2016), and the black box of how youth developmental outcomes can be generated through SBYD programs has been grayer and grayer in attempts to answer to “what’s worth doing it” (Hellison, 2011, p. 3) for youth, determine what features of youth sport program work (Holt, 2016), examine how instructional methods or pedagogical strategies are successfully implemented (Lee & Martinek, 2013, Jacobs & Wright, 2018; Pierce, Gould & Camiré, 2017), and understand the methodological approach and the use of data-collection instruments as ways to investigate the mechanisms of PYD (Wright & Craig, 2011). Although the black box is grayer, many researchers still highlight the need for unpacking the “little known.” Therefore, understanding the process of what and how martial arts-based youth programs give rise to PYD will not only “enable more effective decision-making around its use within contexts such as school and youth intervention programmes” (Vertonghen and Theeboom,

2013, p. 250), but also shed light on making the black box grayer in SBYD research and practice.

### **Conceptual framework**

The study focused on the martial arts pedagogy in SBYD contexts. The black box of martial arts practice was explored through frameworks conceptualized by Vertonghen (2011) and SBYD framework (Holt et al., 2017).

The “black box of martial arts practice” developed by Vertonghen (2011) is a conceptual framework to better understand the underlying process of how youth participation in martial arts lead to psychosocial youth developmental outcomes. There are four mediating factors in the black box of martial arts practice. The first mediating factor is structural qualities of martial arts. Types of martial arts are categorized into soft martial arts or hard martial arts. The second mediating factor is the types of guidance. Traditional, educational-sporting, and efficiency-oriented instruction can be used as martial arts-specific teaching approaches. The two mediating factors are related to martial arts pedagogy which defines what, how and for whom martial arts are taught. The third and fourth factors are characteristics of the participants and social background. Using the black box approach, it assumes that different martial arts styles can attract youth with different sociocultural backgrounds (e.g., social class). So, it tends to produce different learning experiences and PYD outcomes (Vertonghen, 2011).

The black box of martial arts evolved from Coalter’s work (2007), using black box testing approach to examining which sports and processes generate which outcomes for which participants and under which circumstances. This is also true in the SBYD (Holt, 2016), and many SBYD researchers strive to understand the little-known processes of youth development

(Gordon & Doyle, 2015; Lee & Martinek, 2013, Jacobs & Wright, 2018; Pierce, Gould & Camiré, 2017; Wright, Grayd & Richards, 2021; Turnnidge, CÔTÉ & Hancock, 2014). The SBYD literature gives insight into how the PYD outcomes of youth participation can be examined through using conceptual or instructional models.

SBYD is grounded in PYD frameworks that focus on the inherent strengths and assets in all young people (Lerner, Lerner, Bowers & Geldhof, 2015). Using an asset-based approach to youth development, youth are viewed as resources for educating and fostering competencies rather than as problems to be managed (Lerner, Almerigi, Theokas & Lerner, 2005; Roth & Brooks-Gunn, 2003). Connecting youth to family, school, and community settings play an important role in developing competencies to become successfully functioning members of society (Wiese-Bjornstal & Weiss, 2009). SBYD is an umbrella term for many different sport-specific approaches to PYD that focus on holistic development of social, emotional, and cognitive skills (Holt et al., 2017). These skills are conceptualized as life skills (Gould & Carson, 2008), social emotional learning (Wright, Gray & Richards, 2021), and personal and social responsibilities (Hellison, 2011). These skills are taught in conjunction with sport skills that can be transferable to settings beyond sports (Gould & Carson, 2008). Thus, SBYD is defined as programming that is intentionally organized to empower youth to be active producers of their own development and change under positive climate that youth connect with peers and caring adults through sport and structured physical activity (Martinek & Lee, 2012; Martinek & Hemphill, 2020; Jacobs, Lawson, Ivy & Richards, 2017).

Don Hellison's TPSR has been noted by SBYD scholars and practitioners as a field-tested instructional model to intentionally promote PYD (Martinek & Hellison, 2016). The

TPSR model is what Don Hellison calls “a theory-in-practice” that emerged from his response to the essential questions, “what’s worth doing” in PYD programming (Hellison, 2011, p. 8). Based on his real-world teaching experiences in urban public schools and community settings, the theory-in-practice has been constantly tested in practice more than 40 years, and essential components of PYD programming have been framed for TPSR including core values, assumptions, levels of responsibility, program leader responsibility, daily program format, instructional strategies and assessment (Hellison, 2011). TPSR model provides instructional strategies under core values including putting kids first, holistic self-development, and a way of being, not just teaching (Hellison, 2011) that are strongly connected with the core values of PYD. The instructional strategies include teaching five levels of personal and social responsibility (respect, effort, self-direction, helping others, and transfer) in underlying conditions: integrating responsibilities into physical activity, empowering youth, developing positive relationships, and promoting transfer of responsibilities. Just as “TPSR is shared through a flexible framework” (Hellison, 2011, p 18), the utilization of TPSR framework is flexible that SBYD focused practitioners and researchers integrate TPSR framework with their own interests, needs, and purpose within their own contexts (Gordon & Beaudoin, 2020; Martinek & Hellison, 2016).

The restorative Youth Sport model (RYS) is a recently emerging applied model that integrates philosophy of restorative justice and pedagogy into the TPSR framework for SBYD programs to intentionally address conflicts to restore relationships and communities (Hemphill, Janke, Gordon & Farrer, 2018). Although the RYS model is conceptually blended, it “keeps the structure of TPSR intact while extending the model by explicitly focusing on building relationships and repairing harm” (Hemphill et al., 2018, p. 88). Similar to other

SBYD programs, the RYS model has potential not only to better manage problematic behaviors, but also to promote positive personal and social competencies (Gray, Wright, Sievwright & Robertson, 2019). Implementing the model in alternative high school physical education, Hemphill et al. (2021) found that restorative chats, listening circles, community circles, healing circles came out as restorative justice pedagogical strategies blending with TPSR's instructional strategies (e.g., building positive relationships). The circles were facilitated by either researcher and students with specific levels of core values for PYD including champion, hero, achiever, and peacemaker (Hemphill et al., 2021; Lee & Hemphill, 2020).

Collectively, SBYD programs are largely grounded in value/asset-based approaches to PYD using sport and structured physical activities. In particular, a number of frameworks, such as TPSR and RYS are adopted in various contexts reflecting different interests and needs, however (regardless of what frameworks are being used) building positive relationships, holistic development (social, emotional, and physical) in conjunctions with sport content, explicitly addressing life skills and transfer, and creating a positive climate (e.g., empowerment and focusing on strengths) are the best practices for SBYD in common.

### **Purpose of the Study**

A literature review on martial arts and SBYD revealed that little attention is paid to the underlying process of youth martial arts programs for PYD. What makes martial art practice unique are philosophical, cultural, or traditional heritages often emphasized and practiced in traditional martial arts. How these unique aspects of martial arts practice can promote PYD is little known. Many martial arts practitioners state that martial arts teach fighting skills not to fight. This paradoxical statement must be supported by empirical evidence. To fill the knowledge

gap, the purpose of this study was to unpack the black box of particular martial arts pedagogical practices in SBYD context. Based on the study aim, two research questions are formulated to guide this study:

- a. What pedagogical practices are integrated in martial arts-based youth development programs?
- b. What are youth's positive developmental experiences with particular pedagogical practices of martial arts?

### **Significance of the Study**

Recently, the notion that martial arts practice can yield positive developmental outcomes has been brought to the attention of UNESCO, which refers to the United Nations Educational, Scientific, and Cultural Organization, an agency that specializes in promoting peace through international cooperation. The notion has been supported by UNESCO's commitment to "utilizing martial arts as an educational method to teach young people the values and life skills that are needed to build a peaceful and nonviolent culture, including respect for oneself and others, self-discipline, fair play, resilience and respect for cultural diversity" (UNESCO, 2018, p. 4). Also, a growing body of research demonstrates that martial arts practice has potential as a vehicle to promote PYD outcomes. However, what particular pedagogical practices are employed and how youth are being taught to promote PYD outcomes have not yet been investigated. The research gap is conceptualized as the "black box of martial arts practice" (Vertonghen, 2010). By unpacking the black box, what particularities of martial arts pedagogy were potentially associated with PYD outcomes and how martial arts pedagogical practices were integrated with best practices or instructional models used in SBYD program were explored. Having three research contexts: 1) traditional Taekwondo



program, 2) afterschool martial arts program, and 3) high school physical education Taekwondo program enabled the researcher to gain comprehensive insight into different or universal martial arts pedagogical practices for PYD employed in the three contexts (cases).

The knowledge gained through this study will make an important contribution to martial arts-based youth development programming, where martial arts are taught as means to promote PYD by explicitly addressing life skills, social emotional learning, and personal and social responsibilities. Moreover, the result in “a greater understating of the underlying processes within youth martial arts participation would enable more effective decision making around its use within contexts such as schools and youth intervention programs (Vertonghen & Theeboom, 2013, p. 250). Finally, this also provides insight into physical education curriculum development that focus on reduction of antisocial or unhealthy behaviors as well as on inspiring youth to make positive impact to his/her peers, families, schools, and communities.

### **Limitations**

Every study has limitations to some extent. The limitations of this study existed due to results from the methodology and these that result from issues with the researcher that may impact the findings of this study. Pointing out the study limitations showed that the impact of research weakness was thoroughly considered and acknowledged that the limitations affected the conclusion that were drawn from the research. Therefore, it explained under which conditions the result should be interpreted.

### **Purposive sampling and case selection**

The purpose of this study was to gain deeper understanding of the black box of the martial arts pedagogy and positive youth developmental experiences. “Understanding” was the study aim not generalization of the research findings. Purposive case selection is used because

particular cases are especially informative to answer the research questions and researchers are able to gain deeper understanding of the particular cases (e.g., educational activities and behaviors) (Neuman, 2009; Ishak & Bakar, 2014). Three cases were selected for this dissertation study: traditional Taekwondo (case 1), afterschool Taekwondo (case 2), and high school physical education Taekwondo (case 3) that provided unique information about martial arts pedagogy and different contextual characteristics. These three cases were examined because the majority participants were youth, the programs focused on youth development, and the investigator had built strong relationships with instructors, parents, and students. Moreover, the three cases selected for this study shared similar characteristics. First, Taekwondo was central to the martial arts curriculum in the three cases. There are hundreds of martial arts styles in the world, but this study focused on Taekwondo as a particular martial arts style. The instructors in the three cases were Korean Taekwondo masters, therefore, the teaching methods, style, and philosophy might be constructed from the past learning experience with their Taekwondo masters and related to Korean culture and traditions. Geographically and culturally eastern martial arts share similar traditions, cultures, and history that are often grounded in the martial arts pedagogy. Therefore, Taekwondo can represent eastern martial arts, but the results from this study may not be generalized that all eastern martial arts teach the same things in the same ways.

Purposive sampling is a non-random sampling technique that uses a specific purpose to select particular research participants (Creswell, 2014; Miles and Huberman, 1994). The researcher purposefully recruited the research participants based on the purpose of this study. The research participants were selected who were expected to provide in-depth and detailed information about the martial arts pedagogy and learning experience with particular martial arts instructions and curriculum. Although they were purposefully chosen, they were not the only

group of people who had the knowledge and experience. For example, the research participants in case 3 (high school physical education Taekwondo) were selected based on their attendance. Only the students who actively and consistently participated in the program were asked to have an interview because it assumed that they had more knowledge and experience than those who didn't. Purposefully sampling more experienced and committed SBYD program participants is beneficial to gain insights into the potential impact of programs given prolonged exposure. (Jacobs & Wright, 2021).

### **Sample size**

This multiple embedded case study included quantitative data sources as a part of important evidence for this study. The research method was mainly qualitative approach. The descriptive statistical data from questionnaire surveys was a different types of data sources that better described the cases and identified particular patterns of the research findings. The procedures for the mixed approach to data collection and analysis need to be conducted rigorously, especially adequate sampling (Creswell, 2014). The sampling was the biggest challenge for this study due to COVID-19, a global pandemic during the year of this dissertation study. During the COVID-19 pandemic, the research procedures were affected by Guidance for COVID-19 (CDC, 2021). Lockdowns and limitations of access to public schools and research participants challenged the investigator to recruit large number of samples. Therefore, the sampling strategy used in this study was the purposive sampling that the sample size was small. Gathering multiple sources of data from the small-sized sample allowed the investigator to uncover the underlying processes of what and how martial arts were taught as a vehicle to promote positive developmental experiences. The results of this study may not be generalizable to other settings because of the small-sized sample.

### **Teacher-researcher bias**

The investigator was the lead instructor in case 3 (high school physical education Taekwondo program) and the author of this dissertation study. The researcher also has been teaching as an instructor to assist with the head instructor in case 1 (traditional Taekwondo program) and case 2 (afterschool martial arts program). Given the teacher-researcher role throughout this study, the researcher might hold biased views. It is possible that the researcher has biases toward data and results that only support the researcher's argument to answer the research questions.

## CHAPTER II: LITERATURE REVIEW

### **The Essential Components of SBYD Programs**

The emergence of the field of SBYD is grounded in the empirical evidence that sport and structured physical activity contexts can promote positive developmental assets for youth participants, such as physical development, psychological/emotional development, social development, and intellectual development (Fraser-Thomas, Côté, & Deakin, 2005; Hamailton, Hamilton, and Pittman, 2004) and internal assets (e.g., self-control) (Petitpas et al., 2005). The SBYD field has evolved from several frameworks (Jacobs & Wright, 2018). First, it is largely grounded in the Positive Youth Development framework (Larson, 2006). PYD is not a specific curriculum but is an approach to serving youth that focuses building on youths' strengths and providing appropriate supports and opportunities that lead youth to achieving goals and successful transition to adulthood in a healthy manner (Learner, Phelps, Forman, & Bowers, 2009). Hamilton (1999) asserts that the concept of PYD can be understood: as a developmental process, as a philosophy or approach to youth programming, and as instances of youth programs and organization focused on fostering the healthy or positive development of youth. The broad concept of PYD has been used to enhance "any" youth-serving programs, such as school-based youth development intervention programs and community-based youth serving programs.

Although SBYD programs have different approaches to PYD in different contexts with different interest, they share a common focus on developing youth's personal and social competences (e.g., life skills and responsibilities) through building positive relationships, social support, and opportunities to achieve the developmental outcomes and help youth thrive within their learning environment. This is the first essential component of SBYD programs since the field of SBYD is largely grounded in PYD framework (Jacobs & Wright, 2018) and SBYD

programs use sport and physical activity as a way to achieve PYD outcomes (Hemphill et al., 2019).

The other component of SBYD programming that makes it different from other sports programs is considering the importance of linking individual development with community development as a means of activating youth as assets and resources. As the sixth C (contribution) of the Five C's model (i.e., competence, confidence, connection, character, and caring) (Lerner (2009), and the most important TPSR model's theme, "transfer," and as the SEL focuses primarily on positive outcomes including school, career, and life success (Taylor et al., 2017), SBYD outcomes are not limited to educational settings or opportunities within the program itself but expand the opportunities for youth to strengthen assets and help them flourish in the social environment where they live. Therefore, the idea that PYD manifests as behavioral contribution to self and society is taken into account (Dowling et al, 2004), SBYD programs share a common emphasis on the connection between individuals and contexts. This also allows youth to be leaders and gives them other responsibilities to contribute their talents (Martinek & Hellison, 2016).

A third essential component of SBYD programs that is characterized to be unique and different from other sport programs is the application of strength-based approach to youth development through sport and physical activity (Hemphill et al., 2018; Jacobs & Wright, 2018), which is grounded in the PYD approach (Damon, 2004; Jones & Lavalley, 2009; Lerner et al., 2015). Researchers and practitioners strongly believe that youth must be viewed as resources to be developed rather than as problems to be managed (Larson, 2000). SBYD programs avoid traditional perspectives from the assumptions that youth are broken, in danger of being broken, or display deficits (at risk). Instead, a strength-based approach is

deliberately emphasized as teaching strategies in SBYD programs that counterbalance the deficit assumption with PYD perspective that youth display considerable strengths and potentials to become positive contributors to their lives (Lerner et al., 2013). The Youth Leader Corps (Martinek & Hellison, 2009) is an example that program leaders see youth as capable of being caring and compassionate leaders. The focus of the program is to provide youth with opportunities to identify their strengths they possess or develop potentials, not focusing on the deficits to be fixed or changed to become the leader.

The essential components of SBYD programs combine to suggest that sport contexts should be a vehicle to intentionally teach life skills and to provide opportunities to expand their learning experience to other areas of their life (transfer) to become a personally and socially responsible person through identifying strengths and developing potentials. In the following section, what practices are necessary to generate positive outcomes in SBYD programs are discussed.

### **Best Practices for SBYD**

In the field of SBYD, researchers agree that the following guidelines must be in place to best serve youth and generate positive outcomes in SBYD programs.

#### **Developing Intentional Curriculum for Teaching and Learning Life Skills**

The first component essential to producing positive outcomes in SBYD programs is how teachers and coaches design the program, curriculum and structure the lessons (program implementation) (Jacobs & Wright, 2018). The SBYD field is rooted in the belief that sport participation does not automatically promote positive developmental outcomes and that sport programs can do more than just improve physical performance (Gould & Carson, 2008; Petitpas et al., 2005). Therefore, when a curriculum is developed and implemented, SBYD programs

should structure the sport and physical activity as learning content to explicitly address the development of personal and social life skills (Gordon, Jacobs, and Wright, 2016). Generally speaking, in SBYD programs need to provide opportunities for youth participants to learn technical sport skills (e.g., self-defense and martial arts moves) in conjunction with developing life skills (e.g., respect, leadership, self-control, and teamwork) that can be applied to their life outside sport context.

### **Utilizing Intentional Curriculum for Teaching and Learning Life Skills**

It is critical that coaches and teachers make explicit discussions on what life skills are taught to promote positive youth development (Jacobs & Wright, 2018). Martinek and Lee (2012) argued that students must be aware of and understand the life skills taught in the program. This means that students must understand the learning content (life skills) (Danish & Nellen, 1997). Understanding of what life skills are being taught is often discussed in awareness talk and reflection time in programs using TPSR (Hellison, 2011) or opening circle and closing circle in programs using restorative practices approaches to youth development in sport context (Hemphill et al., 2018). Moreover, awareness of life skills must be connected to practice life skills through practicing sport skills during physical activity time. Youth participants are encouraged to show respect (bowing in Taekwondo lessons), helping others (holding a padded target for partners practicing their kicks), or being open-minded to the unknowns (working on new tasks or working with new people) that are discussed in awareness talk or opening circle. The integration of life skills with physical activity has been considered as a best practice for SBYD programs (Hellison 2011).

Reflection time and closing circle is used to reflect on life skills and discuss ideas how the life skills can be used outside the gym (Hellison, 2011; Martinek & Lee, 2012). Findings



from one study showed that well-defined life skills used in SBYD programs can increase a foundational understanding of life skills among youth participants (Hemphill, Gordon, & Wright, 2019). In this study, the authors found that a common language associated with life skills were created by the memorization strategy and emphasis on the life skill definition handbook (called the Passport to Success), and it motivate youth participants to learn and apply the well-defined life skills to their lives (Hemphill et al., 2019). This finding suggests that students' understanding of life skills can be facilitated by workbooks or journaling that explicitly indicate the core values of the program and life skills as the values in the workbooks or journal. For example, the core values of TPSR model (or goals) are consistently discussed during the lesson and after the lesson when youth leaders plan activities or reflect on the lesson (Martinek & Hellison, 2009).

The most important component to make quality SBYD programs is “transfer.” As previously discussed, developing youth and the community where they live is an important component of SBYD programs. Therefore, the focus on how to facilitate transfer of life skills is a best practice for SBYD programs (Jacobs, Wright, 2018, Hellison, 2011, Hemphill et al., 2019, Martinek & Lee, 2012; Gordon & Doyle, 2013). Jacobs and Wright (2018) suggest that focus on youth cognitive connections (i.e., motivated use, experiential value, and expansion of perception) as one of the strategies to foster youth's transfer of life skill and measure the degree to which transfer of learning is successfully facilitated in SBYD program. Hemphill et al. (2019) also found that youth having voice in SBYD programs helped discuss the application of life skills beyond the gym. This suggests that safe learning environments that youth feel safe to be open and have a voice are the most important best practices in SBYD programs (Hemphill et al., 2018; Hellison, 2011).

## **Building Positive Relationships and Safe Learning Environment**

A focus on relationships is central to SBYD programs. Coach-athlete relationships (Camiré et al., 2011; Fraser-Thomas et al., 2005), instructors-youth participants relationships (Hemphill et al., 2018; Wright & Craig, 2011), and youth leaders-younger kids relationships (Hemphill & Martinek, 2020; Martinek & Hellison, 2009) are key components to ensure the quality SBYD program that is most likely to generate positive developmental outcomes. Strategies and techniques to foster high-quality relationships which lead to PYD outcomes has been identified as: treating youth respectfully and maturely; effective communication; positive reinforcement and feedback; developing trust; demonstrating empathy; team-building activities; building on youth's previous experiences and assets, and being responsive and supportive (Carmiré et al., 2011; Gould et al., 2007). Hemphill and his colleagues (2018) especially emphasize relationship building as one of the most critical factors in SBYD programs and it holds significant potential for facilitating optimal development among youth. They agree that, “developmental relationships are the active ingredient” (Li & Julian, 2012, p. 158). It means that building relationships (active ingredients) enhance curriculum and facilities (inactive ingredients). This suggests that a curriculum to develop life skills will not be effective without building relationships.

The positive motivational climate is best established by instructors and youth participants together. When the relationships are concrete, youth are more likely to show respect as the way they are treated by others. Creating a motivational climate (support, encouragement, respect, and caring) is particularly important when SBYD programs serve youth in high-risk environments to build resilience and develop positive social skills (Martinek, Schilling, & Hellison, 2006). Also, as one TPSR theme suggests, empowering youth is a key

component to PYD. Empowering kids means students can express their feelings, opinions, and suggestions in the program. For example, in Tom Martinek's YLC program, youth are empowered to make decisions about what to teach to younger kids (what life skills and what physical activity should be taught). In the alternative physical education in Dudley high school, students were empowered to create questions about their interest for opening and closing circles and create their own Taekwondo moves with partners. As a result, we witnessed that students became more open-minded to share personal stories and responsible for their learning (e.g., Taekwondo skills improvement and student journaling). The more youth are empowered, the more contributions they make to personal, program, and community.

### **TPSR Model Central to SBYD Programs**

Teaching/Taking Personal and Social Responsibility (TPSR) model is one of instructional methodology and principles for PYD that has been recognized and widely implemented for SBYD programs in schools and after school programs. The core values or goals of the models are the essential components of SBYD programs that can be understood as "features of SBYD programs." The TPSR model was developed by Don Hellison (2011), which is grounded in the notion that youth participants need be empowered to become a responsible leaders and transfer of the personally and socially responsible behaviors they learned through sport and structured physical activities in SBYD programs to other areas of their lives (Martinek & Hellison, 2009). This instructional model provides five levels of personal and social responsibility, including participation, self-control, self-direction, caring and transfer of the responsibility to others settings (Hellison, 2011). The two developmental domains, personal responsibility and social responsibility are aligned with internal assets of PYD (e.g., life skills). Also, the four themes characterize the levels of TPSR: a) building positive teacher-students

relationship (support), b) empowering students (empowerment), c) integrating responsibility into physical activity (constructive use of time), and d) promoting transfer of responsibility (boundaries & expectations) shows a close alignment between values of TPSR and PYD goals (Martinek & Hellison, 2016). These values are essential components of SBYD programs often found in SBYD literature. Several studies introduced TPSR model-based instruction for PE teachers as guidance to effectively develop and implement curriculum to generate SEL outcomes. This claim that the TPSR model, one of the instructional models could be effective has been upheld by the evidence that the core values of TPSR model are directly aligned with the PYD outcomes (e.g., social emotional competencies) (Gordon, Jacobs, & Wright, 2016; Jacobs & Wright, 2014; Wright, Richards, Jacobs, & Hemphill, 2018).

### **The TPSR Framework to Promote PYD**

Although the values of TPSR and behavioral outcomes corresponding to the values can directly frame as PYD outcomes (e.g., social emotional competencies) (Jacobs & Wright, 2014), Gordon, Jacobs, and Wright (2016) found that program (or curriculum) implemented with high fidelity to TPSR model promote development of social and emotional competencies in youth. In other words, curriculum with high TPSR fidelity must be implemented in SBYD programs that intentionally address the core values of TPSR and themes through well-structured lesson format.

There are five critical components of TPSR lesson, including relational time (focus on building relationship in informal ways), awareness talk (a brief reflection and discussion what life skills will be focused and how it is important), physical activity lesson (physical activity integrate with the life skills discussed during the awareness talk), group meeting (a post activity discussion to share their thoughts and feeling about the activities and make suggestions for

future sessions), and reflection time (a large group discussion to provide opportunity for students to reflect on their own attitudes and behaviors during the lesson and share how it could be transferred to outside the gym) (Hellison, 2011). Along with a deliberate lesson structure, Wright and Irwin (2018) suggest nine pedagogical strategies that help program leaders to promote responsible behavior and other social emotional outcomes. These pedagogical strategies are guided and assessed using Tool for Assessing Responsibility-based Education (TARE; Wright & Craig, 2011). They include: modeling respect, setting clear expectations, providing opportunities for success, fostering social interaction, assigning tasks, providing leadership opportunities, giving choices & voices in the program, sharing roles in assessment, and promoting transfer (Wright & Craig, 2011).

### **Restorative Youth Sport Model (RYS) for PYD**

As the most important tenet of TPSR model-based curriculum is the development of both individual youth and community (e.g., transfer of life skills to school and being responsible citizens) as a way to promote PYD, restorative practices share common principles and values with TPSR, which “education is for and by the community” (Amstutz & Mullet, 2015, p. 3). This suggests that PYD can be fostered by building community and for the community. Like SBYD is largely grounded in positive youth development framework, restorative practices (RP) are rooted in the philosophy and theory of restorative justice (Zehr, 2002). According to Wachtel (2016), the RP is “a social science that studies how to build social capital and achieve social discipline through participatory learning and decision-making” (p. 1). The RP emphasizes a non-punitive approach to peacefully handling conflicts by bringing “together everyone” affected by wrongdoing to address needs and responsibility and rebuild relationships to heal the harm (Fronius et al., 2016; Zehr, 2002). This approach has been

recognized as an alternative to traditional response to student misbehavior in schools across the U.S. (Amstutz & Mullet, 2015; Losen, 2014) and to particularly address exclusionary disciplinary actions such as suspension or expulsion (Losen, 2014).

There are several critical reasons why the RP are embraced in school education. The RP emphasizes a more educative and restorative approach to school education along with its values and principles that provide a framework for program leaders and school personnel to implement in relevant settings. That are: 1) focus primarily on relationships and secondarily on rules, 2) give voice to both persons harmed and caused the harm, 3) engage in collaborative problem-solving, 4) enhance responsibility, 5) empower change and growth, and 6) plan for restoration (Amstutz & Mullet, 2015). Incorporating the principles in school discipline policies and practices, issues related to bullying and harassment, disengagement from school, and excessive and disproportionate applications of exclusionary discipline to racial and ethnic minority students have been particularly addressed (Kehoe, Bourke-Taylor, Broderick, 2018; Mansfield, Fowler, & Rainbolt, 2018).

In restorative schools, restorative circles, restorative chat, classroom agreements, restorative conference are found to be the most common applications of the RP that particularly emphasizes the process of building community, dialogue, and mutual respect among students and educators (Gregory & Evans, 2020; Gonzalez, 2015). Restorative circle is a meeting of students and educators in a circle to discuss group norms, concerns, and reflect on current issues or repair relationships and conflict. In general, the procedures for restorative circles include allowing one person to talk at a time with a “talking piece”, and encouraging equal voice talk time. Restorative chats is guided conversations with the individuals involved where the focus is on identifying the area that individuals are making amends over, what they learned

about how it made them and others feel, what they will do in the future to prevent the same issue from occurring, and how they will handle it differently if it does occur. Classroom Agreements is a process of developing class-wide expectations or norms for how students and educators will treat one another, how they will work together and problem solve around issues and concerns, and what they expect from one another. These agreements are cooperatively developed with the students, to increase a sense of ownership over their classroom culture.

Restorative Youth Sport model (RYS) is a recently emerging applied model that integrates philosophy of restorative justice and restorative pedagogy into TPSR framework for SBYD programs to intentionally address conflicts to restore relationships and communities (Hemphill, Janke, Gordon & Farrer, 2018). Although the RYS model is conceptually blended, it “keeps the structure of TPSR intact while extending the model by explicitly focusing on building relationships and repairing harm” (Hemphill et al., 2018, p. 88). Similar to other SBYD programs, the restorative practices have potential not only to better manage problematic behaviors, but also to promote positive personal and social competencies (Gray, Wright, Sievwright & Robertson, 2019). Implementing RYS in alternative high school physical education, Hemphill et al. (2021) found that restorative chats, listening circles, community circles, healing circles came out as restorative justice pedagogical strategies blending with TPSR’s instructional strategies (e.g., building positive relationships). The circles were facilitated by either researchers and students with specific levels of core values for PYD including champion, hero, achiever, and peacemaker (Hemphill et al., 2021; Lee & Hemphill, 2020).

Collectively, SBYD programs are largely grounded in value/asset-based approaches to PYD using sport and structured physical activities. In particular, a number of frameworks, such

as TPSR and RYS are adopted in various contexts reflecting different interests and needs, however (regardless of what frameworks are being used) building positive relationships, holistic development (social, emotional, and physical) in conjunctions with sport content, explicitly address life skills and transfer, and creating positive climate (e.g., empowerment and focusing on strengths) are the best practices for SBYD in common.

### **Value-based Martial Arts for SBYD**

#### **Teaching Martial Arts Beyond just Fighting**

When people think about martial arts, it often involves some evocation of punching/kicking and combinations of fighting (self-defense) skills demonstrated in modern mixed martial arts (e.g., MMA) or on the street (Bowman, 2019). Otherwise, a self-disciplined body exhibiting respect and self-control with particular traditional cultural practices (Farrer & Whalen-Bridge, 2011; O'Shea, 2018), such as wearing uniforms, opening and ending with meditation, and involving languages often coming from Asia, is a common perception of “martial art(ists).” Many people indeed presuppose that learning effective self-defense skills to fend off attackers (e.g., bullies) in the street is one specific outcome from martial arts practice. Although becoming a good fighter can be a foundational reason for martial arts practice, the primary purpose is not fighting. Not everyone takes martial arts classes for fighting, competition, and self-defense (Bowman, 2019). Martial arts involve learning about more (other) than fighting (Phillips, 2016).

There are various martial arts styles and systems grounded in certain values, principles, and philosophies. The ultimate goal of using martial arts varies depending on what martial arts teachers/students pursue. Given that martial arts styles and systems can be transformed from teacher to teacher or even overtime under the same teacher (Bowman, 2019), the purpose of



using martial arts is not set in stone but rather established. Therefore, martial arts practice with different purposes is woven into everyday life and leads to a multitude of outcomes, such as health cultivation (Fuller & Lloyd, 2020), personal and social development (Wright et al., 2010), and the development of pedagogical practices (Theeboom, Knop, & Vertonghen, 2009; Vertonghen, Theeboom, & Cloes, 2012), to name just a few. The purpose of teaching and learning in martial arts needs to or can be associated with what problems need to be addressed and solved. Bowman (2019) provides a remarkable statement that “what is more important in Krav maga training - how to handle a knife or how to keep going in the face of all terrors and adversities in a combat situation” (p. 5). It offers excellent insights into what aspects of martial arts are prioritized and even how teachers’ beliefs or values influence decision-making for what aspects of martial arts should be emphasized.

Those who train martial arts in the military focus on wins in battles. Those who train martial arts in combat sports (e.g., Taekwondo, Boxing, Judo, Wrestling) develop martial-sport skills to prepare for competitions. Those who do martial arts in health-enhancing-focused programs stress the importance of the body-mind healing, recovering, and strengthening. Those who practice martial arts in academic settings (in-school and out-of-school programs) facilitate academic achievement and positive personal and social development for youth to become good citizens. On the one hand, the first two are considered the sport plus approach that focuses on developing sustainable sports organizations or programs to deliver sport-oriented objectives (e.g., developing sporting skills or increasing sport participants). On the other hand, the last two can be defined as the plus sport approach that uses sport as a means of accomplishing the non-sport outcomes that result from social and health programs, such as promoting youth development outcomes or reducing unhealthy behaviors (Coalter, 2009). In the plus sport

programs, short-term outcomes (e.g., life skill education and behavior change) take precedence over the development of sport (Coalter, 2009). The sport-based youth development (SBYD) field intentionally implements programs to foster PYD through sport, structured physical activities, and martial arts (Could & Carson, 2008; Hellison, 2011, Wright & Burton, 2008). Thus, “martial arts do not mean one thing to many people. They can and do mean many things even to one person” (p. 169) according to Bowman (2016).

### **Positive Outcomes of Martial Arts Practice**

Recently, the notion that martial arts practice can yield positive developmental outcomes has been brought to the attention of UNESCO (the United Nations Educational, Scientific and Cultural Organization). The notion has been supported by UNESCO’s commitment to “utilizing martial arts as an educational method to teach young people the values and life skills that are needed to build a peaceful and nonviolent culture, including respect for oneself and others, self-discipline, fair play, resilience and respect for cultural diversity” (p. 4). It is not a surprise for educators and youth welfare workers since the notion has long been discussed in a wide range of disciplines (e.g., pedagogy, sociology, psychology, physiology, biomechanics, or epidemiology as focus of martial arts studies) (Vertonghen & Theeboom, 2013). In an early martial arts study, Cox (1993) presented that martial arts practices had significant impacts regarding personality traits, aggression and anxiety, emotions, and physical fitness, and mental training. Later, a comprehensive study of martial arts practices through reviewing more than 350 papers confirmed that youth involvement in martial arts led to psycho-social outcomes (Vertonghen & Theeboom, 2010). One of the key findings from the study was that self-esteem, confidence, and self-control were increased, whereas aggression was reduced. Another key finding included that although there were negative effects (e.g.,

increased aggression from hard martial arts training), more positive psycho-social outcomes were found than evidence to support negative outcomes. In addition, the psycho-social outcomes of martial arts practice, wellbeing of adolescents was addressed as outcomes from martial arts practice (Tadesse, 2017). Conducting systematic literature review, the author found that practicing martial arts was associated with wellbeing of adolescents: health, life achievement, personal relationships, personal safety, and community connectedness. These findings were corroborated in a 3-month martial arts intervention study with 270 5th-grade students that participant of martial arts demonstrated greater improvement in cognitive self-regulation, affective self-regulation, prosocial behavior, and classroom conduct that were not found in a traditional physical education group (Lakes & Hoyt, 2004).

### **Implicit Approach to Promoting PYD**

In the light of the positive outcomes of martial arts practice briefly discussed earlier, it is assumed that the natures (essential elements) of martial arts have potential to foster positive outcomes, such as social and emotional skills. This phenomenon is demonstrated in a study that explores the transfer of life skills through Brazilian Jiu-Jitsu (Chinkov & Holt, 2016). The participants acquired a range of life skills including respect for others, perseverance, self-confidence, and healthy habits that made changes in their lives. The authors found that the participants' acquisition of life skills was attributed to the role of instructors and peer support, and the values and characteristics of the sport of BJJ. They added that "these life skills were not taught through direct pedagogical strategies but rather were features of the characteristics and values needed to practice BJJ" (p. 145). The philosophy of BJJ is efficiency (e.g., hard work, respect, and honesty), control (e.g., discipline), and perseverance (Gracie Jiu-Jitsu Youngsville, n.d.). Based on these foundational principles, teaching and learning and social interactions take

place in the BBJ club that enable participants to implicitly learn life skills associated with the BBJ teaching philosophy without explicit pedagogical strategies. This implicit instruction is often found in the martial arts literature as characteristics of traditional or Asia origin martial arts (Nosanchuk, 1981; Nosanchuk & MacNeil, 1989; Trulson, 1986).

There is a clear distinction between traditional and modern martial arts according to qualities, styles, and orientation. In general, Karate, Tai chi, Aikido, Judo, Taekwondo as examples are classified as traditional that martial arts practice styles (e.g., what and how to teach and learn) are strongly underpinned by the philosophy, values, or principles of the origin nations of the martial arts (Bäck & Kim, 1979). Nosanchuk (1981) described that “self-control, conflict avoidance and extreme care in contact are strongly stressed” (p. 438) in traditional martial arts, whereas modern martial arts focus on only free-sparring and self-defense techniques (Trulson, 1986). A study on martial arts practice and its aggression (Trulson, 1986) demonstrated that traditional martial arts served as an effective method for dealing with the problems of juvenile delinquency. In this study, Taekwondo emphasized on respect for others, humility, confidence, responsibility, honesty, perseverance, and honor in accordance with Taekwondo practice philosophy as an integral part of the Taekwondo-based intervention. Martial arts practice along with the philosophical principles upon which they are based seem likely to lead to the positive outcomes (e.g., self-control, respect, and perseverance) (Twemlow & Sacco, 1998), but they are indeed taught implicitly. In other words, although what (philosophy specific to practice) is taught is understood, how it is delivered is still not a clear process of learning. Therefore, it is implicit. Implicit learning is “learning without conscious attention or awareness” (Brown, 2007, p. 291). The inherent features of martial arts can be rules and a learning climate that are created based on the philosophy of a particular martial arts and

managed by an instructor (Chinokv & Holt, 2016). The inherent features can influence the learning process which in turn, lead to positive outcomes (Camiré & Kendellen, 2016; Bean, Kramers, Forneris, & Camiré, 2018). The literature suggests the key elements for a successful martial arts treatment program are the instructor as role model, group of members, and philosophy of the martial arts (Twemlow & Sacco, 1998). Those three are interconnected as a factor that influences implicit teaching and learning. Instructors should demonstrate as a role model who provides authority figure for the students and behave beyond reproach (Trulson, 1986). Chinkov & Holt (2016) also found that the role of instructors and peer support in a BJJ club developed an atmosphere for learning life skills implicitly. Specifically, the atmosphere was described as safe, disciplined, never giving-up, generous, and caring which are grounded in Gracie philosophy (Gracie Jiu-Jitsu Youngsville, n.d.).

### **Black Box of Martial Arts Practice of What Brings to PYD Outcomes**

#### ***Martial Arts taught Implicitly without Explicit Pedagogical Strategies***

Contrary to the conventional wisdom about the positive developmental outcomes of traditional martial arts practice, the modern martial arts (e.g., Boxing, Wrestling, Muay Thai, modern style of Taekwondo or Judo and combinations of different martial arts styles maximizing fighting abilities) have long been the subject of controversy over likelihood of increasing aggression and antisocial behavior (Endresen & Olweun, 2005; Nosanchuk & MacNeil, 1989). Given that kicking, punching, throwing, body-checking, or jostling are essential to most martial arts practices, increased aggressive behaviors in youth seems irrefutable evidence. Recently conducted research on youth development through martial arts reported that both BJJ (Brazilian Jiu-Jitsu) and MMA increased socially desirable behaviors, but participants in MMA showed their aggression elevated. Conversely, BJJ participants

demonstrated a decline in aggression (Mickelsson, 2020). Similar to the findings, Sofia and Cruz (2017) found that athletes from high physical contact sport including Kickboxing, Boxing, Wrestling, Rugby, and Handball reported higher levels of antisocial and aggressive behaviors towards teammates compared to athletes from a group of low/moderate physical contact sport: indoor soccer, roller hockey, volleyball, and basketball. Likewise, findings from Mutz's (2012) study suggested that athletes in hard-contact sport (martial arts or combat sport) and power sport (e.g., bodybuilding activities) tend to approve violence and use physical violence more often than other sports participants or non-athletes. In the light of the research evidence, sport programs providing a combination of sport and martial arts seem likely to increase aggression and antisocial behaviors among youth participations. This is confirmed in Endresen and Olweus' (2005) study that participants in martial arts alone, not as a part of physical activities in a sport program did not result in increased violent and deviant behavior patterns among male youths. Even martial arts-based intervention alone (not combination of other sports), there are other variables in increasing or decreasing aggression and antisocial behaviors including: 1) martial arts styles, such as traditional or nontraditional, (Graczyk et al., 2010; Trulson; 1986; Vertonghen, Theeboom, & Pieter, 2014) and 2) lengths of practice (e.g., Daniels & Thornton, 1992; Nosanchuk, 1981; Nosanchuk & MacNeil, 1989). Taken together, there have been three significant variables found in martial arts literature that either increase or decrease the aggression and antisocial behaviors. These are 1) whether martial arts is a part of a broader sport intervention program, 2) whether youth participants practice traditional martial arts, and 3) whether the practitioners have experience in earning black belt and/or practicing more than one year.

Although methodological aspects of the studies seem strong, one possible critique that should be addressed is that those martial arts studies on aggression and antisocial behaviors have paid no attention to describe the qualities of intervention program, such as who were teaching it, what were the focus of the program, what were the lesson format, what goals the program leaders (instructors or teachers) focused to achieve, and what were the characteristics of the social contexts that the program took place. In other words, such pedagogical approaches should be addressed that may be considered as important factors that influence the behavioral outcomes and program outcomes often described well in SBYD (Fraser-Thomas, Côté, Deakin, 2005; Gould & Carson, 2008; Hamilton, Hamilton & Pittman, 2004; Hellison, 2011; Holt et al., 2011; Jacob & Wright, 2018; Martinek, McLaughlin & Schilling, 1999; Wright & Crage, 2011). Explicit learning is a “conscious awareness and intention to learn” (Brown, 2007, p. 291). In a structured environment, specific learning objectives are clearly and directly given to students. In SBYD contexts, the explicit approach refers to which the program leaders deliberately assist their students to identify life skills they learn from the sport program and transfer of life skills (Hellison, 2011, Lee & Martinek, 2013; Turnnidge, Côté, & Hancock, 2014). This means that program leaders should ensure implementing deliberate pedagogical strategies for youth participants to be aware of life skills for their well-being in their life. To SBYD practitioners and researchers, the explicit pedagogical strategies are normally regarded as a catalyst for program success (e.g., increasing understanding of life skills or behavior change).

### ***Black Box of What Impact PYD in Martial Arts***

Vertonghen (2011) and Vertonghen and Theeboom (2013) borrowed a “black box” concept from Coalter’s (2007) study to illustrate the hidden processes between positive

developmental outcomes and martial arts practice in youth martial arts studies. They argued that youth martial arts researchers have to scrutinize the hidden processes to better understand possible mediating factors and causal processes. The illustration of the black box signifies the youth martial arts program's content that is absent in the martial arts literature. Simply put, what is going on or what's happening during the program is worth questioning to uncover the hidden processes. Vertonghen and Theeboom (2013) presented mediating factors, such as the structural qualities of various martial arts (e.g., in what styles and systems of martial arts are taught), the type of guidance (e.g., teaching methods including traditional, educational-sporting, and efficiency approach), the characteristics of the martial artists, and participants' social socialcultural background (e.g., social class and personalities). These four mediating factors can play a significant role for youth martial arts practitioners in designing and implementing their program. Furthermore, this might be provided as a framework for researchers to design their research and analyze what components of the program produce the developmental outcomes. Taking these possible mediating factors account for successful youth development martial arts programs, there is a well-recognized instructional model developed by Don Hellison' TPSR model (2011) that can be compatible with such factors to contribute to promoting positive youth development outcomes by providing explicit value-based pedagogical strategies and empowering youth to take personal and social responsibility through sport and martial arts.

Using the TPSR model in martial arts focused SBYD program demonstrate that martial arts can be means for fostering life skills development and character development (Hellison, 2011; Hemphill, Lee, Ragab, Rinker & Dyson, 2021; Wright et al., 2010; Fuerniss & Jacobs, 2020; Gordon, Wright, Hemphill, & Sauni, 2021; Hemphill, Gordon & Wright, 2019). The research described what and how martial arts were implemented, how life skill learning was



integrated in martial arts, what youth participants experienced in the program, and how the learning experience was connected to their lives outside the gym. An exemplary work done by Gordon and his colleagues in 2021 includes background to the boxing program, program climate, program content (e.g., values and boxing skills), and participants' (youth and coaches) behavior within the program and perceptions of the program. This work successfully unpacked what occurred in the program (inside black box) and examined its associated with developmental outcomes of the program. To identify the inside black box, multiple methods of data collection and analysis were used, for instance systematic observation, interview, focus groups, survey, and documents. It is worth comparing it with other youth focused martial arts program studies that usually use surveys or interviews to understand deeply inside the black box. Results from surveys or interviews solely are very limited to understanding what and how martial arts practice generates positive youth development outcomes.

## CHAPTER III: METHODOLOGY

### **Research Design: Multiple-Case Study**

The purpose of this study was to unpack the black box of particular martial arts pedagogical practices in SBYD. This study also sought explanation as to what and how particularities of martial arts pedagogy are linked to positive youth developmental experiences. Case study is an appropriate methodology when asking “how,” “why,” “what,” and “who” questions (Yin, 2014). Case study is defined as “an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (Yin, 2003, p. 13). In other words, case studies are used when researchers wish to gain an extensive and in-depth description of a social phenomenon and explain the phenomenon (Zainal, 2007). Multiple-case study provides a better understanding and explanation of the phenomenon because having several cases allows for a comparison of those cases, which can lead to stronger evidence. Researchers conduct the multiple-case study to understand the differences and the similarities between the cases (Baxter & Jack, 2008; Stake, 1995). In multiple case study design, researchers are able to collect and analyze the data both within each situation and across situations (Yin, 2003). Therefore, researchers might provide the knowledge with an important influence from findings of the contrasts and similarities through comparing each case (Vannoni, 2014).

Case studies often integrate with mixed methods in need to seek a more complete understanding and explanation through the mixed of qualitative and quantitative approaches (Creswell & Plano Clark, 2018; Guetterman & Fetters, 2018; Yin, 2014). Researchers increasingly combine case studies and mixed methods, which, “if conducted systematically

and thoughtfully, can yield a more complete understanding” (Guetterman & Fetters, 2018, p. 901). For example, Gordon and his colleagues (2021) use mixed methods to identify the process and procedures occurring within SBYD programs. Using mixed methods allowed researches to have more choices of possible data sources to better understand and the “black box” (hidden mechanisms for PYD) inside the SBYD program. Similar to the study, the multiple cases were examined utilizing the mixed-methods approach (Creswell & Plano Clark, 2018) to unpack martial arts pedagogy in SBYD context.

### **Philosophical Worldview: Pragmatism**

Creswell (2014) defines philosophical worldviews as a “general philosophical orientation about the world and the nature of research that a researcher brings to a study” (p. 35). The philosophical orientation leads to identifying what methods need to be used for data collection and analysis (Cuba & Lincoln, 1994). The investigator approaches this dissertation study with pragmatism. Pragmatism as a worldview finds its philosophical foundation in the philosophy of pragmatism (Maxcy 2003) developed by Peirce, James, Mead, and Dewey (Cherryholmes, 1992). According to Creswell (2014) the particular philosophical underpinnings of pragmatism are: 1) truth is what works on a practical level at the time, 2) pragmatism is not based in any one system of philosophy or reality, and 3) pragmatists do not see the world as an absolute unity. In practice, researchers use the philosophical and/or methodological approach that works best for specific research problems that is being studied at the time (Tashakkori & Teddlie, 1998). Researchers who take an approach of pragmatism have a freedom of choice in terms of methods, techniques, and procedures of research that best meet their needs and purposes. This applies to mixed methods research (Johnson & Onwuegbuzie 2004; Maxcy 2003; Morgan 2014) in that researchers look to many approaches

for collecting and analyzing data rather than being committed to only one way (e.g., quantitative or qualitative). Ultimately, pragmatic approach focuses on “what will work best” in findings answers to research questions including diverse methodological combinations. It may provide a broader understanding of particular phenomena being studied. From this perspective, the investigator found mixed methods approach as solutions to research problem that unpack the black box of martial art pedagogy and its related positive youth developmental experiences. To better understand the black box, mix methods approach was more effective than employing a sing methodological approach.

### **Positionality Statement of the Investigator**

My educational philosophy is strongly influenced by John Dewey’s work that continues to inform educational practice today. I agree with his philosophical position that things that work in a practical situation are true. This applies to an idea of teaching philosophy that things that are taught in education should be practical for life to help students grow into better people. I believe that what students learn should be applied to the real world regardless of subjects including Math, Science, English, Music, and Physical Education. Hence, the duty of teachers and/or instructors are to provide opportunities that students will face different problems and challenges relation to real life and create values in interconnected with others and an environment. Dewey’s philosophy of pragmatism in education is also associated with my favorite teaching method, “learning by doing.” I like to teach life skills through Taekwondo that reflects the principle of leaning by doing. In my view (also in SBYD literature), life skills can be used everywhere in our lives that can be taught through structured physical activities, sport, and martial arts. I see the potential of martial arts that help student develop life skills as well as abilities to defend themselves if it is taught intentionally within

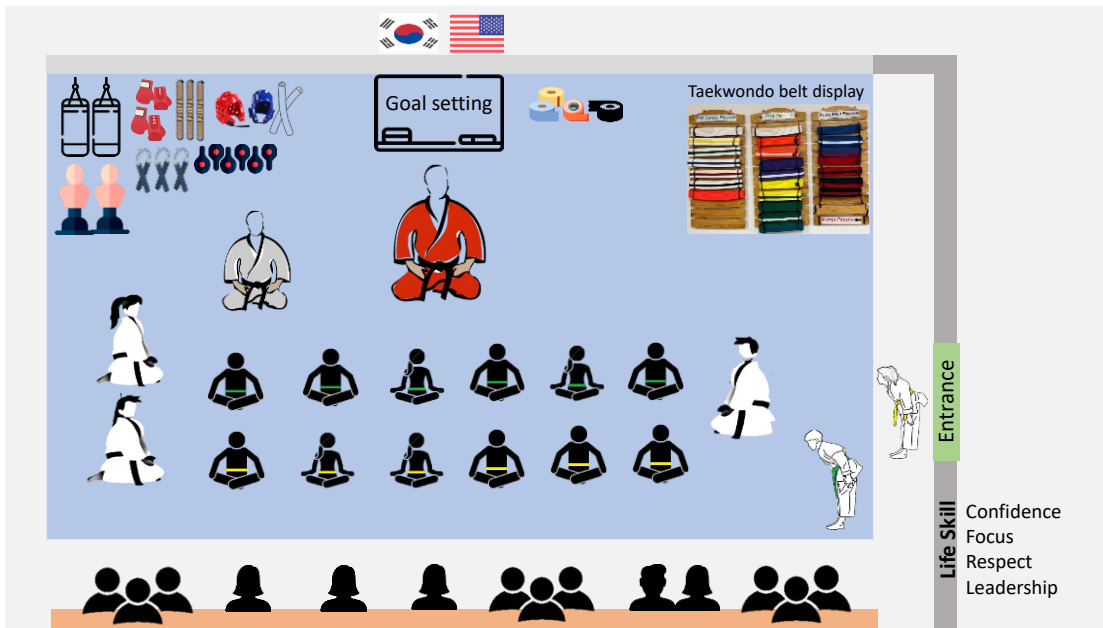
positive learning environment. I've learned that individual martial artists develop physically, mentally, socially, and aesthetically through martial arts practice. All around development of youth martial artists is an important goal of my teaching. I believe martial arts can do that. Although there are potential of martial arts, many don't know about the positive aspects of martial arts practice. I thought it was because there was not much evidence that martial arts had potential for PYD. My practical experience motivated me to conduct this dissertation study to identify the potential of martial arts, such as best practices or martial arts curriculum contents.

### **Three Research Contexts**

#### **Black-Belt Club Taekwondo Academy (Case 1)**

The first research context was the Black-belt club Taekwondo academy. It is a person owned traditional Taekwondo program, located in North Carolina. The program began in 2012, and now there are approximately more than 140 students who are active members of the academy. The academy provides a summer camp program, afterschool-program, and regular Taekwondo program. Taekwondo, a Korean traditional martial art, is mainly taught in all the programs. Typical Taekwondo curriculum in the academy consists of four major components: sparring, self-defense, forms (*poomsae* in Korean), and board breaking. Becoming a black-belt is the ultimate goal of most students that takes three years and six months. There are 17 different belt colors students should earn as a process to become the black-belt. To earn each belt, students are required to demonstrate specific Taekwondo skills during the belt-promotion testing.

**Figure 1. Physical features of traditional Taekwondo program (Case 1)**



The black-belt club Taekwondo academy is located right in a shopping center adjacent to one of the most popular retailers in the U.S. In the mall, people going to restaurants or shopping can see students practicing Taekwondo through the glass wall. On the glass wall, life skills being taught in Taekwondo practice were presented: Confidence, Focus, Respect, and Leadership (see Figure 1). On the front wall of the Taekwondo training hall, a flag of South Korea and a flag of the U.S. were attached, while colored Taekwondo belts were displayed that show four different programs: Pre-school, Trial, Black belt, and Master Programs. White, black, green, blue, yellow, and red color stripes of tape were also hung on the wall that are used as stripes on students' belts as they achieve a satisfactory level of Taekwondo skills. Sparring gears, punch pads, kick pads, heavy bag, martial arts training weapons (nunchucks and bo staffs), alternative weapons (swimming pool noodles), Taekwondo mitts, and general physical activity equipment (e.g., cones, agility ladder, gymnastic mats) were equipped in a corner of the training hall. A whiteboard was placed at the center of the front wall to write down a life skill that was explained

and taught during Taekwondo practice. Martial arts mat covered the floor of the Taekwondo training hall to ensure students' safety. More than 15 chairs were arranged in a row in the back of the training hall so that family members could observe activities while their children were practicing Taekwondo.

The major components of the Taekwondo class include an opening ritual, Taekwondo training, and closing ritual. The opening ritual includes bowing to the training hall, flag, black-belt students, and instructors, teaching black-belt life skills (e.g., confidence, self-control, and trying your best), and meditation for less than 30 seconds. Taekwondo content is not limited to Taekwondo skills development. It includes weapon training, handling *Nunchuks*<sup>1</sup> and *Bo staffs*<sup>2</sup>. Taekwondo is taught in various manners, for example drills, group exercise, partner drills, physical fitness, and races (e.g., how fast, and how hard). Closing ritual consists of bowing to the instructor, black-belt students, their partners, and parents as a sign of respect and gratitude and a student leader or volunteer student leading a chant. Students are required to bow to the training hall right after they step off the mat. Each Taekwondo class, there are youth leaders who assist with the head instructor to help other students (e.g., holding the kick pads, teaching forms, and being a partner during partner drills). Korean Taekwondo terminology and general words in Korean for Taekwondo are taught during the Taekwondo class.

Logan is the owner of the Black-belt club Taekwondo academy and the head instructor. He is 35 years old from South Korea. He started Taekwondo when he was 13 years old. He went to Yong-in university where the first Taekwondo department was established in the world. He

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<sup>1</sup> Nunchuk is “a weapon used in traditional Japanese martial arts, consisting of two sticks joined at one end by a chain or rope” (Cambridge University Press, n.d.) which is often called, dual section sticks in English.

<sup>2</sup> Bo staff is a “6-foot wooden staff (originally) that martial artists of many styles use in the practice to improve all their skills: hand coordination, balance, footwork, speed and power (Demura, 1976). The usual translation of *Bo staff* is stick weapon in English.

committed to Taekwondo demonstration team during his college years. He served as a captain in the demonstration (demo) team, being responsible for creating Taekwondo demonstration movements, combining the Taekwondo movements into dances to be performed, and leading and training the team members. He first came to the U.S. in 2014. With the Taekwondo experience, his teaching focuses on performance rather than efficiency. Taekwondo demonstration is an important part of his Taekwondo curriculum that requires Taekwondo life skills, such as cooperation, respect, self-control, goal-setting, and leadership. Although physical competence in Taekwondo to perform well and be able to defend themselves is crucial, he believes youth displaying positive attitude and behavior as a “taekwondoist” is equally important. He has been always interested in how to teach life skills through Taekwondo practice. The investigator has worked with him for more than five years in the Black-belt club Taekwondo academy. He has known that the investigator studies about the sport-based youth development, and allowed the investigator to teach life skills in his Taekwondo classes. He wanted to focus on teaching life skills and integrate the life skills development into his Taekwondo summer camp in 2021. He utilized the TPSR model as a guidance to teach life skills and facilitate transfer of the life skills. He believes Taekwondo is a great physical activity and sport that helps physical and mental development of youth taekwondoists. He also tries to encourage youth taekwondoists to transfer the life skills learned through Taekwondo practice to their lives.

### **Afterschool Taekwondo Program (Case 2)**

The second research context was an afterschool Taekwondo program (case 2). The program is offered within the black-belt club Taekwondo academy where the traditional Taekwondo is being provided. The head instructor for the afterschool Taekwondo program is Logan, the same Taekwondo master in the traditional Taekwondo program. Before the traditional



Taekwondo class begins, the afterschool program is operated by Logan from 3:15pm to 4:15pm. Unlike regular (traditional) Taekwondo class, students are not often motivated to take a course focused on obtaining a black belt. Students come to the program from Monday to Friday from 3pm to 6pm. Students in the program learn basic Taekwondo techniques and Taekwondo related physical activities (e.g., gymnastics, obstacle courses, and fitness). Improving mental health, physical fitness, and positive social connections are more emphasized than improving Taekwondo skills. Although wearing the colored belt and Taekwondo uniform are optional for the students, a sequence of Taekwondo fundamentals is taught as fun activities.

**Figure 2. Physical features of afterschool Taekwondo (Case 2)**

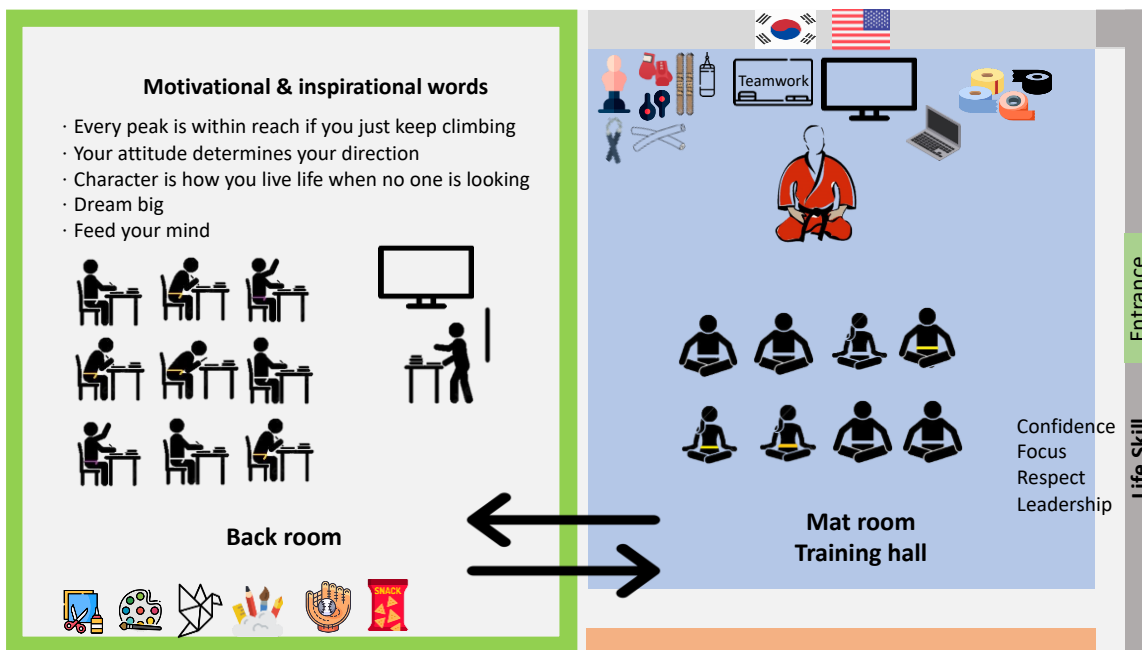


Figure 2 illustrates the physical features of contextual factor in case 2. On the right side of the figure, it shows that the physical features are the same as the traditional Taekwondo program, except for the parent involvement. The instructors utilize a laptop, and TV screen to teach life skills. YouTube videos and PowerPoint presentations are often used to carry out Taekwondo life skills education. On the left side of the figure is a backroom where students do

their homework and other activities (e.g., crafts). This includes snack as well. On the wall of the backroom, there are several motivational and inspirational words, for instance “your attitude determines your direction,” “character is how you live life when no one is looking,” and “feed your mind.” Students spend approximately two hours in the back room with a female teacher (not participating in this study) and his/her peers. This indicates that what students are doing in the backroom is equally important as practicing martial arts in the mat room.

### **High School Physical Education Taekwondo (Case 3)**

The third research context for this study was Spartan High School. The Spartan was founded as the first high school in the region focused on educating Black students in 1900s. The school is located in an underserved area in the city and categorized as a Title 1 school which indicates that a majority of students deal with the social issue of poverty. It is reported that school staff face students’ misbehaviors and exclusionary discipline practices. According to data from the local school district, 451 students at the Spartan high school experienced chronic absenteeism during the 2017-2018 school year. That number represents 44% of the student body whose attendance placed them at risk for school dropout. This led to a pilot program to integrate conflict resolution education in the 9th grade health and physical education curriculum. Supported by in-kind contributions from the university, a team of faculty members, graduate students, and undergraduate students have developed and implemented a physical education curriculum to teach conflict resolution skills through Taekwondo. Since 2017, UNCG’s department of Kinesiology and Peace and Conflict Studies have developed a reciprocal partnership with Spartan high school, and this allowed the program staff to resume the implementation of the Taekwondo program during the pandemic under CDC COVID-19 guidelines.

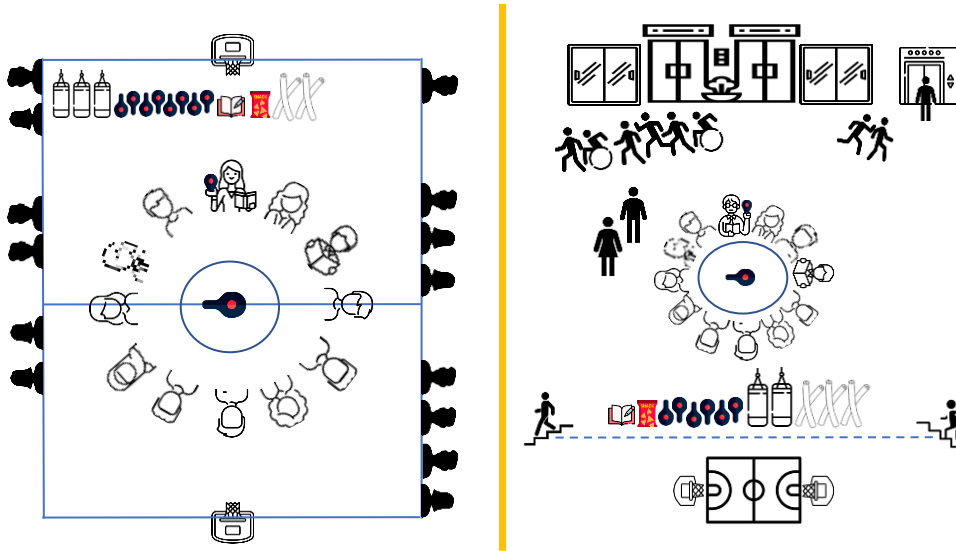
The investigator of this dissertation study is a lead instructor called a coach Sun in the high school since 2017. He has been teaching Taekwondo for eight years since he came to the U.S. in 2013. He has experiences in teaching Taekwondo to diverse American students in gender, race, and class including students with disabilities in multiple Taekwondo studios. He has earned the sixth degree on his black belt and has expertise in sparring and self-defense. His teaching philosophy in Taekwondo is that Taekwondo is not just for fighting or self-defense, but Taekwondo is a great opportunity for life skills development to be a better person. He took several sport-based youth development courses that addressed theoretical and/or conceptual frameworks and models as best practices for positive youth development in sport and physical activities. The TPSR model was one of the frameworks he studied and utilized in his practice in Taekwondo studios for years. He has attended the annual TPSR Alliance Conferences since 2016 and presented his experience in integrating the TPSR model into Taekwondo programs. He gained insights into how to implement the TPSR models in various practices including Taekwondo studios and the physical education Taekwondo from the conferences.

He also sees conflict situations naturally inherent to Taekwondo practice as kicking and punching are essential skills to practice with others. He also sees Taekwondo (and other combat sport) as a unique opportunity to address conflicts so that students can be able to effectively manage personal and interpersonal conflicts. With the perspective, the investigator integrated Taekwondo content with restorative practices to address conflict resolution in the high school physical education. The investigator attended an International Institute for Restorative Practices (IIRP) training in 2020 to learn principles of restorative practices and how to implement restorative practices in the setting that restorative Taekwondo program is being taught. The

strategies for restorative practices implementation included building positive relationships, using circles effectively, and seeing conflict as an opportunity for positive growth and change.

The program staff included several university professors and students that assisted with the lead instructor by organizing the class, having one-on-one interaction with students as partners, and sometimes leading life skills discussion. The physical activity lessons are similar to the traditional and afterschool Taekwondo programs including Taekwondo fundamentals, self-defense, physical fitness, and falling skills as examples. The program took place twice per week from 3:10pm and ended around 4:20pm for approximately 14 lessons per academic semester. The lesson components consist of relationship time, opening circle, Taekwondo, and closing circle. Relationships time at the beginning of the program helped create a welcoming environment and provided opportunity to build one-on-one relationships with students. In the opening circle, all students were invited to show up and express themselves. Program staff intentionally empowered students to create some questions to get to know each other, understand each other, and become more connected to each other. More importantly, program staff reminded student of the goals of the program such as why/what we are doing in the program, and what expectations we have. During Taekwondo, students practiced Taekwondo with peers and program staff as they executed punch and kick drills. Students were encouraged to improve Taekwondo skills, but mastery of the skills were not required. The primary purpose of the Taekwondo program in physical education was to help students engage in a structured social activity for positive social connections, improve physical fitness, learn Taekwondo as self-defense techniques, have fun, and more importantly learn life skills to effectively address conflict situations.

**Figure 3. Physical features of high school physical education Taekwondo program**



Since 2017, Taekwondo has been taught in a wrestling room, which is great space to practice martial arts as the floor is covered with wrestling mat. More importantly, students can pay attention to the Taekwondo lessons without any disruption because the only students who want to practice Taekwondo are in the wrestling room. During the COVID-19 pandemic, there was a schedule conflict so using wrestling was not possible. Figure 3 shows the physical features of the high school physical education Taekwondo program during the year of the dissertation study. It should be noted that the school provides a great space for the Taekwondo program (wrestling room) except for the time data were collected in this study. Taekwondo was previously taught in a basketball gym where physical education courses regularly occurred. Two physical education classes were taught at the same time, and there were approximately 60 students in the gym. Students were encouraged to try out the Taekwondo lesson and then if they liked the lesson, students were asked to voluntarily participate in the program consistently. Those students who did not participate in the program sat down in the stands and had free time (e.g., doing their school work or listening to music, or watching the students practicing

Taekwondo). A couple of students shared their feeling of discomfort because of negative self-image (not sure about their Taekwondo performance). They also felt other students (not practicing Taekwondo) making fun of them. This was an issue between those who participated in the Taekwondo program and those who did not. It also should be noted that it was not an issue in the group of students who participated in the Taekwondo program. After the issue was raised, Taekwondo was taught in a foyer of the gym as an alternative (see Figure 3 on the right). Although it was not as great as the wrestling room, the secured space helped students focus on the tasks and learning process.

### **Class size**

Class size refers to the average number of students in the lessons throughout the programs. In case 1 (traditional Taekwondo program), the average number of students participating in the observed Taekwondo class throughout 20 lessons was 15 students. 61 percent of the students were male and 39 percent of students were female. The racial distribution of the students in case 1 was that: White (53%), Black (22%), Hispanic (22%), and Asian (3%). In case 1, there were two instructors teaching Taekwondo during the year of this dissertation study.

In case 2 (afterschool martial arts program), the average number of students participating in the observed Taekwondo class throughout 20 lessons was 10 students. 70 percent of the students were male and the 30 percent of student were female. The racial distribution of the students in case 2 was that: White (40%), Black (29%), Hispanic (19%), and Mixed (12%). In case 2, there was an instructor teaching Taekwondo during the year of this dissertation study.

In case 3 (high school physical education Taekwondo program), the average number of students participating in the observed Taekwondo class throughout 14 lessons was 19 students. 65 percent of the students were male and the 35 percent of student were female. The racial

distribution of the students in case 2 was that: Black (72%), Hispanic (25%), and Asian (3%). In case 3, the average number of program staff (including the lead instructor) helping out the program was three people (faculty members and graduate students) during the year of this dissertation study.

The three cases were described above to explain under which condition and in what context this study was conducted. Each case had characteristics to consider throughout this study process. Table 1 illustrates the characteristics of the cases based on the descriptions written above.

**Table 1. Characteristics of Three Contexts**

	<b>Traditional Taekwondo</b>	<b>Afterschool Taekwondo</b>	<b>School PE Taekwondo</b>
Population	Age: 12-16 years old  Race: White (53%), Black (22%), Hispanic (22%), Asian (3%)  Gender: Male (61%) female (39%)	Age: 11-15 years old  Race: White (40%), Black (29%), Hispanic (19%), Mixed (12%)  Gender: Male (70%) and female (30%)	Age: 14-15 years old  Race: Black (72%), Hispanic (25%), Asian (3%)  Gender: Male (65%) and female (35%)
Lesson, content & Instruction	Traditional Taekwondo (cultural and traditional aspects of origin are emphasized)  Taekwondo skills mastery to promote in rank  45-minutes long lesson	Educational sporting Taekwondo  Gymnastics, fitness, physical activities related to Taekwondo skills provided  40-minutes long lesson	Value-based Taekwondo  Particular martial arts skills or drills were chosen to teach specific life skills  1-hour long lesson
Environment	A training hall including a mat room and martial arts equipment  Two instructors were teaching and managing each class	A training hall including a mat room and martial arts equipment  An instructor was teaching and managing each lesson	A basketball gym or a foyer of the gym including martial arts equipment  A lead instructor and program staff worked with 9 <sup>th</sup> grade students

	<b>Traditional Taekwondo</b>	<b>Afterschool Taekwondo</b>	<b>School PE Taekwondo</b>
Attire	Taekwondo uniform and belt	Flexible but no shoes	Flexible

## **COVID-19 Impact on This Study**

### **Recruitment**

The COVID-19 pandemic had a major impact on the investigator conducting this study with in-person human participants. The programs staff and the investigators were concerned about the safety of research participants and program participants. During the year of this study, many youth Taekwondo participants took virtual Taekwondo classes in both the traditional Taekwondo program and the afterschool program. Therefore, less people including students and parents attended in-person Taekwondo classes. The number of student participants in the high school physical education Taekwondo program was approximately 60 students in the beginning of the program. The number of students decreased by the time, and only 12 students actively and consistently participated in the program. The concern about the spread of COVID-19 might be a factor that small number of students participated although there might be other factors, such as, boredom, dislike, or tiredness. Participating in the Taekwondo program was not a requirement for students, choices were given to students whether they wanted to participate.

### **Physical activities**

Although masking outdoor was optional, wearing a mask was required in classrooms and indoor gyms. Taekwondo lessons in all research contexts were intentionally designed to avoid close contacts, practice Taekwondo in 6 feet of distance between students, and provide easy-moderate physical activity intensity because all students required to wear masks (hard to breathe). Taekwondo is fundamentally a type of martial arts that requires physical contacts (e.g., self-defense and sparring) and allows students to touch and tap on their partners as a part of



Taekwondo practice. A number of ways to practice Taekwondo was modified and limited to follow COVID-19 guidance.

### **Facilities**

COVID-19 had also impacted on the use of facilities for the Taekwondo program, especially in case 3. The program participants in the black-belt Taekwondo academy were still available to use the all facilities (e.g., mat room and back room). Student participants in case 3, were not able to use a mat room that the program normally implemented before COVID-19. Students practiced Taekwondo in a basketball gym and an entryway or a foyer of the gym. Since this space had no mat, the choices of physical activities for martial arts practice were limited due to the students' safety.

### **Research Participants**

Purposive sampling was conducted to collect qualitative information from the best-fit research participants that lead to better insights and more precise research results (Palinkas et al., 2015; Patton, 2002). The purposive sampling had been done with discussion with the instructors and teachers for case 1 and 2 and the program staff and school staff (e.g., PE teacher and specialist) for case 3. The research participants with in-depth knowledge and experiences with martial arts practices were selected for this research.

This study recruited students ( $n=8$ ), parents ( $n=4$ ), and an instructor ( $n=2$ ) who engaged in the traditional Taekwondo program (see Table 2). The average age of students was 14.5 years ( $SD = 1.69$ ). The average experience in Taekwondo practice was 3.38 years ( $SD = 1.59$ ). Two female students and two male students participated in focus group 1. Three male students and a female student participated in focus group 2. Four parents (two mothers and two fathers) of

Taekwondo students and two Taekwondo instructors (all male) participated in individual interviews.

**Table 2. Case 1 Participants (Traditional Taekwondo Program)**

	Name	Role	Race	Gender	Age	Years in TKD	Data source
1	Anna	Student	Hispanic	Female	16	4 years	Focus group 1
2	Daisy	Student	Hispanic	Female	13	3 years	
3	Joshua	Student	Black	Male	14	5 years	
4	Hudson	Student	White	Male	13	4 years	Focus group 2
5	Isabel	Student	Asian	Male	12	4 years	
6	Jasmine	Student	White	Female	16	1 year	
7	Gordon	Student	White	Male	16	5 years	
8	Walker	Student	Hispanic	Male	16	1 year	Individual Interviews
9	Judy	Parent	Asian	Mother of Kelvin			
10	Sarah	Parent	White	Mother of Hudson			
11	Julian	Parent	White	Father of a student			
12	Ryan	Parent	Black	Father of a student			
13	Logan	Instructor	Asian	Head instructor			
14	Henry	Instructor	Hispanic	Senior instructor			

Table 3 shows participants demographic information in case 2. This study recruited students ( $n=5$ ), parents ( $n=4$ ), and an instructor ( $n=1$ ) who engaged in the afterschool Taekwondo program. The average age of students was 13 years ( $SD = 1.87$ ). The average experience in Taekwondo practice was 3.6 years ( $SD = 1.67$ ). Three female students and two male students participated in a focus group. Four parents (two mothers and two fathers) of Taekwondo students and a Taekwondo instructors (male) participated in individual interviews.

**Table 3. Case 2 Participants (Afterschool Taekwondo Program)**

	Name	Role	Race	Gender	Age	Years in TKD	Data source
1	Tiffany	Student	White	Female	12	4 years	Focus group
2	Juliette	Student	White	Female	12	3 years	
3	Alicia	Student	White	Female	11	1 years	
4	Cooper	Student	White	Male	15	5 years	
5	Gavin	Student	White	Male	15	5 years	
6	Samantha	Parent	White	Mother of Alicia			Individual Interviews
7	Tori	Parent	White	Mother of Juliette			
8	Dante	Parent	White	Father of Tiffany, Cooper, and Gavin			

	Name	Role	Race	Gender	Age	Years in TKD	Data source
9	James	Parent	White	Father of Junior			
10	Logan	Instructor	Asian	Head instructor			

Table 4 shows participants demographic information in case 3. This study recruited students ( $n=4$ ), program staff ( $n=5$ ), and a PE teacher ( $n=1$ ) who engaged in the high school physical education Taekwondo program. All student participants were 15 years old with two-months Taekwondo experience. Two female students and two male students participated in individual interviews. Five program staff participating in this study included three graduate students and two faculty members. The three graduate students participated in individual interviews. A female PE teacher also participated in this study to share her perspectives on the program.

**Table 4. Case 3 Participants (Taekwondo Program in Physical Education)**

	Name	Role	Race	Gender	Age	Years in TKD	Data source
1	Aria	Student	Black	Female	15	2 months	Individual Interviews
2	Joy	Student	Black	Female	15	2 months	
3	Derek	Student	Black	Male	15	2 months	
4	Jett	Student	Black	Male	15	2 months	
5	Chloe	Program staff	White	Female	PhD student with 2 months		Interviews and lesson reflection
6	Jacob	Program staff	Black	Male	PhD student with 2 months		
7	Micah	Program staff	Black	Male	Master student with 2 months		Lesson reflection
8	Jack	Program director	White	Male	Faculty member with 3 years		
9	Max	Program director	Black	Male	Faculty member with 3 years		
10	Molly	PE teacher	Black	Female	PE teacher with 2 years		Interview

### Data Collection

To unpack the unknown process, what pedagogical practices of martial arts promote positive youth developmental experiences, an embedded multiple-case study approach was used (multiple cases study-mixed methods design). The primary data sources include surveys,

observations, lesson reflection and field notes as well as interviews and focus groups with youth participants, instructors, PE teachers, program staff and parents. Document and artifacts were also included as supporting the primary data sources.

Quantitative data was collected from the Personal and Social Responsibility questionnaire (PSRQ; Li et al., 2008), the Tool for Assessing Responsibility-Based Education (TARE) (Escartí, Wright, Pascual, & Gutiérrez, 2015), and Transfer of Responsibility Questionnaire (ToRQ) (Wright, Richards, Jacobs, and Hemphill, 2019). The PSRQ is comprised of two major constructs on six-point Likert scale ranging from very strongly disagree to very strongly agree: personal responsibility (e.g., I give a good effort) and social responsibility (e.g., I encourage others) with seven items for each construct. The PSRQ was used in a way that youth participants assess their behavior as they reflect personal and social responsibility in physical education (Li et al., 2008). Similarly, it was also effectively utilized in boxing-focused martial art program to understand youth participants' perception of personal and social responsibility as a way to identify the SBYD outcomes (Gordon et al., 2021).

The TARE was developed to ensure program fidelity to quality sport-based youth development program principle (Escartí et al., 2015) using an observation instrument and a post-teaching reflection form with three subsections. The observation instrument includes time sampling procedures ratings in 3-minute intervals for nine observable teaching strategies (the first subsection): modeling respect, setting expectations, providing opportunities for success, fostering social interaction, assigning management takes, promoting leadership, giving choices and voices, giving students a role in assessment, and addressing the transfer of life skills or responsibility. The second subscale is the TPSR theme that require the observers to provide a holistic rating of the extent to which the teacher promoted responsibility through the lesson.

Ratings are given on for themes including integration, transfer, empowerment, and teacher-student relationships that characterize the TPSR model (Hellison, 2011). Best practices in SBYD can be categorized into the four themes, and these were the important areas of assessment using the TARE in this study. Students' personal and social responsibility are the final section. To what degree how many students display participation, effort, self-control, self-direction, and caring are assessed on a 5-point Likert scale ranging from weak to very strong.

A post-teaching reflection form is immediately completed by the lead instructor after teaching a lesson. Also, the post-teaching reflection of the TARE is aligned with the observation instrument to provide self-report comments. In case 1 and 2, the researcher of this dissertation study observed the lead instructors teaching with the TARE tools. After teaching each lesson, the leader instructor was asked to complete the post-teaching reflection immediately. In case 3, the researcher of this dissertation study was the lead instructor. A graduate student observed the lesson using the TARE tools. After teaching each lesson, the lead instructor reflected on the lesson and rated on the post-teaching reflection form.

Although the primary purpose of using the TARE tools is to observe the lesson systematically (Wright & Craig, 2011), the "systematic observation" part (time sampling procedures ratings in 3-minute intervals) was not utilized in this study. Instead, the TARE tools were used for the post-teaching reflection. Ratings were given by two, an instructor and an observer across the three cases, but the ratings given from the researcher of this study were only used as data that led to results. Ratings given from others were not considered because 1) the observers and instructors were not given any training regarding TARE to establish guidelines and criteria for ratings, so there was no agreement on the definition of constructs, 2)

due to the COVID-19 pandemic, the instructors in case 1 and 2 were extremely busy so post-teaching reflection and interviews were only available, and 3) the researcher of this study had lack of knowledge about how to train the observer using TARE although he was able to utilize the TARE tools himself. Therefore, using the TARE tools was highly subjective, and the data from the TARE tools can be biased although the data were triangulated with other sources of data (e.g., contextual comments provided in each section of the TARE tools).

The ToRQ is a measure of the transfer of responsibility/life skill from physical education and value-based youth sport programs to other settings (e.g., home, school, and community) (Wright, Richards, Jacobs, and Hemphill, 2019). This instrument contains 9 items under three dimensions: Motivated use; Expansion of perception; and Experiential value. Each dimensions contains three questions. The ToRQ is rated on the following seven-point scale: 1=strongly disagree; 2=disagree; 3=somewhat disagree; 4=neutral; 5=somewhat agree; 6=agree; 7=strongly agree. While the use of the PSRQ enables researchers to observe the behavioral outcomes within/during the program, data from the ToRQ allow researchers to examine students' cognitive process of life skill transfer and the possibilities of students transferring life skill to other settings. On the one hand, the PSRQ and the ToRQ focus on specifically students' behavior and cognition, but on the other hand, TARE assesses both teachers' and students' behaviors including teaching strategies and reflection for teachers and personal and social responsibility for students. Using these three quantitative tools, the researcher gained concrete knowledge on what was happening during the class and students' perceptions of their behaviors.

Qualitative data was collected from field notes, interviews with individual instructors or PE teachers, adult stakeholders (e.g., community partners, program staff), and students.

Focus groups of students in the three different cases were conducted with four to five students in each group. Table 5 shows interview questions to gain qualitative data.

**Table 5. Example Interview Questions Used for This Study**

<b>Participants</b>	<b>Interview questions</b>
Students	<ul style="list-style-type: none"> <li>• What brought you to the program? What motivated you to continue martial arts?</li> <li>• What were your great accomplishments in the program?</li> <li>• Can you think of any examples where the skills learned here are helpful outside of the program?</li> </ul>
Parents	<ul style="list-style-type: none"> <li>• What things do you like the most or least about having your child in this program?</li> <li>• Are there any activities that you think should be improved upon or added to address life skills?</li> </ul>
Program staff	<ul style="list-style-type: none"> <li>• Based on your experience (if you agree), what are some advantages of martial arts practice?</li> <li>• What are the potential challenges when martial arts are taught in high school physical education?</li> </ul>
Teacher/instructor	<ul style="list-style-type: none"> <li>• Please share your overall experiences about the martial arts program?</li> <li>• How would you describe the program if someone ask you about the program?</li> </ul>

Lesson reflection was also used to collect qualitative data. This data sources were considered to be important (as confirmed by a pilot study the researcher conducted, (see page 60) because lesson reflections enable researchers to gain collective ideas, reflections, and thoughts about what was being learned and taught during the program from the program staff (Hemphill et al., 2021). Other qualitative data, documents and artifacts were also considered as important sources to describe and understand the martial arts pedagogy and positive youth developmental experiences.

### **Data Analysis**

Multiple-case study with mixed methods is popular in program evaluation studies (Creswell, 2014). This is also true in SBYD field (Gordon, 2010; Gordon et al., 2021; Jacobs, 2016; Kimiecik, Bates & Anderson-Butcher, 2021). This study employed embedded multi-case study design (Creswell, 2014; Yin, 2009) that nested several forms of quantitative and

qualitative data within each case to compare the three cases. The contrast and similar findings from the multiple-case study provided rich information on the research topic.

### **Phase One: Within Case Analysis**

Both qualitative and quantitative data were utilized to explore the little-known process of martial arts practice for PYD. Specifically, the qualitative data was utilized to provide deep and rich descriptions and understandings, and the quantitative data provided a greater level of depth and understanding through 1) confirming or disconfirming findings from qualitative analysis, and 2) providing additional insights into what can't be described through qualitative data analysis. At phase one, a within-level analysis was conducted independently. This process involved the use of SPSS to conduct a basic descriptive analysis of the raw quantitative data (e.g., ToRQ, PSRQ, and TARE). Measure of central tendency included the mean, median, and mode were used to describe the data set.

Bits and pieces of information from the multiple forms of qualitative data were combined and organized into codes, concepts, categories, and larger themes that supported the findings of the study as evidence (Marriam & Tisdell, 2016). Qualitative coding was a process of systematically categorizing excerpts in the qualitative data in order to find themes and patterns (Saldaña, 2015). Collecting different qualitative data sources (e.g., focus group, field note, observation, interview, lesson reflection, and other documents and artifacts) were analyzed by both concept-driven (deductive coding) and data-driven (inductive coding) approaches to thematic analysis (Braun & Clarke, 2006). With the concept-driven approach, the researcher starts by developing a codebook with the initial set of codes. This set was based on the research questions and existing research framework including best practices for SBYD and martial arts. Also, the initial set of codes was based on the on everyday teaching



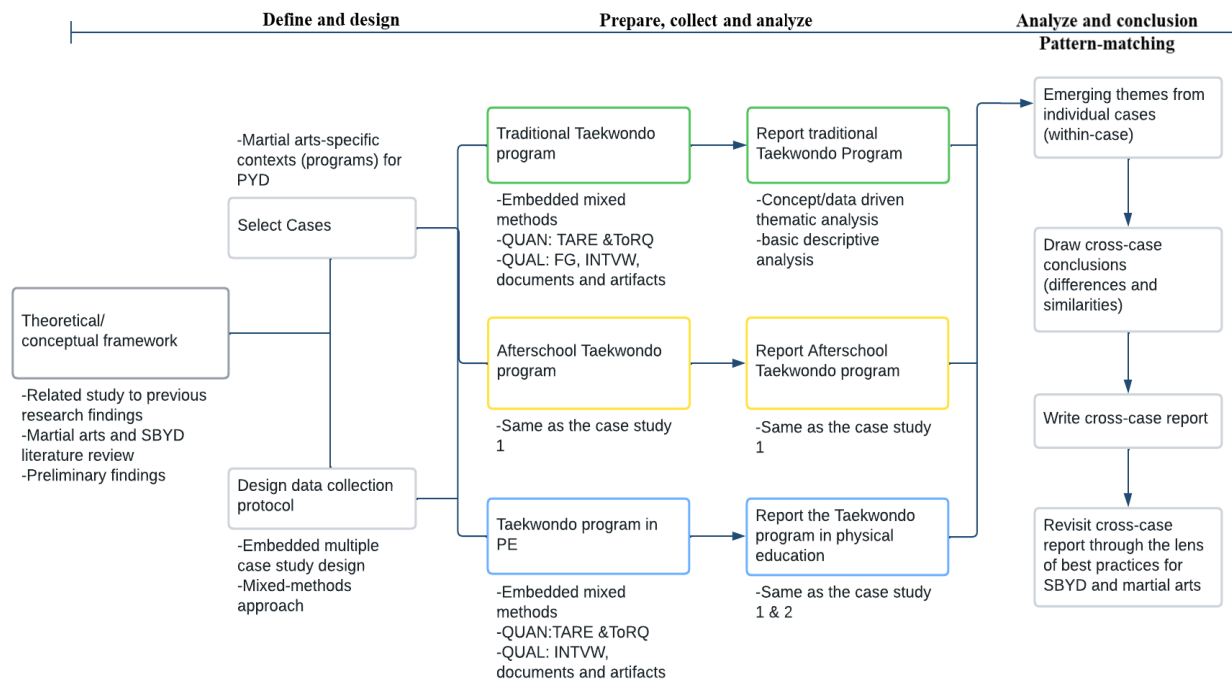
experiences in the programs, focus group/interview guide, and student journaling contents, and recollections of what was being observed (Gibbs, 2007). Meanwhile, a data-driven approach was applied when pieces of information derived from the qualitative data sources did not fit in the previous knowledge and experience. Inductive coding is a ground-up approach where the researcher derives new codes from the data (Saldaña, 2015). This presented study was designed to understand “how” and “why,” (explanatory approach) as well as “what” and “how” (exploratory approach). The researcher gained new knowledge, information, or experiences throughout the process of data collection and analysis. When the knowledge, information or experiences did not fit in the codebook, the raw data was coded and categorized as new ideas or concepts. Therefore, thematic analysis with a data-driven and a concept-driven approaches was utilized to conduct a within-case analyses in the three settings separately. All the data set was managed by using ATLAS.ti computer software program for qualitative data analysis.

### **Phase Two: Cross Case Analysis**

Each of the case studies was regarded as a study in its own right (Gray, 2014). A detailed write-up about findings for each case study enabled the researcher to identify unique patterns within each case (Eisenhardt, 1989). At phase one, qualitative and quantitative data were collected, analyzed and synthesized into individual case study reports, meanwhile in the cross-case analysis phase, the researcher sought to identify “abstractions across cases” (Merriam, 1998, p. 195) and built “a general explanation that fitted each of the individual cases, even though the cases varied in their details” (Yin, 1994, p. 112). These methods and process were defined as the case pattern-matching and explanation-building (Yin, 2014) and it allowed the researchers to 1) examined the processes and outcomes that occur across diverse

cases, 2) found out how they are characterized under certain conditions and circumstances (Miles and Huberman, 1984). In other words, the cross-case analysis helped the researcher to understand relationships among emergent cross-case themes. Figure 4 describes how multiple-case study was processed including data collection and analysis for this presented study.

**Figure 4. Embedded Multiple-Case Study Design**



### Preliminary findings

The research questions, focus, interest, and purpose were derived from 1) the researcher's 8 year-experience of teaching martial arts in school PE and community settings including Boys Girls club and martial arts studios in multiple sites in North Carolina, 2) literature review on youth involvement in martial arts programs in the SBYD context, and 3) the preliminary findings from the researchers early evaluation studies. The first study, Curriculum implementation and short-term outcomes of restorative practices in PE was

conducted in 2020, and the results were presented at Graduate Student Colloquium in UNCG's department of Kinesiology. The second study, implementing social and emotional learning to promote transfer of life skills in high school PE was presented at the American Educational Research Association conference in April, 2020. The last study is, martial arts practice as an extracurricular activity for social emotional learning that the researcher conducted during the summer, 2021.

### **Curriculum Implementation and Short-term Outcomes of Restorative Practices in PE**

The purpose of this study was to implement RYS curriculum in 9th grade PE and identify short term outcomes. UNCG research team and the researcher conducted this research because we wanted to address school suspensions that disproportionately target minorities and become kids involved in the justice system. We wanted to improve school climate and school connectedness and reduce school suspension rates as long-term outcomes. Through this research, we did not reach to the goal, long-term outcomes (it is ongoing), but we found that our program fostered positive interactions, student voice, and life skills learning through restorative circles and Taekwondo with implementing the CHAP model (see Figure 6). Figure 5 is a logic model for our program. For the first study, we focused on activities (curriculum development), output (implementation strategies), and short-term outcomes that highlighted in red in the Figure.

**Figure 5. Logic Model for Restorative Youth Sport (Taekwondo) Program**

Inputs	Activities	Outputs	Short-term outcomes	Intermediate Outcomes	Long-term Outcomes
KIN, PACs, Dudley high school identify:  Funding, program staff, Volunteers, Training, Research, Equipment, Facilities  Organization support available for carrying out a program's activities	<b>UNCG project staff develop the Restorative Youth Sport Curriculum and CHAP model.</b>  Building strong partnership with Dudley high school.  Recruitment of students.	<b>Implementing the restorative youth sport curriculum in 9<sup>th</sup> grade PE in Dudley High School</b>  Students participate restorative circles and Taekwondo and learn interpersonal skills.  Experience positive connections with instructors and peers.	<b>Students demonstrate conducting responsible behaviors in the program (e.g., participate, take leadership role, and do the best).</b>  <b>Increase the awareness of interpersonal skills</b>  <b>Improve relationship with peers and the program staff</b>	Transfer of learning to school, home, and community.  Conduct desired behaviors and build positive relationship with peers and teachers in school	Improving school climate and reducing school suspension rates by using whole-school restorative approach

The previous research (Jacobs & Wright, 2018; Hemphill, Gordon & Wright, 2019) suggest that quality SBYD programs have to have quality program implementation ensuring relationship/social support, positive motivational climate, integration of life skills in physical activity, and transfer of life skills. Preliminary findings of our study suggest that we achieved these qualities. In addition to that we saw some evidence of students being aware of life skills in the program and a little bit of evidence that students were motivated to use those life skills in practice. Although we identified in-program learning outcomes, the transfer process was not clearly examined. We needed to better understand the transfer process to see if we could make a positive impact on the long-term goals of our project in Dudley High school.

**Implementing Social-Emotional Learning to Promote Transfer of Life Skills in PE**

The purpose of this study was to examine how cognitive processes for transfer were facilitated through implementing an SBYD program integrating with observational learning strategies in high school physical education. Jacobs and Wright (2018) provided a conceptual framework for transfer of life skills and argued that participants' cognitive connections need

to be understood as the transfer process (experiential value, motivated use, and expansion of perception). Our preliminary findings from the first study also suggested the need for facilitating transfer and understanding the mechanism. But, before conducting this second study, there was no evidence that we could facilitate the cognitive connections of youth participants. Literature review suggest that Bandura's observational learning (1975) might facilitate the cognitive processes for transfer. This second study was framed using the conceptual model for transfer and Bandura's observational learning, which is one of the major constructs of social cognitive theory that states that learning by observation involves mediational processes that includes attention (whether we notice the behavior); retention (whether we remember the behavior); reproduction (whether we are able to perform the behavior); and motivation (whether we are motivated to perform the behavior).

Figure 6 shows the visualized CHAP+E. Five figures, Champion, Hero, Achiever, Peacemaker, and Explorer circled up in two circles meaning that inner circle, in the gym and outer circle, outside the gym so that learning occurs inside and outside the gym. The qualities of these figures are addressed and discussed during the program. Figure 7 is a description of the CHAMP+E model is presented in the published article (see Hemphill et al., 2021).

Figure 6. CHAP+E Instructional Model for Life Skills Development and Transfer

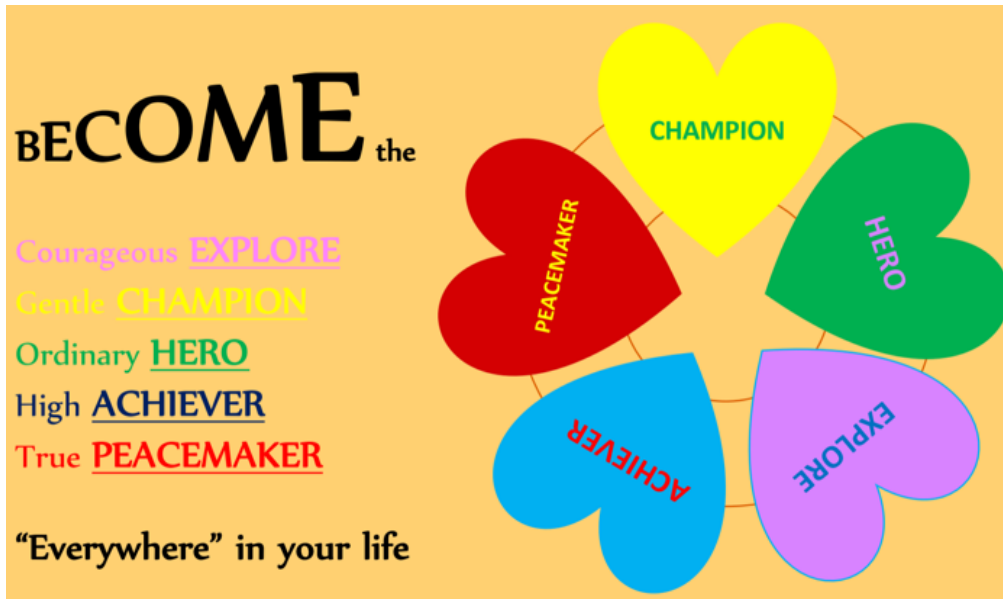


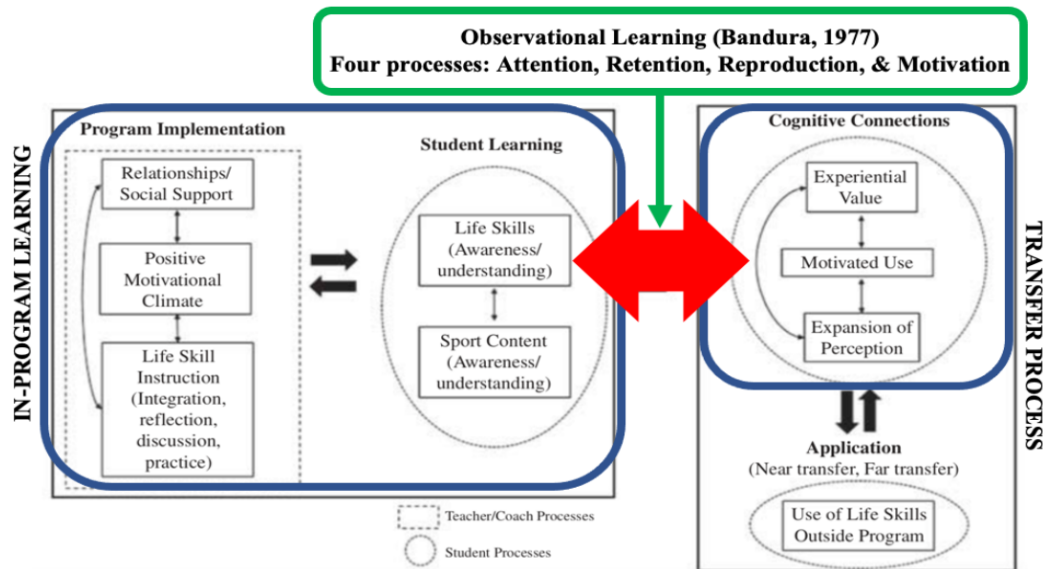
Figure 7. Values-Based Goals for the Restorative Justice Physical Education Program

	Champion	Hero	Achiever	Peacemaker
Definition	Champions are considerate of others’ feelings and well-being. They teach us how to be optimistic through adversity. To champions, challenges provide an opportunity to grow.	Heroes do good and courageous things for other people. They have a strong sense of justice and goodness and acts upon that sense. Their heroism causes ripple effects throughout the community.	Achievers have clear goals and vision. They can transport themselves into the future in their mind, create clarity on what it looks and feels like, and then translate goals and vision into their reality.	Peacemakers are willing to wade into conflicts to create harmony. They value nonviolence, dialog, tolerance, empathy, and inclusion. To peacemakers, conflicts are opportunity for positive change.
Expectations	Respect Integrity Confidence	Responsibility Helping others Care for community	Preparation Self-direction Perseverance	Self-control Open-mind Cooperation
Activity integration	Meditation/reflection Gestures (bow, handshake) Rules and boundaries	Partner practice Peer feedback/support Positive “shout outs”	Predication and effort Goal setting/monitoring Accept challenges	Physical/emotional safety Communication Forgive honest mistakes
Student elaborations	“I respect as long as I’m respected” “I don’t compare myself with others because I respect myself” “Being empathetic, understand others, putting myself in someone’s shoes”	“Always helping someone whether its physical or emotional” “Giving a hand when needed” “Someone that makes a good example”	“Being persistent” “Set goals and achieve them in life” “Push past your problems to get stuff done”	“Find solutions to help others” “Talk it out instead of being physical” “Listen to others and their opinions”

From Hemphill, Lee, Ragab, Rinker and Dyson (2021)

We wanted to know what facilitate students’ cognitive processes for transfer (boxed in blue), and we developed a CHAP+E model integrating Bandura’s observational learning as means to facilitate life skills learning and transfer (see Figure 8).

**Figure 8. Intervening CHAP+E Model to Understand How Students' Cognitive Processes are Facilitated**



Conducting a single case study, we had 45 research participants (9th grade students, n=36; university staff (faculty and under/graduate students, n=9) throughout two semesters in Dudley high school, NC. Data were collected from student journal, program staff lesson reflection, observation, field notes, and focus groups. The data set was analyzed using qualitative concept-driven & data-driven approaches to thematic analysis. Two major themes emerged: “thinking and acting like the CHAP in modeling the CHAP,” and “stepping into positive changes.” We learned from the preliminary findings and concluded that:

1. Integrating the CHAP instructional method with TPSR lesson format in physical education helped facilitate SEL skills (self-management [goal setting & managing emotion], focus, respect, open-mind, working with others) and cognitive components as the transfer process (being motivated to use of the SEL skills, changed previous perception of PE and SEL skills, and valued the SEL skills learned in program and use of the skills outside the program).

2. The CHAP instructional method (vicarious learning) helped link the in-program learning to their living contexts that students may apply the skills. Also, it allowed students to connect classmates, teachers, family members, and others as CHAP who demonstrate the CHAP related SEL skills, therefore students can be aware of appropriate SEL skills to be used in their living contexts.
3. Recognizing classmates and program staff as CHAP helped build positive relationships and learning community. Students were more motivated to participate and act like the CHAP.
4. For the CHAP talk to be effective, restorative youth sport lesson format (like TPSR) should be implemented. With principles and values of restorative practices, students felt comfortable to share their opinion, thoughts, ideas, and beliefs. This safe and motivated learning environment enabled students to have confidence in their Taekwondo practice, demonstration, and working (showing) with partners. Students' skill errors (mistakes) were accepted.

### **Martial Arts Practice as an Extracurricular Activity for Social-emotional Learning**

The third research conducted during the summer of 2021 to understand how martial arts teach life skills. The CHAP+E instructional model and TPSR model were introduced to a main instructor who is charged in creating and impleading, and teaching Taekwondo curriculum in a Taekwondo school that offers an afterschool program, regular Taekwondo classes for all age, and a summer camp program. The instructor had opportunity to learn best practices for SBYD (e.g., how to teach life skills and facilitate transfer of learning), and he adapted the principles to his own instructional model for summer camp program (10 weeks). Seventeen students, ranged in age from 6 to 16 years old, five female and 16 male students, diverse races (African-



American, Asian, Hispanic, White, and mixed) participated in the summer program. The program operated from Monday to Friday from 9am to 3pm. The main instructor utilized the champion (week 1 & 6), hero (week 2 & 7), achiever, (week 3 & 8), hero (week 4 & 9) and explorer (week 5 & 10). Based on the themes and concept of the CHAP+E, he decided what life skills needed to be focused for each daily lesson. He created lesson plan, worksheet for students, and Taekwondo-related physical activities for life skills learning (see Figure 9).

**Figure 9. Life Skill Lesson Plan Created by a Taekwondo Instructor**

	Champion	Hero	Achiever	Peacemaker	Explorer
	Mon	Tue	Wed	Thur	Fri
Week 1 & 6	Respect	Responsibility	Goal-setting	Team work	Creativity
Week 2 & 7	Effort	Compassion	Self control	Open mind	Motivation
Week 3 & 8	Growth-Mindset	Power	Self direction	Balance	Meta-Cognition
Week 4 & 9	Honesty	Volunteer	Consistency	Consideration	Diversity(Polymath)
Week 5 & 10	True Winner	Happiness	Independence	Leader	Originals(Final)

Data were collected from two focus groups of five students for each, individual interviews with three parents as well as with the main instructor, TARE observation, and students' journal. Skimming through the data set, the researcher learned that 1) CHAP+E model is helpful for the main instructor to organize life skill lists to be taught and ideas connecting to physical activities, 2) utilizing TARE is effective for the researcher to understand what is happening during the program (e.g., interaction and behavior) as well as for the main instructor to reflect his lesson and students' respond so that he could continue transforming his teaching styles that integrate TPSR principle with Taekwondo. In terms of life skills, respect, self-control, leadership, cooperation, focus, effort, and self-discipline are life skills highlighted and taught in Taekwondo. Moreover, Asian marital arts belt system provides opportunity for cross-age

teaching that positive social interactions, peer-coaching, and leadership development occurs (Martinek & Hellison 2009). In Taekwondo, high rank students (usually older than lower rank students) can help lower rank students or younger students by teaching Taekwondo skills. The take-home messages of this research are that the use of TARE is a highly effective method to understand what is happening in the program and what martial arts teaching strategies are associated with the best practices for SBYD (see Figure 10).

**Figure 10. Teaching Strategies Found in Martial Arts Program Using TARE**

Part One: Observable Teaching Strategies											
Time Intervals		Responsibility – Based Strategies								Comments	
(00) 0 – 5 (05)	OC	M	E	S	SI	T	L	V	A	Tr	*Talking piece is a ring. E-Talking one at a time (Question: do you believe you can do whatever you think?)
(05) 5 – 10 (10)	OC	M	E	S	SI	T	L	V	A	Tr	V- Students talk about what TKD skills they can use in demonstration at the presentation day. E-JLee tells individual students what TKD skills they are good at and can use in the demonstration. Kids have no chance to create any opening questions during the opening circle.
(10) 10 – 15 (15)	OC	M	E	S	SI	T	L	V	A	Tr	
(15) 15 – 20 (20)	OC	M	E	S	SI	T	L	V	A	Tr	T-A student is asked to read the descriptions of champion in the screen. The focus of the champion today is growth-mindset. V-JLee and youth leaders (older kids) discuss how they could lead the class morning class.
(20) 20 – 25 (25)	OC	M	E	S	SI	T	L	V	A	Tr	Youth leaders decide how many groups they will have today and what to teach.
(25) 25 – 30 (30)	PA	M	E	S	SI	T	L	V	A	Tr	
(30) 30 – 35 (35)	PA	M	E	S	SI	T	L	V	A	Tr	E-JLee is telling all kids plans for today's morning class that were developed based on the discussion with youth leaders. * is leading warm-ups (stretching and counting numbers) L- one of youth leader leads fun activities and games as warm-ups (e.g., obstacle course, relay).
(35) 35 – 40 (40)	PA	M	E	S	SI	T	L	V	A	Tr	
(40) 40 – 45 (45)	PA	M	E	S	SI	T	L	V	A	Tr	
(45) 45 – 50 (50)	PA	M	E	S	SI	T	L	V	A	Tr	SI-youth leaders work together to set up the obstacle course. One leader is demonstrating how to do and the other leader is telling the rules.
(50) 50 – 55 (55)	PA	M	E	S	SI	T	L	V	A	Tr	
(55) 55 – 60 (00)	PA	M	E	S	SI	T	L	V	A	Tr	
(00) 60 – 65 (05)	PA	M	E	S	SI	T	L	V	A	Tr	T-Youth leaders are asking younger kids to clean up the obstacles. L-Youth leaders are asking younger kids to demonstrate what to do (a female kid is demonstrating what to do and how to do for another obstacle course). L- one of the youth leaders, is trying to manage the class to keep organized and engaged (saying, everybody be quiet, paying attention, focus, listen, have a seat...).
(05) 65 – 70 (10)	PA	M	E	S	SI	T	L	V	A	Tr	
(10) 70 – 75 (15)	PA	M	E	S	SI	T	L	V	A	Tr	
(15) 75 – 80 (20)	PA	M	E	S	SI	T	L	V	A	Tr	L-Youth leaders also give opportunities to younger kids to create the obstacle course. A-JLee asks youth leaders how was being a leader today? Giving hands to youth leaders. As a reward, a youth leader received two stickers. V-JLee is asking youth leaders to choose two champions today. The two champion students got one sticker. Everybody gives them big hands.
(20) 80 – 85 (25)	PA	M	E	S	SI	T	L	V	A	Tr	
(25) 85 – 90 (30)	BT	M	E	S	SI	T	L	V	A	Tr	
(30) 90 – 95 (35)	BT	M	E	S	SI	T	L	V	A	Tr	L- one of the youth leaders, takes leadership. He explains what everybody is going to do, which is a front snap kick practice with good balance training. Individual kids practice the kick with good balance on a mat individually. The leader is walking around to check out how kids are doing. He also gives instructions and positive feedback, saying "do as much as you can," "good job," "knee up higher," "look straight."
(35) 95 – 100 (40)	PA	M	E	S	SI	T	L	V	A	Tr	
(40) 100 – 105 (45)	PA	M	E	S	SI	T	L	V	A	Tr	
(45) 105 – 110 (50)	PA	M	E	S	SI	T	L	V	A	Tr	L- teaches advanced front kick which is a double front snap kick. He demonstrates how to do the double front snap kick. V-Kids can decide which foot they want to start with and how high they want to kick.
(50) 110 – 115 (55)	PA	M	E	S	SI	T	L	V	A	Tr	Breaking board
(55) 115 – 120 (00)	PA	M	E	S	SI	T	L	V	A	Tr	
(00) 120 – 125 (05)	PA	M	E	S	SI	T	L	V	A	Tr	L-One youth leader holds a plastic board for younger kids' jumping high snap kick.
(05) 125 – 130 (10)	PA	M	E	S	SI	T	L	V	A	Tr	
(10) 130 – 135 (15)	PA	M	E	S	SI	T	L	V	A	Tr	
(15) 135 – 140 (20)	PA	M	E	S	SI	T	L	V	A	Tr	L- one of the youth leaders, gives an explanation about how to do jumping high snap kicks. one of the youth leaders holds the noodle as a target for the jumping high snap kick.
(20) 140 – 145 (25)	PA	M	E	S	SI	T	L	V	A	Tr	
(25) 145 – 150 (30)	PA	M	E	S	SI	T	L	V	A	Tr	
(30) 150 – 155 (35)	CC	M	E	S	SI	T	L	V	A	Tr	A-JLee is asking a question to a youth leader today, who were the kids like the champion today? And the same question goes to a youth leader to let him choose today's champions. T-Kids are having an opportunity to complete the reflection. T-A kids handed out the worksheet and the other kids passed out the pens.
(35) 155 – 160 (40)	CC	M	E	S	SI	T	L	V	A	Tr	
(40) 160 – 165 (45)		M	E	S	SI	T	L	V	A	Tr	
Tallies											

Note. One of the lessons observed and recorded by using TARE presented here as an example.

## CHAPTER IV: RESULTS

The zoom function found in digital devices allows users to examine images from various viewpoints (Kenter, 2011). In the results section, the presentation of findings is guided by the method of zoom: zoom in, zoom out, and zoom towards. In zooming in (worm’s eye view), martial arts pedagogical practices and positive youth developmental experiences identified in each case are respectively described. Through zooming out (bird’s eye view) to the three cases together, distinguishing features of the three martial arts programs are delineated addressing findings from quantitative data (e.g., TARE, ToRQ, and PSRQ). Finally, for zoom towards (both worm’s and bird’s eye views together), similarities and differences between the cases are presented.

**Table 6. The Zoom Method Being Used as Guidance for Results Presentation**

Viewpoint	Operational definition	Focus of research findings
Zoom in	As a worm’s eye, it brings “details” of events or lessons into sharp focus.	<ol style="list-style-type: none"> <li>1) Pedagogical strategies being used in each case that directly and indirectly promote PYD experiences</li> <li>2) Students’ positive learning experiences that are promoted through the particular pedagogical practices and climate.</li> </ol>
Zoom out	With a bird’s viewpoint, it “enlarges” particular events or lessons across three cases.	<ol style="list-style-type: none"> <li>1) Descriptive statistics that provide basic summaries about data points of responsibility-based teaching strategies, personal and social responsibility themes, and student responsibility across the cases.</li> <li>2) Particular patterns of martial arts pedagogy and PYD experiences.</li> </ol>

<b>Viewpoint</b>	<b>Operational definition</b>	<b>Focus of research findings</b>
Zoom toward	Having both bird's and worm's eyes together, it comes across the	<ol style="list-style-type: none"> <li>1) Universe ideas, concepts, and practices regarding martial arts pedagogy and PYD experiences</li> <li>2) Distinctive pedagogical practices used in the case and positive youth developmental experiences</li> </ol>

*Note.* The concept of the zoom method has slightly been modified from its original concept by Rosabeth Moss Kanter (2011) according to the research design.

### **Part 1: Zoom in to black box of martial arts pedagogy for PYD in each case**

#### **Traditional Taekwondo program (Case 1)**

In case 1, findings are grouped according to particularities of martial arts pedagogy promoting PYD experiences in the traditional Taekwondo program and participants' perceptions of their traditional Taekwondo learning experiences. As a result, two main themes emerged: Taekwondo cultural heritages and Taekwondo pedagogical practices. Each main theme includes four subthemes. The primary data sources supporting these themes are teacher interviews, parent interviews, student focus groups, and observational notes.

#### ***Taekwondo cultural heritages for PYD***

The first main theme, the Taekwondo cultural heritages for PYD, were grouped into four categories: 1) the value of yin-yang balancing, 2) norms for youth taekwondoists, 3) traditions in practices, and 4) the family-oriented culture.

#### ***The Value of Yin-yang Balancing***

Yin-yang is a philosophical value that originated from China, and this value pervades eastern martial arts practices (Cook, 2001). The traditional Taekwondo program was no

exception, the yin-yang philosophy was found as a core value in the traditional Taekwondo curriculum. A Taekwondo instructor shared his value in teaching.

We teach students about punching and kicking, but Tae-kwon-do means the right way of using your punch and kicks. So I talk about *do*, your brain (mind), you know brain controls the body. So it is not how we teach Taekwondo that you use Taekwondo skills first without knowing how to control. So positive youth development through Taekwondo is to help students control their physical skills, Taekwondo skills, and mental skills, together. (Instructor).

The mind and body connection in Taekwondo was his pedagogical value. He valued a balance, harmony, and interconnectedness that represent the elements of yin-yang. The importance of the yin-yang approach to his teaching was also found in t-shirts that participants wore during Taekwondo in summer (see Figure 11 ). In addition to the importance of mind and body balancing, several participants shared the importance of the balance between Taekwondo practices and everyday life. Julian reflected that:

I think Taekwondo is just as well-balanced as like yin-yang. You can incorporate Taekwondo into everyday life. Especially since life skills are integrated into Taekwondo, it's not only for Taekwondo skills practice, it can be a part of her school and home. Taekwondo does that very well. (Julian).

**Figure 11. Yin-Yang Symbol in Taekwondo T-Shirt**



The yin-yang balance was considered as a core value by which Taekwondo practitioners considered what was important in teaching and learning. As a part of cultural heritages in a traditional Taekwondo program, particular norms organized and regulated youth taekwondoists' behavior.

### *Norms for Youth Taekwondoists*

All participants agreed and acknowledged the specific rules for youth taekwondoists which was using Taekwondo skills as the last resort. Although the fundamental Taekwondo curriculum was about how to punch and kick well, parents wanted their children to use the skills only for self-defense. Sarah and Judy, respectively, concurred that important rule for youth taekwondoists, “you do not strike first, always talk first” and “you can use it for self-defense, otherwise do not touch anybody else with Taekwondo.” Students are being prohibited from acts of physical violence in any situation, but parents want their children to use Taekwondo as self-defense because “there is a lot of bullying going on...what if something is to happen to them,” Ryan mentioned during the interview. Judy also shared the same perspective, “nowadays in school, there's a lot of bullying going on.”

Another particular rule in traditional Taekwondo was identified in Ryan’s description of how youth taekwondoists behave on the mat, “When they are here, they know how to use their manners, saying yes sir and no sir. It is also good for them to use that manner when they are out[side the gym].” This was also evident in Judy’s response about expected behavior for youth taekwondoists, “[say] ‘yes sir’ all the time...especially around people that he’s not familiar with, he uses sir and ma’am...he uses a lot more now than he was. I think that’s a good thing for him.” Using sir and ma’am is seen as signs of respect and politeness. During the Taekwondo lesson observations, it was noticed that instructors use sir and ma’am to their students and parents. Parents called the instructors as master or sir. This norm was reinforced as all people in Taekwondo perceived that it was a manner. Similar to these norms, there were specific rituals that promote positive youth developmental experiences.

### *Rituals in Practices*

In traditional Taekwondo, wearing Taekwondo uniform with color belts, meditation, and bow were found as particular rituals that youth taekwondoists were required to act and repeat regularly in a set precise manner. First of all, all students must wear a Taekwondo uniform and belt to practice Taekwondo. An instructor's explanation as to why his Taekwondo programs sticks with wearing traditional Taekwondo uniform and belt was shared:

Wearing the uniform and belt is kind of a ritual...it helps students understand the boundaries so wearing them is the time to do mind-body control to begin practicing Taekwondo and wearing no uniform and belt means no punch and kick no matter what.  
(Logan)

According to his explanation, wearing the uniform and belt helps students gain awareness of what is expected when they put them on. Isabel commented on this ritual, "the uniform, yeah, when I see a uniform like that, it's like oh I am disciplined and focused...like respect. This is very honor." Moreover, Willmer added that, "yeah, it's like I am part of here [by wearing them]." While wearing a uniform is considered as the taekwondoists' mindset, wearing a belt is a positive reinforcement that motivates students to move from white belt to darker color belts to a black belt. Ryan noted:

The belt system is the motivator. We look around and see other belts and then my kids are like 'I wanna get that belt next, I have to work hard...' They're gonna practice it over and over until they get it. That's the discipline and focus for them to learn how to do the movements correctly so that they can achieve the ultimate goal by moving up belts here.

The Taekwondo belt system is a sequence of advancement by color (e.g., white, yellow, orange, green, blue, purple, brown, red, and black in particular). Wearing belts in practices is to



keep motivating students to continue and enjoy the progress in belts, as Hudson stated, “my favorite part about Taekwondo is probably just the advancing of the belts, because after each testing you just have a sense of accomplishment and that means a lot to me in my life.”

According to testing policy in the traditional Taekwondo program, all the belt requirements to advance to the next belt rank are broken up into 6 segments. All students are required to have all six stripes on their belts before their test. For example, a student wearing a white belt and testing for yellow belts needs six stripes by demonstrating their Taekwondo skills or exhibition of good behaviors. Earning the stripes is a crucial part of the belt system that helps taekwondoists be more self-disciplined. This was also evident in Josphine’s response about the wearing belt ritual: “discipline is actually one more thing as he got those stripes. He tends to do a lot better following directions...you know it’s gonna motivate him to do better and overall.”

Bowing was another remarkable ritual that youth taekwondoists were required to do before entering the studio and before leaving it; when stepping onto the mat; before and after drills and sparring; and to partners, parents, and instructors as sign of respect and gratitude. During the white & yellow belt class, an instructor taught youth taekwondoists why we bow, when to bow, and how to bow. He explained that:

We bow because we want to show respect like shaking hands and eye contact...we can bow to the Taekwondo studio because we respect our training hall we practice Taekwondo...we bow to Korean and American flags because we respect our countries...Open your chest, hands on your legs, and feet together [to bow]. (Field note).

During the interview with the instructor, he followed up on the bowing ritual that:

Taekwondo is based on respect, so that's why whenever they come first class, instead of just teaching Taekwondo skills, we teach how to bow, how to talk, how to focus. So we start with how to deal with behaviors and attitudes.

Bowing is the first skill that youth taekwondoists learn before ever starting to practice any Taekwondo skills. As he mentioned, youth taekwondoists learn how to show respect first. Each Taekwondo lesson (45 minutes), students were bowing approximately 20 times that were informally counted during an observation. As parents use sir or ma'am (or master), they also bow to people and the studio to be a good example for their children. Judy confirmed, "uhm, culture-wise, bowing in Taekwondo is showing respect. We do bow all the time. Uhm, I think that had helped him to express respect, trust, and gratitude, you know... Yeah, I think it's a good social skill." Bowing is the first skill youth taekwondoists do (even before entering the studio front door), then the next ritual is meditation on the mat. During the meditation, youth taekwondoists were asked to sit up straight with eyes closed in an attempt to clear the mind of all daily affairs so as to fit in new lessons. The meditation took 30-40 seconds before moving to warm-up exercise. Julian reflected on the meditating ritual that "I like the meditation and that part of the program and how it kind of lends to the life skills along with the actual like the martial part of the program." Meditation is not only to clear the mind, but it's also to think about the black-belt life skills being discussed in the opening and how to use that during Taekwondo. Isabel touched on her perception about meditation: "I think about how to fix myself and change [during meditation]."

### *Family oriented culture*

Participants' perceived learning climate in the traditional Taekwondo program was family-oriented culture. Two parents, respectively perceived that the program provided

opportunities for parents involvement in Taekwondo lessons. They noted, “It motivates me to join the class with my kids because they see me doing it so they are even more motivated because they see me participating in the class and they’re like, oh Daddy doing it, I can do it too, (Ryan)” and “it’s very family oriented at this particular program, which is what drew my family to this martial arts school, (Julian).” The Taekwondo studio provides family classes and all belt classes that everyone can participate in. As the parents mentioned the opportunity to practice together with their children, it is beneficial for youth taekwondoists in terms of having a chance to work with adults. “Everyone is connected and positive...you can feel it as soon as you step in the door...I always leave Taekwondo in a better mood than I came” reflected by Huge emphasized positive connection. Along with that perspective, Julian remarked that:

I love the camaraderie that's generated in the martial arts. Even though it's physical like the punching the kicking, everyone here is like the camaraderie that's created in the program. It is just so wonderful, like we trust each other, we know we're not going to hurt each other, we have fun with each other. And so I think that's part of who's teaching the classes and how likely they are to bring that group aspect into the martial arts program.

All participants mentioned the family-oriented culture as a positive learning experience in the traditional Taekwondo program. Youth taekwondoists thought that “masters make us feel welcome...and enjoy together (Jasmine)” and “the place gives energy that there’s nothing you can’t do like even if you can’t do something, the teachers will work on you with it every day until you can do it. And yeah, there’s really no negative energy in the place (Anna).” Overall participants felt welcoming (everyone can participate), positive connection (being relational), and supportive (being cared) that were related to positive youth developmental outcomes.

### ***Taekwondo pedagogical practices for PYD***

Three subthemes that comprise this second main theme characterize 1) explicit life skills education, 2) typical Taekwondo curriculum, and 3) yin-yang approach to PYD. The second main theme addresses teaching and learning activities, teaching strategies, and styles of instruction as they relate to the issue of PYD.

#### ***Explicit Life Skills Education***

First of all, participants reported that PYD was promoted by explicitly addressing life skills in the traditional Taekwondo program. Life skills that can be learned through Taekwondo were introduced by instructors in the beginning of the classes, and these life skills were discussed on the mat, so called ‘mat chat.’ Hudson reflected on the mat chat:

At the beginning of each class, we always have a discussion about, uh, life skills. The last class we went through was peacemaker. We talked about how you could be a peacemaker in Taekwondo and how you could be a peacemaker in the world in general.

A life skill was presented on a white board hung on the front wall. Youth taekwondoists and even parents were able to read the words and expected what the lesson would look like for the day. The explicit life skills teaching on the mat was also evident in Sarah’s description about the mat chat: “on the whiteboard, you are describing life skills that go into all aspects of your life. I’ve seen you sit and talk about like what does this mean and how does this work.” Youth taekwondoists specified the mat chat as a part of Taekwondo program that was carried out in Taekwondo and helpful in their daily life. For example, Jasmine and Isabel, respectively, noted: “he teaches us life lessons we can use in real life situations” and “they [instructors] talk about like the lessons and different words and like traits that we should have. I think it helps me.” Participants also emphasized that the opportunities to practice life skills were provided to them.

This particular activity was called a mission according to the instructor. Gordon, a youth taekwondoist touched on the mission activity during an interview:

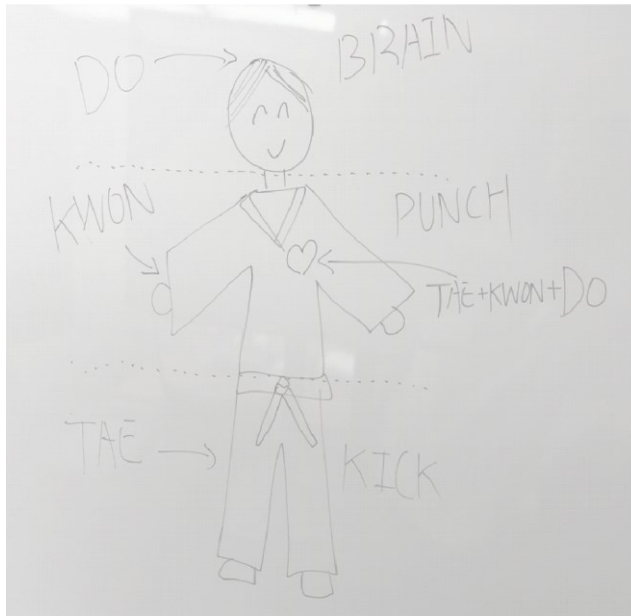
He's been giving a lot of opportunities to me and the other students in learning the life skills because he started just talking at the front of class but also giving missions to the students on how they can improve that life skills, how they can work it into their lives, not just at Taekwondo.

Participants thought that the life skills were not only explicitly discussed on the mat, but also addressed to be exhibited by the Taekwondo mission activities. Instructors normally gave missions to students, and also parents used that mission activities at home as well. For example, Judy explained:

You guys have missions, this is the mission for today, so he needs to focus and finish that and the same way in the house. Alright, the mission is to clean up your room. He gets a little prize after that. I used that 'this is your mission for today.'

Other way to teach life skills intentionally in Taekwondo was that instructors addressed what really Tae-kwon-do means. The instructor "draw[s] a picture of the body to teach students Taekwondo meanings" on the whiteboard (see Figure 12). His explanation on Taekwondo meaning was intuitive and simple enough for youth taekwondoists to grasp it easily.

**Figure 12. Meaning of Tae-kwon-do justified to promote life skills integration**



*Tae* implies kick including any leg and foot movements. *Kwon* means punch including arm and hand movements. *Do* is ways to punch and kick appropriately by thinking and reflecting. More importantly, put them all together, practice punching and kicking is from the heart, being mindful including social aspects such as empathy and caring. That's how life skills come, according to his instruction. Participants sharing their understanding of Taekwondo meaning was based on the instruction. Gordon said that:

I think it's different in that the life skills are put more upfront and bluntly because I think the 'do' part of Taekwondo literally means mind, which is one of the three parts of Taekwondo. Well, if you did football, you might learn some life skills from it, but it's not like an integral part of playing football. It's more about the act of playing it than learning from it. Well, Taekwondo, you can learn a lot of life skills and mental stuff from it.

As he mentioned, life skills are an integral part of Taekwondo as the name, *do* implies. Participants perceived how life skills were taught since life skills were explicitly addressed through mat chat and the mission activities.

### ***Typical Taekwondo Curriculum***

This subtheme focused on participants' perceptions of typical Taekwondo curriculum that promoted life skills learning. Based on the perceptions, Taekwondo forms (*poomsae*), sparring, and breaking, and the leadership program were identified as the typical Taekwondo curriculum. Two participants emphasized self-paced learning as they practiced the forms: Jasmine commented, "you can learn a lot from the *poomsae* [forms] like take things slow if you're not really sure about it at the moment. You don't need to be rushed" and Willmer expressed, "*poomsae* taught you like go with your own rhythm so be patient." While *poomsae* taught students to be patient and be aware of their pace, sparring taught respect and self-control as found in Jasmine's description: "if you're sparring, you observe how your partner moves and then you adjust to them so you don't hurt them like still respect their boundaries." In spite of the physical contact (e.g., strikes) needed for sparring by its nature, sparring had to come with life skills such as 'respect and self-control' (Instructor). Besides the forms and sparring, youth taekwondoists typically took part in breaking to demonstrate their power, speed and techniques by destroying wooden boards. Ryan shared his learning experience with the breaking:

If you're breaking through something it means you have accomplished that. But if you do not break through it, you're not strong enough, and if you're not strong enough, you didn't do what you're supposed to do to get to that point to get strong, you have to practice, physically, mentally.

He highlighted the need for physical and mental practice for the breaking. According to him, the breaking allowed students to self-correct to successfully perform the skills to break the wooden boards. Overall participants thought there were no meaningless activities, and they articulated what the lesson points were and how they learned the life skills from the typical Taekwondo curriculum.

Findings also revealed a youth leadership program that participants specified as a typical Taekwondo curriculum for PYD. In terms of the youth leadership program, youth leaders, normally higher Taekwondo belt rank, had opportunities to develop leadership skills by helping out the class, supporting instructors, and teaching younger or lower belt rank students. As a crucial part of the traditional Taekwondo program, participants reported that they became a more patient person with younger students in teaching and a more social person. For example, Gordon shared the positive influence of the leadership program as follows:

I was a little bit too quiet, but doing Taekwondo and especially teaching has really helped me gain social skills and I recently noticed that even among my peers. Whenever we have to talk in front of class, make a presentation, it's always more comfortable for me to do than the rest of them, because they're not used to it. But I've gotten kind of used to it. Thanks to Taekwondo.

Another youth leaders, Anna and Daisy, respectively, concurred that leadership program was valuable to them because, “[instructor] taught me how to be patient with me, and I showed my patience with little kids when I helped them” and “it just helped me with my patients and how to teach someone something over and over again.” Although youth leaders agreed that all aspects of Taekwondo curriculum was helpful in developing life skills, teaching others was significantly more influential on their positive growth as Joshua remarked, “for me personally,



the teaching and instruction has been the most practice of life skills in terms of like goal setting and improving myself.” Similarly, the following comment from Gordon showed his positive development:

When I started teaching it, that’s been pretty valuable to me and like my personality and my values because it’s giving me a new perspective I’ve never seen before and I’ve seen myself being really forgiving and nice to even my teachers at school because I understand what it’s like to teach, how it can be frustrating sometimes.

### ***Yin-yang Approach to PYD***

The concept of yin-yang was embodied by intentionally maintaining a balance of teaching and learning and development in the traditional Taekwondo curriculum. The ideas of balance and interconnectedness were identified in the way the participants: 1) perceived Taekwondo as physical-mental development; 2) considered Taekwondo practices for application in lives; 3) regarded the instructor’s teaching strategies as warm and strict; and 4) reckoned that harmony with others in Taekwondo practices were key to Taekwondo curriculum.

In terms of physical-mental development, participants shared reflections on the Taekwondo curriculum that required a good physical and mental balance in development. Ryan described that:

Taekwondo is truly working because not only the physical aspect of it but the mental aspect of it. The mental aspect of it is that he is trying his best to achieve that goal, so Taekwondo is pushing him to understand to mend these things together. I think that helps focus on setting those with our life skills, so yes, it’s not just physical, it is mental too.

In addition to Ryan’s reflection, Isabel noted, “the fact that you can practice both [physical and mental] while you’re doing Taekwondo every day,” Not only participants believed

that the Taekwondo curriculum promoted the physical-mental balance, but also the interconnectedness of learning on the mat and application of the learning outside the mat was addressed with respect to the yin-yang approach found in Taekwondo curriculum. Many participants shared reflections on how both fundamental Taekwondo skills and life skills were useful in everyday life. For example, Sarah commented, “he plays baseball...a lot of things that he learns in Taekwondo apply to his catching like his stance and strengthening his core and just like the arm movements and stuff, I think it’s very applicable.” Since Taekwondo is a defensive martial art, youth taekwondoists practice Taekwondo fundamentals to protect themselves. Those skills were practiced through Taekwondo sparring, and Joshua noted sparring as the real world skills, “it teaches you strategies like how to get out of stuff...it teaches you many things that you can use in the real world.” In addition to the fundamental Taekwondo skills, Jasmine and Sarah pointed out that Taekwondo taught life skills that could be applied to daily life:

You can use it in school like working together, respecting your partners...understanding boundaries like you learned in sparring...when you are working on a group project in school.

I think he respects all of the people here and does his best and so he takes it to school, he takes it to interactions with his friends...I see that not only here, but other places too, and he talks about it all the time. You know, it’s with him.

Their comments suggested the transferable relationship skills that were learned in Taekwondo. Other participants also shared the transferable life skills including ‘showing good manners’ (Ryan and Walker) and maintaining self-discipline (e.g., ‘be able to control your body and mind’ [Hudson]). Overall, participants' reports suggested that the Taekwondo curriculum taught youth taekwondoists to harmonize “what they learned in Taekwondo” with “how they

could be used in everyday life.” The claim was also supported by Julian’s description of Taekwondo learning for application that:

She is so focused in this class and like it’s how to respect and just control and I’ve seen a difference throughout many parts of her everyday life and that was initially what we were trying to find, something that she might enjoy and that would help her, and so we found both in Taekwondo.

Similar to the Taekwondo curriculum, the instructor’s teaching strategies were characterized by being warm-strict in working with youth taekwondoists, according to participants. For example, the instructor’s warm approach to teaching was described as “you guys have a lot of energy and you’re very friendly and outgoing...like connecting with everyone on a personal level (Julian)” and “the instructors help kids feel confident because they give them praise when they do something correct (Ryan).” On the other hand, his strict approach to teaching was expressed as “I like he is being strict on these kids just to get to feel and to learn what are the rules (Judy).” For the instructor, being warm and strict are not seen as two sides of the same coin, it was well balanced. The instructor had high expectations that were strict on rules (e.g., bow and no physical violence) and pushed youth taekwondoists give their very best all the time, but also treated youth taekwondoists with caring, warmth, and affection. Having high expectations for them was part of caring for and respecting them, therefore, his instructions seemed to be “do it because it is beneficial to you and your growth, not just because I said so”.

Finally, building harmonious relationships was accounted as a key aspect of Taekwondo practices. Participants emphasized the abilities developed through Taekwondo that was harmonizing with others. Learning non-judgement, recognizing individual differences, and

helping/supporting others were specified by participants as a need for the relationship skills.

Joshua expressed his non-judgmental attitude in Taekwondo that:

You don't really know a person until you get to be around them...you never know what that person could be going through so you always have to make sure to be nice to other people, just don't judge them based on what you see and how they look.

In the judgment free climate, the individual differences in ability and power were taught to youth taekwondoists by instructors, and Anna reflected, "he [the instructor] said, there's really no one who's like better than anyone because some people are good at something and another can be good at something else." There was no need for comparing themselves to others in Taekwondo. Instead of seeing others as their competitors, Gordon shared that:

I feel like a lot of the connection I've had with the people here just come from having that experience of being tried working really hard together and like helping each other out, improving each other, holding for each other.

Youth taekwondoists shared the partner skills developed in 'partner activities' (Gordon) and group activities' (Isabel). Anna explained, "sometimes you don't choose who you want to work with, they, maybe, are not as good as you, then you can learn to be patient with them and help them get better." Also, Jasmine mentioned, "the pad work is like listening to your partner when they say move back, move back because they are holding the pads so they can judge your stances against the target." In particular, 'trying to be more social' (Isabel), 'encouraging' (Hudson), '[giving and getting] motivation' (Jasmine), and 'helping others (Walker and Joshua) were remarked by youth taekwondoist as ways to harmonize with each other, while practicing non-judgmental attitude, recognizing the uniqueness of individuals, and being patient were addressed as mindset towards working with others.

## **Afterschool Taekwondo Program (Case 2)**

In case 2, findings are organized in two main themes according to martial arts pedagogies characterizing the afterschool Taekwondo program and the positive youth developmental outcomes produced through the program. The first main theme is adapted Taekwondo pedagogies that address particular teaching methods related to PYD. The second main theme is disciplined kids that involves youth participants' positive behavioral outcomes through the teaching methods. The primary data sources supporting these themes are teacher interviews, parent interviews, student focus groups, and observational notes.

### ***Adapted Taekwondo Pedagogies***

Three sub-themes are outlined as the core elements of the main theme: 1) features of afterschool Taekwondo, 2) flexible programming, and 3) teacher as a facilitator.

#### ***Features of the Afterschool Taekwondo***

While traditional Taekwondo focused primarily on Taekwondo curriculum and stuck to traditions and rituals (e.g., the belt system), the afterschool Taekwondo program provided youth both Taekwondo classes as well as supervised homework time for youth participants. That was the primary motivation for bringing their kids to the afterschool Taekwondo program. Samantha shared, “when I spoke to [the program manager], she told me we have time for homework and then we have the martial arts included. And that to me was just everything that I looked for.” Dante also said, “It has a nice balance of the Taekwondo teaching and then focusing on their schoolwork as well. So there's a nice balance with it.” In addition to Taekwondo plus homework time as a key benefit of this program, participants reported their perspectives regarding the needs of their children and their view of the role and value of the program. For instance, Tori and Dante, respectively, reflected that “I want her to continue to be active” and “you know, being

able to defend yourself is a big one here [Taekwondo].” Furthermore, opportunities to develop life skills were important considerations to parents when selecting their children’s afterschool Taekwondo program. Samantha explained that:

I looked for somewhere that there was going to be disciplined where there was going to be structure and routine. In the first place, and then the second place, then the school actually mentioned to me, you know “what about in martial arts?” And I said, well, that sounds really good to me.

Dante and Tori also shared similar motivation that “when we brought the kids first, it was about having some disciplines help them keep their focus” and “when my daughter started, it was all about mainly confidence...to be louder, stand up in front of people and do for the testing and stuff,” respectively. According to participants’ overall reflections, being physically active, learning self-defense skills, and learning life skills were regarded as expected student learning outcomes. Also, not only offering Taekwondo classes but also supporting kids’ schoolwork was found to be the most beneficial for them and their children. These parental expectations and needs of children affected the instructor’s pedagogical strategies for this program.

### ***Flexible Programming***

The pedagogical strategies being used in this program were adapted to the program features those kids came to the program everyday and no parent involvement during the program. Because youth participants come to the program Monday through Friday, “that’s why I can spend more time on Taekwondo skills and life skills...I can give them more leadership opportunities to lead themselves and others as well,” the instructor, Logan said. He also pointed out that:

Afterschool program doesn't have parents watching the class. [In] traditional TKD, sometimes I see students get too much pressure from their parents. Some parents are really passionate which is sometimes good, sometimes bad because whenever their kids are not doing good focus, some parents are calling them and then telling them even during the class time. if parents try to control and then try to monitor them, students have more pressure. It is hard (for them) to lead by themselves...And then they tried to be just a good example all the time if no observers are there to judge.

Since he was able to give more lessons to kids and the kids were free of parental interference, Logan felt "really a kind of I have a freedom" when he prepared Taekwondo lessons. Unlike the traditional Taekwondo program, he had more choices about what teaching and learning resources he would use, for example a TV was often used for the white board which was mainly used for life skill mat-chat in the traditional Taekwondo program. By utilizing the TV as a digital learning resource, YouTube videos related to Taekwondo demonstration and some fun activities for life skills learning (e.g., selective attention test from Simons & Chabris, 1999). He also read some books for his teaching material that were *The Polymath: Unlocking the power of human versatility* written by Waqas Ahmed, Mike Bayer's book, *Best Self: Be You, only better*, *Mindset: The new psychology of success* written by Carol S. Dweck, and Kelly McGonigal's book, *The joy of movement*. Insight gained from reading these books, he applied his knowledge to life skills teaching in the program. During an interview with him, he showed me the list of books he read and shared insights with kids. Then he mentioned,

When I have some free time, I read some books for self-development. And then, I am trying to connect the book content to my afterschool Taekwondo lessons. Yes, from the book stories, I am trying to apply Taekwondo life skills.

In addition to utilizing the digital learning resources and bringing fresh ideas into his Taekwondo life skill teaching, he often turned on K-pop, African drum music, and Afro-Brazilian drum music during Taekwondo practices to spice up the lessons. James, a parent, said that “Actually this is the first Dojo I came to where music was involved. Nobody ever played music during (martial arts practice) you know? Here he plays some music like get everybody engaged, that helps.” Because of his flexibilities in teaching, he utilized more resources (e.g., music and activity equipment) in creative ways than he did in the traditional Taekwondo program.

The instructor’s role was not the teacher giving direct instruction as he did in the traditional Taekwondo. Instead, he taught Taekwondo life skills as a facilitator for positive social interactions and positive climate. The following comment from James showed that the qualities of the instructor and his teaching strategies:

Master Logan is the big kid himself trying to find fun and humor in his teaching while also providing the Taekwondo instruction. That's what helped my son feel comfortable...not all martial arts instructors teach of it, but some are very strict and disciplined. I don't think that would have worked as well for him...I think having that fun component a little bit of the goofiness but still providing that quality instruction underneath helped him engage.

As a teacher-facilitator, his primary function was to interact with kids for motivation and learning. He particularly facilitated peer teaching that four or five leaders (tutors) provided instruction and guidance to the fellow learner. In the afterschool Taekwondo program, the leadership roles have been assigned to anyone who were confident at particular Taekwondo skills or training the skills. The opportunities were not just limited to highly skilled or older kids.



He often emphasized during the program, “to be a good leader, become a good follower first.”

Samantha described an example of peer teaching occurred during the program:

Yep, a big part of the lessons in the beginning is fitness and warming up. And then even the skills, I mean kicking the neighbor (classmates), you have to kick because you want to improve and become stronger. It is like looking at the style you’re kicking, looking at what your body is doing, turning your foot. Then there’s more focus on working with partners about helping each other about your body posture, about using your body, about moving your body.

The activities assigned to kids were mainly focused on peer teaching. During the program, the researcher observed the lesson and wrote in the TARE observation: ‘Some kids were assigned to lead exercise routines and warm ups. Some kids were asked to help teach self-defense movement, *poomsae* (Taekwondo forms), or specific punches and kicks [11/15/2021]. Also, it was commented to justify teaching strategies rating that ‘working together but there was no teacher’s way forced in teaching and learning interactions [for Fostering Social Interaction],’ ‘caring each other, encouraging each other, giving big hands after someone demonstrating their TKD skills, working together well, nobody excluded in their group [for Caring], and ‘in TKD kids practice watching & listening while working together and someone demonstrating [short memo].’ The peer teaching was effective when “not only just giving [kids] words [life skills], but also asking them more questions. So not only give one direction, but also ensure reciprocal conversation like back and forth, students and I have some kind of teamwork,” the instructor said. Based on the peer teaching opportunities, “you can make more friends and have good relationships by just be nice to people and cheering on them” and “it’s fun and it teaches me a lot

of stuff on everything and more kids should come here to learn self-defense and make new friends,” Alicia and Juliette commented, respectively.

The instructor as a teacher-facilitator played an important role in creating a positive climate that made kids feel safe. Participants agreed on that because “people don’t judge you [in Taekwondo],” Samantha gave an example. She elaborated on that:

The atmosphere is a big thing, it’s okay to make mistakes. One day, she [my daughter] didn’t realize she was leaning forward and she fell over backwards. Normally she would be so embarrassed, you know, and she would cry. But with Master Logan, it was okay. She laughed and he got up and he joked with her. Her self-image is better because it’s okay, I am allowed to make a mistake. If you fall over when you are kicking, it’s okay, no one is going to laugh at me, no one is going to think funny. It’s okay I can make a mistake...you are there and we’ve got a common goal. We’re going to learn how to kick...It’s okay, we are going to have fun.

Creating a safe learning environment was everyone’s responsibility in the program. “That is what she appreciated and she’s got somewhere she can come with people that got the same interests that don’t judge each other,” Samantha added. ‘No need for comparing yourself to others but focusing on self-improvement’ was found to be another crucial element for the positive Taekwondo leaning climate besides the ‘no need for judging each other, but it’s okay I can make a mistake’ climate. The instructor said, “don’t compare each other, just compare yourself to what you did yesterday...you just keep going so that makes positive growth. That is what I think of positive youth development in the afterschool Taekwondo program.” In addition to the instructor’s description, James shared what made the Taekwondo program unique compared to other after school sport programs that also influenced on positive learning climate:

Most sports are teaching you how to play a game, try to compete and win the game. There is no winning here. This is about self-improvement. So I think that's a big piece. It's about self-improvement and helping others, and it's also teaching them how to defend themselves, you know...So I think self-improvement is always one of my draws to martial arts. It isn't so much about a finite ended game, there is no end to the game. You just keep learning and growing.

### ***Disciplined Kids***

Two sub-themes characterize the main theme, disciplined kids that 1) life skills learning and 2) application of TKD life skills.

#### ***Life Skills Learning***

Based on the participant's report, it was evident that the afterschool Taekwondo program was effective in promoting life skills learning. Kids agreed that the program provided them an opportunity to learn life skills including, learning self-discipline, improving focus, respecting others, improving self-confidence, and being responsible. The following comments from Gavin showed his life skills learning experience in Taekwondo:

I think the thing that motivates me is that Taekwondo cannot just offer you like self-defense, it can also help you become better life skills like confidence, focus and respect, and I think it's done a really good job at helping me become better at all of these things.

His father, Dante also specified, "they've just grown from that with their disciplines and their life skills that have been taught in the afterschool program. So, we've just continued with it. Similar to Dante's description, James added, [my son] learned their ability to learn discipline to commit...it's teaching him discipline...commitment." As Tori defined life skills as 'to stick with something to see it through,' parents wanted their kids to commit to taking responsibilities for

their learning with disciplines, and it was associated with what the instructor highlighted (e.g., self-improvement and self-direction). Overall, becoming more disciplined through Taekwondo life skills practice was a key program outcome.

### *Application of TKD Life Skills*

Another remarkable program outcome was that the program deliberately facilitated application of the Taekwondo life skills to near context, halfway near and far context, and far context. This was evident in many participants' reports. In terms of 'near transfer,' kids learned Taekwondo skills (e.g., blocks, kicks, or footwork) that could be used in the sparring and self-defense practice as Dante mentioned, "I think the sparring is good because it helps them practice what they've learned." A specific Taekwondo skill and a set of movement patterns were applied to be a part of strategies for self-defense, sparring, and forms (*poomsae*). As Taekwondo skills are applied to more complicated and difficult Taekwondo practice, life skills can be applied to Taekwondo practice. James reflected, "it's a good learning for how to remember things too and memorize things because there's lots of skills they have to apply, not just mentally but physically to it" when kids practice Taekwondo forms (*poomsae*). Moreover, Dante shared a detailed example of near transfer of Taekwondo life skills:

The *poomsae* because it requires a lot of control and focus and the more they do that because I've seen you guys do it over and over and over, it helps them with their control of their body, their mind and they get to tie that together. Yeah, so I think that helps with a lot of the controls.

As far as the 'halfway near and far transfer,' kids were strongly encouraged to continue to exhibit good behaviors in the backroom (e.g., supervised homework time, play, or craft), and it characterizes the afterschool Taekwondo program. The instructor explained:

Sometimes I just switch life skills depending on the situation...what if they don't have homework, what if they have some issue in the backroom. So we can apply [life skills] directly in the situation, instead just talking about life skills can be applied to home and school. Teaching life skills from Taekwondo lessons is a huge advantage of this program.

The kids spent time practicing Taekwondo less than one hour, but they spent much more time in the backroom with other activities, such as having snack time, homework time, doing arts & crafts activities, and playing board games. Kids naturally interacted with others in the backroom. As the instructor commented, kids agreed that they took advantage of learning life skills from Taekwondo to create a safe environment in the back room. For instance, Cooper emphasized that:

So we usually learn from either when we're doing class and from master Logan. We usually use them [life skills] when we're in the backroom. Like [when] something happens, we need to show the life skill that we learned like help control the situation.

Kids perceived that they could use the life skills during Taekwondo and in the backroom, as Tiffany mentioned, "we could practice them [life skills] doing Taekwondo classes when we're practicing a new skill or when we're in the backroom doing homework. Although the 'halfway near and far transfer' strategy seemed to be successful in terms of life skills practice in a similar context (near), the ultimate goal for life skills learning was to bridge the life skills learning to application of the learning outside the afterschool Taekwondo program. In regard to far transfer of Taekwondo skills, Cooper noted. "There is something that you can use from Taekwondo, like the self-defense that we learned in case you get hurt or something." This is exactly connected to parental expectation, being able to defend themselves and one of the main goals of the afterschool Taekwondo program. Applying Taekwondo skills if they have to defend is important,

but more important is life skills transfer to this situation by ‘let off that steam with self-control,’ Dante highlighted this as an example of far transfer during the interview. Kids also noticed that self-defense is the last resort and life skills must be applied first. Cooper explained that: “hard skills can hurt or injure somebody badly, but control is definitely like something that we learned and make sure we don't want to hurt anybody or we only use it when we have to.” Overall kids agreed that the life skills learned in Taekwondo were crucial skills to use in their everyday life. For example, Cooper reflected, “we can also use the life skills like focus, respect, discipline and many more...which we can use in our home or in a school setting to adults and peers” and Juliette shared, “so yeah, there's a lot of places that you can use them, for example, school like honesty. If something happens, and if you tell the truth, it just makes it better instead of lying about it.” Finally, Dante shared his observation on their kids' application of the life skills that “they also understand respect [in] different sports. They show the same respect here [soccer program] as they do outside in anything that they do, based on what Taekwondo instructors have taught them here [Afterschool Taekwondo program]. So definitely respect and patience.” The instructor facilitated life skills learning and transfer through Taekwondo, in the back room and outside the Taekwondo. In particular, he used the ‘back room’ as halfway near and far context in the way to foster life skills learning and application.

### **High School Physical Education Taekwondo Program (Case 3)**

Two overarching themes characterize the Taekwondo program in high-school physical education: 1) being my authentic self through restorative practices and 2) Taekwondo pedagogical engine for school physical education. The first theme relates to the restorative pedagogy in circle and restorative approach to Taekwondo. The second theme is about Taekwondo instructional methods and disciplines for physical education. The primary data

source supporting these themes includes interviews with students, a coach, and program staff, lesson reflection and observational notes (e.g., comments and notes from TARE observations).

### ***Being my authentic self through restorative practices***

Findings are grouped regarding participants' learning experiences through restorative practices in physical education. Two sub-themes are outlined as the core elements of the main theme: 1) learning key values of the restorative circle and 2) integrating restorative practices with Taekwondo. Aria, a female student actively participating in the program, confided her secret to the researcher and a program staff during the interview that demonstrated characteristics of youth participants in the program and the need of social emotional learning and caring people. Aria said that:

hm, since this program I was like, I was sort of paranoid about a lot of things and about how the students around me. I am also paranoid that they would judge me and about a lot of things like I am not, I mean, I was born in America, but I didn't really grow up here. And like in Liberia, I ate different things than what they eat here and I dress differently. Being in the program, sort of like really helps me not avoid where I come from and just try to act like everybody is around me and how to be more myself like how I am at home and at school. Uhm, I would sort of like feel ashamed of myself in a way when I avoided where I came from at school and someone asked me a question and I didn't answer it how I originally thought I should answer it. And being in the program really helped me in terms of why I shouldn't avoid where I come from cause where I come from is just as valid as where everybody else comes from. All I have to do is try something new I guess. And that was really it for me.

The majority of students participating in the program were not American. Most youth participants come from Africa, the Middle East, Asia, and South America. We speak English as a second language. As Aria shared openly about who she was, other youth participants hesitated to express who they were and open up to other people socially in the beginning. Some of them were even reluctant to make eye contact and answer simple questions (e.g., what do you do for fun?). As Aria also mentioned her positive learning experience in the program, it was obvious that youth participants became more connected to each other and more authentic. The two sub-themes below relate to participants' perceptions of the restorative practices promoting PYD in the circle and Taekwondo.

### *Learning Key Values of Restorative Circle*

Youth participants discussed a variety of restorative practices outcomes through structured opening and closing circles (group discussion and meeting) that they experienced in the Taekwondo program in high school physical education. Collectively, restorative practices through the circle were considered crucial curricular ingredients for PYD. As Joy mentioned, "I think it felt good because not only do people get to express themselves, but also get a chance to meet new people...in some way." To her, the circle was an opportunity to express herself and make friends. Similarly, Jacob, a program staff member, reflected, "more than anything, it gives them an opportunity to be heard, to express themselves. Another program staff, Micah, explained that:

During the circle we had a talking piece...if you had a talking piece then your responsibility was to talk and share...you can pass the talking piece, it is the autonomy to pass it. If you didn't have the talking piece then you were listening. So everybody had to



respect when that person was talking and sharing [and] that's I the point of the circle. You know just to be able to hear and say.

The well-established circle guideline for restorative practices provided a safe environment that youth participants felt included and cared for. Joy and Derek, respectively, expressed, “you are very compassionate with what y’all do...you make sure the students are okay...[and] we’re ready” and “I was with the adults who were asking about our day and if we were OK always. That made everybody feel mostly included because somebody actually cared [about us].” By expressing themselves to people who cared about each other, the participants were able to build trust relationships. Jett described, if [a] student has a problem, he can talk to the teacher about it...[because] the adult and the student, kinda having a good relationship. Joy also added that “[kids] can kind of start becoming friends or mutual and go friendship.” A remarkable routine that was reinforced by the program staff in the closing circle facilitated positive social interactions. Jacob described in his lesson reflection (11/4/2021) that “In the closing circle we gathered as one large group. Shout outs were given by students about other students. It was really encouraging to see students speak positively about their peers.” In doing so youth participants had opportunities to highlight their effort that day as well as showing their positive feeling about their peers. This was not only good for building positive relationships but also great for them to recognize positive behaviors creating a safe learning environment and motivating others. Chloe reflected, “one student intentionally touched on life skills, teamwork’ which was nice to see.”

### ***Integrating Restorative Practices with Taekwondo***

Restorative practices were intentionally addressed during Taekwondo. Since the nature of martial arts is aggressive, there might be a chance that someone gets hurt accidentally when a

pair has miscommunication or a partner doesn't pay attention to a task they are working on. Chloe explained, “your partner has to have some level of respect for you...they have to trust you because otherwise, you know, they could get hurt, you could get hurt.” Checking in with each other was a strategy in Taekwondo as it was used in the circle for caring about each other. Jett, a boy, said, “I’m like making sure somebody is okay like so when you kick, [asking] are you okay? Did I do something wrong?.” Another way youth participants felt included in Taekwondo was that a coach “showed people how to do it right...it made me feel more safe so that they learn how to kick in the right spot and stuff,” Jett shared. He also felt included when “everybody stands in the circle and some were holding the boards and he had to break in each one” that means they felt a part of each Taekwondo activities, not being excluded.

Restorative practices in Taekwondo also allowed youth participants to express themselves and have choice and voice. In terms of self-expression, they were encouraged to express their favorite things (e.g., sport, color, food, or countries) by “saying five words instead of counting to five [when stretching],” Jacob wrote in his lesson reflection (12/16/2021). Youth participants were taught to express what they feel about certain things when they face challenges. Expressing fear, confidence, and achievement was an important part of the boarding breaking activities in Taekwondo. Derek said, “yeah, I’ve got scared. I felt like I wasn't mentally stronger because I didn't know if I would be able to break the boards.” Youth participants were motivated by program staff, ‘it’s okay expressing fear.’ With regard to having choice and voice, “students [were] encouraged in choosing their level of difficulty, practicing, and adjusting with peers,” Max stated in the lesson reflection (12/7/2021). In addition to that, “the students were given much control over what combinations they chose which allowed for them to feel empowered” Jacob shared (12/14/2021). Once youth participants understood important cues for front kick, as

an example, they were motivated to find their own ways to practice the technique and combine other techniques with the front kick to personalize their self-defense moves. A principle of restorative practices used both in circle and Taekwondo was enhancing social connections. Derek mentioned, “I wasn't really expecting to be in it, but I did make a lot of friends in it so it was pretty fun to be in it with them.” Moreover, Aria commented that:

Well, in terms of classmates I didn't really get to know anybody better but like I mean, I sort of had this group and I sort of stuck with them... Like I said earlier, being in that group really helped with my confidence, not being shy. (Aria)

### ***Taekwondo pedagogical engine for school physical education***

The second main theme in case study 3 is organized around the following three subthemes: interactive instruction, teaching culture, and instructional scaffolding. The three subthemes relate to the particularities of Taekwondo instructional strategies used for high school physical education to promote PYD.

#### ***Interactive instruction***

Footwork, hand moves, jumps, spins, rolls, kicks, punches, blocks, upper body moves, head moves, and sets of such movements and techniques were taught in the Taekwondo program in PE. Participants' reflections on how Taekwondo skills were drilled demonstrated that the youth participants practiced Taekwondo interactively with partners and instructors. In that way, cooperative learning was facilitated to both improve Taekwondo skills and learn life skills. Chloe said, “Coach Sun always emphasizes that teamwork element so we do a lot of partner drills and he always asks, ‘okay, you have to communicate well with your partner.’” In the relationship-oriented Taekwondo drills, youth participants had opportunities to actively interact with others while improving their Taekwondo skills. Chloe added that:

The 1vs1 game to try to touch feet and shoulders everyone seemed to enjoy. I also loved that it was a competitive game but it was not ego-oriented. Coach Sun did a great job keeping the game task-oriented and modeling respect so that students followed.

Jack, a program director, also shared a similar perspective on the Taekwondo partner drills. He said, “Good examples of students working together and holding pads training with each other.” “It [was] a good way to learn partnership and leadership [Jett commented],” because “Students [also] were encouraged to help correct students form and technique [Jacob, 12/14/2021],” by encouraging youth participants “to communicate with each other...to say something positive about another students [Jacob, 12/14/2021].” Including giving/receiving feedback in many forms of partner drills, youth participants worked together and helped each other to improve Taekwondo skills. This interactive learning process occurred in group drills as well. Aria reflected that:

I like the moves how you did it with the counting [numbers] and what moves to do on certain numbers, like one [jab], two [cross], three [duck], four [pull]...that really helped me get focused. I mean it confused me sometimes when you went really fast...

Youth participants were included in a large circle and engaged in group activities all together. Some took leadership roles by counting numbers, demonstrating skills, or making suggestions.

### ***Teaching culture***

Taekwondo is a martial art originated in Korea, and teaching Taekwondo necessarily involves cultural elements and traditions. According to Molly, a PE teacher shared her perception of teaching Taekwondo in PE that:

“I mean, I honestly wouldn’t even consider it a barrier. I think it’s an opportunity to learn different cultures because unless they were taking a different class, they would learn necessarily another culture, especially with something like martial arts...[it’s] an advantage honestly because they’re getting a chance to learn experience something that other kids don’t”.

She pointed out that youth participants can learn culture through Taekwondo. Through the Taekwondo program in PE, “bow to each other” was an important activity that was reinforced to do on an activity-to-activity basis. Jacob mentioned about “bow to each other” in his lesson reflection (12/9/2021) that “instructor talked to students about bowing as a sign of respect, students bowed between each activity.” Micah added that “One of the main ways that they show respect in Taekwondo is through the bow, it's a very mutual level of respect and understanding.” The Taekwondo program in PE encouraged bowing in certain times such as before and after partner drills and before the class begins and finishes. Youth participants gave thanks by bowing to partners, peers, and instructors. Bowing was just a substitute for a handshake as Taekwondo etiquette. Derek, a youth participant, reflected, “For me, I kind of learned to respect the people who are around me because I feel like they were very respectful and open to learning about Taekwondo”. Bowing is a key cultural element in Taekwondo as a sign of respect, trust, and gratitude, and it was practiced the same way in the PE Taekwondo program.

### ***Instructional scaffolding***

Findings revealed that providing scaffolding was a critical component in teaching Taekwondo in PE, and it was used as a critical element in the teaching of instructional strategies. Participants shared about the learning experience in accordance with the scaffolding that the

instructor provided appropriate support for students to enhance learning. The first step for the scaffolding was recognizing individual learners. Chloe noted that:

We really recognize individuals. We recognize who they are. Um, we want them to be a part of it. Um, every single skill that is taught is either adapted or challenged. So all of those different individual elements can be integrated to fit the individual learner.

Paying attention to the whole group was important, but the instructor and the program staff did not disregard individual differences in abilities, needs, and interests. For most students, practicing Taekwondo was new physical education content to them. What this means is that the students are more likely to give up on learning Taekwondo if the instructor teaches content far too high for students to achieve even with help. In contrast, they can become bored with learning Taekwondo skills if they already know how to do it or it is too easy to achieve. These two learning zones are the side of the target zone called the zone of proximal development (Vygotsky, 1978). His theory highlights that what is not known can be done with appropriate guidance and assistance. This concept was applied to the scaffolding in physical education for Taekwondo by the instructor pitching a proper Taekwondo content that students were able to achieve with individual guidance and feedback. Jett and Joy, respectively, reflected on the scaffolding that: “Mr. Sun, he helped me a lot like when we started kicking the little pad things, he was like straightening my leg up to make sure I could hit it hard” and “He taught us some useful stuff, not only like how to do it like how to do it safely...with punching, you put your thumb over your fist not in your fist. So you taught like that and I think it was really helpful.” Also, Joy added that “my favorite thing about the program is how supportive y’all are and you never give up on the people that are trying.” By not only providing proper tasks with

information, guidance and assistants, but also being patient with learning progress of individuals, learning and engagement took place.

Youth participants felt confident in themselves and their abilities by accomplishing tasks given to them. The instructional scaffolding was used by breaking a movement skill or movement pattern into smaller moves so that students were able to master the first step then move onto the next step which was slightly more challenging in content. Max shared his view of scaffolding from the lesson observations that “everyone given an opportunity to work on skills [that is] very attainable [11/30/2021]” and “warm up activities provide all opportunities to succeed. Excellent job giving chance to succeed in partner drills [12/7/2021].” Max, a program director saw the activities and tasks given to students were enable students to succeed (e.g., working together, trying their best, mastering Taekwondo skills). Youth participants shared good learning experiences in scaffolding. For example, Arian commented that:

One that I really thought was an accomplishment was the tornado kick for me because it really helped that you sort of had steps how to do it. And sometimes I would get confused while doing it and I wouldn't do it right and I would just try again. I mean eventually I got it, but the steps that you had really helped me get it. And that was one big accomplishment for me.

Breaking boards and creating Taekwondo movements were the Taekwondo activities that facilitated scaffolding. In terms of the “breaking boards,” it is a typical Taekwondo discipline taught in traditional Taekwondo (Martial art) and sporting Taekwondo (Olympic). The idea of breaking boards is to demonstrate power, speed, and accuracy executing kicks or punches. Youth participants were taught how to execute Taekwondo hand and foot skills, and then they found out what their favorite Taekwondo skills were. The instructor and program staff encouraged them to

practice their Taekwondo skills with reusable plastic Taekwondo boards to break the wooden boards at the end of the program as a measure for success. This breaking activity was an important part of the instructional scaffolding in Taekwondo for PE. Max reflected on the activity that:

[There were] three styles of breaking boards [depending on thickness] so all can succeed... [and this is the] empowerment with choice and form with breaking boards and skills to break the boards [1/4/2022].

As Max mentioned, the board breaking activities provided opportunities to ensure all succeed because three levels of difficulties that students were able to choose and challenge themselves with thicker boards and executing advanced Taekwondo skills (e.g., jump kick and tornado kick). Youth participants experienced some level of success through this scaffolding activities, and Arian and Derek, respectively, shared the feeling of the success that:

Physical wise, it was hard for me to think that I could break those thicker boards that you brought to the program...And like doing them really helped, and actually being able to break them really helped me be more confident.

Whenever we did it, it kind of made me feel stronger about doing it because at first I thought I wouldn't be able to do it, but after we started doing it a lot, I felt better at it.

In addition to the breaking boards activities, creating their own Taekwondo movements was another task given to students to promote scaffolding. Chloe described that:

There's leadership tasks. Um, he gives choices and voices because kids get to choose what are the rest of their 13 [Taekwondo] moves. So he has 10 foundational moves, and then they [students] add on three. So in that kids naturally are empowered to do what they want and do what they can see. Um, and then he does scaffolding, like I mentioned.



After certain Taekwondo practices, students were asked to demonstrate the skills they practiced and created. It took place in different ways, as an example, everyone standing in a circle and one demonstrating a combination of five Taekwondo kicks and punches at a time and the next person taking turns demonstrating (e.g., domino style). Everyone gave big hands to each other to celebrate the achievement, effort, and self-confidence. In instructional scaffolding with these Taekwondo activities, youth participants shared the improvement in self-confidence. Aria emphasized that:

Like I said earlier, not being judged for having missing something, it really helped me gain confidence to try again and do it again...as I was participating in the program, I sort of got less shy in class and stuff and how I interacted with the students and my classmates around me. I think self-confidence is one of the most important one.

In the last day of the Taekwondo program in physical education, youth participants had opportunity to express themselves and demonstrate Taekwondo skills by breaking the real wooden boards. They were asked to choose pen, markers, highlighter, etc. to write down their achievement, what they liked about the program, and goal setting for new semester as well as Taekwondo skills they would use for breaking and a partner who would hold the board for him/her. As far as positive learning experience, youth participants wrote, “I learned...focus and perseverance because you really had to pay attention to see and hear what was happening and to show respect to,” “having fun, a chance to move, and show off the teacher (skills in Taekwondo),” “I made new friends gained social skills,” “I met some awesome people,” and “I can defend myself”. In terms of goals setting, youth participants shared, “better consistency in class; paying attention; and not giving up [personal responsibility - behavior],” “good grade; pass 9th grade, and get As [personal responsibility - academic achievement], and “make new friends’ be a good

friend [social responsibly].” By doing the breaking boards activity, that reinforced instructional scaffolding, youth participants were able to reflect on their personal achievement in the program and connect that positive learning experience to outside the gym by setting new goals for new semester.

## **Part 2: Zoom out big pictures of martial arts pedagogy and PYD outcomes across the cases**

Results from descriptive statistics across the three cases are presented in this section. Two valid and reliable surveys (PSRQ and ToRQ) were administered to youth participants in the three cases, and the data was calculated using descriptive statistics: percentage frequency and mean. In addition to the surveys, observation and post-teaching reflection were conducted across the three cases using the Tool for Assessing Responsibility-based behavior (TARE). Data from the TARE observation and reflection were calculated using descriptive statistics: mean.

### **Responsibility based behaviors of teachers and students across three cases**

TARE tools were used as an observation method to document lead instructor’s Taekwondo teaching strategies and student’s personally and socially responsible behaviors during lessons. In case 1, 360 categorical items of TARE tools were rated throughout 20 Taekwondo lessons by the research (an observer). In case 2, the researcher made observation of the Taekwondo teaching, and total of 360 categorical items were rated through 20 Taekwondo lessons. In case 3, 270 categorical items of TARE tools were rated throughout 15 lessons by the researcher after teaching Taekwondo. The results from the subscales of TARE tools: 1) teaching strategies, 2) TPSR themes, and 3) student behavior are illustrated in Table 7.

**Table 7. Descriptive Statistics of Teaching Strategies, Lesson Themes, and Student Behaviors from Cases**

Three subscales of TARE	Case 1 (N = 20)		Case 2 (N=20)		Case 3 (N=15)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<b>Teaching strategies</b>						
Modeling Respect	4.00	0.00	4.00	0.00	4.00	0.00
Setting expectations	4.00	0.00	3.90	0.31	3.54	0.66
Opportunities for Success	3.75	0.44	3.95	0.22	3.23	0.44
Foster social interactions	2.35	0.81	2.65	1.04	2.92	0.28
Assigning tasks	1.85	0.75	1.55	0.69	2.23	0.83
Leadership	2.45	1.10	1.80	0.62	2.23	1.09
Giving choices and voices	2.05	1.05	2.65	0.67	2.62	0.51
Role in assessment	1.30	0.86	2.35	1.14	1.54	0.78
Promote transfer	1.55	0.89	2.35	0.49	1.77	0.73
<b>TPSR themes</b>						
Integration	3.25	0.72	3.70	0.47	2.85	0.38
Transfer	1.70	0.80	2.30	0.66	1.38	0.65
Empowerment	1.90	0.91	2.10	0.85	2.46	0.88
Teacher-Student relationship	4.00	0.00	3.90	0.31	3.77	0.44
<b>Student behavior</b>						
Self-control	3.90	0.31	3.70	0.47	2.69	0.75
Participation	4.00	0.00	3.95	0.22	2.92	0.86
Effort	3.95	0.22	3.65	0.59	2.85	0.55
Self-Direction	1.50	0.69	2.35	1.09	1.23	0.60
Caring	2.90	0.72	3.30	0.66	2.69	0.63

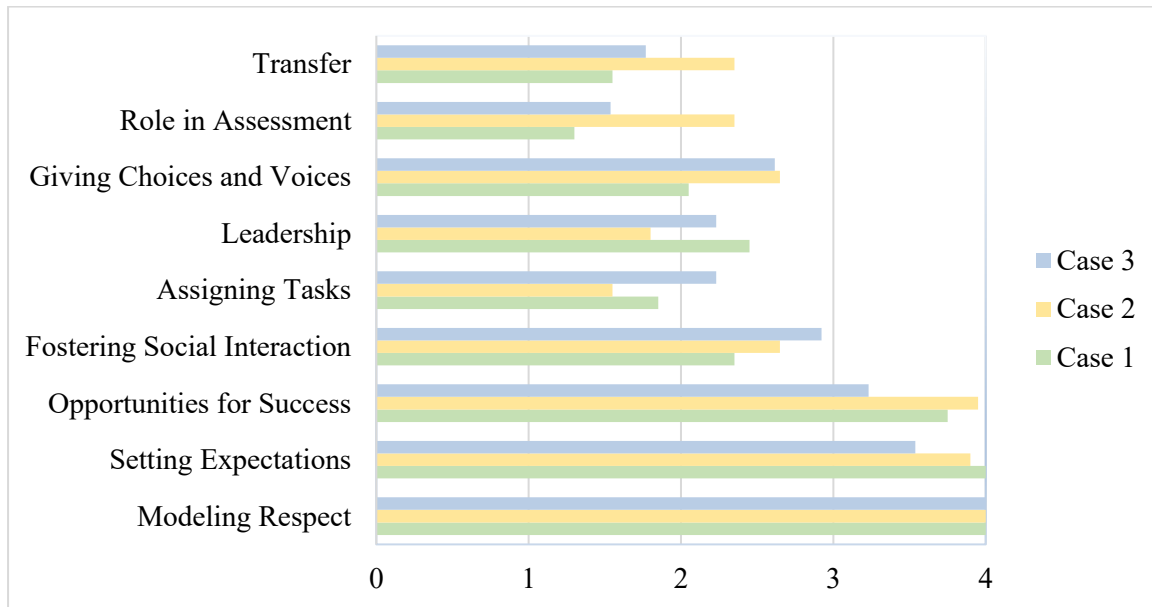
Table 7 shows that the means of each categorical items are not so different across the cases. Although it shows that the pattern is generally consistent, there is slight variation existed across the three cases.

Figure 13 illustrates that Taekwondo instructors across the cases were extensively observed *modeling respectful behavior* for their students ( $M = 4$  for all cases), *setting clear expectations* ( $M = 4[1]^3$ ,  $M = 3.9[2]$ , and  $M = 3.5[3]$ ), and ensuring all students had *opportunities to be successful* ( $M = 3.8 [1]$ ,  $M = 3.9[2]$ , and  $3.2[3]$ ). The other strategies including *fostering*

<sup>3</sup> The number 1, 2 & 3 in square brackets indicate case 1, case 2, and case 3 respectively

*social interaction, assigning tasks, leadership, giving choices and voices, role in assessment, and transfer* show there are some notable variations across the three cases.

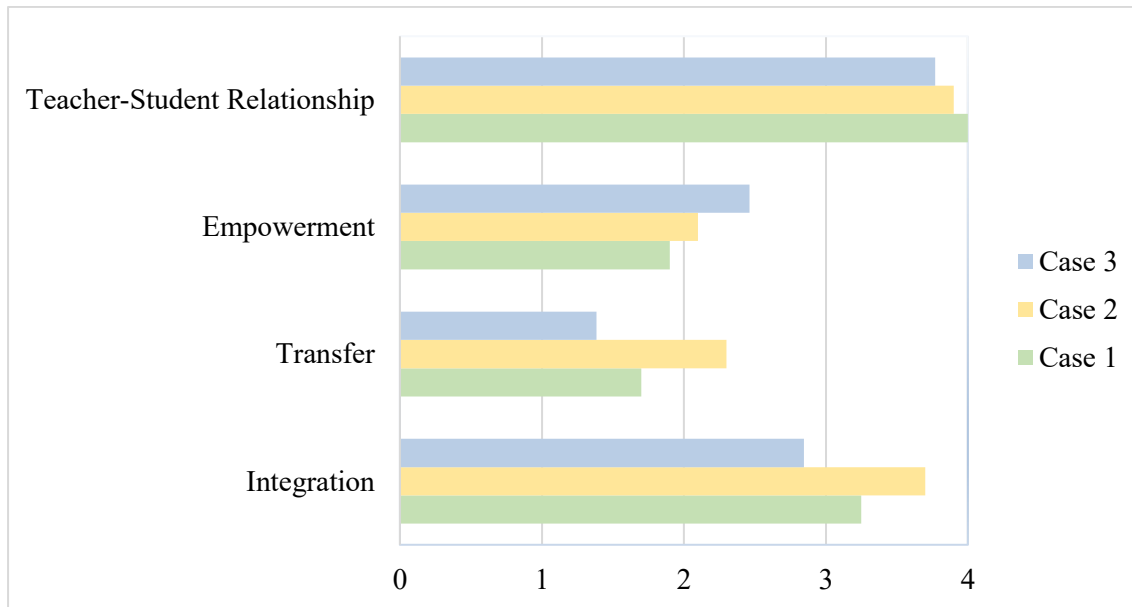
**Figure 13. Taekwondo Instructors’ Responsibility-Based Teaching Strategies Across Three Cases**



In case 1, providing *leadership* opportunities for students was the highest rating ( $M = 2.5$  [1]) comparing other two cases ( $M = 1.80$  [2] and  $M = 2.2$ [3]) while giving students *role in assessment* ( $M = 1.3$  [1]) and addressing *transfer* of learning ( $M = 1.5$  [1]) were the lowest ratings as compared with other two cases. For case 2, *giving choices and voices* ( $M = 2.7$  [2]), *role in assessment* ( $M = 2.4$  [2]), and promoting *transfer* ( $M = 2.4$  [2]) were the highest ratings as against other two cases. In terms of case 3, *fostering social interaction* ( $M = 2.9$  [3]), *giving choices and voices* ( $M = 3.6$  [3]), and *assigning tasks* ( $M = 2.2$  [3]) were three strategies that the instructor emphasized as contrasted with the other cases. These findings were associated with the TPSR themes (integration, transfer, empowerment and teacher-student relationships) that the

Taekwondo instructors promoted throughout the lesson. Figure 14 illustrates the holistic ratings of the extent to which the instructors promoted the four responsibility themes.

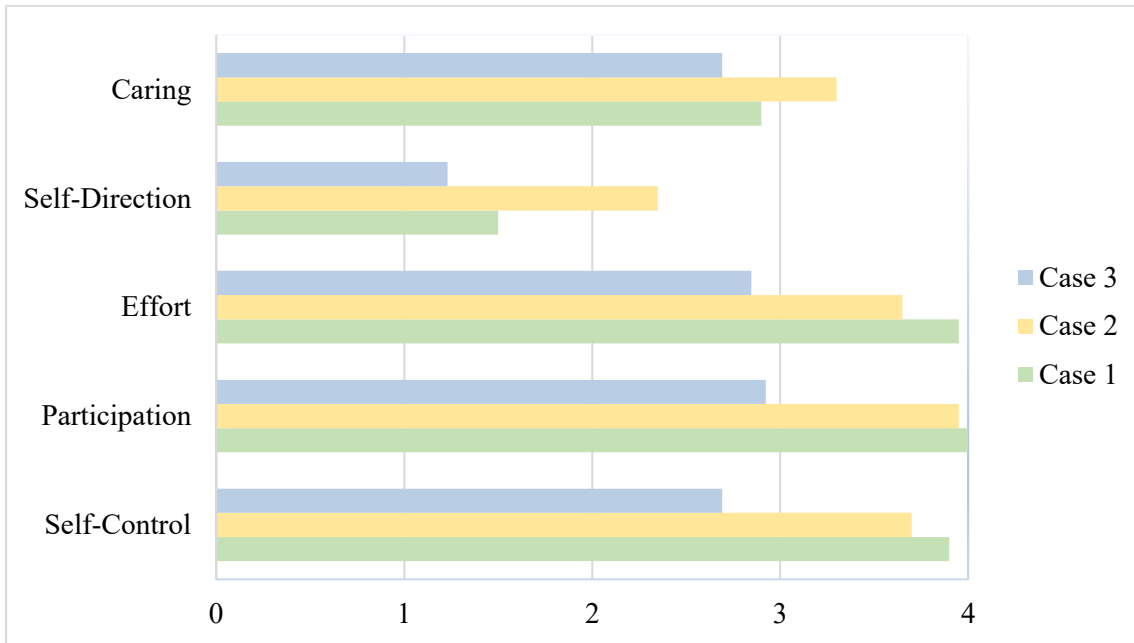
**Figure 14. Responsibility-Based Lesson Themes Across the Three Cases**



Teacher-student relationship was an extensively rated theme across the three cases, and especially it was found in the case 1. For case 2, integration ( $M = 3.7$  [2]) was an extensively observed theme in comparison to other two cases. Moreover, promoting transfer ( $M = 2.3$  [2]) was more addressed in case 2 than the others. This is associated with the findings that promoting transfer was emphasized by the Taekwondo instructor in case 2. As far as case 3, empowerment ( $M = 2.5$  [3]) was the most rated theme among the three cases meaning that the instructor in case 3 gave students more choices and voice than other instructors. This finding also supports that giving choice and voice was a notable teaching strategy in case 3. Some consistent patterns were found around the two subscales of TARE tools, and this might be because responsibility-based teaching strategies are often guided by the four themes.

Regarding student behaviors (See Figure 15), the researcher provided a holistic rating for general areas of student responsibility including self-control, participation, effort, self-direction, and caring. The overall group of students in each case were focused for the holistic rating instead of individual students. In case 1, student responsibilities were demonstrated by *participating* ( $M = 4$  [1]) in all activities led by the instructors, putting *effort* ( $M = 3.9$  [1]) into Taekwondo skill mastery, and showing *self-control* ( $M = 3.9$  [1]) (e.g., kind to others or no trash talk). However, *self-direction* was rated as weak-moderate ( $M = 1.50$  [1]) because the instructors did not give much opportunities for the self-directed learning time. Instead, youth leaders and instructors always worked together with students. Similar to case 1, *participation* ( $M = 3.9$  [2]), *effort* ( $M = 3.7$  [2]), *self-control* ( $M = 3.7$  [2]) and *caring* ( $M = 3.3$  [2]) were strong student responsibilities found in case 2. Unlike a low holistic rating of student' self-direction in case 1, students in case 2 demonstrated a remarkable *self-directed* learning ( $M = 2.4$  [1]). That also means that the instructor gave much more opportunity for self-directed learning than case 1. For case 3, most student responsibility rated closed to 3 which demonstrated "strong – most student displayed this responsibly throughout the lesson," but overall ratings were lower than other two cases. As a consistent finding, self-direction was also the lowest ( $M = 1.2$  [3]) rating of student responsibility across the cases and of student responsibility in case 3.

**Figure 15. Responsibility-based Student Behaviors**

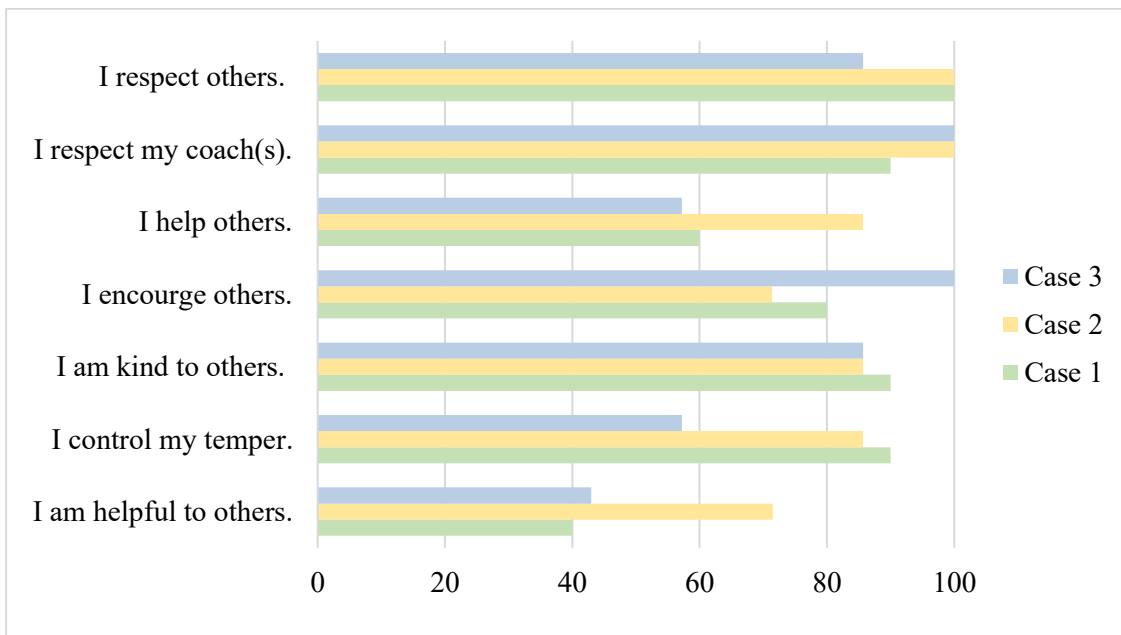


### **Student’s Perceptions of Life Skills Learning and Transfer across Three Cases**

The Personal and Social Reasonability Questionnaire (PSRQ) was administered to assess student’s self-reported behaviors. Figure 16 illustrates the students’ perceptions of their socially responsible behaviors in the Taekwondo programs. The mostly highly rated items were respecting the coaches (90% [1], 100% [2], and 100% [3]), respecting others coaches (100% [1], 100% [2], and 85.7% [3]) and being kind to others coaches (90% [1], 85.8% [2], and 85.8% [3]). These positive responses are consistent across the three cases. There is a lower level of positivity to the items that “I am helpful to theirs (40% [1], 71.5% [2], and 42.9% [3])” and “I help others (60% [1], 86% [2], and 57.2% [3]).” This pattern was consistent with the “caring” that the researcher rated in responsibility-based students’ behavior of TARE tools. Although there are similar patterns found across the cases, there are also some variations in students’ perceptions of their behaviors between the cases. Students in case 1 and 2 responded positively to a statement, “I control my temper” (90% [1] and 85.7% [2]) while 57.2% of students in case 3 reported

strongly and very strongly agree to the same statement. In spite of the low levels of agreement around that statement (self-control) in case 3, the students self-reported relatively high level of agreement around a statement “I encourage others” (80% [1], 71.4% [2], and 100% [3]). This finding is also consistent with the most highly rated teaching strategy, *fostering social interactions*.

**Figure 16. Students’ Perception of Socially Responsible Behaviors in Three Cases**

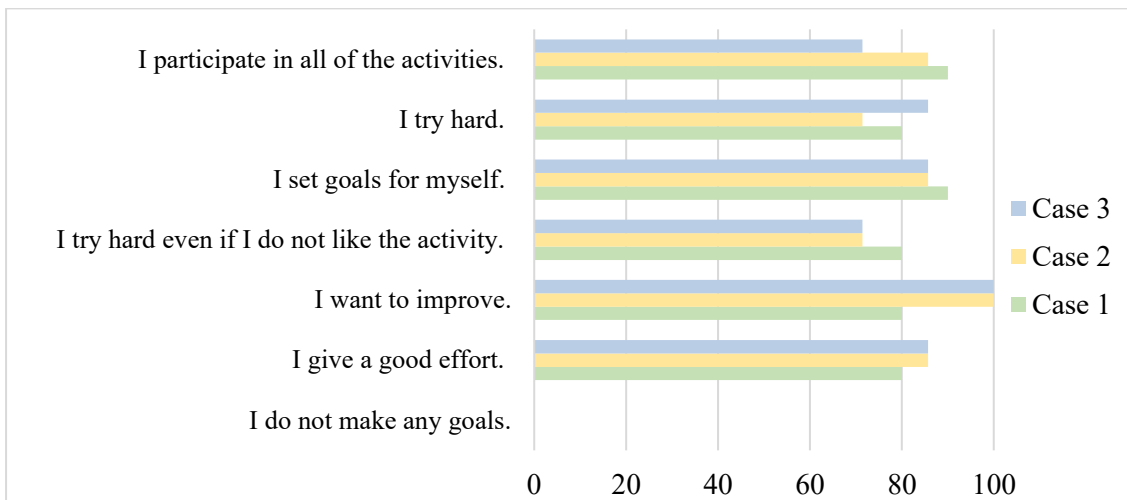


Students’ personally responsible behaviors were self-reported by students across the cases (see Figure 17). There is an extremely high negative response to a statement “I do not make any goals” (0% [1, 2, and 3]). This negatively worded question is considered an item where disagreement is a good answer. Therefore, the finding can be interpreted as which all students across the cases strongly and very strongly agree that they make goals themselves. Similar item, “I set goals for myself” is also a highly rated by many students across the cases (80% [1], 85.7% [2], and 85.7% [3]). This might correspond to the higher ratings on *Setting Expectations* as instructor gives individual goals (e.g., life skills) or set group goals (e.g.,



climate) and *Opportunities for Success* as student have opportunity to experience accomplishment observed in teaching strategies of the TARE tools. In addition to goal setting, students gave high rating on the item, wanting to improve (80% [1], 100% [2], and 100% [3]) across the cases. This is also aligned with the finding from student behavior, effort noted in TARE post reflection. There is relatively a lower level of positivity to a statement that “I try hard even if I do not like the activity.” This is consistent across the three cases.

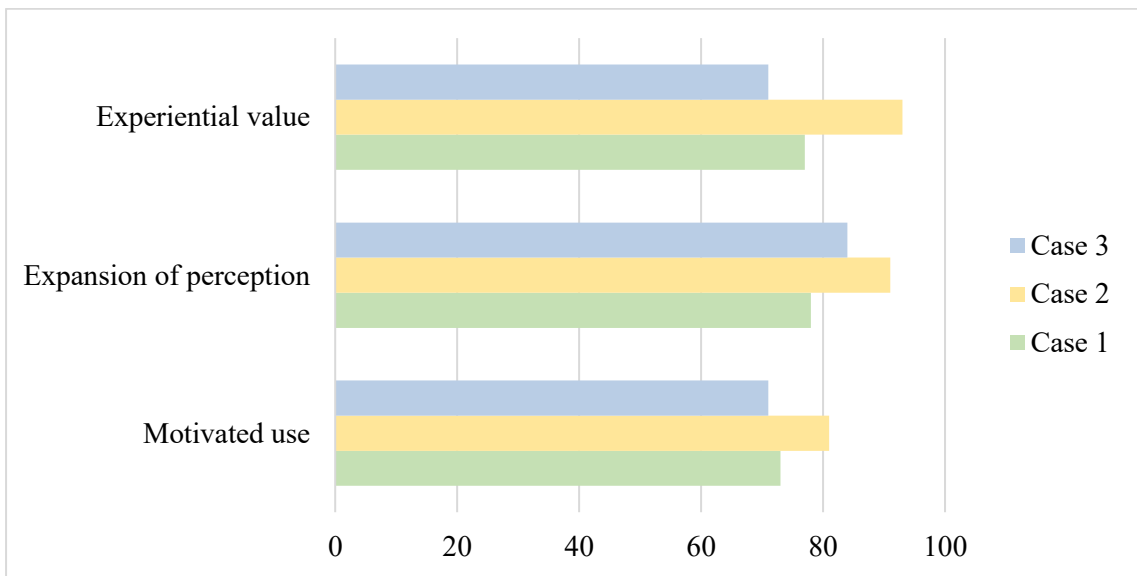
**Figure 17. Students’ Perception of Personally Responsible Behaviors in Three Cases**



The Transfer of Responsibility Questionnaire (ToRQ) was used to assess students’ self-reported cognition and motivation as they reflected attitude toward application of learning (life skills). The survey consists of 9 items under three dimensions: Motivated use; Expansion of perception; and Experiential value. Each dimensions contains three questions. Motivated use refers to the degree to which students are motivated to transfer of life skills. Expansion of perception means the what extent students can notice responsibilities or life skills during the Taekwondo programs. Lastly, Experiential value assess to the degree to which students value the life skills being taught to them to use them in their everyday life. The ToRQ was rated on the following seven-point scale: 1=strongly disagree; 2=disagree; 3=somewhat disagree; 4=neutral;

5=somewhat agree; 6=agree; 7=strongly agree. For this research, students' rates were integrated into three categories: 1) Positive responses including 5=somewhat agree, 6=agree and 7=strongly agree; 2) Neither agree nor disagree; and 3) Negative responses together with 1=strongly disagree, 2=disagree, and 3=somewhat disagree. Given that most students' responses were positive, Figure 18 shows the percent of positive responses as regards to transfer of learning.

**Figure 18. Student's Perception of Transformative Experiences**



Overall, there are more than seventy-one percent of positive responses to three dimensions (motivated use, expansion of perception, and experiential value) across the cases. The highly rated dimension was expansion of perception (78% [1], 91% [2], and 84% [3]). This means that students across the cases were able to notice life skills being taught to them and recognize example behaviors related to the life skills during the program. In other words, high number of positive responses to expansion of perception means life skills learning was explicitly taught. This finding is consistent with frequently-extensively rated life skills integration reflected in Responsibility-based lesson theme of the TARE tools.

Students in case 2 reported the highest level of motivated use (81% [2]), expansion of perception (91% [2]) and experiential value (93% [2]) across the three cases. This corresponds to the highly rated transfer as teaching strategies and lesson themes observed in the TARE tools. Contrastively, in case 1 and 3, there is a relatively lower level of positivity to all the demonstration comparing to case 2.

### **Part 3: Zoom towards Both worm's and bird's viewpoint**

By zooming in on the three cases separately and respectively, it brought details into sharp focus so that the underlying process of martial arts pedagogical practices for PYD were explored in result part 1. Through zooming out to the three cases together, particular patterns of martial art pedagogy and its PYD outcomes were identified in comparison with the cases in result part 2. In result 3, findings from both qualitative and quantitative approach to unpacking the black box of martial arts pedagogy and its PYD outcomes are integrated with having worm' and bird's viewpoint together. Therefore, key pedagogical determinants of PYD outcomes across the three cases emerged.

#### **Key Pedagogical determinants of PYD Outcomes**

##### ***Particularities of martial arts pedagogy and curriculum content***

Table 8 show the particular martial arts pedagogical practices across the three cases. The most observable martial arts pedagogical engine for PYD in case 1 are cultural heritage and explicit life skills education. The value of yin-yang balancing (e.g., mind-body/physical-mental development) and traditional Taekwondo belt system are considered as cultural heritage in particular. The “mat chat” provides space for the instructors and youth taekwondoists to explicitly address the black-belt life skills (e.g., focus, respect and perseverance), and the life skills are practiced as mission given to the youth taekwondoists during the Taekwondo lessons.

The Taekwondo instructor often explains the true meaning of Tae-kwon-do that implies practicing punching and kicking in appropriate ways with being mindful (e.g., empathy and caring). *Poomsae*, sparring, breaking, and leadership program are the major content in case 1 that is known as typical major Taekwondo curriculum in most traditional Taekwondo programs in the world.

For case 2, the traditional Taekwondo curriculum is being adapted in accordance with needs of youth participants in afterschool program. Physically active, staying connected, teaching life skills and self-defense are the role and value of afterschool program. More importantly, supporting youth participants' schoolwork is the most important aspect of the afterschool Taekwondo program. The life skills learned in Taekwondo lessons are applied in the back room where the youth participants engage in activities (e.g., homework, taking virtual classes, craft, and play). Taekwondo skills mastery is less important for youth participants than youth taekwondoists in traditional Taekwondo. Rather, the curriculum focuses on fitness, acrobatic gymnastics, and Taekwondo fundamentals through practice of *poomsae*, game-based sparring, and breaking activities.

In case 3, Taekwondo curriculum was integrated with restorative practices for teaching personal and social responsibility. The values of restorative practices are addressed throughout the lesson components, relationship time, opening circle, Taekwondo, and closing circle. Taekwondo is also vehicle to address cultural awareness because it teaches East Asian culture (e.g., bow) and simple language (e.g., Korea) and invites other cultures (e.g., language, value, and tradition) from Africa, Middle East, Asia, and South America. The Taekwondo content in physical education is deformable. Taekwondo fundamentals are taught, but the ways to develop

and improve are flexible. Free style moves, braking, self-defense moves and Taekwondo dance are key content in physical education. The instructors have expertise in Taekwondo.

**Table 8. Key Pedagogical Determinants of PYD Outcomes across the Three Cases**

	<b>Case 1</b>	<b>Case 2</b>	<b>Case 3</b>
Particularities of martial arts pedagogy	<p><b>Cultural heritage</b></p> <ul style="list-style-type: none"> <li>• Value - Yin-yang approach</li> <li>• Tradition - Belt-system</li> </ul> <p><b>Explicit life skills education</b></p> <ul style="list-style-type: none"> <li>• Mat chat and mission</li> <li>• Tae-kwon-“do”</li> </ul>	<p><b>Adaptive Taekwondo</b></p> <ul style="list-style-type: none"> <li>• Stay active and fit/self-defense</li> <li>• Teaching life skills</li> <li>• Supporting schoolwork</li> </ul> <p><b>Transfer of Taekwondo life skills</b></p> <ul style="list-style-type: none"> <li>• Stepwise transfer of learning</li> </ul>	<p><b>Value-based Taekwondo</b></p> <ul style="list-style-type: none"> <li>• Embedding restorative practices in Taekwondo practice for TPSR</li> <li>• Addressing cultural awareness through Taekwondo</li> </ul>
Taekwondo curriculum content	<p><b>Typical Taekwondo disciplines</b></p> <ul style="list-style-type: none"> <li>• Poomsae (forms)</li> <li>• Sparring</li> <li>• Breaking</li> <li>• Leadership program</li> </ul>	<p><b>Modified Taekwondo curriculum</b></p> <ul style="list-style-type: none"> <li>• Poomsae (forms)</li> <li>• Game-based sparring</li> <li>• Breaking</li> <li>• Acrobatic gymnastics</li> </ul>	<p><b>Deformable Taekwondo content</b></p> <ul style="list-style-type: none"> <li>• Free style moves</li> <li>• Building self-defense moves</li> <li>• Free style breaking</li> <li>• Taekwondo dance</li> </ul>
Teaching style & approach	<p><b>Formal authority style</b></p> <ul style="list-style-type: none"> <li>• Teacher-centered</li> <li>• Expert/personal model</li> <li>• Content specific/official curriculum</li> </ul>	<p><b>Facilitator style</b></p> <ul style="list-style-type: none"> <li>• Student-centered</li> <li>• Expert/Personal model</li> <li>• Flexible and adaptable</li> </ul>	<p><b>Facilitator style</b></p> <ul style="list-style-type: none"> <li>• Student-centered</li> <li>• Expert/Personal model</li> <li>• Activity style and group style</li> </ul>
Instructional strategies	<p><b>Directed teaching</b></p> <ul style="list-style-type: none"> <li>• Mastery mindset</li> <li>• Accomplishing goals</li> </ul> <p><b>Active/passive engagement</b></p> <ol style="list-style-type: none"> <li>(1) Whole-class practice</li> <li>(2) Large-group practice</li> <li>(3) Small-group practice</li> <li>(4) Partner practice</li> <li>(5) individual practice</li> </ol>	<p><b>Peer teaching</b></p> <ul style="list-style-type: none"> <li>• Building relationships</li> <li>• Empowerment</li> </ul> <p><b>Active/passive engagement</b></p> <ol style="list-style-type: none"> <li>(1) Small-group practice</li> <li>(2) Partner practice</li> <li>(3) Whole-class practice</li> <li>(4) Individual practice</li> </ol>	<p><b>Collaborative learning</b></p> <ul style="list-style-type: none"> <li>• Problem-solving</li> <li>• Express themselves</li> </ul> <p><b>Active/passive engagement</b></p> <ol style="list-style-type: none"> <li>(1) Partner-practice</li> <li>(2) Small group practice</li> <li>(3) Whole-class practice</li> <li>(4) Individual practice</li> </ol>

Result from case 1, 2, and 3 together.

### ***Teaching style, approach and instructional strategies***

Taekwondo instructors across the three cases were demonstrated different teaching styles and approach as well as instructional strategies. The teaching style for case 1 is formal authority style that clearly define students' learning goals and expectations and follow set list of rules of how things should be done (e.g., promoting a belt rank). Given that the instructors have a high level of knowledge and expertise in Taekwondo, they act as a role model by demonstrating Taekwondo skills and guiding youth Taekwondoists to develop and apply those skills demonstrated during the lessons. Taekwondo teaching is organized around the content or tasks that youth taekwondoists will need to acquire to move forward a higher belt rank. The content and tasks are predetermined and developed as three-year-long curriculum including what, how, and when it will be taught to whom. Within this system, the Taekwondo instructors are the authority figure that control the flow of the content and knowledge, and youth taekwondoists tend to be passive learning since a one-way communication often occurs.

Another teaching style employed in case 2 is the facilitator that facilitate and stimulate the Taekwondo life skills learning process through increased peer-to-peer and student-to-teacher learning. Youth participant's needs are deliberately taken into account to teach Taekwondo content (e.g., life skills learning, social interactions, and self-defense). The instructor as a facilitator, he gives youth participants choices and voices and role in assessment (see table: TARE-teaching strategies) to engage youth participants in the learning process. Modeling respect, setting expectations, and providing opportunities for youth participants to succeed are key teaching strategies along with the facilitator teaching style in case 2 (See Figure 13). The facilitator gives tasks that youth participants can learn and improve the tasks by teaching and

helping each other. Therefore, the Taekwondo content is controlled by both the instructor and youth participants.

Taekwondo instructor in case 3 have also the facilitator teaching style. A student-centered approach is employed by, first of all, focusing on positive student-teacher interaction on a personal level (See Figure 14). The instructor provides support and encouragement for students to create positive climate so that students feel comfortable to ask questions, explore different options, and suggest alternatives. Students are encouraged to be more responsible for their own learning process. Although the instructor acts as a facilitator, the teaching styles are balancing with content expert role to teach Taekwondo for beginners. Students had no knowledge and experience about martial arts so they needed to learn basics first to promote student learning process. The instructor is an expert in Taekwondo and give demonstrations for students to grasp the cues and concepts of the tasks. This teaching style is particularly well suited to physical education subject, where demonstrates are required for learners to fully understand the content. Once task presentation is done by demonstrations, students are assigned to certain tasks in partner, small-group, whole-class practices that foster social interactions together with giving choices and voices (See Figure 13).

### **Positive Youth Developmental Experiences**

Findings from multiple data sources with worm's eye and bird's eye reveal that PYD experiences are related to the particularities of the martial arts pedagogy. This is evident in student's self-report for PSRQ and ToRQ as well as observation/post reflection of TARE tools. In general, there are some consistent patterns throughout qualitative and qualitative analysis and across the three cases in this study. Given that the pedagogical strategies and instructional strategies are employed in accordance with the goals of the program and students' needs, the



PYD experiences are promoted in distinction from the other cases that characterize each Taekwondo program (See Table 9).

**Table 9. PYD Experiences of Martial Arts Pedagogical Practices Across the Three Cases**

	<b>Case 1</b>	<b>Case 2</b>	<b>Case 3</b>
Developmental domain priorities	(1) Psychomotor (2) Cognitive (3) Affective/social	(1) Cognitive (2) Affective/social (3) Psychomotor	(1) Affective/social (2) Cognitive (3) Psychomotor
Distinguishable PYD outcomes	<b>Black-belt journey</b> <ul style="list-style-type: none"> <li>• Goal setting</li> <li>• Accomplishment</li> <li>• Self-control</li> <li>• Perseverance</li> <li>• Mind-body practices</li> </ul>	<b>Discipline kids</b> <ul style="list-style-type: none"> <li>• Transfer of learning</li> <li>• Caring others (help)</li> <li>• Self-control</li> <li>• Self-expression</li> <li>• Focus</li> </ul>	<b>Recognizing individuals</b> <ul style="list-style-type: none"> <li>• Self-expression</li> <li>• Respect differences</li> <li>• Sense of belonging</li> <li>• Social interaction</li> <li>• Leadership</li> </ul>
Consistent PYD outcomes	Positive identity <ul style="list-style-type: none"> <li>• Self-efficacy: mastery, achievement, satisfaction</li> <li>• Sense of belonging: a member of caring learning community</li> <li>• Positive social connection</li> </ul> Cultural competence <ul style="list-style-type: none"> <li>• Awareness about different cultures</li> <li>• Experience different cultural practices (e.g., Taekwondo, bow)</li> <li>• Openness and spirit of adventure</li> </ul> Contribution: make their own contributions and sharing their own ideas <ul style="list-style-type: none"> <li>• Active participation and leadership</li> <li>• Enhancing positive learning community development</li> <li>• Personal development</li> </ul>		

***Holistic development for youth***

Teaching and learning of Taekwondo occurs in planned instructional activities that addresses three traditional domains: cognitive, psychomotor, and affective/social. Each domain includes specific kinds of learning that students need to acquire within it as the primary outcomes of the instructional activities. The instructional Taekwondo activities in three cases address the three learning domains, the domain priority, however, is placed differently among the three cases. In case 1, the instructional activities emphasized outcomes in psychomotor domain over cognitive and affective/social domains. The psychomotor domain focuses on the development of physical skills and abilities for Taekwondo. Cognitive domain includes memory

of *poomsae*, movement patterns, self-defense as examples. It also includes cognitive connections how to use life skills (discussed in the mat chat) in Taekwondo practice (e.g., self-control). Affective/social domain focuses on showing respect to each other and a warm spirit of comradeship.

In case 2, cognitive domain is more emphasized over affective/social and psychomotor domains. Skill mastery is encouraged but not required. Instead, youth participants are encouraged to apply skills previously learned (e.g., acrobatic gymnastics) to their Taekwondo practices as they create their own movement patterns with his/her partners. This is one representative cognitive domain addressed in case 2. In terms of affective/social domain, youth participants have ability to internalize values (e.g., life skills learned in Taekwondo) and carry those values in the backroom and daily life.

In case 3, instructional activities place the highest emphasis on outcomes in affective/social domain and relatively less emphasis on outcomes in both of other domains, cognitive and psychomotor. With regard to affective/social domain, the Taekwondo program promote increase levels of student achievement mediated by whole-class, small-group, and peer interactions. This includes learning personal and social responsibilities as positive behavior and identity. Being a part of group is the most important to process learning, therefore social interactions are considered top domain priority. In terms of cognitive domain, students recognize movement concepts (what is appropriate what to execute the front kicks) and examples of peers and instructors taking personal and social responsibility during Taekwondo program. Understanding applications for Taekwondo skills in self-defense situations and making right decisions are also the outcomes in the cognitive domain. As far as psychomotor domain, students understand how to execute Taekwondo basics appropriately (e.g., how to make fist tight).

### *Distinguishable PYD outcomes across the three cases*

The Taekwondo programs are characterized by PYD outcomes that are promoted by specificity pedagogical practices (e.g., teaching style and instructional strategies). For case 1, youth taekwondoists have opportunity to develop positive character that is called “black-belt life skills” in traditional Taekwondo program. Youth taekwondoists demonstrate high level of self-control, a lot effort into Taekwondo skills mastery, and participating in all the activities even though it’s hard. These are evident in youth taekwondoists responses to PSRQ and in observation/post reflection of TARE tools. On the other hand, there are less opportunities for self-directed learning and having voices and choices because teacher-centered approach is used in teaching and learning of Taekwondo. Although there is a relatively less empowerment opportunities given to youth taekwondoists, the instructor (formal authority/expert) provide much clear expectations and guidance for youth taekwondoists to complete tasks in a step-by-step fashion known as belt system in Taekwondo. Therefore, youth taekwondoists are able to set specific short-term (e.g., mastery units of Taekwondo skills) and long-term goals (e.g., earning black-belt) and reach high level of accomplishment.

Similar to case 1, youth participants in case 2 demonstrate high level of self-control. “Eye focus, body focus and mind focus” is an instruction often used during Taekwondo and even in the backroom before and after Taekwondo. The key instructional strategy employed in case 2 is a peer teaching (teaching and helping each other) while the instructor acts as a facilitator. The three focus is useful when youth participants work together with peers. Given that they are often encouraged to teach Taekwondo to each other, caring about their partners are inevitably involved in the activities. This corresponds to high ratings for caring related items on PSRQ (e.g., I encourage others and I am helpful to others). The instructor integrates life skills with Taekwondo

thoroughly on daily basis, hence youth participants value the life skills to be helpful in their life including when having time in the backroom (See Figure 18). The instructor facilitates transfer of learning by 1) discussing life skills, 2) providing space youth participants can practice the life skills, 3) addressing transfer of learning to the backroom, home, and school. Since youth participants are taking active role in their learning with peers, they have choices (e.g., time, use of equipment, goal setting) and make suggestions (see Figure 13).

For case 3, students are often empowered by having choices and voices. They have opportunities to lead whole-group and small-group of students during Taekwondo. The group leaders are asked to hold kick and punch pads for their group. The leaders have a name tag written “youth leader” and “peacemaker.” Students are asked to group together to practice the board breaking and create Taekwondo moves. The instructor’s reported his reflection on the teaching in subsections of the TARE tools: teaching strategies and teaching theme (See Figure 13 and Figure 14) The instructor facilitates group activities including restorative opening circle, group Taekwondo activities and closing circles. With those activities, quality social interactions are promoted (see Figure 13). With regards to the social interactions, students have positive response to statements on PSRQ: “I encourage other” and “I am kind to others.” Particular teaching strategies are interactive instruction and instructional scaffolding (see APPENDIX I: FROM CODES TO THEMES IN CASE 3) that help students actively interact with others. With those teaching strategies, individual students are recognized and their needs are addressed. Therefore, students have opportunity to express themselves in the safe learning environment, where people respect different backgrounds and abilities.

### ***Consistent PYD outcomes across the three cases***

Even though there are particular PYD outcomes depending on what teaching methods are employed to achieve what students 'needs, there are common PYD outcomes across the three cases. The first PYD outcome is that students have positive identity that is developed through having a sense of personal well-being and sense of connection and commitment to others. Self-efficacy is an important resource for developing positive identity through mastery Taekwondo skills, achievement, and experience in being capable of helping others (e.g., partner drills, peer teaching, group leader). All individual Taekwondo participants in the three cases have sense of belonging for example: traditional Taekwondo provides *family-oriented culture* (see APPENDIX G: FROM CODES TO THEMES IN CASE 1) and *no benches to sit for kids*, "whole time they are in it," Judy, a parent shared; afterschool Taekwondo creates *no-winning* (James) and *no fighting* (Samantha) atmosphere (see APPENDIX H: FROM CODES TO THEMES IN CASE 2); and Taekwondo program in physical education includes restorative circles that build community by everyone participating and sharing, therefore the participants feel safe and included. Another resource for positive identity is being connected to each other in the community. All participants across the three cases engage in partner and group activities actively (e.g., practice Taekwondo) and passively (e.g., listening to others' opinions).

The second PYD outcome is the cultural competence. Taekwondo practice involves traditions, rituals, and cultures since it originated from Korea. In three cases, the Taekwondo instructors are Korean speaking English as a second language and grew up in South Korea. Except case 3, the instructor wear Taekwondo uniform and belt. On the wall, there are Korean flag and American flag. People practicing Taekwondo using some Korean terms (e.g., thank you in Korean). The Taekwondo participants face new cultures and become open-minded to it by the

time with appropriate Taekwondo instruction. They practice the culture (e.g., bow and language). In case 3, students have opportunity to see different culture and experience the cultural differences and cultural practices. The physical education teacher, Molly shared, “martial arts...that’s not something that’s offering a school period [even in] high school.” Teaching martial arts is “an opportunity to learn different cultures,” she added. Given that Taekwondo is a new culture to most students in physical education, many of them get motivated and try out with a spirit of adventure. A student reflected that:

Well, it may seem like this (doing martial arts) is weird, or maybe this is something you've never done before, so you might want to try it...so at least try it to see if you can like it and if you don't.

The third PYD outcome is the contribution. Students make their contribution to their own ongoing development. In case 1, it looks like moving forward to higher belt rank in a traditional Taekwondo program. In case 2, transfer of life skills learned in Taekwondo to personal life including the backroom can be an example. In case 3, an example provided by a student, Aria during the interview said that participating in basketball program in church after Taekwondo program was finished because she had good learning experience in Taekwondo program and found needs to continue. Overall, all individual participants across the three cases make positive contribution to the learning community (Taekwondo program) in caring about others, showing leadership and participating in activities and tasks given to them.

## CHAPTER V: DISCUSSION

This study examined martial arts pedagogical practices in sport-based youth development. Three martial arts programs were purposefully selected where Taekwondo-specific martial arts were taught in different context: Traditional Taekwondo (case 1), Afterschool Taekwondo (case 2), and School PE Taekwondo (case 3). Eight youth taekwondoists, four parents, and two Taekwondo instructors for case 1, five youth participants, four parents, and a Taekwondo instructor in case 2, and four 9th-graders, five program staff, and two coaches (one PE teacher and one Taekwondo coach) participated in this study. A multiple-case studies design was used to examine the differences and similarities between the case regarding pedagogical practices and PYD outcomes. The multiple sources of qualitative were interviews, focus groups, field notes, documents, artifacts, lesson reflection, and post teaching reflection. Quantitative data included PSRQ, ToRQ, and TARE post-teaching reflection and non-systematic observation. Thematic analysis and descriptive statistics were respectively used to analyze qualitative and quantitative data. Findings revealed that (a) the particularities of martial arts pedagogy were cultural heritage and explicit life skills education in case 1, adaptive Taekwondo teaching, transfer of Taekwondo life skills in case 2, and value-based Taekwondo teaching in case 3; and (b) instructional strategies were directed teaching for case 1, promoting peer teaching for case 2, and facilitating collaborative learning for case 3. Results also showed that PYD outcome were identified differently among the cases that were a) youth taekwondoists' journey to the black belt that involves systematic goal setting and accomplishment as well as mind-body practices, b) disciplined kids who care about others and their personal life by actively applying the life skills to daily life, and c) recognizing individuals that promote self-expression in students and positive social interaction. On the other hand, common PYD outcomes consistently identified across the

three cases included (a) positive identity (e.g., self-efficacy and sense of belonging), (b) cultural competence (e.g., awareness about different cultures), and (c) contribution (e.g., personal and community development).

### **Research Question 1: What Pedagogical Practices are Integrated in Martial Arts-based Youth Development Programs?**

A specific issue emphasized in this current study was the little-known processes of martial arts pedagogical practices for PYD, which was defined as a black box of teaching and learning of martial arts practices that potentially promote PYD outcomes. First research question was formulated to unpack the particular martial arts pedagogical practices for PYD.

#### **Traditional Taekwondo Program**

Cultural heritage and explicit life skills education were notable pedagogical practices that characterize the traditional Taekwondo program. It is generally accepted in the martial arts literature that Eastern martial arts practices often involve traditions, cultures, and philosophies (Tadesse, 2017; Theeboom & De Knop, 1999; Lu, 2008), and these are crucial parts of martial arts practices as educational sources (Cynarski & Lee-Barron, 2014; Trulson, 1986; Vertonghen, Theeboom & Cloes, 2012). The value of yin-yang balancing and using yin-yang approach to Taekwondo teaching (e.g., physical-mental training, mind-body connectedness, and harmonious relationships) are aspects of cultural heritage in traditional Taekwondo. This finding is consistent with previous martial arts research that mind-body development is practiced with rigorous etiquette and standards for behaviors as well as highlighting the importance of mental concentration while physical skills development (Brown & Johnson, 2000; Tadesse, 2017; Förster, 1986).



Explicit life skills education was demonstrated by the instructor providing ‘mat-chat’ as a ritual to teach black-belt life skills. Youth taekwondoists were encouraged to use the life skills during the Taekwondo, and this was called ‘mission’ in traditional Taekwondo. This finding is supported by a previous study that traditional martial arts teachers highlighted the pedagogical values by ensuring a conversation during the first five minutes of each lesson about a specific theme, such as self-control, respect, and courage (Vertonghen et al., 2012). This was defined as an opening ritual practiced in traditional martial arts that involved having a moment of greeting and mediation (Vertonghen et al., 2012).

Martial arts literature points out that a particular characteristic of traditional martial arts practices involves authoritarian role of the teachers that influence pedagogical strategies (Theemboom & De Knop, 1999; Trulson, 1986). Likewise, the traditional Taekwondo instructor in this study demonstrated the formal authority teaching style because he had a high level of knowledge and expertise in Taekwondo. Youth taekwondoists’ learning goals, outcomes, processes are determined by the authority figure with clearer expectations, rules, and standards as guidance for them to follow. As Vertonghen et al. (2012) demonstrate that it is extremely important to pass on the values and ways of the founder’s specific martial arts to their students, it is important mission for the traditional Taekwondo instructor to teach exactly the way he learned by his Taekwondo teachers. Therefore, the teaching style is quite conservative that tends to be reluctant to adjust ways to practice or mix with other instructional strategies. This was also clearly evident in a participant’s reflection shared in Vertonghen et al. (2012)’s study that “If I would change some of the techniques, they would no longer be correct. And if you try to get a black belt later on, you’ll have to perform your techniques in front of a jury. So I cannot change them, because otherwise the jury would say: ‘Where did they learn that?!’” (p. 198). Hence, the

instructional strategies are related to directed teaching methods along with the formal authority teaching style that provide one way instruction/communication and less and empowerment opportunity for students (Metzler & Colquitt, 2021; Mostton & Ashworth, 2008).

### **Afterschool Taekwondo Program**

A report of America After 3PM shows that parents share their perspectives about the needs of their children in afterschool programs are a) learning life skills (e.g., responsible decision making and confidence), b) staying physically active, c) providing positive climate, and d) improving work habits and grades (Afterschool Alliance, 2022). Parents' perception of the needs is same as what the research participants share their view of the role and value of the afterschool Taekwondo program. Taking those needs into account relates what is being taught in afterschool Taekwondo. For example, since homework time and Taekwondo time are equally important to students, positive behaviors and manners are not only expected for Taekwondo, but also when they stay in the backroom with peers. Therefore, the life skills teaching and learning is addressed to be applied in the backroom (halfway near and far transfer) as well as in personal life (far transfer). Unlike the traditional Taekwondo program, youth participated in the afterschool Taekwondo program from Monday to Friday. The instructor takes advantage of the contextual factor of the afterschool Taekwondo program so he is more flexible and adaptable in his teaching and instructional strategies.

Theedom, De Knop and Wylleman (1995) identified three different approaches to Asian martial arts practice: (a) traditional, (b) educational sporting, and (c) efficiency. The first approach is demonstrated by the traditional Taekwondo instructor in case 1. Second is the educational sporting approach to teaching martial arts that is found in the afterschool Taekwondo program in case 2. According to Vertonghen et al.,

The sporting approach does not primarily focus on the acquisition of fighting competence, but rather regards martial arts as a sport with positive effects on the physical, mental and social condition of participants and with technical restriction in accordance with specific competition rules (p. 193).

Corresponding to the educational sporting approach, the afterschool Taekwondo instructor does not stick to the Taekwondo curriculum implemented in traditional Taekwondo, rather he focuses on “needs” of children in the particular context in accordance with expectations from the parents. As a result, youth participants have opportunities to learn acrobatic gymnastics, have fun with modified Taekwondo curriculums (e.g., game-based sparring), learn life skills to transfer, build positive relationships with peers, and take active roles in the teaching and learning process.

This student-centered approach is employed with the “facilitator” teaching style (Grasha, 1994). Rather than just giving instruction to youth participants, the afterschool Taekwondo instructor facilitated peer teaching (not just partner training) as an instructional strategy to enhance student learning. The reciprocal style is a popular teaching strategy in sport-based youth development programs (Hellison 2011; Martinek & Hellison, 2009). This style is linked to taking responsibility, displaying leadership, showing respect, and caring about others (Hellison 2011; Martinek & Hellison, 2009), and is shown in this study that youth participants encourage others and help others more compared to other two cases.

### **High School Physical Education Taekwondo Program**

The martial arts pedagogy in PE seems to be a combination of traditional approach of martial arts (value-based) and educational sporting approach of martial arts (adaptable and flexible). Traditional values of Taekwondo (e.g., respect and mind-body development) are respected in the school PE Taekwondo and shown as bowing to partners before and after partner

drills and meditating before the class begins. Another name for bow can be handshakes in combat sport in PE (e.g., wrestling) (Destani, Hannon, Podlog and Brusseau, 2014). Although the acquisition of effective martial arts skill is not the main goal of the PE Taekwondo, Taekwondo fundamentals are taught with adapted Taekwondo content (e.g., free style moves and breaking and Taekwondo dance). Therefore, the PE Taekwondo can be defined as recreational martial arts where the primary purpose of the activity is participating, improving physical fitness, having fun, and fostering social interactions which is consistent with previous research (Vertonghen et al., 2012). Unlike traditional Taekwondo, recreational Taekwondo is perceived as being physically and mentally less stressful on the participants because there are lower expectations regarding effectiveness of performance (e.g., prepare for real fighting). Also consistent with previous study, traditional values of martial arts are less concern in PE Taekwondo (comparing to other two cases) (Vertonghen et al., 2012), but value-based sport models can be integrated with Taekwondo as a core physical activity/sport content in school physical education context (Hemphill et al., 2021).

Value-based youth sport models (e.g., TPSR) are often integrated into physical education to achieve educational goals and outcomes (Hellison, 2011; Metzler & Colquitt, 2021; Wright, Gray, Richards, 2021; Wright & Irwin, 2018). Martial arts are rare in American physical education curriculum (Theeboom and De Knop, 1999). However, with value-based youth sport models, martial arts can be unique content that teach values through martial arts practice (Hemphill et al., 2021; Wright et al., 2010; Wright & Burton, 2008). Restorative practices for TPSR integrated with Taekwondo in PE in this study played important role in bridging martial arts practice to school PE context where value-based program needs (Wright & Irwin, 2018; Jacobs & Wright; 2014) according to national physical education standards (SHAPE, 2016). Just

as martial arts programs have opening and closing rituals (e.g., mat chat, meditation, and task presentation), the school PE Taekwondo carries out restorative circles as opening and closing to discuss values, goals of the program, and build relationships as well as community (Hemphill et al., 2021). As the finding of this study revealed, restorative pedagogical values are addressed not only during the restorative circles but also through Taekwondo.

Interactive instruction and instructional scaffolding are instructional strategies employed as a restorative pedagogical approach of the school PE Taekwondo. Those instructional strategies are linked to the core values of TPSR and restorative pedagogy that is building positive relationships and promoting the holistic development (Hemphill et al., 2018; Lynch, Schleider & McBean, 2020). The findings confirmed that those instructional strategies can be a Taekwondo pedagogical engine for school physical education for those of who are looking to implement value-based approach to teaching in physical education with martial arts. Previous study supports this claim as they successfully implemented value-based martial arts programs combined with TPSR and restorative pedagogical practices in physical education and achieved educational outcomes (Hemphill et al., 2021; Wright & Burton, 2008; Wright et al., 2010).

### **Essential Components of Taekwondo Curriculum**

Three Taekwondo-specific martial arts programs implemented in different context were examined to unpack particular martial arts pedagogical practices for PYD. Distinguishing pedagogical practices characterize each Taekwondo program (e.g., teaching styles and instructional strategies) that are discussed above. While those particular pedagogical practices are applied in specific contextual and environmental conditions (e.g., restorative practices in school PE Taekwondo), the three typical constituents of Taekwondo curriculum (more broadly eastern martial arts [e.g., karate]) are generally practiced across the three cases that make

teaching and learning of marital arts occur. These three constituents of Taekwondo curriculum are breaking, forms (*poomsae*) and sparring that are practiced as original forms and ways in traditional Taekwondo, slightly adapted in afterschool Taekwondo, and modified in school PE Taekwondo.

### ***Breaking***

The first content area in Taekwondo curriculum is “breaking” or “board-breaking.” The purpose of breaking is to demonstrate strength and power (Sell 2011). The term “braking” refers to “the technique of breaking through one or several pieces of wood with a hand stroke or a kick as a demonstration of the mastery of that skill” (Vockell & Kwak, 1990, p. 62). The execution of martial arts breaking is beneficial to challenge oneself so it is an important part of belt testing or competitions (Chaudoin, 2017; Sell, 2011). The findings of the current study demonstrate that the practice of Taekwondo breaking has the potential to enable students to test their proficiency in his/her kicks (or punches), challenge themselves, and achieve educational outcomes.

Throughout the cases, the board-breaking is introduced as an “obstacle” to overcome. In many cases, it is not easy to break the board in the first attempt. Some students struggled to break it even after several trials. Then life skills are given at the moments with “never give up,” “eye-body-mind focus,” and “self-control.” Once students are able to break it with several trials, students can build self-efficacy. The findings are consistent with previous research that describe educational outcomes of martial arts breaking in classroom settings (Vockell & Kwak, 1990). In case 3, the board breaking was modified for in experienced Taekwondo students to maximize values. Unlike case 1 and 2, students have choices of what kicks and punches can be used to break the board, thickness of the boards, and additional moves to combine with the kicks or punches (e.g., jump or spinning). Students are also asked to write their goals on the boards they

want to achieve so breaking the board means that they promise themselves and show others what they will do.

### ***Forms (poomsae)***

Forms (*Poomsae* in Korean and *Kata* in Japanese) are a typical content area of eastern martial arts practice in which traditions of particular technical forms and methods are passed on by direct instruction from master to student or student to student (Cynarski, 2017). Still the forms are transmitted by a million of martial arts instructors over the world (Bowman, 2016, Cynarski, 2017). Forms are a dance-like patterned sequence of attacks, blocks, and counterattacks as ritualization of combat against one or more imaginary attackers (Nosanchuk and MacNeill, 1989; Nosanchuk, 1981). The current study found that traditional Taekwondo forms were taught without any adaptations and kept the original forms (*poomsae*) in Taekwondo sticking to the traditions passed by the instructor's instructors. The cognitive outcomes (e.g., memorization, and focus) were identified in this study. The result corresponds to previous study that forms function as a moving meditation (Cook 2001) to develop harmony of body and mind (Soo, 1973, 1981) by executing "the number of movements, positions, directions and ways of movement, rhythm and pace and breathing" (Cynarski, 2017, p 14). The practice of forms is led by instructors (case 1) or peers (case 2) and student themselves (case 1, 2 & 3) in repetition manners. It was clearly observed that the instructors gave a self-direction time (less than 5 minutes) as an opportunity for students to practice the forms themselves. As a previous study (Cynarski, 2017) commented, students are self-aware of rhythm, pace, and breathing while executions of movements, therefore experience mind-body connection through the practice of the forms. In case 3, basic movement patterns consisting of combinations of blocks, kicks, punches, stances, and footwork were taught in substitute for traditional forms. 70 percent of the movement patterns are predetermined by the

instructor and 30 percent of the rest are empty for students to fill up, which provides an opportunity to be creative in developing their own pattern. This activity brings life skills opportunities as well (e.g., problem solving, self-expression, confidence, and focus).

### ***Sparring***

Sparring is an important component of martial arts practice. Having a partner or an opponent (or even more), students practice a combination of various defensive and offensive techniques (e.g., kicks, punches, blocks, defensive moves, and footwork) in a controlled environment under instructor's supervision. It has rules for everyone to follow depending on martial arts styles (e.g., no grab, no kick below the belt, no headshot, or even no talk during the sparring). Sparring is a great opportunity to demonstrate their martial arts skills to prepare real self-defense situations in the future. Carefully looking through the findings of this current study as well as previous research (Vertonghen et al., 2012), sparring can be defined as a cooperative partner training technique for mutual benefits in physical and mental improvement. According to Vertonghen et al. (2012), there are noticeable differences in sparring depending on whether it is traditional approach or educational sporting approach or efficiency approach, but the fact is that "the participants have to help each other and learn from each other during a spring session" (p. 198). In case 1 and 2, winning the game was not priority emphasized for students, instead they were encouraged to apply Taekwondo skills in the sparring and perform the skills correctly. Students are motivated to try their best but it does not mean kicking and punching harder on partners (abuse and misuse). Rather, it means students fully engage in the sparring activity with good self-control and focus.

A martial arts instructor (research participant) in a study about teaching approach of martial arts conducted by Vertonghen et al. (2012) elaborated that:



For me, sparring is trying out what you have learned. Trying to use your technical skills in a confrontation with an opponent. You should not only think about performing your techniques, but you should also think about what your opponent will do...Spring isn't about knocking each other down or finding out who is the best. (p. 198)

Predicting a partner's movement and responding to the movement is a key tactical skill that can be developed through sparring. This allows students to not only think about themselves but also consider others' needs, reactions, or feelings that promote social awareness. Given that kicking and punching are essential skills for sparring, one might get accidentally hurt, misuse the skills or power, and mistakenly hit not-allowed target areas (e.g., below the belt or face). This leads to problems and conflicts among students, and it provides an opportunity at the same time to address the conflicts appropriately (Hemphill et al., 2021) so education takes place. Few scholars identified that youth sports, physical education and physical activity context are an educational environment to explicitly address conflicts among students (Hemphill et al., 2018) because "it is an environment where conflict is likely to occur in an array of movement scenarios, including activities and games" (Lynch, Schleider & McBean, 2020, p. 42). Sparring can be a martial arts content or task to help students learn from others and develop understanding of others, interactions, conflicts, and how to manage those conflicts. Considering physical safety concerns, traditional sparring is modified to teach Taekwondo skills safely and facilitate conflict resolution. The sparring related activities being taught in school PE taekwondo are tag designated target (e.g., shoulders, knees, or feet) using finger tips or swimming pool noodles, non-contact sparring (e.g., one only attack and one only defend), and pads sparring, as examples.

## **Research Question 2: What are Youth's PYD Experiences with Particular Pedagogical Practices of Martial Arts?**

Particularities of martial arts pedagogy used in the three cases are discussed above. Findings of current study demonstrated that there are different pedagogical practices in the three cases. Likewise, there are distinguishing PYD outcomes and consistent PYD outcomes across the three cases. Although it is not the goals of this study that identify the causality between the particular martial arts pedagogical practices and PYD outcomes, it is confirmed that the PYD outcomes are what youth participants have experienced in learning Taekwondo through the particular martial arts pedagogies.

### **Holistic development**

The three major domains of human learning are cognitive (Bloom et al., 1956), psychomotor (Harrow, 1972), and affective/social (Krathwohl, Bloom & Masia, 1964) that can be categorized as the primary outcomes of instructions. Physical education and youth sport programs are well-recognized contexts that address the three domains and focus on specific learning that students will acquire within the domains (Metzler & Colquitt, 2021; Hellison, 2011; Holt et al., 2017). The current study found that the PYD outcomes were categorized into all domains of learning although the domain priority was different from one another. It is noteworthy that all cases use the particular pedagogical approach to holistic development, which is consistent with previous research on examining PYD outcomes through youth sport (Fraser-Thomas, Côté & Deakin, 2005). Among the three cases, the PYD outcomes are generally achieved around the three domains, but the outcomes are focused in one domain over the others or two domains over the other depending on learning focus, goals, and activities. In the school PE Taekwondo, the primary focus is PYD outcomes in affective/social domain through

particular learning activities related to psychomotor domain. In contrast, PYD outcomes are achieved more in psychomotor through learning activities associated with affective/social domain in traditional Taekwondo. As different pedagogical practices across the three cases are discussed above, the teaching styles and instructional strategies can be connected to the domain priorities for PYD outcomes.

### **Distinguishable PYD Experiences**

#### ***Traditional Taekwondo – a journey to black belt***

In martial arts, “the warriors’ pathway” represents the way of martial arts practice or the purpose of martial arts practice. According to Cynarski and Lee-Barron (2014), the warrior’s pathway can be described as “pushing one’s own limits, a kind of transgression through continuous effort of self-development-it is a moral way, improving the character and personality of the fighter through his own weakness” (p. 12). Through moving towards another belt (higher rank with darker belts to black belt), students act out in miniature of the warriors’ pathway. A journey to black belt is a miniature of the warriors’ pathway. In case 1, the most observable PYD outcome is the journey to blackbelt involves dedication, commitment, effort, perseverance, confidence, discipline, focus, effort, leadership and respect. The journey to black requires attainable goals and tangible outcomes to continue without burn-out. Learning of never-ending stances, kicks, strikes, blocks, its combination of moves, and patterns can be achieved and motivated through the belt system that are rewards for skill mastery and achievement. The argument is supported by a result of a martial arts study that students practicing traditional martial arts show a positive relationship between mastery, motivational orientation, performance and enjoyment (King & Williams, 1997). It is important to note that mastery orientation is a core

value of traditional martial arts practices (Theeboom & De Knop, 1999) that lead to PYD outcomes.

### ***Afterschool Taekwondo – being disciplined kids***

A noticeable PYD outcome in case 2 is being disciplined kids. The opportunity for youth participants to apply life skills in the back room make the Taekwondo program unique when concerning PYD. Unlike traditional Taekwondo programs, multiple activities provided to youth participants on the mat (Taekwondo) and in the backroom (homework, play, reading, and craft) help them practice life skills with fun activities in the structured learning environment. As results demonstrate (See Figure 18) youth participants articulated about their learning experiences in what life skills they learn and how they be applied to other settings. The halfway between near and far transfer is strongly aligned with PYD outcomes (Gordon & Doyle, 2015; Hellison, 2011). Previous research also claims that securing space/places for students to transfer learning without contextual barriers (e.g., different culture) should be concerned and addressed by youth sport program leaders to better facilitate transfer of life skills (Jacobs & Wright, 2018; Lee & Martinek, 2009, 2012). In case 2, bridging two contexts between Taekwondo (on the mat) and homework (in the backroom) with sharing the same norms and culture is the key factor that transfer of learning was successfully promoted including near, halfway near and far, and far transfer.

### ***School PE Taekwondo – recognizing individuals***

The most remarkable PYD outcome in case 3 is recognizing individuals. This is not only limited to which the instructor recognizes individual students, rather students recognize individual students and self. The high school that teaches Taekwondo in PE is located in an underserved community so vulnerable students are the participants of the Taekwondo program.

Unfortunately, those students have a difficult time in school since the school culture discourage students who are searching for self-identity and purpose (Martinek & Hellison, 1998). The students are either socially isolated (or bullied) or nonautonomous (affected by peers). Also, the students have lack of opportunities to make responsible choices (Martinek, 1996), interact with caring adults (no appropriate guidance), and express themselves (Martianek 1997; Martinek & Hellison, 1998). The school PE Taekwondo program combined restorative practice (Hemphill et al., 2018) with the TPSR framework (Hellison, 2011) because building positive relationships and creating a safe learning environment are extremely important goals of the program.

Implementing restorative circles to include everyone and make their voice to be heard is a key instructional strategy to recognize others and self by sharing opinions and expressing ideas. As sport and physical activity can play important role in connecting underserved students to learning in interactions (Hellison 2011; Martinek & Hellison, 1998), Taekwondo incorporating restorative values provides opportunity to set goals, stick to tasks, interact with caring adults and other students, and more importantly express themselves by creating their own Taekwondo movements and self-defense techniques and communicating with peers during Taekwondo. They found the program interesting because martial arts are unique content so they try out with curiosity (Fuerniss & Jacobs, 2020). In the physical education context, martial arts seem to be adaptable with value-based sport models (restorative practice) and frameworks to produce PYD outcomes.

### **Common PYD outcomes across the three cases**

#### ***Positive identity***

The result of this current study shows that the youth Taekwondo participants in the three cases have positive identity. Youth developing positive identity is an essential developmental asset for PYD (Fraser-Thomas, Coté & Deakin, 2005; Hansen & Larson, 2005). Having a sense

of purpose is connected to the motivation to accomplish something that is meaningful to youth and challenge themselves. Self-efficacy is central to motivation that students feel capable of performing a task (Bandura, 1997). Developing youth's self-efficacy is strategically addressed in SBYD by setting high expectations for students (Martinek, 1981), giving opportunity to be personally and socially responsible (Hellison, 2011), and helping youth succeed in their learning (practice sport skills successfully) (Jacobs & Wright, 2018; Wright & Craig, 2011). Youth Taekwondo participants in this study demonstrate their accomplishment in Taekwondo skills although the process was not easy. Giving appropriate levels of tasks to youth help them move forward without feeling of failure but being motivated. This is observed in case 1 as the belt system relate to mastery tasks. In case 2, youth feel self-efficacy by teaching Taekwondo to each other. The scaffolding approach in case 3 helps students gradually succeed, for example 1) students execute a roundhouse kick targeting a kick pad, 2) applying jumping and spinning with the kick targeting the pad (higher and far distance), and 3) eventually breaking the wooden-board using the kick. Students experiencing such accomplishment motivate them to continue challenging themselves so they are more likely to have a sense of purpose (e.g., getting black-belt [case 1], being a good leader [case 2], having a successful life in school and making positive connections with others [case 3]).

### ***Cultural competence***

Martial arts practices involve particular elements of culture that are derived from the countries where martial arts originated (Bäck and Kim, 1984; Theeboom & De Knop, 1999). As discussed earlier, the particular culture influences the pedagogical practices of martial arts (traditions, norms, and values) and PYD outcomes (mind-body development, harmonious relationships). Recently, UNESCO and other youth organizations have recognized the great

potential of martial arts as a positive force to promote PYD (UNESCO 2019). The potential of martial arts includes intangible and tangible cultural heritage that foster intercultural dialogue and respect for cultural diversity as well as build a peaceful and no-violent culture so martial arts can be utilized as an education method to teach youth the positive values (UNESCO, 2019). In this current study, the three Taekwondo-specific martial arts programs straddle two cultures, teaching Korean culture (more broadly east Asian) in American educational settings (e.g., teaching bow in English as similar to western body gesture, handshake and eye contact during Taekwondo). By doing so students experience different cultural practices, respect for diverse cultural backgrounds, and being more open minded to learn from that. A research participant, a school PE teacher perceived that teaching Taekwondo in PE provides opportunities for students to learn new cultures and work with people having different cultural backgrounds. The majority of student participants in the school PE Taekwondo are from Africa, Asia, middle east, and south America. Taekwondo was a new culture to students in the program and they, perhaps, didn't have fear to bring their cultural identity to the program because Taekwondo explicitly addressed cultures to be recognized and respected by everyone. It also invited diversity and differences (e.g., language and custom). Eventually, the addressing culture is one of the positive forces that motivate student open up more and express themselves. This is strongly aligned with "the ongoing major educational reform initiative aimed toward multiculturalism (DeSensi, 1995, p. 34) and needs for social emotional learning (SEL) as popular trend in education and development (Wright & Richards, 2021; Hemphill et al., 2021) in SBYD programming.

### ***Contribution***

Across the three cases, students had the opportunity to take responsible decisions and actions. Taking personal and social responsibilities for themselves, partners, the learning

community, and even outside the Taekwondo context is a common PYD outcome found in this current study. Students made positive contributions to the Taekwondo learning community to be safe although they practice punching and kicking to each other. With those life skills learned in the mat chat in case 1 are used to make the place safe (e.g., self-control). Extreme care in contact, conflict resolution, and self-control are strongly stressed in eastern martial arts (Nosanchuk, 1981). In addition, high ranking students, wearing darker colored belts, have an opportunity to lead a part of lessons, help lower ranking students, and assist the Taekwondo instructions in case 1. This is considered to be another way that students can contribute to their learning community. Similarly, in case 2, youth participants contributing to the Taekwondo learning community by managing conflicts and issues raised in the backroom with life skills learned in Taekwondo are important. They value creating a positive climate because they, perhaps, see each other every day learning together. Therefore, life skills are more likely applied during the afterschool time. In case 3, students also make important contributions to the learning community by being present in the circles, participating in all the activities given to them, and addressing conflicts that occurred during the program and building positive relationships. Fostering positive social interactions are strongly aligned with a best practice in SBYD (Hemphill et al., 2018; 2021, Holt et al., 2016). Not only the students across the three cases make important contribution to the community, but also, they make their own contribution to personal development (e.g., earning new belts [case 1], doing their homework/school work [case 2])



## CHAPTER VI: CONCLUSIONS AND IMPLICATIONS

### **Conclusion**

There has been growing concern regarding youth participation in martial arts programs in sport-based youth development context (Vertonghen & Theeboom, 2013). Previous studies reveal contradictory outcomes of youth martial arts program that are increasing physical aggression and violent behaviors as a negative side of youth martial arts (Endresen & Olweus, 2005; Mutz's, 2012; Sofia & Cruz, 2017) or producing positive youth developmental outcomes as a positive side of youth martial arts (van der kooi, 2020; Vertonghen & Theeboom, 2010). Little attention has been paid to the black box of what causes those outcomes. Inside the black box, what is happening is little known (Gordon et al., 2021), especially what and how martial arts are being taught for PYD is almost unknown. This current study was conducted to unpack the black box of particular martial arts pedagogical practices employed in three cases: 1) traditional Taekwondo program, 2) afterschool Taekwondo program, and 3) School PE Taekwondo program.

Teaching martial arts often involves traditions, values, cultures, and philosophies that make martial arts programs unique in the area of SBYD. Also, martial arts curriculum content can be adapted and modified to various educational environments (e.g., afterschool school context or physical education context). Regardless of learning domain priorities related to the primary outcomes of instruction, life skills are implicitly and explicitly addressed and taught using distinct strategies depending on the characteristics of the contexts. Although life skills education is naturally involved with teaching and learning of Taekwondo, transfer of life skills should be explicitly and intentionally addressed. The other key pedagogical component of PYD

in martial arts programs is building positive relationships. Those pedagogical practices are strongly related to the best practice in SBYD.

Given that martial arts in general is unique as sport, physical activity and exercise for youth, most youth are motivated to participate in the program to try out with curiosity and fantasies about becoming a warrior or ninja. Fuerniss and Jacobs (2020) stresses that practicing martial arts is a level playing field for youth since most youth have no martial arts background. It is true because traditionally, there is no winning in martial arts practice, rather much attention is shifted to self-improvement to become a good citizen (Cook, 2001; Funakoshi, 1975). Furthermore, “there is no bench for kids to seat” during Taekwondo which means no one is excluded. Generally, martial arts have great potential to include everyone regardless of gender, social class, disability, religions, races and ages (Taekwondo Humanitarian Foundation, 2019; The World Taekwondo Federation, 2020; UNESCO, 2019; Wright, White & Gaebler-Spira, 2004). In particular, martial arts practice is a great opportunity to empower girls in a range of different cultural and social contexts (UNESCO, 2019; Fuerniss & Jacobs, 2020). The findings of this study confirmed that all educational potential of martial arts practices described above are directly aligned with IOC Code of Ethics (IOC, 2016) and adhere to social emotional learning (CASEL, 2018).

Examining the three cases collectively, carefully and comprehensively, the conclusion of this study is that teaching style, instructional strategies, characteristics of teacher, teaching values, so-called pedagogical practices are primary determinants of youth outcomes either positive or negative. The nature of martial arts or martial arts styles may influence youth outcomes, but intentional pedagogical practices play a more important role in producing outcomes over the martial arts styles. “There are no good or bad martial arts, there are only good

or bad teachers,” an instructor was interviewed and shared in previous research (Theeboom & Vertonghen, 2011, p. 75). It can be added to the statement that it is neither martial arts styles nor teachers that promote PYD outcomes, rather it is both teaching/instructional strategies and contextual factors (e.g., characteristics of students). This conclusion suggests that more studies need to be conducted to examine the black box of martial arts pedagogical practices intentionally aimed at promoting PYD.

### **Practical implications**

The objective of this multiple-case study was to examine three Taekwondo specific martial arts programs implemented in different youth sport contexts to unpack the black box of particular martial arts pedagogical practices for PYD. What pedagogical practices were employed in what circumstances to whom were described in this study. Moreover, the purpose of this study was to contribute to SBYD literature and martial arts study to fill the knowledge gap examining the best practices for martial arts-based youth development. Although most martial arts practices are based on values and focus on passing on values to students, how the values are promoted is still little known. In order to maximize the potential for martial arts practice with regard to PYD, future research must be conducted to examine what practices are considered to be best practices in martial arts and how the best practices are used and linked to PYD outcomes. The finding of this study provided pedagogical implications for PYD in martial arts-based youth development programs.

First, the findings of study confirmed the great potential of martial arts to serve as a means for promoting values, life skills and character. Although the potential of martial arts has long been recognized by SBYD scholars (Hellison, 1978; Hellison et al., 2000; Hemphill et al., 2021; Wright & Burton, 2008; Wright et al., 2010), there is a lack of empirical evidence for how

martial arts are taught for PYD. Recently, much attention has been paid to the potential of martial arts practice as a means for PYD by youth organizations such as UNESCO (UNESCO, 2019). SBYD practitioners and researchers also have made efforts to take a close look at the black box of martial arts practice for PYD (Fuerniss & Jacobs, 2020; Gordon et al., 2021; Hemphill et al., 2019). Based on the findings of previous studies and this dissertation study, martial arts itself contain a number of educational values to be recognized and promoted to explicitly address the PYD outcomes.

Second, the finding of this study confirmed that there is a need for youth martial arts programs to integrate with best practices or instructional models that are field-tested in SBYD. In PYD perspective, youth are viewed as resources to be developed rather than as problems to be managed (Larson, 2000). The result of previous study on youth martial arts programs and this dissertation study demonstrated that PYD is defined differently and the approach to PYD outcome varies. Traditionally, martial arts are used as interventions to manage and reduce externalizing behavior of youth (Nosanchuk & MacNeil, 1989; Trulson, 1986; Twemlow & Sacco, 1998). Martial arts teachers are the authority figures to be respected by youth, and pedagogical approaches are related to top-down approach so-called being hierarchical. This phenomenon was in line with current research, where pedagogical practices were observed as directed instruction and sticking to traditions (e.g., belt-system) in traditional Taekwondo. Therefore, the outcomes were associated with self-control, self-discipline, self-confidence, and showing respect. Those values are still important as PYD outcomes, but what about empowerment? Where is self-determination? In the light of best practices in SBYD, empowering youth, self-direction, and expressing themselves are considered to be key PYD outcomes (Fraser-Thomas et al., 2005; Hellison, 2011; Holt et al., 2016; Martinek & Hellison, 2009). These

outcomes are consistent with this current study as such values are explicitly addressed in afterschool Taekwondo and school PE Taekwondo. This result suggests that martial arts can be flexible to integrate with SBYD best practices and instructional models to utilize the potential of martial arts and maximize the PYD outcomes.

Third, the result of this study demonstrated that martial arts can be an effective curriculum content in school physical education as a vehicle to promote social emotional learning. The Taekwondo program integrated with restorative practices for TPSR were implemented in PE with emphasis on building positive relationships and community as well as teaching life skills. Practicing Taekwondo was equally important as promoting life skills (holistic development: affective/social, cognitive, and psychomotor outcomes through Taekwondo). There has been an argument on whether martial arts should be taught in physical education (JOPERD, 2000; Theeboom & De Knop, 1999). Also, several researchers have attempted to incorporate martial arts in physical education (Oh, 2014; Oh, Hannon & Banks; 2006; Theeboom & De Knop, 1999; Winkel & Ozmun, 2003). These studies provide information about instructional and assessment strategies to be used in PE, but there was no evidence what pedagogical practices works, and if so, how. In this study, the underlying process of how Taekwondo is taught in PE, what pedagogical practices could be used, and what PYD outcomes were produced were examined. Based on the findings of this study, it was confirmed that integrating martial arts with best practices for SBYD and instructional models likely produce PYD outcomes.

Fourth, the findings indicated that afterschool programs can provide great opportunities for teachers and leaders to implement martial arts-based youth development programs to promote physical skills development, life skills learning, and transfer of learning. In this study, the

contextual factors characterizing the afterschool program were that 1) youth participate in the program everyday, 2) learning life skills through Taekwondo can directly be applied in the backroom when doing homework, reading, and crafting, and 3) holistic development in youth is what parents expect for afterschool Taekwondo program. The instructor in the afterschool Taekwondo spent more time to address life skills and transfer because it is essential to create positive learning climate in the program. With the instructor's effort, youth participants were able to articulate what life skills means to them and how it can be helpful in their life. Therefore, the contextual factors (e.g., physical features and needs of youth) are mediating factors influencing pedagogical approaches of martial arts.

### **Future Research Recommendations**

In addition to the practical implications, the findings from this study also reveals several practical and methodological applications worthy of future study.

The research design for this study was multiple-case study having three different programs to unpack the black box of martial art pedagogy and PYD outcomes. The multiple case study was effective because focusing on the differences and similarities between cases enabled the researcher to better understand the undying process of what and how is being taught in martial arts practice for PYD. Having this zoom out (bird's eye) and zoom in (worm's eye), allowed the researcher to both take a close look at details and deep meanings within cases (e.g., contextual factors and what is happening during the class) and enlarge the cases to big picture of certain patterns (teacher and student behavior and pedagogical practices). The multiple case study design can be selected when the purpose of the study is to compare and replicate the findings (Yin, 2018). Conducting this research design, it will produce more compelling evidence than the results from the single-case study (Yin, 2018).

Second, in this study, using a mixed methodology had benefits of collecting multiple data sources from qualitative data and quantitative data and having qualitative and quantitative approach to analyzing and interpreting the data. According to Holt et al. (2017), using mixed methodologies are recommended in SBYD. Youth outcomes and program outcomes need to be understood using multiple measurements because there, in general, are several aspects of youth sport programs (e.g., teacher behavior, student behavior, their perceptions, interactions, etc.). Ultimately, SBYD researchers and practices are interested in the process, outcomes, and its connections so examining the program effectiveness with multiple sources of data are important. Gordon et al. (2021) conducted a mixed methodology to examine the black box of what PYD outcomes occur in boxing programs. Using the collective data sources led to comprehensive understanding of the underlying process of the program and the program outcomes. Future research focusing on the black box of best practices in SBYD is strongly recommended to have mixed method study design.

Third, theoretical or conceptual frameworks are not often applied in the studies of martial arts-based youth development programs. Although there are a number of studies examining the effect of martial arts programs, a few research has youth development theoretical and conceptual frameworks when the process, outcomes, and its connections are examined and understood. Therefore, it is recommended to have theoretical and conceptual frameworks regarding PYD as a lens to better examine the case(s).

Fourth, in this study, the selection of the cases was limited to three Taekwondo-specific martial arts programs. There are hundreds of different martial arts styles (e.g., Boxing, Judo, Kendo, Wrestling, and Kick boxing). It is evident that different martial arts styles produce different outcomes (e.g., focusing on performance or values) (Vertonghen, Theeboom & Cloes,

2012). To better identify the potential of martial arts practice for PYD, the particular martial arts style being taught in a youth martial arts program should be analyzed with PYD related theoretical or conceptual framework (e.g., TPSR, SEL, cooperative learning or restorative practices).

Fifth, what make martial arts practice unique are traditions, cultures, philosophy, and values that are grounded in and integrated in the curriculum. A tangible tradition is the belt system. As this study confirmed, the Taekwondo belt system is strongly related a mastery-oriented motivational climate because it helps students set task-oriented goals, develop self-motivation, and make commitment to their learning. In martial arts, the metaphor for the belt system is a journey to black belt. This black belt journey may be related to PYD outcomes in particular. Identifying a sequence of positive developmental processes involved in the journey to black belt will provide insight into how such tradition and culture promote PYD. The value of the belt system has been well recognized as a means to teach martial arts in physical education (Oh, Hannon, & Banks, 2006). No research has been done yet on how the belt system could facilitate student learning in PE. This study might be a cornerstone for following up studies to bridge the natural merits of martial arts to physical education martial arts curriculum.



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## APPENDIX A: UNCG IRB APPROVAL

Date: 8-5-2022

**IRB #:** IRB-FY21-214  
**Title:** Life Skill Integration with Martial Arts Instruction  
**Creation Date:** 6-1-2021  
**End Date:** 6-22-2022  
**Status:** Expired  
**Principal Investigator:** Michael Hemphill  
**Review Board:** UNC-Greensboro IRB  
**Sponsor:**

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### Study History

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<b>Submission Type</b> Initial	<b>Review Type</b> Expedited	<b>Decision</b> Approved
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### Key Study Contacts

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<b>Member</b> Michael Hemphill	<b>Role</b> Principal Investigator	<b>Contact</b> mahemphi@uncg.edu
<b>Member</b> Michael Hemphill	<b>Role</b> Primary Contact	<b>Contact</b> mahemphi@uncg.edu
<b>Member</b> Yongsun Lee	<b>Role</b> Investigator	<b>Contact</b> y_lee27@uncg.edu

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APPENDIX B: PARENTAL CONSENT FORM FOR CASE 1 AND 2

**UNIVERSITY OF NORTH CAROLINA AT GREENSBORO**

**CONSENT FOR A MINOR TO ACT AS A HUMAN PARTICIPANT: LONG FORM**

Project Title: Life Skill Integration with Martial Arts Instruction

Principal Investigator and Faculty Advisor: Yongsun Lee, MS & Dr. Michael Hemphill

Participant's Name: \_\_\_\_\_

**What are some general things you should know about research studies?**

Your child is being asked to take part in a research study. Your child's participation in the study is voluntary. You may choose for your child not to join, or you may withdraw your consent for him/her to be in the study, for any reason, without penalty.

Research studies are designed to obtain new knowledge. This new information may help people in the future. There may not be any direct benefit to your child for being in the research study. There also may be risks to being in research studies. If you choose for your child not to be in the study or you choose for your child to leave the study before it is done, it will not affect your relationship or your child's relationship with the researcher or the University of North Carolina at Greensboro.

Details about this study are discussed in this consent form. It is important that you understand this information so that you can make an informed choice about your child being in this research study.

You will be given a copy of this consent form. If you have any questions about this study at any time, you should ask the researchers named in this consent form. Their contact information is below.

**What is the study about?**

This is a research project. Your child's participation in this project is voluntary. This purpose of this research is to conduct an evaluation of life skill integration in martial arts instruction. We hope that by researching this topic, we can learn identify ways that this program and others can improve their instruction and have a positive impact on young people.

**Why are you asking my child?**

We are asking your child to participate voluntary because s/he has experience as a student in the martial arts program. We would like to hear what children think about the life skill instruction that is being provided.

**What will you ask my child to do if I agree to let him or her be in the study?**

If you agree to allow your child to participate, s/he will be invited to participate in up to 3 interviews that last between 10-25 during the afterschool program. These interviews would take



place in the observation room of the gymnasium in full view of program participants. The researcher will ask questions about what types of life skills they are learning and how those are used in martial arts. This interview is audio recorded for transcription purposes and will be not be kept on record permanently.

**Is there any audio/video recording of my child?**

The interviews are audio recorded. This recording is stored on a secure server by the researchers until the interview is transcribed. Once transcribed, the interview will not include any identifiable information from your child. Because your child’s voice will be potentially identifiable by anyone who hears the tape, confidentiality for things said on the tape cannot be guaranteed although the researcher will try to limit access to the tape as described below.

**What are the dangers to my child?**

The Institutional Review Board at the University of North Carolina at Greensboro has determined that participation in this study poses minimal risk to participants.

If you have questions, want more information or have suggestions, please contact Mr. Yongun Lee (y\_lee27@uncg.edu) or Dr. Michael Hemphill (hemphill@uncg.edu).

If you have any concerns about your rights, how you are being treated, concerns or complaints about this project or benefits or risks associated with being in this study please contact the Office of Research Integrity at UNCG toll-free at (855)-251-2351.

**Are there any benefits to society as a result of my child taking part in this research?**

Findings from this study may help improve and sustain youth physical activity programs.

**Are there any benefits to *my child* as a result of participation in this research study?**

There are no direct benefits to participants in this study.

**Will my child get paid for being in the study? Will it cost me anything for my kid to be in this study?**

There are no costs to you or payments to you or your child as a result of participation in this study.

**How will my child’s information be kept confidential?**

All information obtained in this study is strictly confidential unless disclosure is required by law. Audio recordings will be stored in a password protected folder that is only accessible to the researchers. Once the information is transcribed, the audio recordings will be deleted. Transcripts will be stored in a password protected electronic file that is accessible by the researchers.

**Will my child’s de-identified data be used in future studies?**

Per UNCG policy, data must be stored for five years following the closure of the study. De-identified data will not be used for purposes other than the evaluation of the martial arts program and reporting on that topic.

**What if my child wants to leave the study or I want him/her to leave the study?**

You have the right to refuse to allow your child to participate or to withdraw him or her at any time, without penalty. If your child does withdraw, it will not affect you or your child in any way. If you or your child chooses to withdraw, you may request that any data which has been collected be destroyed unless it is in a de-identifiable state. The investigators also have the right to stop your child’s participation at any time. This could be because your child has had an unexpected reaction, has failed to follow instructions, or because the entire study has been stopped.

**What about new information/changes in the study?**

If significant new information relating to the study becomes available which may relate to your willingness to allow your child to continue to participate, this information will be provided to you.

**Voluntary Consent by Participant:**

By signing this consent form, you are agreeing that you have read it or it has been read to you, you fully understand the contents of this document and consent to your child taking part in this study. All of your questions concerning this study have been answered. By signing this form, you are agreeing that you are the legal parent or guardian of the child who wishes to participate in this study described to you by \_\_\_\_\_.

\_\_\_\_\_  
Participant's Parent/Legal Guardian’s Signature

Date: \_\_\_\_\_

APPENDIX C: CHILD CONSENT FORM FOR CASE 1 AND 2

**CHILD ASSENT FORM**

I am [Yongsun Lee] from UNC Greensboro. I am doing a study to figure out what young people learn from martial arts programs. We are asking you to take part in the research study because you are participating in the martial arts program here.

For this research, we will *ask you some questions about your experience at this program and what types of things you learn from this program*. We will keep all your answers private, and will not show them to *your teacher*. Only people from UNC Greensboro working on the study will see them.

We don't think that any big problems will happen to you as part of this study, but you might feel unsure about the answer to some questions. You don't have to answer any questions if you are not sure of the answer.

*We hope to learn about what kids learn in martial arts programs to help make them a good program for kids to attend.*

*You should know that you do not have to participate in this research if you do not want to. You won't get in any trouble if you choose not to participate. We asked your parents if it was okay for you to participate as well.*

*Do you have any questions about this?*

\_\_\_\_\_  
Child Name

\_\_\_\_\_  
Name of Parent(s) or Legal Guardian(s)

\_\_\_\_\_  
Researcher explaining study

Signature

Printed Name

Date

## APPENDIX D: INTERVIEW GUIDE FOR CHILD IN CASE 1 AND 2

### Interview Guide

*Note: This is a semi-structured interview approach that identifies the key topic areas that are to be discussed with participants in this study. Interviewers should listen carefully to answers to questions and ask follow up questions when appropriate. Follow up questions should be consistent with the topic of the question asked by may be reframed to be consistent with the response of participants. The general questions apply to adult and child interviews, but the interviewer should adapt the language to suit the interview participant.*

#### **Opening:**

Hi everyone. Thanks again for participating. As you know, I am [Yongsun Lee] and I am conducting this interview as a part of an evaluation of the martial arts program. The information will be de-identified, and your name will not be reported in any reports from this research.

#### **Topic:**

Today I am interested in learning more about life skills learned through the martial arts program. Life skills can include personal and social responsibility skills such as respect, effort, or leadership.

#### **Guidelines:**

There are no right or wrong answers today. You can ask me any questions or end the interview at any time.

Do you have any questions before we continue?

#### **ICEBREAKER:**

- Do you think you learn life skills in the martial arts program? Can you explain how?

#### **PROGRAM EXPERIENCES:**

First we want to discuss your experience in the program in general. Feel free to share any thoughts you may have.

What is it like for you to be in this program?

- What things do you like the most?
- What things do you like the least?

Can you talk about how the circle process has helped you share your thoughts?

- What topics in the circle did you like best?
- Have you learned anything from your circle experience?

Does being involved in the physical activity lesson increase your learning experience?

- What things do you enjoy most about the physical activity?
- Do you practice life skills in physical activity?

Have you been able to transfer any of the lessons learned within the program to your school life?

- What can we do to promote transfer of lessons learned?

Are you interested in being a student leader to help this program grow?

- What types of leadership skills do you think you could bring to the program?
- What types of leadership skills do you think others could bring to the program?

Have you learned anything about conflict resolution through this program?

## **WRAP-UP**

What other thoughts or ideas can you share to help us continue to grow and improve this program?

*\*In addition to these questions, I will use probes as necessary, things like “could you tell me a little bit more about” or “could you give me an example?” Nonverbal probes such as waiting a bit for the interviewee to continue are also effective.*

## APPENDIX E: INTERVIEW GUIDE FOR PARENT IN CASE 1 AND 2

### Interview Guide

*Note: This is a semi-structured interview approach that identifies the key topic areas that are to be discussed with participants in this study. Interviewers should listen carefully to answers to questions and ask follow up questions when appropriate. Follow up questions should be consistent with the topic of the question asked by may be reframed to be consistent with the response of participants. The general questions apply to adult and child interviews, but the interviewer should adapt the language to suit the interview participant.*

#### **Opening:**

Hello. Thanks again for participating. As you know, I am [Yongsun Lee] and I am conducting this interview as a part of an evaluation of the martial arts program. The information will be de-identified, and your name will not be reported in any reports from this research.

#### **Topic:**

Today I am interested in learning more about life skills learned through the martial arts program. Life skills can include personal and social responsibility skills such as respect, effort, or leadership. As a parent, you may have ideas on what and how kids learn life skills through the program.

#### **Guidelines:**

There are no right or wrong answers today. You can ask me any questions or end the interview at any time.

Do you have any questions before we continue?

#### **ICEBREAKER:**

- Do you think youth learn life skills in the martial arts program? Can you explain how? Is there an example you can think of?
- What are some of the reasons you chose to enroll your child in this program?

#### **PROGRAM EXPERIENCES:**

First we want to discuss the experiences of you and your family in this program. Feel free to share any thoughts you may have.

As far as you can tell, what is the program like for your child?

- What things do you like the most about having your child in this program?
- What things do you like the least about having your child in this program?

Have you observed any activities that you think teach life skills in this program?

- Describe those observations?
- Are there any activities that you think should be improved upon or added to address life skills?

Do you feel that any of the activities from this martial arts program translate beyond the program?

- Can you think of any examples where the skills learned here are helpful outside of the program?
- Are there any life skills you would like to see included in this program that are not yet apparent?

## **WRAP-UP**

What other thoughts or ideas can you share to help us continue to grow and improve this program?

*\*In addition to these questions, I will use probes as necessary, things like “could you tell me a little bit more about” or “could you give me an example?” Nonverbal probes such as waiting a bit for the interviewee to continue are also effective.*

## APPENDIX F: INTERVIEW GUIDE FOR CASE 3

### University of North Carolina at Greensboro

#### Martial arts learning experience in high school physical education Yongsan Lee

I am, Yongsun Lee from UNC Greensboro. I am doing a study to figure out what students learn from martial arts program in high school physical education. I am asking you to take part in the research study because you participated in the martial arts program.

For this research, we will *ask you some questions about your experience at the program and what types of things you learn from the program*. The interview will be audiorecorded so that the researchers can transcribe the interview for analyses. I will keep all your answers private, and Only people from UNC Greensboro working on the study will see them.

We don't think that any big problems will happen to you as part of this study, but you might feel unsure about the answer to some questions. You don't have to answer any questions if you are not sure of the answer. Also, *you should know that you do not have to participate in this research if you do not want to. You won't get in any trouble if you choose not to participate*.

*We hope to learn about what you learn in martial arts programs to make a good program for students to learn life skills*. The interview will take approximately 50 minutes. Below are several key interview questions you might be able to answer.

#### Questions for Students

- 1) First, we want to talk about your experience in the martial arts program in general. Feel free to share any thoughts
- 2) What brought you to the program? What motivated you to continue practicing martial arts?
- 3) What things do you like the most and least about the martial arts program?
- 4) What were your great accomplishments in the program?
- 5) How learning martial arts is helpful in your life (if you agree with it)?
- 6) What made you feel safe and included in the program (if you agree with it)?



### **Questions for Physical Education Teachers**

- 1) Please share your overall experiences about the martial arts program in 9<sup>th</sup> grade PE.
- 2) Based on your experience (if you agree), what are some advantages of martial arts practice in high school PE?
- 3) What are some barriers have you seen (or potential barriers) when martial arts are taught in high school PE?
- 4) How would you describe the program if someone ask you about the program?
- 5) Anything you want to add more?

### **Questions for Program Staff**

- 1) Please share your overall experiences about the martial arts program in 9<sup>th</sup> grade PE.
- 2) Based on your experience (if you agree), what are some advantages of martial arts practice in high school PE?
- 3) What are some barriers have you seen (or potential barriers) when martial arts are taught in high school PE?
- 4) How would you describe the program if someone ask you about the program?
- 5) Anything you want to add more?

APPENDIX G: FROM CODES TO THEMES IN CASE 1

**The Results of Data Analysis in Case 1: Main Theme, Subthemes, Codes, and Representative Quotes**

Theme	Subthemes	Code	Representative quote
Cultural heritage for PYD (44)	The value of yin-yang balancing (9)	Mind-body practices (5)	<ul style="list-style-type: none"> <li>Tae-kwon-do means the right way of using your punch and kicks. So I talk about <i>do</i>, your brain (mind), you know brain controls the body. So it is not how we teach Taekwondo that you use Taekwondo skills first without knowing how to control. (Instructor)</li> </ul>
		Taekwondo as a way of life (4)	<ul style="list-style-type: none"> <li>Taekwondo is just as well-balanced as like yin-yang. You can incorporate Taekwondo into everyday life. Especially since life skills are integrated into Taekwondo, it's not only for Taekwondo skills practice, it can be a part of her school and home. Taekwondo does that very well. (Julian)</li> </ul>
	Norms for youth martial artist (6)	Self-defense of last resort (4)	<ul style="list-style-type: none"> <li>There's a lot of bullying going on. If something is to happen to them, I want them to be able to defend themselves only when necessary. That is their last resort. (Ryan)</li> </ul>
		Yes sir, no sir (2)	<ul style="list-style-type: none"> <li>When they are here, they know how to use their manners, saying yes sir and no sir. It is also good for them to use that manner when they are out. (Ryan)</li> </ul>
	Rituals in practices (14)	Belt system / uniform (10)	<ul style="list-style-type: none"> <li>Black belt life skills is kind of life skills like normally we teach...So ultimate goal for students is a black belt. Most of life skill goes for the black belt. Life skills guide students to become the black belt. (Instructor)</li> </ul>
		Bow (2)	<ul style="list-style-type: none"> <li>Uhm, I think that had helped him to express respect, trust, and gratitude, you know... Yeah, I think it's a good social skill. (Judy)</li> </ul>
		Meditation (2)	<ul style="list-style-type: none"> <li>I like the meditation and that part of the program and how it kind of lends to the life skills along with the actual like the martial part of the program. (Julian)</li> </ul>
	Family oriented culture (15)	Parent involvement (4)	<ul style="list-style-type: none"> <li>Any parent is like a first time being a mom and dad...and they need directions...also parents learn how TKD teaches the life skills like being a good example and respect. And they use those directions at home too. (Instructor)</li> </ul>
		Positive learning climate (11)	<ul style="list-style-type: none"> <li>I would say the community of the Dojo, because everyone is connected and positive, they don't really have any negative energy...I always leave Taekwondo in a better mood than I came. (Hudson)</li> </ul>
		We are like a family (8)	<ul style="list-style-type: none"> <li>I love like the camaraderie that's generated in the martial arts, even though it's physical like the punching the kicking like everyone here is like the</li> </ul>

Theme	Subthemes	Code	Representative quote
			camaraderie that's created in the program. It is just so wonderful, like we trust each other, we know we're not going to hurt each other. (Julian)
Taekwondo pedagogical practices for PYD (121)	Explicit life skills education (21)	Mat chat (11)	<ul style="list-style-type: none"> <li>On the whiteboard, you are describing life skills that go into all aspects of your life. I've seen you sit and talk about like what does this mean and how does this work. (Sarah)</li> </ul>
		Mission (7)	<ul style="list-style-type: none"> <li>He's been giving a lot of opportunities to me and the other students in learning the life skills because he started just talking at the front of class but also giving missions to the students on how they can improve that life skill, how they can work it into their lives, not just at TKD. (Gordon)</li> </ul>
		Tae-kwon-"do" (3)	<ul style="list-style-type: none"> <li>I think the 'do' part of Taekwondo literally means mind, which is one of the three parts of Taekwondo...Well Taekwondo you can learn a lot of life skills and mental stuff from it. (Gordon)</li> </ul>
	Typical Taekwondo curriculum (21)	Forms ( <i>Poomsae</i> ) (4)	<ul style="list-style-type: none"> <li>you can learn a lot from the poomsae [forms] like take things slow if you're not really sure about it at the moment. You don't need to be rushed. (Jasmine)</li> </ul>
		Sparring (4)	<ul style="list-style-type: none"> <li>It teaches you respect for the person who teaches you...For instance, if you're sparring, you observe how your partner moves and then you adjust to them so you don't hurt them like still respect their boundaries. (Jasmine)</li> </ul>
		Breaking (2)	<ul style="list-style-type: none"> <li>If you're breaking through something it means you have accomplished that. But if you do not break through it, you're not strong enough, and if you're not strong enough, you didn't do what you're supposed to do to get to that point to get strong, you have to practice, physically, mentally. (Ryan)</li> </ul>
		Leadership program (11)	<ul style="list-style-type: none"> <li>I was a little bit too quiet, but this doing Taekwondo and especially teaching has really helped me gain social skills and I recently noticed that even among my peers. Whenever we have to talk in front of class, make a presentation, it's always more comfortable for me to do than the rest of them. (Gordon)</li> </ul>
	Yin-yang approach to PYD (27)	Physical-mental training (3)	<ul style="list-style-type: none"> <li>I enjoy how...It's not only like just physical stuff like many other sports are, it also connects with like mentally as well. And the fact that you can practice both while you're doing Taekwondo every day. (Isabel)</li> </ul>
		Practice and application (16)	<ul style="list-style-type: none"> <li>Overall, I think Taekwondo impact my life sometimes. I used to get really angry easily, but Taekwondo sometimes helps me with that because I would remember the lessons that we learned in Taekwondo and I would try to calm myself. (Isabel)</li> </ul>

Theme	Subthemes	Code	Representative quote
		Warm-strict teacher (8)	<ul style="list-style-type: none"> <li>• Warm approach - It's your personality is like you guys have a lot of energy and you're very friendly and outgoing (Sarah)</li> <li>• Strict approach - I like being strict on kids just to get to feel and to learn what are the rules. (Judy)</li> </ul>
		Harmony with others (19)	<ul style="list-style-type: none"> <li>• I feel like a lot of the connection I've had with the people here just come from having that experience of being tried working really hard together and like helping each other out, improving each other, holding for each other. (Gordon)</li> </ul>

\*Primary data sources from individual interviews with parents and instructors as wells as focus group of youth participants. Observational memo was also used as a data source for this case study.

APPENDIX H: FROM CODES TO THEMES IN CASE 2

**The Results of Data Analysis in Case 2: Main Theme, Subthemes, Codes, and Representative Quotes**

Theme	Subthemes	Code	Representative quote
Adapted Taekwondo pedagogy (56)	Features of afterschool Taekwondo (20)	Taekwondo plus schoolwork (6)	• It has a nice balance of the Taekwondo teaching and then focusing on their schoolwork as well. So there's a nice balance with it. (Dante)
		Stay active and fit (3)	• We got started into this because I wanted her to continue to be active (Tori)
		Abilities to defend themselves (2)	• Martial arts and Taekwondo are just for defending yourself and not actually hurting people and starting fights. (Tiffany)
		Teaching self-discipline (9)	• I looked for somewhere that there was going to be disciplined where there was going to be structure and routine. (Samantha)
	Flexible programming (12)	Positive parent involvement (3)	• I looked at the parent forms about discipline like about her tidiness and her respectful herself, and I said to Master Logan that she doesn't have respect for herself and for me (Samantha)
		Negative parent involvement (2)	• The two big different things. First, afterschool program doesn't have parents watching the class. (In) traditional TKD, sometimes I see students get too much pressure from their parents. Some parents are really passionate which is sometimes good, sometimes bad because whenever their kids are not doing good focus, some parents are calling them and then telling them even during the class time. if parents try to control and then try to monitor them, students have more pressure. It is hard (for them) to be being leader by themselves... (Logan)
		Daily participation (3)	• Afterschool students come to program every day. That's why I can spend more time on Taekwondo skills and life skills. (Logan)
		Progressive methods of teaching Taekwondo (4)	• Actually, this is first Dojo I came to where music was involved, and I think that helps also. I mean, I'd never had that before. Nobody ever played music during (practice) you know? Here he plays some music and he kind of gets everybody engaged, so I think that's very interesting. (James)
	Teacher as a facilitator (24)	Fun, humorous, and caring (5)	• Master Logan is the big kid himself trying to find fun and humor in his teaching while also providing the TKD instruction. That's what helped my son feel comfortable...not all martial arts instructors teach of it, but

Theme	Subthemes	Code	Representative quote
			some are very strict and disciplined. I don't think that would have worked as well for him (James)
		Peer teaching (8)	<ul style="list-style-type: none"> <li>You have to kick because you want to improve and become stronger. It is looking at the style you're kicking...what your body is doing. Then there's more focus on working with a partner about helping each other about your body posture, about using your body, about moving your body. (Samantha)</li> </ul>
		Positive Taekwondo climate (11)	<ul style="list-style-type: none"> <li>Most sports are teaching you how to play a game, try to compete and win the game. There is no winning here. This is about self-improvement. So I think that's a big piece. (James)</li> </ul>
Disciplined kids (36)	Life skills learning (20)	Learning self-discipline (6)	<ul style="list-style-type: none"> <li>There's so many things that the life skills that Taekwondo teaches. It's not just one, and it's hard to say that it just teaches discipline cause it's not just that, it's not just respect. It teaches you to be a good strong human to have respect for yourself, to have respect for other people to be disciplined, to be a nice person. (Samantha).</li> <li>The thing that motivates me is that Taekwondo cannot just offer you like self-defense, it can also help you become better life skills like confidence, focus and respect, and I think it's done a really good job at helping me become better at all of these things. (Gavin)</li> </ul>
		Improving focus (4)	
		Respecting others (4)	
		Self-confidence (4)	
		Being responsible (2)	
	Application of Taekwondo life skills (16)	Near transfer (3)	<ul style="list-style-type: none"> <li>The poomsae because it requires a lot of control and focus and the more they do that because I've seen you guys do it over and over and over, it helps them with their control of their body, their mind and they get to tie that together. Yeah, so I think that helps with a lot of the controls. (Dante)</li> </ul>
		Halfway near & far transfer (3)	<ul style="list-style-type: none"> <li>We usually learn life skills from either when we're doing TKD class from Master Logan or, from leaders or partners and usually use them in Taekwondo and when we're in the backroom (afterschool). And like something happens and we need to show the life skill that we learned. like help control the situation. (Cooper)</li> </ul>
		Far transfer (12)	<ul style="list-style-type: none"> <li>So yeah, there's a lot of places that you can use them, for example, school like honesty. If like something happens, and if you tell the truth, it just makes it better instead of lying about it. (Juliette)</li> <li>Gavin said control, but also respect are two key factors in doing Taekwondo, because if you didn't have those two, you could end up</li> </ul>

Theme	Subthemes	Code	Representative quote
			seriously hurting or injuring someone. Which you would probably feel bad about. And it just helps in everyday life, not just in taekwondo. (Cooper)

\*Primary data sources from individual interviews with parents and instructors as wells as focus group of youth participants. Observational memo was also used as a data source for this case study.

APPENDIX I: FROM CODES TO THEMES IN CASE 3

**The Results of Data Analysis in Case 3: Main Theme, Subthemes, Codes, and Representative Quotes**

Theme	Subthemes	Code	Representative quote
Being my authentically self through restorative practices (60)	Learning key values of restorative circle (29)	Caring and inclusiveness (4)	<ul style="list-style-type: none"> <li>Well, basically for the people that I was with like the adults who was asking us the questions they were just asking about our day and how we were and if we were OK always. And I feel like that made everybody feel mostly feel included because somebody they actually cared. (Derek)</li> </ul>
		Expressing self and making voice (10)	<ul style="list-style-type: none"> <li>I think it felt good because like not only do people get to express themselves, but they also get a chance to meet new people that I like them in some way. (Joy)</li> <li>Maybe something was going on that day then just talking about it [in] the safe area that we were. (Derek)</li> </ul>
		Trust relationship (7)	<ul style="list-style-type: none"> <li>I share doing those circles more than I mostly do when I'm talking to other people. And the questions how specific they were they helped me talk more and socialize more with the other students in the program. (Aria)</li> </ul>
		Recognizing the “positive impact” (5)	<ul style="list-style-type: none"> <li>In the closing circle we gathered as one large group. Shout outs were given by students about other students. It was really encouraging to see students speak positively about their peers. (11/4/2021, Jacob)</li> <li>Students were able to give shout-outs and one student intentionally touched on life skills (teamwork) which was nice to see. (11/2/2021, Chloe)</li> </ul>
		Addressing the “right” (3)	<ul style="list-style-type: none"> <li>The questions and how we could pass if we don't want to answer because sometimes you don't have an answer or you have an answer that's really in that you don't really want to share. And the ability to pass that, I think that part was awesome. (Aria)</li> </ul>
	Integrating restorative practices with Taekwondo (31)	Checking in/caring (3)	<ul style="list-style-type: none"> <li>I say like so I'm like making sure somebody is OK like so when you kick, are you OK? Did I do something wrong or something? (Jett)</li> </ul>
		Showing self-expression (5)	<ul style="list-style-type: none"> <li>Yeah, I've got scared. I felt like I wasn't mentally stronger because I didn't know if I would be able to break the boards. (Derek) (it's okay expressing fear)</li> </ul>
		Building social connection (13)	<ul style="list-style-type: none"> <li>So he [coach Sun] really talks about that comradery and he develops that within the martial arts program. (Chloe)</li> <li>Well, in terms of classmates I didn't really get to know anybody better but like I mean, I sort of had this group and I sort of stuck with them... Like I said earlier, being in that group really helped with my confidence, not being shy. (Aria)</li> </ul>



Theme	Subthemes	Code	Representative quote
		Giving choice and voice (10)	<ul style="list-style-type: none"> <li>• Instructor allows students to work independently with their partners throughout the lesson. Students feel empowered holding the pads and being given the space to work on their techniques (12/16/2021, Jacob)</li> </ul>
Taekwondo Pedagogical engine for school PE (61)	Interactive instruction (18)	Partner drills (10)	<ul style="list-style-type: none"> <li>• The 1vs1 game to try to touch feet and shoulders everyone seemed to enjoy. I also loved that it was a competitive game but it was not ego-oriented. Coach Sun did a great job keeping the game task-oriented and modeling respect so that students followed. (Chloe)</li> </ul>
		Small group drills (3)	<ul style="list-style-type: none"> <li>• I like the moves how you did it with the counting [numbers] and what moves to do on certain numbers, like one [jab], two [cross], three [duck], four [pull]...that really helped me get focused. I mean it confused me sometimes when you went really fast... (Aria)</li> <li>• The tomato kick is kind of hard. Everybody fell, but it was fun thought. (Jett)</li> </ul>
		Giving feedback and suggestions (5)	<ul style="list-style-type: none"> <li>• Throughout the class students are encouraged to communicate with each other students are encouraged to say something positive about another student (12/14/2021, Jacob)</li> </ul>
	Teaching culture (5)	Bow (5)	<ul style="list-style-type: none"> <li>• One of the main ways that they show respect in Taekwondo is through the bow, it's very mutual level of respect and understanding. (Micah)</li> </ul>
	Instructional scaffolding (38)	Recognizing individuals (7)	<ul style="list-style-type: none"> <li>• He taught us some useful stuff, not only like how to do it like how to do it safely, like with punching, you put your thumb over your fist to not in your fist. So you taught like that and I think it was really helpful. (Joy)</li> <li>• we really recognize individuals. We recognize who they are. Um, we want them to be a part of it. Um, every single skill that is taught is either adapted or challenged. So all of those different individual elements can be integrated to fit the individual learner. (Chloe)</li> </ul>
		Promoting student achievement (11)	<ul style="list-style-type: none"> <li>• One that I really thought was an accomplishment was the tornado kick for me because it really helped that you sort of had steps how to do it. And sometimes I would get confused while doing it and I wouldn't do it right and I would just try again. I mean eventually I got it, but the steps that you had really helped me get it. And that was one big accomplishment for me. (Aria)</li> <li>• Everyone given an opportunity to work on skills very attainable (11/30/2021, Max)</li> </ul>
		Breaking boards (9)	<ul style="list-style-type: none"> <li>• Three styles of breaking boards so all can succeed and provided practice opportunities to ensure all succeed (1/4/2022, Max)</li> <li>• Whenever we did it, it kind of made me feel stronger about doing it because at first I thought I wouldn't be able to do it, but after we started doing it a lot, I felt better at it. (Derek)</li> </ul>
		Creating Taekwondo moves (3)	<ul style="list-style-type: none"> <li>• There's leadership tasks. Um, he gives choices and voices because kids get to choose what are the rest of their 13 moves? So he has 11 foundational moves, and then they add on three. So in that kids naturally are empowered to do what they want and do what they can see. Um, and then he does scaffolding, like I mentioned. (Chloe)</li> </ul>

Theme	Subthemes	Code	Representative quote
		Demonstration (6)	<ul style="list-style-type: none"> <li>• When you had kids and demonstrated what we were going to do and what that was going to look like, I think that really helped everybody with confidence as far as in their ability to do it. (Aria)</li> </ul>
		Building confidence (2)	<ul style="list-style-type: none"> <li>• As I was participating in the program, I sort of got less shy in class and stuff and how I interacted with the students and my classmates around me. I think self-confidence is one of the most important ones (because] self-confidence empowers us to go for what we want...Self-confidence empowers us to like see beyond us and help other people we wouldn't really relate to...that's why I thought self-confidence was one of the best and the most important ones ever. (Aria)</li> </ul>

\*Primary data sources from individual interviews with parents and instructors as wells as focus group of youth participants. Observational memo was also used as a data source for this case study.