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**INFLUENCES ON THE DEVELOPMENT OF BELIEFS OF CANADIAN  
EXPERT JUDO COACHES AND THEIR IMPACT ON ACTION**

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in Partial Fulfillment of the Requirements  
for the Degree of**

**Doctor of Philosophy**

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**DEDICATION**

*To my dear Mom, Dona Celia, who has always  
believe and love me throughout my life.*

*To my dear Sheyla, who has always given me love  
and encouragement to achieve my dreams.*

*To my son Daniel, my inspiration  
in this difficult journey.*

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## ABSTRACT

The purpose of this study was to describe the traditional and modern beliefs and the actions of judo coaches and how these beliefs were represented in their actions during training. In-depth, open-ended interviews were conducted with six male and one female expert judo coaches of Canadian, Japanese and European origin working in Canada. Three principal issues were addressed with expert judo coaches who worked within the Canadian context: 1) how these coaches conceptualized their beliefs regarding traditional values and behavior in judo, 2) how they differed in their beliefs with regarding traditions and modern judo orientations, 3) whether these beliefs that ranged from traditional and modern perspectives, translated into the actions of judo coaches in actual training session. The means used to respond to these questions was the use of qualitative analyses based on in-depth interviews, participant observation, field notes, and stimulated recall with the coaches' actions that were videotaped during training sessions. The analyses revealed that the Canadian context for the sport of judo significantly shaped the coaches' evolution both as athletes and coaches, in the development of their personal philosophies with respect to the practice of judo in this country.

The inductive analysis revealed that these coaches conceptualized their sport in a manner analogous to the mental model of gymnastic (Côté, 1993) and team coaches (Bloom, 1996). Six components emerged from the analysis. These included the three central components of the Coaching Model (Côté, Salmela, Trudel, Baria, & Russell, 1995) organization, training and competition, and three additional peripheral components representative of the contextual factors, and the coaches' and athletes' characteristics. While conceptually similar to the findings of Côté (1993) and Bloom (1996), the results

indicated that the contextual factors of the Canadian judo environment were more complex than in the gymnastics (Côté, 1993).

Secondly, coaches who originated from other countries, appeared to have different beliefs regarding the traditions of judo and were required significantly to adapt these philosophies, and coaching styles due to the constraints of practicing judo in Canada. They appeared to develop a hybrid of beliefs regarding judo training in Canada which included Japanese-based traditional methods, and science-based procedures that had to be adapted to the particular mentalities of Canadian *judokas*. These coaches also developed a set of modern beliefs especially regarding training and international competition.

Thirdly, the beliefs of the coaches recorded during the interviews appeared to be congruent and consistent with their videotaped actions observed during the stimulated recall procedures. It was apparent that considerable adjustments were required in order to carry out in their practices, especially in terms of whether the coaches' viewed "judo as art" or "judo as competition". The coaches also revealed that a number of their behaviors, especially those related to creating the training atmosphere, were necessary for Canadian judokas, although it was clear that such practices were not the most effective means of making Canada a world power in judo.

In sum, the present study has contributed to the understanding and conceptualization of the factors which affect the mental model of coaches and their evolution across their career. It also has added significant elements to the understanding of a variety of the traditional and modern beliefs and actions, and their adaptations in the Canadian judo.

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## CHAPTER 1

### INTRODUCTION

Coakley (1993) reinforced the notion that social constructs such as the social milieu and leadership have a meaningful impact on learning and sport performance. Coaches are seen as agents of change due to their great influence on the social development of athletes. Coakley showed that individuals become involved in sport through a series of shifting decisions made within various structural, ideological, and cultural contexts. This means that a “coach’s identity” is developed by the rules within a context and by those of each specific sport. Therefore, the beliefs and roles of a teacher or coach, in classroom interactions or training sessions, appear to be critical for success within both the educational and sport domains (Balboa, 1991; Clark & Peterson, 1986; Marland & Osborne, 1990; Trudel & Gilbert, 1995).

In the area of the development of expert coaches, Salmela (1996a) highlighted many facets of elite coaching of team sports and their relationships with elite performance. The coaching environment provides unique pedagogical perspectives for the various contextual factors inherent in specific sport activities. It is important to study these conditions to better understand sport as a microcosm of society, and to investigate the critical role of coaches, their beliefs, behaviors and their attitudes to performance enhancement (Bredemeier, 1988; Coakley, 1993; Trudel & Gilbert, 1995). The continuing increase in the popularity of sport in our society has resulted in greater media attention, new performance enhancement technologies, and more frequent international competitions. In modern times, sport is constantly evolving and some of its significant dimensions are being transformed. This is especially true in the martial arts, since

traditions which were rooted in eastern philosophy and culture, are now being continually transformed by various aspects of the western world. The sport of judo has spread all over the world and has undergone changes that can be conceptualized within a continuum from traditional to modern perspectives. The study of the awareness, attitudes and beliefs of judo coaches is of particular interest, as it reflects this conceptual evolution.

The purpose of this research was to describe the traditional and modern beliefs and the actions of judo coaches and how these beliefs were represented in their actions during training as well as three research questions were addressed with expert judo coaches who worked within the Canadian context.

#### Research Question

The questions that guided this investigation explored the beliefs of traditional martial arts and the processes of career transition of coaches that have occurred in judo training in Canadian society. These beliefs were examined through interviews and recorded behaviors in the practice of the sport. The social organization of institutions, rituals, and symbols in the martial arts, and their implications within expert judo practice was also examined. The main research questions that guided this investigation were:

1. How do expert judo coaches conceptualize their beliefs with respect to traditional values and behaviors in judo?
2. How do expert coaches differ in their beliefs regarding traditions and modern judo orientations?
3. Are the beliefs that ranged from traditional and modern perspectives, translated into the actions of judo coaches in actual training sessions?

## Definitions

**Beliefs:** Psychological constructs, frequently characterized by attitudes, values, rules, opinions, ideologies and are based on evaluation and judgements as compared to knowledge which is based on object fact.

**Traditional judo beliefs:** Traditional judo beliefs include subscribing to the concepts of authority, a social hierarchy, discipline, and collectivism. Emphasis is placed on the spiritual and moral aspects of the sport, the coach is the centre of attention, and competition is seen as a reflection of these beliefs, not only the successful outcomes.

**Modern judo beliefs:** Modern judo respects individualism, science and technology, and places less of an emphasis on the spiritual aspects of the sport. Judo is considered to be strictly a sport and its main focus is performance and competition.

**Traditional judo actions:** Actions in traditional judo emphasize the strictly adhered to formal aspects of the judo ceremony or discipline, authority, social hierarchy and collectivism in the training sessions. For example, bowing before, during, and after training sessions, or the use of Japanese technical terms and expressions to direct athletes or to conduct the training sessions.

**Modern judo actions:** Moderns actions refer to training procedures which are based on known experiential or sport science-based procedures. While some traditional behaviors such as bowing may be used, the main emphasis is on training efficacy.

## Operational Definition

**Actions:** Actions refer to the observed and videotaped verbal and physical behaviors of the coaches during particular training sessions. For instance, a coach may

have demonstrated a judo technique with both verbal descriptions and actual behaviors, which were recorded on videotape.

### Significance of the Study

The meaning coaches derive from their experiences with athletes, other coaches, and family and their environment is an essential element in their attainment of expertise. In the case of judo coaches, identifying the necessary or sufficient conditions for the attainment of expertise has significant implications for the coaching of martial arts in general.

Some coaching domains still remain untapped with respect to the nature of training procedures and the role of the belief systems of expert coaches. Aside from the technical content of practice, expert judo coaches may have their own rules and beliefs that guide their actions during training which may have particular or varied meanings and intentions. This study of expert judo coaches is unique because it focused on expertise from a variety of cultural perspectives, the coaches' beliefs and their translation into action.

This examination of coach behaviors, both verbal and behavioral, provides important information on the nature of expert coaching, as well as the thought processes and reasons for action during actual training sessions. This process also provides diverse methodologies to better understand beliefs and actions of the present coaches as well their coaching practices.

## CHAPTER 2

### REVIEW OF THE LITERATURE

#### Martial Arts in Ancient Civilization

It is believed that Africa is the birthplace of the first martial arts practices.

Illustrations found in the 1800's in a tomb along the lower Nile in Egypt have been dated to 2500 BC, centuries before any other verifiable form of the martial arts. This representation of martial arts, depicts over 500 pairs of individuals performing everything from empty handed combat to the use of weapons, such as lances, bows and arrows, as well as defensive arms and shields (Haines, 1998).

There are many ancient and historical influences in the development of the various fields of martial arts. For instance, the word "martial" originates from the god Mars in Roman mythology, who was the equivalent of Ares, the god of war in Greek mythology. Both figures played aggressive and bloody roles as personified by the very nature of war, in opposition to Aphrodite or Venus, the goddess of love (Grave, 1972). These mythological traditions influenced the ancient Greeks in their various forms of combat. The term "martial" has been incorporated into our common language, and according to the Collins Gem English dictionary, means "war or warlike", a reflection of military activity (Collins, 1993). It is clear that these martial arts were very patriarchal and traditionally masculine in nature.

During the ancient Olympic Games in Greece, three important forms of combat sport were popular: boxing, wrestling, and pancration, the latter being a combined form of free-for-all fighting. Of these three sports, boxing and pancration were the most violent, since during this era there were no weight classes for the combatants. In

pancration, competitors fought using every part of their body and were allowed to box, kick, wrestle, throw, and apply strangleholds. In Sparta, rules were the least restrictive, for example contestants were even allowed to gouge out each others' eyes. The combat ended when one of the competitors was unwilling to continue or was no longer fit to fight (Poliakoff, 1987). Ancient combat sports reflected the passion for sport of the Romans and Greeks, especially the residents of Sparta. These games mirrored their respective values and strengths, such as courage and perseverance, which were crucial elements within their social context and to their agonistic dreams. Martial arts later developed around the world into a variety of combat forms as a reflection of particular cultures or social contexts. The notion of martial arts now mirrors the philosophical concepts and fighting techniques that originated in India and China, and later spread across the various Asian countries, especially Japan.

#### Martial Arts in Japan

Monks introduced the martial arts to Japan, along with Zen Buddhism, around 552 AD. It was later, during the Kamakura period (1185-1333), that the religious principles and forms of meditation were assimilated into the warrior class in Japan. The practice of this doctrine became a powerful means for the spiritual training of the *samurais* and was also integrated into mainstream Japanese society (Reischauer, 1990). During the Kamakura period, martial arts, or the art of the warrior, gained popularity in Japan and mirrored the strong cultural cornerstones of hierarchy and inherited authority.

#### The Tokugawa Legacy

This very rigid military system was most prominent during the 200 years of isolation of the Tokugawa period (1603-1867). The warrior, or *samurai* class, was

protective of and obedient to the *shogun*, or military governor who represented inherited authority. The basic role of the *samurai* in feudal times was to protect the aristocratic families and the *shogun* (Connors, 1977; Kobayashi, 1976). They inculcated a rigid code of honor known as *bushido*, which included taking their own lives, especially if they were dishonored. The guiding principles of this code were discipline, bravery, dignity, loyalty and respect for their superiors. *Kenjutsu*, or swordsmanship, guided the life and spirit of the *samurai* and was influenced by the religious principles of Zen meditation. In Zen philosophy, life and death were given little significance, and this became a valuable source of philosophical and moral strength for the *samurai* on the battlefield (Suzuki, 1959). The sword (*kendo*), the spear (*naginata jutsu*), the bow and arrow (*kyudo*), and self-defense with bare hands (*jujitsu*), were the most significant martial arts of the *samurai* during feudal battles (Kim & Shin, 1983). This practice later deteriorated around 1871, when the whole feudal system was abolished as a result of political and economic changes (Imamura & Nakazawa, 1992). The *daymos*, or feudal lords, returned their lands to the emperor and the practice of wearing swords was prohibited (Beasley, 1977; Reischauer, 1990; Takeuchi, 1979; Turnbull, 1979). These changes set the stage for the development of modern martial arts practices.

### Modern Japanese Martial Arts

Today, the name martial arts persists, and is especially popular in the Orient as a form of combat, as well as more peaceful and serene activities. For example, the practice of tae-kwon-do and kick boxing are widespread in Korea and Thailand, respectively. In Japan, there is interest in the spiritual aspects of martial arts, and many of the guidelines prescribed by *bushido* have been adopted. The principles of *budo* (*bu* = “martial”, *do* =

“way of life”) during feudal times, were an important part of Japanese cultural heritage and became linked to new forms of the martial arts. Life and death combat was abolished, and new ways of learning martial disciplines were incorporated into Japanese society. The essence of *do* (doctrine) represented a means to encounter harmony in the universe, self-perception, and individual spirituality (Hamada, 1990). *Do* signifies the positive forces that influence personal perspectives of martial arts training. The aim of training is not only to become skilled in this art form and be able to defeat one’s opponents, but also to permit one’s full development as a complete and enlightened person, both physically and spiritually (Furuya, 1998; Nakabayashi, 1987). This doctrine included the study of *aikido* (the way of harmony), *kendo* (the way of the sword), *judo* (the gentle way), *karatedo* (the way of empty hands), and the gentler arts such as, *kado* (the way of the flower), *sado* (the way of the tea), and *shodo* (the art of calligraphy).

The mystical connection of Zen to these arts is related to the loss of meaning when performers begin to actively reflect and become fully conscious of reality, thus suppressing their thought processes. For example, Suzuki in his introduction to Herrigel’s (1981) book about Zen and the art of archery stated:

*In the case of archery, the hitter and the hit are no longer two opposing objects, but are one reality. The archer ceases to be conscious of himself as the one who is engaged in hitting the bull’s-eye which confronts him. This state of unconsciousness is realized only when, completely empty and rid of the self, he becomes one with the perfecting of his technical skill, though there is in it something of a quite different order which cannot be attained by any progressive study of art. (p. 45)*

The particular methods within the *budo* systems of teaching depended upon years of traditional influences, which delineated behavior and appropriate rules for each follower, most notably in the Kodokan system upon which judo was founded.

### Kodokan Judo

Jigoro Kano, the Father of judo, a teacher and expert in *jujitsu*, founded a new educational institution for the study and practice of judo or Kodokan Judo in 1883. Master Kano began his practice with only nine disciples in a 12-mat *dojo*, or “a place to train the way”. Judo developed from *jujitsu*, and was composed of four varieties of techniques: throwing, grappling, locking the joints, and striking weak structural points of the body (Harvey, 1973).

According to Kano, judo should form the basis of a non-violent practice, since the systematization of the learning processes of the four forms of technique, combined with break falls, created a safer training environment, especially for children. This new martial art form also emphasized dimensions of physical, cultural, and mental training. Master Kano suggested that many people misinterpreted the true nature of judo when they believed that combat and competition were its principal goals. In fact, the elements of maximum efficiency with minimum effort (*seiryoku zen yo*), and mutual welfare and benefit of all (*jitta kyoe*), combined to create a new educational philosophy for common prosperity through moral, intellectual, and physical education. This philosophy guided many students of judo in the Orient and the rest of the world (Goodger & Goodger, 1977; Jazarin, 1972; Kim & Shin, 1983; Nishioka & West, 1980).

Master Kano later became director of the Tokyo Higher Normal School, forerunner of the Tokyo University of Education, and chief of the Education Bureau of the Japanese Ministry of Education. He was also elected the first Asian member of the International Olympic Committee (IOC) in 1909 and worked for the worldwide proliferation of judo. In 1911, judo and kendo were incorporated as part of the regular

physical education curriculum in all secondary schools in Japan (Goodger & Goodger, 1977; Tanaka, 1980). In 1938, Master Kano represented Japan at the IOC meeting in Cairo and succeeded in earning the nomination of Tokyo as the site of the 1940 Olympics, a project that did not come to fruition because of the Second World War. However, during the Tokyo Olympic Games in 1964, judo became an Olympic sport for the first time and thus began of a new era for judo as a world sport discipline. (Nishioka & West, 1980). In 1992, judo competition for women was also added to the Olympic roster. Thus, the popularity of judo increased and the Kodokan became an even more powerful educational system as a direct result of Master Kano's altruism and philosophy of life.

#### The Structural Basis of Kodokan and the Iemoto System

*Iemoto* is a cultural system based on principles of collectivity, hierarchy, duty, obligation, and discipline, first cultivated during the feudal era. Today, this pedagogical system guides most Japanese traditional arts, voluntary art associations, sport organizations, and sport schools. The head of each of these organizations is called *iemoto*, analogous to the *shogun* in feudal times.

Saeki (1994) opened a debate on the conflict between the *iemoto* system and the modernization of sport organizations in Japan. Specifically, the author discussed the transformation processes that were due to the modernization of the All Japan Judo Federation (AJJF). The critical points in this debate dwelt on the need for a new sport organization philosophy commensurate with the practices of modern times, the systematization of sport organizations' alignment with the internationalization process in sport, the increasing demands of elite performance, and the development of expert

coaches. These issues became part of the central debate within the upper levels of leadership in Japanese judo.

More specifically, Saeki (1994) discussed the hegemony of the Kodokan organization and its control over AJJF and the All Japan Student Judo Federation (AJSJF). Most councillors in AJJF were former students from the Kodokan system, which perpetuated the continuation of power within the Kodokan organization. In fact, this crisis started in 1983, when the AJSJF requested its secession from the AJJF. Two months later, the AJJF also petitioned for its separation from the Kodokan, which would still remain as an educational, tradition-oriented association. The AJJF then became the main competitive and professional goal-oriented organization which meant a drastic reduction of the power structure within the Kodokan. The modernization proposed by the AJSJF forced changes in the AJJF at both hierarchical and mechanical levels, resulting in a more organic, empowering, and less doctrinaire organization. This crisis ended in 1989 with the separation of the AJJF from the Kodokan system and its doctrine of hegemony over the organization of judo in Japan and the International Judo Federation. Even though the Kodokan system lost its power and its credibility still exists, and today its philosophical influence is still present in many judo organizations around the world (Shishida, 1992).

The most salient characteristics of the *iemoto* or “householder master” system in the Kodokan are based on traditional beliefs and four guiding principles (Kawashima, 1957). The first principle is related to the teacher-student relationship, which dictates that student conduct is under the complete control of established rules, and a student’s progress is monitored by the power and absolute authority of the *sensei*, or master. This

means that every student candidate needs a period of apprenticeship, after which they must pass an examination, which would then allow them to be considered a student after having received the teacher's final approval. Thus, the master-servant relationship is firmly established. The second feature, the continuous hierarchy, consists of the ongoing relationship between generations of teachers and students within the organization. This hierarchy defines the boundaries and interventions within the system, which helps resolve potential conflicts between newly arising factions. The third principle is related to the authoritative power of *iemoto*, which provides total power to the founder and his descendants. This power encompasses the control of the organization, its ideology and style, its degree-granting processes and fee structures, the granting of licences, as well as the right to collect part of the student-teacher income. Finally, the last principle, the pseudo-kinship system, dictates that teachers and students within the organization would establish and follow the same *iemoto* principles within family and parent-child relationships.

After 114 years, the Kodokan system finally realized the dream of Master Kano. Judo spread around the world. The guiding principles and methodologies developed by the founder resulted in the proliferation of thousands of members and licensed degree-holders worldwide.

### Martial Arts in Western Civilization

Martial arts belong to the short taxonomy of combat activities (Salmela, 1976) whose basic tactics include hand, arm, and foot blows; knee kicks, throws and trips, gripping or immobilizing, and blocks or parries using the wrist, forearm or elbow. Many martial arts (e.g., jujitsu, karate and judo) have spread all around the world and their

elements have become integrated in competitive sport, physical fitness, and methods of mental discipline. Practice of these disciplines has been shown to increase self-confidence and concentration, as well as the development of certain physical attributes such as strength and speed (Gleeson, 1967; Hamada, 1990; Keane & Petras, 1983; Kim, 1969; Kim & Shin, 1983; Payne, 1981). More recently, self-defense programs for law enforcement officers and for other members of the community have also become popular (Donohue, 1994).

In certain martial arts forms, practitioners customarily wear colored belts to denote rank. In judo, the level of proficiency is also designated by different colored belts, which culminates with a black belt. For example, the first *dan* or degree, or the first-degree black belt, signifies the lowest level black belt while the tenth *dan* is a master (Kim & Shin 1983; Sieh, 1995). Many martial arts such as karate, jujitsu, aikido and kung fu are controlled by federation rules and are taught as sports, but the traditional martial arts label is still maintained. Other martial arts in western countries, such as judo and tae-kwon-do are taught according to international rules, and both are Olympic sports.

#### Development of Expertise in Judo

There is a vast quantity of published technical and instructional popular literature on the sport of judo (Harrington, 1993; Inokuma & Sato, 1982; Kudo, 1982a, 1982b). As well, numerous magazines such as Black Belt, describe sport specific techniques. However, there appears to be a scarcity of information on the processes related to the development and characteristics of expert coaches, particularly in judo. This lack of information and the multiple interpretations of the beliefs systems in martial arts requires in-depth research into the various adaptations.

Martial arts may be guided either by rigid traditional methods or by new, sport science-based training concepts and technologies for the development of elite athletic performance. The influences of Japanese traditions on current training processes are well known. For example, Japanese judo is emulated all over the world, and adherence to these judo philosophies was believed essential in order to become a *great judoka*. Today, this philosophy is still pervasive and many judo coaches have adopted these directives in Japan and in many other countries. However, it is important to note that there were a number of present day followers of martial arts who emphasized the principles of *budo* and its code of behavior (Inokuma, 1980; Iwata, 1984; Takeuchi, 1979; Tsuboi, 1985; Ueshiba, 1980), certain of these Japanese principles were believed to be overemphasized in practice. In recent years new developments in judo have impacted upon the evolution of certain learning processes.

Tanaka (1980) for example, surveyed the value orientations of 2,200 instructors in judo and kendo, during judo lessons and extra-curricular club activities in upper secondary schools in Japan. The author found that many of these instructors were more interested in increasing the club membership than in improving students' minds and bodies through disciplined training. Similar results were revealed in a survey of high school karate instructors whose main goals were winning matches and increasing the number of enrolled students (Tanabe, Tanaka, & Hika, 1981). These radical changes, caused by the evolving demands of Japanese society and modern sport, resulted in transformations of the espoused traditional values of Japanese sport.

For example, Okano, a judo gold medallist at the 1964 Tokyo Olympics who later became the coach of the national Japanese judo team, surprised the world both with his

exceptional performance as a competitor as well as with his vision of modern judo (Tetsuya & Okano, 1973). He first discussed the traditional and spiritual aspects of judo, then recounted how judo should be viewed as being no different than any other sport, since judo is a physical, competitive sport regulated by international rules. Okano, however, agreed that, certain spiritual aspects of judo were unique. Okano also stated that westerners should not put too much emphasis on the spiritual side of the sport, and added that what they considered to be mystical, the Japanese people perceived as being part of their everyday lives. According to Okano the non-revealed, spiritual aspects are part of the Japanese culture. Thus, each judo athlete or *judoka*, coach and judo organization should incorporate their own cultural values and beliefs into judo and other martial arts to produce the most appropriate form of practice.

Tetsuya and Okano (1973) wrote about developing the power of the mind and its importance for *judokas*, as well as for athletes in other sport domains. Judo is not unlike other sports in this regard. What mattered most, is how positive attitudes are integrate within the development and growth processes of the martial arts. They also described the importance of full-time dedication to physical, technical and tactical training that included the creation of new techniques and competitive styles. The dawn of a new era in the practice of judo began with Okano's experiences as a competitor, and with his innovative views regarding judo as an evolving combat sport.

In the western world, Goodger and Goodger (1977, 1980, 1986) studied the major organizational and cultural changes in post-war British judo. The authors observed that the processes of transformation in club practice, resulted directly from changes in international sport practices and new scientific methods used to improve performance.

Goodger and Goodger also interviewed English *judokas* and analyzed British organizational structures. They outlined the transition of judo from a previously hierarchical system to a more individualistic form of organization. The *judokas* were described as having become less cohesive and morally oriented during this transition period, developing a new identity. Therefore, the opposition of the more transcendental aspects of tradition, for example, the religious aspects of martial arts or the emphasis on self-cultivation of the new practitioner of judo in modern society, was transformed due to changes within the organizations and the judo culture.

Researchers have also recently verified the role of expert judo coaches in the development of top level judo. The philosophies, styles, and knowledge bases of the coaches became a central area of investigation for understanding the coaching process. Aoyagi (1996) conducted a survey with 143 expert judo coaches in Japan whose athletes participated in the All-Japan Collegiate Championships, the All-Japan University Tournaments and the National Police Tournaments. The main purpose of the study was to describe the training practices of the coaches when they were athletes, as well as during their present coaching careers. The survey tapped information on the coaches' early days as athletes, including their various types of training, the atmosphere within the team, and the number of years of training. It seems that these coaches were most influenced by "thinking ideas and doing their own practice" during their years as athletes. With respect to team atmosphere, most coaches during this period reported that training occurred in a climate that was either "severe during training and exercise and congenial after training and exercise" (73.4%), or "severe all the time" (23.0%).

The coaching process at that time was based upon “technical knowledge and authority” (67.4%), and to a lesser extent on “character or human relationship” (23.7%). During their early training years as athletes, Aoyagi reported that the coaches rated the great importance of reflection and “thinking and coming up with ideas of their own” (50.4%) for progress during training. The coaches also revealed that currently in Japan, “the sport was popular and the people’s interest was high”, and indicated that coaching judo did not interfere with their private lives. Aoyagi also pointed out that judo coaches in Japan often taught at a university or with the police, and had a more stable life compared to coaches in other sports. In sum, according to the author, the life of a judo coach in Japan can be considered to be a viable form of employment.

The coaches’ philosophies as athletes indicated that victory was more significant than “doing their best” and/or developing “skill”. Fair play, on the other hand, was considered “not significant at all”. However, in their roles as coaches, this same group, later placed greater emphasis on fair play and doing their best, as opposed to seeking victory. In contrast to the atmosphere they experienced as athletes, these coaches gave high ratings for a “coach [who] sets the plan at first and gradually entrusts the players to practice” and to “coach as the needs arise”. It is important to note, however, that the majority of these coaches trained with domestic level (70.8%) athletes, rather than at the international (15.3%) and district levels (13.8%). However, the author failed to make inferences about these coaches at various levels that would help better understand any difference in the nature of their beliefs. Aoyagi did not comment on any of their athletes’ national results, allowing for comparison to the relative efficacy of these different coaching styles.

A recent study of French judo coaches (d'Arripe-Longueville, Fournier, & Dubois, 1998) appears to contradict the belief that a positive atmosphere in the judo *dojo* is beneficial for effective performance, as suggested by Chelladurai (1993). The French coaches studied were responsible for the national women's judo team during their Olympic preparation. These athletes had earned international titles and were selected for the 1996 Olympic team. The authors analyzed how and why coaches and athletes interacted in the *dojo*, and the effectiveness of these relationships. The authors identified the nature of coach-athlete relationships, which differed with the existing literature regarding the necessity of positive leadership styles for team building (Chelladurai & Saleh, 1980). Even though, despite the ongoing debate in the literature regarding the benefits of positive leadership, is interesting to observe how these French coaches took a more radical approach in order to obtain significant international results.

The authors identified six behavioral categories which represented the authoritative nature of these coaches: 1) stimulated rivalry and the use of social comparison and unfair selection processes, 2) provoking athletes verbally, using aggressive, ironic tones, and negative feedback, 3) displaying indifference or showing intentional lack of interest in athletes, and a complete lack of communication, 4) entering into direct conflict by delivering threats regarding eventual team selection, 5) developing specific team cohesion through facing challenging situations and, 6) exhibiting favoritism by providing greater instruction and feedback to specific *judokas*. It must be remembered that these antagonistic behaviors by the French coaches took place in a setting where any one of the top five *judokas* in each category had the potential to be Olympic champion, and attaining membership on this team was very prestigious and financially rewarding.

As a means of coping with this difficult but ultimately effective training environment, the *judokas* responded in the following manner to these coaching behaviors: 1) by showing diplomacy and the acceptance of these inequitable attitudes, 2) through achieving exceptional performances in competition and showing regular attendance in training, 3) by soliciting the head coach directly and initiating the communication process, 4) by diversifying their sources of information and selecting the most appropriate information from the coaches' various competencies and, 5) by bypassing conventional rules and seeking input from other assistants. Thus, even though these negative coach-athlete relationships existed, the athletes adjusted to these often inhumane demands and this resulted in positive competitive results. These athletes also recognized that these approaches to coaching were necessary at this level of elite training even though these behaviors were not their preferred coaching style. In the d'Arripe-Longueville et al. (1998) study, it was found that judo practiced at the highest level was in a process of change in relation to traditional practices in international judo.

Yamashita (1993) surveyed the type of training tendencies in various European countries and found certain differences between these strategies and current practices in Japan. It was found that European *judokas* spent more time in physical training, such as running and weight training, than their Japanese counterparts who engaged more in sparring due to the large number of judo partners in Japan. In Europe however, the *judokas* concentrated more on power judo, since there were fewer judo practitioners in these countries.

Sadej (1996) discussed various individualization principles in training, and their significance for athletes and coaches in judo. He called for an open and in-depth

discussion on various issues within the judo community. He pointed out three major concepts for modern training. The first concept was related to appropriate training based on individual motor qualities, such as strength, speed, and endurance. He also emphasized factors that increased performance, such as age level, gender and somatotype, motivational levels, health status, past training loads and recovery rate, or what the author called the capacity for effort. The second concept referred to the growing database on the experiences of the world's best performing athletes, and the benefits of current methods of individualized training. According to Sadej, the use of such a database generated some confusion because many people simply copied the training programs of others and applied them without recognizing individual athlete's characteristics, and ignored the fact that *judokas* may react differently to various training stimuli. The third concept, and perhaps the most critical one, combined the modern approach to training with traditional judo. The conception of judo as either an art or a sport remains a subject of controversy. The author explained that by simply practicing judo, one could not achieve the highest levels of international judo. When interviewed, this coach was adamant in his assessment of the requirements of modern international judo: "*Randori* is not going to prepare today's competitors for what is required of them during high level international competition".

European researchers in judo have focused their efforts on various aspects of *judokas*' training and performance. Lehmann (1997a, 1997b) studied the physiological factors which contributed to the energy capacities of athletes in combat sports, including judo, in order to monitor training programs for technical, tactical, and physical conditions. Heinisch (1997) also provided information on *judokas*' training programs

through the functional evaluation and analysis of competitors in the European Championships between 1991 and 1996. These studies by sport scientists on the demands of international competition have contributed to the transformation of judo, which is similar to that which has occurred in other sports.

One example of the transformation of judo at the present time, is the debate within the international judo community concerning the use of the blue *judogi*, or judo uniform, during international competitions (Park, 1998). This change was made to better differentiate the competitors during combat, since both contenders traditionally used white *judogis* in competition. This issue of the color of the *judogi* is more complicated than it appears, and there exists polarized debate in the judo community concerning the traditional roots of judo. The defenders of the development of judo in modern society justified presenting four points that they thought important to the development of judo in the future with respect to the use of color. These included, providing a clear distinction between the two judokas during the competition, the improvement of viewer ratings by making the judokas more attractive on television, which could then lead to increased sponsorship, and the reduction of the possibility of referee error. Thus, the media also became a determinant of the evolution of judo at the Olympics, an indication of critical challenges that judo will face in the future.

This new reality has not convinced certain groups, especially the Japanese judo directors who still oppose the introduction of the blue *judogi* and believe in maintaining tradition. However, other judo organizations had their own beliefs regarding this issue, since in many Asian countries white was associated with death and was used during funeral ceremonies. Therefore, it was argued that the significance of color should be

sensitive to the practices within each country. Rather than concentrating on the color of the *judogi*, it is believed that judo organizations should strive for the spirit of judo taught by the founder, Jigoro Kano, and his doctrine of mutual understanding, respect and harmony (Park, 1997). It is also important to remember that the future survival of any Olympic sport is dependent upon audience television ratings. During the 1996 Olympic Games in Atlanta, judo was reported as having the lowest ratings in terms of television profit. Therefore, the future of judo at the Olympics will depend upon how the judo community deals with these traditional issues, while remaining flexible with the modern demands on the sport (Home Page of the International Judo Federation, 1988).

The same can be said for the training processes of coaches in modern judo. Research into these traditional or modern issues will lead to a more complete understanding of the nature of expertise in the martial arts. The present study focused on the practice of judo from both the holistic view of eastern traditions, and the western dialectical and cognitive approaches to the development of expert knowledge (Donohue, 1990; Draeger, 1977; Forster, 1986; Jackson, 1977; Johnson, 1986; Little & Encel, 1991; Schmidt, 1986).

### Models of Development of the Expertise

Although in recent years a great deal of research has been conducted in the field of expert performance, there still exists a basic dichotomy in the understanding of the development of expertise. The central controversy, which has endured from the earliest studies on talent by Galton (1892), relates to whether talent is predominantly innate or acquired. However, several studies have pointed out the significance of factors such as nurturing forces, environmental influences, and motivation, as being central to a well-

rounded talent development process. The interaction between these forces creates an ideal environment for the learning processes and socialization within various sport contexts (Coakley, 1993).

Recent models on the development of expertise focus primarily on the acquired dimensions of talent and offer a holistic view of this process while considering the multifaceted aspects of learning (Ericsson & Charness, 1994; Ericsson, Krampe, & Tesch-Römer, 1993; Ericsson & Lehmann, 1996; Gardner, 1993, 1995). In addition, idiographic and nomothetic cognitive approaches have been used to further investigate the issue of expertise development in a variety of human performance contexts (Bloom, 1985; Chase & Simon, 1973; Csikszentmihalyi, Rathunde & Whalen, 1993).

### Bloom's Model

One significant contribution to the field was presented by Bloom's (1985) investigation of the development of talent in young people. The author selected 86 males and 36 females expert performers who had reached their level of excellence before 35 years of age. Three domains of expertise were included in the study: art, science, and sport. Expert concert pianists, sculptors, mathematicians, research neurologists, Olympic swimmers and tennis champions represented these respective domains. The basis for this investigation centered on the following question: Did these performers acquire their performance levels through training and encouragement or was it due to their natural talents? A cross-validation with parents, coaches, teachers and mentors also added new insights on the development of these talented individuals.

Bloom found that nurturing was the main factor in children's progress toward the highest levels in their talent development. The progress of each child was dependent upon

the amount of stimulation each received from parents, quality teachers, coaches, mentors and their enriched environments. These factors were considered critical during the learning process until this group of future experts reached the highest levels in their area of expertise.

Three distinct phases marked the learning process within all groups: the early, middle and late years of talent development. During the early years of learning, these children were introduced to various activities for fun and pleasure. They also received considerable support from parents, teachers, and coaches. It seemed that for many children, this context was an important motivational influence for reaching the next stage of development. Bloom also found that between 11 and 15 years of age, a period characterized by the transition to their middle years of learning, many of these performers were able to reach even higher levels of performance through more intense practice. They showed greater concentration and commitment to their goals, thanks to the support of their parents, teachers and coaches. The final period of learning was represented by even more diligent, specific practice and the quest for success. During this phase, these future experts required concerted concentration, and their endeavors dominated their lives. Their achievements and efforts in their specific domain distinguished their exceptional performances from that of others. To reach the highest levels of performance, these experts often relocated to access better teachers, coaches or more appropriate competitive environments. The master teacher or coach motivated and provided ever increasing challenges to generate greater levels of practice for the future success of these children.

These future experts had to face a number of negative situational aspects or the downside of their chosen developmental path, such as maintaining high expectations,

intense work levels and extreme competitiveness. At other times, economic factors played a detrimental role in their lives and increased the pressure to succeed because jobs in which they could use and develop their talent, were difficult to find. Bloom suggested that the subsequent negative situational mood states and their psychological consequences might have been responsible for high drop out rates from the domains.

### Csikszentmihalyi's Model

Csikszentmihalyi and colleagues (1993) studied talented teenagers (92 males and 116 females) and attempted to provide a better understanding of the success and failure of these individuals. The authors conducted research on 216 high school students over a four-year period and observed their ongoing experiences to better understand how they developed their talents. The authors offered insights into the nature of "talent" which was defined "as *developmental* rather than as an all-or-nothing phenomenon. It is a process that unfolds over many years rather than a trait that one inherits and then keeps unchanged for the rest of life" (p. 26).

This framework for the development of talent centered on the interaction among individuals, domains, and fields. This interactive perspective described the relationship between the process of learning skills within the specific domains of art, athletics, mathematics, music and science, as well as with the field forces that interfered with or helped teens to develop their talent.

Csikszentmihalyi and colleagues (1993) developed the flow model of optimal experience with two variables which were found to be critical for the development of talent: integration and flow versus differentiation. The authors studied the occurrence of integration, that is, the subjective state that people reported when they were completely

involved in some specific task to the point of “losing track of time and of being unaware of fatigue and of everything else but the activity itself” (p. 14). In comparison, differentiation, or “feelings of dissonance or challenge that require future action and change” (p. 117), were also considered to require full concentration and effort. The authors also operationalized the role of integration and differentiation, or stability and change, in the classroom. They explained that the feelings of satisfaction or integration, for example, having solved a problem in math, could provide security for children. However, the need for a new challenge, or differentiation, could help the children reduce their level of boredom, and promote a variety of new thoughts and actions. Therefore, children needed a vast repertoire of stimulation to maintain a level of motivation necessary to accomplish these tasks.

This viewpoint appears congruent with Gardner’s (1993) theory of multiple intelligence, which suggested that exceptional performance was a summation of an individual’s intelligence profile, the demands of a particular domain, and the available intelligence required for specific tasks. The necessity of social support to create an adequate environment for learning was also reinforced. As Bloom (1985) and Csikszentmihalyi et al. (1993) found, most of these future experts began instruction with a local teacher then reaped the motivational benefits of mentors, teachers and coaches. These sources of motivation were key instruments that helped these future experts to develop self-discipline and confidence when confronting obstacles. This was especially true during the early periods of the learning process. Not only was it necessary for the children to become motivated but the enjoyment of the task was also essential to their developing expertise.

However, as Bloom pointed out, many outstanding students could not develop their talent due to inappropriate contextual factors in a field that limited their skills. Some tasks became very difficult to accomplish because of the lack of information on the part of the teachers within that specific domain. For example, Csikszentmihalyi et al. (1993) found that many gifted math students reported that they gave up because they could not stand working alone. Many promising young students could not bear the supercharged atmosphere of math clubs, while in athletics and arts, competition was a major stumbling block for some adolescents. Thus, the role of learning institutions in the development of talent was dependent upon the composition of each field and the type of information offered within each specific domain, and this environmental or contextual integration was crucial for learning development.

#### Ericsson's Model

Many studies have contributed to the knowledge base in the area of skill development and learning. Laboratory studies on learning and skill acquisition have attempted to improve motor performance through immediate information feedback and knowledge of results. This information seemed to increase the accuracy and speed of performance on cognitive, perceptual, and motor tasks when pre-existing knowledge was taken into account, thus providing a better understanding of motor learning (Fitts & Posner, 1967; Gibson, 1969; Welford, 1968). It was also shown that providing a motivated individual with repeated exposure to a task did not necessarily ensure increases in performance. However, when participants were exposed to appropriate strategies, they attained exceptional levels of memory performance after extended practice (Kliegl, Smith, & Baltes, 1989, 1990). These findings have also been applied to the study of the

coaching process. As mentioned by Ericsson et al. (1993), if coaches generated new methods, offered specific instruction, and provided accurate background information, athletic performance would improve. These concepts are compatible with the aforementioned topics of integration and differentiation (Csikszentmihalyi et al., 1993) and the social stimulation provided by coaches and mentors (Bloom, 1985; Salmela, 1996b).

Simon and Chase (1973), attempted to uncover evidence to substantiate a position within the innate versus acquired talent debate, and were the first to suggest that a minimum of 10 years or more of full-time dedication in chess was necessary to yield exceptional or expert performance. This perspective, which was applied across all fields of achievement, was called the “10-year rule”. In related research, it was found that experts in various domains often began practice at around the age of six (Ericsson, Krampe & Tesch-Römer, 1993; Ericsson & Smith, 1994). This revealed the importance of factoring in practice as a central variable in the study of the development of expertise in various domains, including sport.

Ericsson et al.' (1993) theoretical framework on deliberate practice defined this concept as a process of training “to attain the highest levels of performance in a highly constrained activity” (p. 367). The authors differentiated deliberate practice from other common forms of play, leisure, or work. Even though it has been advanced that some necessary qualities such as motor coordination, reaction time and hand-eye coordination may be inborn (Bloom, 1985), Ericsson et al. stated that practice was the major contributing variable in the acquisition of any skill.

The framework of Ericsson et al.'s model was based on available resources, as well as overcoming motivation and effort constraints, for the attainment of exceptional performance. These processes demanded at least 10 years of training, or a minimum of 10,000 hours of deliberate practice with the intent of improving performance.

They also pointed out that a number of constraints exerted a critical influence on the processes for the attainment of superior performance. As previously emphasized by Bloom (1985), the resource constraint referred to the need for sufficient time and energy, and access to physical, environmental, and personal resources such as facilities, teachers, and coaches. The effort constraint referred to the necessary levels of individual volition required to engage in and accumulate the required amount of deliberate practice. These long periods of daily practice were necessary for up to four hours a day, and these efforts often seemed to result in no extra benefits. Therefore, teachers and coaches were required to carefully consider the amount of time dedicated to daily training in terms of providing sufficient volume, quality, and length of practice, as well as adequate recovery. The motivation constraint in the model refers to the fact that effortful training is not inherently enjoyable nor is it immediately rewarding. Some form of long-term reward is required to maintain sufficient practice in order to improve performance. Therefore, the necessity of persevering to continue to improve upon performance by engaging in challenging tasks and situations is necessary in deliberate practice.

These same constraint processes were also encountered during Bloom's middle years of development, or what Ericsson et al. called the stage of "limited deliberate practice" (p. 320). Ericsson's principal concern was that deliberate practice applied to high levels of performance was not inherently enjoyable, and contrary to

Csikszentmihalyi et al. (1993), joy and flow were not a central part of the equation for the development of expertise. Individuals, in his view, were motivated to engage in deliberate practice due to its instrumental value for enhancing performance, and its eventual rewards. Bloom and Csikszentmihalyi, on the other hand, postulated that joy and flow were essential elements in the development of the same high levels of performance.

Finally, Partington (1995) conducted a study with 21 principal orchestra players who were asked to narrate and recall their background and career development up to its current stage. Partington found great similarities to the aforementioned studies of. It is interesting to note that Partington highlighted that “Background, experiences, interest and effort were more often cited than innate talent as necessary for a career in music” (p.61). Partington illustrated how one musician dealt with performance barriers during his practice sessions, reinforcing the importance of the motivation constraint presented by Ericsson et al.:

*When you first start an instrument, it's fun for a while, but there is always a point when you come up against a wall that you can only get beyond by methodically working and practicing. That's when you think it's not fun anymore. (p. 17)*

This supports Ericsson et al. who pointed out that deliberate practice was effortful and that feelings regarding the activity could change. Musicians had to push themselves into a zone of discomfort in order to increase performance quality and overcome effort constraints. Partington also described the importance of effective teachers, who were often the factor that differentiated the good from the best performers. Thus, sufficient effort was exerted over the long run, coupled with adequate supervision in the development of expert musicians.

It should be remembered that the Bloom, Csikszentmihalyi and Ericsson's studies were primarily carried out with middle and upper middle class subjects, and one must be cautious in generalizing these findings to the total population. As Beamish (1990) has pointed out, the higher scores of the socio-economic statuses of athletes from Canada's national and Olympic teams indicated the influence of the class as a determining variable to become a top level athlete in Canada.

In conclusion, both teachers and coaches involved in any achievement domain should be sensitive to the potential decline in motivation, and the negative effects of factors that constrain development during transition stages. Performance failures and increased dropout rates are often due to deficient or inappropriately supportive training environments, and a lack of adequate instruction in an individual's specific domain (Bloom, 1985; Chase & Ericsson, 1982; Csikszentmihalyi et al., 1993; Ericsson 1996, Ericsson et al., 1993; Ericsson & Charness, 1994;; Ericsson & Lehmann, 1996). The consequences of these learning deficits vary and may result in dropping out or adopting other less demanding professions.

### The Coaching Process

Walton (1992) discussed expert coaches' wisdom, as well as their philosophical influences on athletes' performance. These coaches knew how, when, and what to do to increase the self-esteem of their athletes. They believed that athletes would perform at higher levels if handled properly.

At the youth level, researchers have studied the impact of coaches and related psychological considerations on the development of young athletes in many sport domains. Most of these studies dealt with the social and psychological aspects of sport

performance and the many facets of dealing with athletes. For example, research on the drop out rates of children in sport, suggested that coaches had a critical effect on the motivational states of athletes, as well as their goal or task ego-orientations (Duda, 1993). The lack of playing time, excessive emphasis on competition, too much time spent on training, and dissatisfaction with practices were cited as reasons for children dropping out of sport (Gould, Feltz, Horn, & Weiss, 1982; Orlick, 1986; Orlick & McCaffrey, 1991; Smith, 1986) along with the fear of failure due to high trait and competitive anxiety (Martens 1977, 1982, 1986, 1990; Martens, Vealey, & Burton, 1990).

Research on the role of coaches in youth sport and on their relationships with athletes found that the self-esteem and enjoyment of athletes in their sport was related to the positive leadership of coaches and their reinforcement of athletes (Smith, Smoll, & Curtis, 1978; Smith, Zane, Smoll, & Coppel, 1983). Athletes' perceptions of pressure and their feelings of apprehension before and during competition were often due to unrealistic coach expectations, and this decreased performance quality during competition (Gill, 1986; 1993; Gould, Horn, & Spreeman, 1983a, 1983b; McAuley, 1985; Passer, 1983; Smith, Smoll, & Schutz, 1990). Research also has been carried out on leadership and team cohesion (Widmeyer, Carron & Brawley, 1993), and coach-athlete relationships (Erle, 1981; Smith, & Smoll, 1990) in order to improve both interpersonal relations and group performance.

Others have focused on separate components of the coaching domain, such as leadership styles and behaviors of the coaches (Carron, 1982; Chelladurai, 1984; Chelladurai & Carron, 1983; Garland & Barry, 1988; Horn & Carron, 1995; Widemeyer, Carron, & Brawley, 1993). The extensive work by Chelladurai and Saleh (1978; 1980) in

leadership in sport has contributed to a better understanding of the coach-athlete relationship and performance outcomes. Chelladurai and colleagues developed the Leadership Scale for Sports, which includes five dimensions of leaders' behaviors: training and instruction, democratic behaviors, autocratic behaviors, social support, and positive feedback. The creation of this multidimensional model of leadership (Chelladurai, 1978, 1990) introduced a new perspective of the coach-athlete relationship with respect to the required and preferred leadership behaviors within a variety of situations, tasks, and among individuals in relation to decision making and performance outcomes. These findings suggest that the coaching process is complex, and more research is needed in the area to better understand expertise in coaching.

#### Qualitative Research Approaches Applied to Expert Coaches

Qualitative research in the field of sport studies has recently gained popularity. Two main perspectives have influenced research in this area, and have promoted both interpretative and critical visions of the observed realities of coaches. These new approaches have enabled researchers to understand and describe how individuals attribute meaning to their actions. The observations of these individuals' reality were based on the personal descriptions of the daily tasks of coaches and physical educators (Bain, 1989; Earls, 1986; Locke, 1989; Sage, 1989; Schutz, 1989).

Gould, Giannini, Krane and Hodge (1990) evaluated the educational needs in sport psychology of elite American coaches who participated in the 1987 Pan American Games. They found that only 46% of the sampled coaches believed that "...there exists a well defined set of concepts and principles for coaches to use" (p. 337). "Experience" and "other successful coaches" were found to be their main sources of knowledge, followed

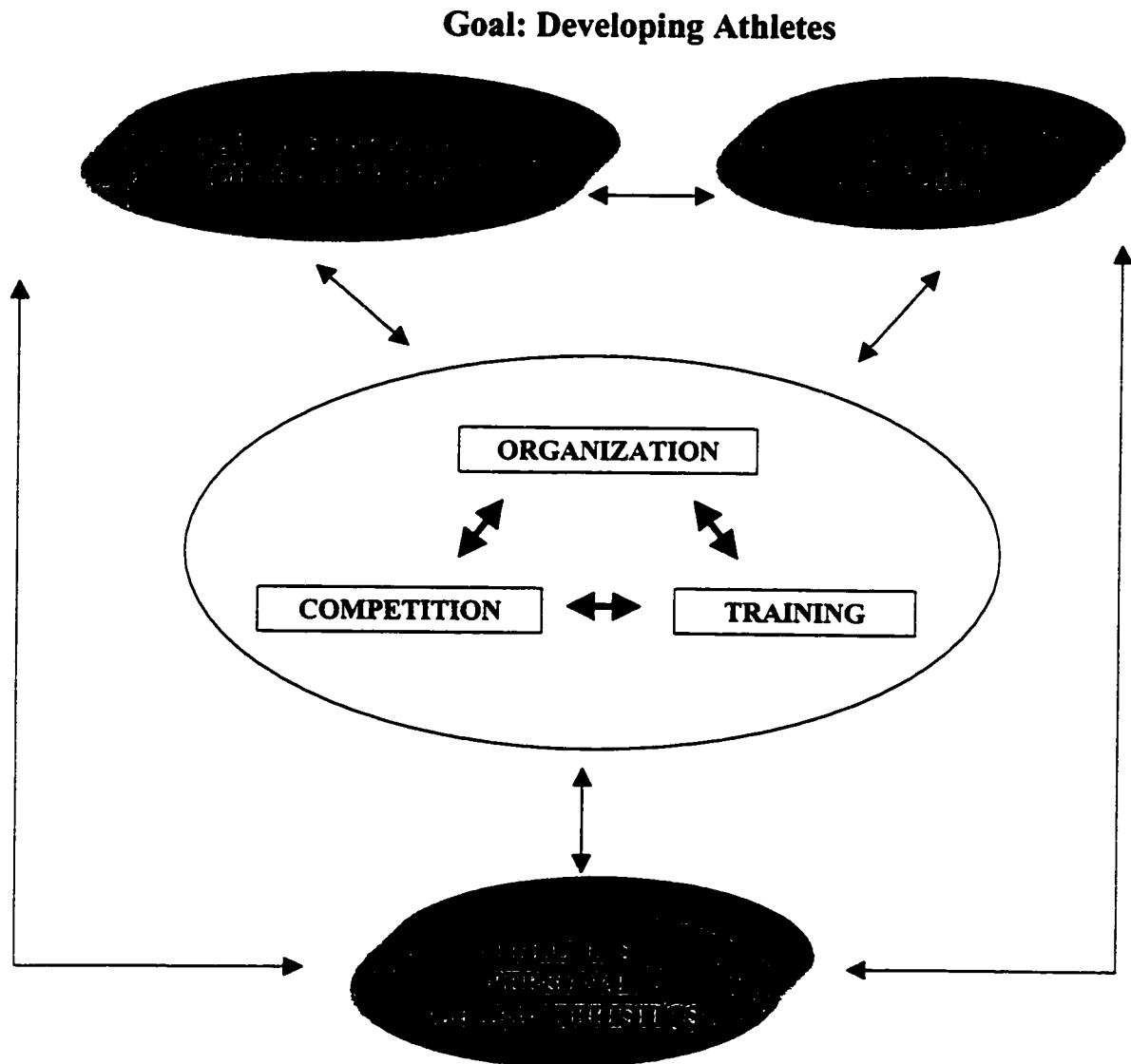
far behind by "coaching books" and "coaching classes" (p. 307). These results underlined the need for additional studies and the use of alternative approaches for the development of expert coaches. The great wealth of pertinent academic information stemming from the perspectives and experiences of expert coaches may provide developing coaches with better options for effective performance enhancement.

Research on the psychological foundations of coaches' knowledge has been gained both by field observations of coaches in practice and competition, as well as through in-depth interviews, which have yielded insightful data (Gould, Hodge, Peterson, & Petlichkoff, 1987). In addition, it is suggested that idiographic and introspective methods that are followed by field studies would provide a better understanding of the interaction between the investigator and the coach under study. This basic assumption for heuristic questioning "gives the knower (the scientist) a central place in the process of knowing" (Martens, 1987, p. 51).

#### Mental Model of the Coaching Process

Côté (1993) interviewed 17 high performance, expert Canadian gymnastics coaches using in-depth interviews to determine their knowledge structures and the relevant information regarding their coaching expertise, in both training and competition. Six elements emerged from this study to contribute to the Coaching Model (CM). The CM consists of three central components: organization, training, and competition. The peripheral components of the CM include the coaches' and athletes' personal characteristics, and the contextual factors (Figure 1). From these findings, Côté, Salmela, Trudel, Baria, and Russell (1995) proposed a mental model of expert coaches that provided a methodological framework with which to understand coaching environments,

and generated a grounded assessment of the knowledge of expert gymnastics coaches. Salmela and colleagues (Côté & Salmela, 1994; Côté, Salmela, Baria, Russell & 1993) suggested the use of an expert systems approach and also provided guidelines for organizing and interpreting unstructured data based on the principles discussed by Glasser and Strauss (1967) and Strauss and Corbin (1990).



**Figure 1.** Flow chart outlining the order in which the components are considered in the text (Côté, Salmela, Trudel, Baria, & Russell, 1995)

Recent research that used this expert systems approach was conducted on

21 expert coaches from various team sports (Bloom, 1996; Salmela 1996a; Salmela, Draper & Laplante, 1993). Three stages of development characterized the coaches' career evolution while they were athletes: early, middle and late sport involvement. This is consistent with Bloom's (1985) stages of development. During the first stage, early involvement in sport and the role of parents and youth coaches greatly influenced these future coaches and their coaching career options. The presence of mentors and the acquisition of knowledge from various sources during the early stages of their involvement in sport influenced the evolution of their coaching expertise (Bloom, 1985; Côté & Hay, 1988; Côté & Sedgwick, 1996; Csikszentmihalyi et al., 1993).

Schinke, Bloom, and Salmela (1995) also outlined the career markers of the six most successful basketball coaches in Canada. The seven stages of career development began with their athletic interests, and moved to the career path that took them from apprentice to expert levels of coaching. These stages were labeled: 1) early sport participation, 2) elite sport participation, 3) international elite sport participation, 4) novice coaching, 5) developmental coaching, 6) national elite coaching, and 7) international elite coaching. Thus, another dimension was added to the knowledge regarding the career evolution of coaches on the developmental markers both as athletes and coaches.

Salmela (1996a; 1996b) proposed a new dimension to the role that expert coaches played in the organization, training, and competition that supported and complemented the notions of the deliberate practice framework and development of expert performance in sport (Ericsson, Krampe, & Tesch-Römer, 1993). The constraints to deliberate practice (resources, effort and motivation) were considered in light of the inductively derived

categories concerning the training environment and within the context of the CM (Côté Salmela, Trudel, Baria, & Russell, 1995). The basic task of coaches was to maximize deliberate practice during training sessions by relieving the various performance constraints. Setting the direction, and building the team (Desjardins, 1996; Riley, 1993), training the systems and teaching the skills (Durand-Bush, 1996b), competition (Bloom, 1996), leadership (Miller, 1996), as well as coaching contexts (Drapper, 1996) were all components of the training processes of expert coaches that resulted in the guidance of expert performance in a manner similar to that discussed by Ericsson et al. (1993).

### Perspectives of Inquiry Teachers and Coaches in Action

Different perspectives have been proposed in the domain of education to help integrate alternative explanations about the characteristics of teachers' plans, their interactive thoughts, decisions, and beliefs (Clark & Peterson, 1986; Fang, 1996; Kamil & Person, 1979; Keith, 1989; Yinger, 1986).

### Teachers' Planning, Interactive Thoughts, and Decision-making

Schumm, Vaughn, Haager, McDowell, Rothlein, and Saumell (1995) used a set of procedures and measures to verify teachers' planning and behavior in the classroom. Twelve teachers from elementary through to high school were selected for the study because they were considered effective in the accommodation of disabled students. The Flow of the Planning Process Model was used to investigate teaching episodes. These consisted of written lesson plans (pre-planning), audiotaped teacher "think-alouds" made before the lesson (pre-planning), stimulated recall prompted by a videotape of the lesson (interactive planning), and a semi-structured interview that followed the viewing of the videotape (post-planning). In terms of individual needs, elementary general education

teachers carried out more planning in order to meet the needs of various students and were more collaborative with special education teachers, than teachers at other levels. Even though class organization and management was the same for all students, it was found that elementary teachers had their pre-planning activities for the whole class, but also used individualized activities appropriate for meeting the diverse needs of students. On the other hand, most secondary teachers did pre-planning for the whole group, and these efforts were concentrated on the content, class activities and agenda for the day. These findings provided significant information regarding the role of teachers in different interactive levels and instructional activities.

Roskos and Neuman (1995) investigated the planning characteristics of two novice kindergarten teachers by using an integrated approach to literacy that included field notes, think aloud procedures, five ethnographic interviews, and videotaped and stimulated recall of six classes. This descriptive study investigated the characteristics of teachers' planning and thinking, and their problem-solving strategies. Two characteristics were identified in the teachers' planning for literacy instruction: multiple planning to achieve their goal of integrated instruction, and various multiple demands, such as time, specificity, knowledge, and work.

Butefish (1990) verified the perceptions of secondary science teachers, and their interactive decision-making in classrooms using pre-lesson interviews, video lessons, and stimulated recall procedures. Comparisons between middle and high school science teachers indicated that middle school teachers were more active in decision-making even though both groups made the same kinds of decisions. When comparing secondary science teachers to elementary science teachers, both groups made interactive decisions at

almost precisely the same rate of one decision every two minutes. Most of these decisions were related to instructional procedures and to the learner. Many factors influenced the teachers' decision-making, such as teacher behavior, time of the day, available resources, student behavior, lesson plans, student characteristics, students' achievement and the class atmosphere. These new approaches were employed to better understand teachers' behaviors and were focused on the teachers' actions and the environmental cues that helped provide explanations for inter-relationships in the classroom.

### Teachers' Beliefs and Interactive Thoughts

The study of beliefs has helped better understand and predict teachers' actions in the classroom, teachers' professional development, as well as teachers' effectiveness. Teachers' beliefs have recently guided researchers to investigate their behaviors within the domains of education (Marland & Osborne, 1990; Nesport, 1987; Pajares, 1992), physical education (Balboa, 1991; Byra & Sherman, 1993; Ennis, 1994) and sport (Wilcox & Trudel, in press).

Pajares (1992) discussed beliefs as one of the central psychological constructs in teacher education in relation to the development of knowledge structures. Pajares stated that a belief "is based on evaluation and judgment: knowledge is based on objective fact" (p. 313), and also called attention "to definition problems, poor conceptualizations, and differing understandings of beliefs and belief structures" (p. 307). Pajares presented a list of defined beliefs and argued that many of these terms were used in the literature according to the whims of the investigator. Attitudes, values, judgments, axioms, opinions, ideology, perceptions, practical principles and rules of practice were some of the frequently used terms presented in his discussion. The author concluded that it was

necessary to know which beliefs influenced teachers' planning, interactions, decision-making, and actions within the classroom, in order to understand their thought processes.

### Beliefs of Teachers in Physical Education

Nespor (1987) presented a preliminary attempt to develop a model of belief systems and discussed the importance of a framework for systematic and comparative investigations in the field of physical education. The author stated that:

*In spite of arguments that people's 'beliefs' are important influences on the way they conceptualize tasks and learn from experience, relatively little attention has been accorded to the structures and functions of teachers' beliefs about their roles, their students, the subject matter areas they teach, and the school they work in. (p. 317)*

The author used the Teacher Beliefs Study in his field-based research on teachers' thinking in order to study and conceptualize the beliefs of eight middle school classroom teachers. During the course of one semester, the investigator videotaped teachers in action. Two sets of interviews were used to collect the teachers' beliefs. First, four semi-structured and wide ranging interviews were conducted that focused on the teachers' general principles and beliefs about teaching, their students, student behavior, the community and the organizational contexts in which they worked. Second, four subsequent interviews were conducted using stimulated recall procedures that focused on the teachers' explanations of their teaching practices.

Findings indicated that four key features distinguished beliefs from knowledge: 1) *existential presumption* described the stereotyping of strong beliefs about student ability, maturity, and laziness, 2) *alternativity* referred to how teachers established instructional formats in the classroom based on their beliefs of their ideal class, compared to their present reality, 3) *affective and evaluative aspects* which inferred that beliefs were related

to feelings, moods, and subjective evaluations and personal preferences, and 4) *episodic storage* represented teachers' beliefs learned from their past experiences as students during their 'apprenticeships'. These critical episodes later continued to influence the beliefs of teachers in classroom activities.

Therefore, beliefs were considered to be different from knowledge and the author used the term "non-consensuality" to describe "a feature of beliefs rather than of individual beliefs" (p. 320). Belief systems are less malleable or dynamic than knowledge. Nespor explained that knowledge is a neutral construct that changes due to its degree of relativity, arguments, and consensus. However, beliefs are relatively static, and when they change, it is a matter of a conversion or gestalt shift. They are not open to outside evaluation, and are opposite to the nature of knowledge that is based on argumentation or logical evidence that can be judged or evaluated.

Finally, the author discussed the concepts of *unboundedness* and *conceptuality* and explained that "people read belief-based meanings into situations where others would not see their relevance" (p. 321). He argued that there are no logical rules for determining the relevance of beliefs in the real world, and in general, beliefs are bounded by the personal, episodic, and emotional experiences of the believer. According to the author, beliefs and belief systems are important for task definition, cognitive strategy selection, the facilitation of retrieval, and reconstruction in the memory process. Teachers in ill-structured domains might use this overall function to deal with such an environment.

As Rokeach (1968) noted, when a group of beliefs are organized around an object or situation followed by a predisposition to act, then attitudes are formed. The interconnections between predisposition, actions, and other beliefs form new attitudes.

For instance, a teacher's attitude about educational issue may include beliefs connected to attitudes about family, religion, and country, and these represent values that guide one's life and may determine behavior. Therefore, in order to conceptualize their belief system, it is necessary to understand these three constructs and their importance in the processes of thinking during action.

Alexander and Dochy (1995) studied the concepts of knowledge and beliefs in a comparison between educational communities in the United States and Europe. The participants of both groups were students from undergraduate and graduate programs, and were acknowledged experts in the domains of beliefs and knowledge. Questions from five illustrations portrayed adult conceptions of knowledge and beliefs: 1) belief and knowledge as distinct and unrelated entities, 2) knowledge as one component of beliefs, 3) beliefs as embedded within knowledge, 4) beliefs and knowledge as inseparable, and 5) both seen as partially overlapping structures. Adults' beliefs and knowledge in the United States differed from those in Europe, and had different interpretations for both constructs. For instance, cultural background and educational experience influenced the way adults conceived of knowing and believing. American post-secondary and graduate student level participants perceived the relationship between beliefs and knowledge in terms of religious convictions. Whereas European respondents, viewed these relationships in terms of scientific and mathematical understandings of the verifiable external characteristics of the domain. The authors concluded that the impact of these two constructs on the thoughts and actions of humans had implications for instructional practice and educational research.

Research on beliefs in physical education and sport has helped to better understand teachers' curricular and professional orientations. Ennis (1994) examined the content and task decisions that influenced the curricular decision-making of 11 physical education teachers' value orientations. The curriculum in urban areas emphasized efforts to assist students in learning social, practical, cognitive skills, sport, and fitness. In general, limited time and class sizes forced teachers to select curriculum goals that were judged most important for their students. Five high school and six middle school experienced teachers who placed a high priority on social curriculum goals were selected, using a Value Orientation Inventory. The investigator videotaped two different classes for each teacher, one month apart for each class. Teachers wore a wireless microphone to facilitate the recording of instructions and comments. Transcriptions of the audio part of the videotaping were used in the analysis. Within 24 hours of each filming, researchers and teachers discussed the video using stimulated recall. During the first videotape, teachers provided demographic information, discussed the purpose of each activity, and why they selected these tasks to attain their goals.

Constant comparison was used to analyse the transcripts from the videotaped and stimulated recall sessions (Glaser & Straus, 1967; Goetz & LeCompte, 1984). Critical components for success in teamwork included: a strong emphasis on interpersonal skills, cooperation, group affiliation, and involvement. The majority of tasks involved large group activities and group structures for individual task selection. The value orientations of teachers (self-actualization, ecological integration, social reconstruction, social responsibility) and contextual factors such as background, number of students, and

equipment constraints were factors that influenced teachers' planning and decisions on content.

Balboa (1991) also examined the beliefs and interactive thoughts of pre-service physical education teachers regarding pupil misbehavior, and how it affected their own actions in practical sessions. Fifteen student teachers from two universities were interviewed, and videotapes and audiotapes of the stimulated recalls were used to gather data on 311 episodes of misbehavior. During initial background interviews, teachers were asked about their beliefs concerning pupils' misbehavior, causes of misbehavior, personal rationales for and optimal methods of discipline, and their personal expectations. After identifying pupil misbehaviors while teaching in class, the student teachers answered 22 open-ended interview questions guided by each identified behavior.

Results indicated that teachers blamed students, not themselves, for the 92% of the analysed misbehaviors. Most interpretations of pupil misbehaviors were based on the student teachers' experiences during their own high school classes and their own actions within the classroom. They declared that these experiences had a very strong influence on the way they addressed discipline problems, even though the groups themselves differed in nature. These results demonstrated that student teachers' previous personal experiences had direct implications for the educational programs of both physical education teachers and coaches. Student teachers, therefore, required better orientation to enhance their feelings of adequacy during the early stages of their teacher preparation. The presentation of videos, workshops, social drama of pupils' misbehavior and early practicum experiences with children in the gym, may provide such experience.

### Beliefs of Coaches in Sport

Trudel and Gilbert (1995) analysed current refereed journals and suggested the need for more research with respect to the behavior of coaches both in training and competition. Moreover, it was suggested that researchers should combine multiple methods of data collection, such as systematic observation and stimulated recall, in order to better understand the thinking processes of coaches. These authors, after an extensive review of the literature on coaches' behavior, reported that only one study in 28 included the beliefs and behaviors of coaches (Trudel & Gilbert, 1995).

This lack of information on beliefs and actions of coaches directed Wilcox and Trudel (1998) to study the actions of youth ice hockey coaches and their beliefs and principles. They also investigated whether stimulated recall was a useful method in revealing coaches' beliefs and principles. An inductive analysis was performed of the transcripts from the stimulated recall interviews during 12 games for one coach, and four games for each of the other coaches (N= 4), to determine if coaches' beliefs reflected what they actually did in competition. The transcripts were also inductively analysed during 12 stimulated recall sessions of a single coach in order to examine his coaching beliefs during game related coaching situations. Results of the first analysis confirmed that coaching principles and beliefs were used to explain the coaches' actions. Secondly, the results from the stimulated recall showed that beliefs reliably explained the actions of the coaches in competition. These constructs generated 16 categories that represented the coaching principles and beliefs associated with these coaches' behaviors.

Gilbert, Trudel, and Haughian (1998) investigated the thoughts and actions of five coaches in amateur ice hockey. They used background interviews and also videotaped

coaches during competition for later stimulated recall interviews. The authors found 21 factors that influenced the interactive decision-making of coaches. Coaches' personal interactions and knowledge were the two main factors observed that influenced decision-making. Coaches attended to multiple and combination cues from both categories. Coaches most often cited players' performance and habits/history as cues for their decision-making.

Gilbert and Trudel (in press) attempted to verify the effectiveness of the coach education program. They applied an evaluation strategy to a National Coaching Certification Program (NCCP) Level 2 Theory course. A single case, pretest - posttest design was used with a male coach of a boys' major pee-wee ice hockey team. The design tested the content of the program, the acquired knowledge, the development of new attitudes, and the application of concepts, both before and or after the course. Data were collected during three phases: 1) the baseline phase (three games and two practices), 2) the intervention phase (coach education course), and 3) the post-intervention phase (three games and two practices). The methods of data collection included: participant observation, semi-structured interviews, stimulated recall and systematic observation.

Even though a single case study cannot be the basis for change in a national coach education program, the results revealed several important issues that required further investigation. The authors suggested several changes be made to the program. These included: adjust time allotments to facilitate the condensed course guidelines, pre-test coaches before they enter the program, and conduct post-course testing to evaluate knowledge acquisition. In this single case, the coach's basic knowledge was attributed to previous coaching courses and self-directed learning activities. Findings also indicated

that contextual factors such as the level of competition, athlete characteristics, and the socio-economic conditions, affected the learning process. Finally, even though the coach applied some related concepts during his practice, his coaching behaviors did not change following the course.

### General Summary

This chapter has traced the evolution of the martial art of judo from its Japanese roots and traditions to its modern transformation as a competitive Olympic sport. When viewed from the perspective of the literature of expert teachers and coaches (Bloom, 1985; Bloom, 1996; Côté, 1993; Salmela, 1996a) it has been shown that the teaching or coaching process must adapt itself to the contextual constraints of the culture or the environment. Given the on-going transformations of judo and the particular Canadian sport context, it was believed that there would necessarily exist the emergence of certain dilemmas in beliefs and actions of expert judo coaches. These issues would appear to be of particular interest for expert coaches of Japanese, Canadian and European origin working within the Canadian context. Multiple qualitative methodologies appeared to be the most appropriate method for the study of these phenomena in the Canadian judo context.

## CHAPTER 3

### METHODS

The present study was conducted following the basic premises of qualitative inquiry that pursues an inductive examination of interview reports and observes non-manipulative and hierarchical relationships between the researcher and the participants (Schwandt, 1994). Also, certain views from educational evaluation were followed which suggest that methods derived from different paradigms can be combined within the same study (Miles & Huberman, 1994; Patton, 1990). These researchers advocated the use of any method that could substantiate their analyses and epistemological stances. Miles and Huberman (1994) stated that “Any research, no matter how unstructured or inductive, comes to fieldwork with *some* orienting ideas” (p. 17).

Therefore, such qualitative methods were applied in the rigorous manner suggested for researchers working with well-delineated constructs, a pre-designed set of research questions, and computer devices (Tesch, 1990). This approach has provided both clarity and focus for investigators using qualitative methods by minimizing information overload during the analysis. Also, the researcher followed suggestions described by the authors on how quantitative and qualitative data may be linked together with the use of computers and data management in a given study (Côté, Salmela, Baria, & Russell, 1993). Multiple sources of data acquisition required that the investigator combine these approaches to be able to pose alternative explanations for the findings. Another important aspect that was considered relates to Patton’s (1990) approach to the reliability and validity of research findings. Rigor was emphasized during the qualitative analysis, such as testing

rival explanations, examining negative cases, and triangulating methods to assure quality and credibility.

### Population and Sampling

The selection phase of the expert judo coaches from the total population of Canadian judo coaches was conducted in the following manner: Judo Canada provided information concerning the black belt grade levels of the most recognized Canadian coaches, the location of these coaches in the country, and contact telephone numbers. It was assumed that the Technical Director of Judo Canada was the individual most qualified to guide the selection process. The selected coaches varied in terms of their professional coaching status; some were former or current national team coaches and others were club coaches of developing and Olympic athletes.

Two coaches participated in the pilot study. The first coach, a 3<sup>rd</sup> *dan* black belt, had a long experience as an athlete and four years of experience as a coach. The second coach, a 2<sup>nd</sup> *dan* black belt, was an ex-athlete at the national level and had coached for 16 years. At this time, this coach was also the director of Judo Canada and was able to provide credible and important information with respect to the nature of the coaching environment in Canada.

Seven expert coaches participated in the main study, their average age was 46 years old, and they had an average of 13 years of coaching. They had all obtained at least a 5<sup>th</sup> *dan* black belt and competed as athletes in judo and participated in national and/or international competitions. The 10-year rule, or 10,000 hours of deliberate practice, was chosen as another guideline for the selection of these expert coaches (Ericsson, Krampe, & Tesch-Römer, 1993; Ericsson & Smith, 1994; Rutt-Leas & Chi, 1993; Simon & Chase,

1973). One Japanese coach, now a Canadian citizen, was selected from the group of seven, along with two third-generation Japanese-Canadian coaches. The two third-generation Japanese-Canadian coaches were brother and sister. One coach did not meet the prescribed criteria for selection for this project because of his three-year coaching career at the international level. However, this coach was retained because he was the current coach of the national team and was a valid and necessary resource.

A coding system was used for each coach in order to guarantee anonymity, and to facilitate the organization of the quotations from the pilot and main studies. The letter *P* followed by a number indicated that coaches were from the pilot study. In the main study the letter *FC* followed by a number represented coaches of French-Canadian, the letter *JC* indicated coaches of first to third generation Japanese-Canadians, and the letter *EC* represented the European-Canadian coach (Table 1). Any other reference to Canadian coaches refers to the total sample.

### Interview Guidelines

Ethical interview guidelines prescribed by Bogdan and Biklen (1992) were followed, and prior to the meetings, the interviewer indicated to the coaches that their participation was voluntary. Every effort was made to keep anonymous the identity of individual participants in this project. Also, rules of confidentiality, information dissemination and avoidance of distortion of the results were explained to the coaches (Merriam & Simpson, 1995) before they were asked to sign an informed consent form (Appendix A). In order to learn the various techniques of interviewing (Patton, 1990), the investigator participated in rehearsal interview sessions with other graduate students and received guidance from an expert in the area. Comments from peers experienced in interviewing, and opinions

from experts in the literature, were implemented to guarantee appropriate types of questions for this design.

Table 1

Distribution of Coaches by Age, NCCP Level, Black Belt Level and Gender

Coach	Age	Years Exp.	NCCP*	Black Belt	Gender
Pilot					
P1	35	4	3	3 <sup>rd</sup> Dan	M
P2	35	16	3	2 <sup>nd</sup> Dan	M
Main					
FC1	45	8	4	5 <sup>th</sup> Dan	M
FC2	45	20	2	6 <sup>th</sup> Dan	M
FC3***	39	3	3	6 <sup>th</sup> Dan	M
EC4**	41	15	4	5 <sup>th</sup> Dan	M
JC5**	55	23	3	7 <sup>th</sup> Dan	M
JC6	39	10	3	6 <sup>th</sup> Dan	M
JC7***	37	12	3	5 <sup>th</sup> Dan	F

\* = National Coaching Certification Program

\*\* = Olympic level coach

\*\*\* = International level coach

This investigator delineated the guidelines of organized interviewing, listening, open communication, and observing, to collect as much information as possible (Ivey, 1994). The participants' narratives contributed to a better understanding of the important aspects of their beliefs regarding behaviors, rituals, meanings and cultural perspectives of the coaches, as well as the organizational dynamics within the Canadian judo context.

#### Interview process

The interviews began with the collection of appropriate demographic information. The interviews were semi-structured, open-ended, in-depth, and were audiotaped by the

researcher (Côté, Salmela, Trudel, Baria, & Russell, 1995; Lincoln & Guba, 1985; Patton, 1990). An interview guide was followed in order to guarantee the collection of relevant information regarding coaching in the martial arts (Appendices B & C). Most of the questions were related to the coaches' beliefs about their teaching practices, and their traditional or modern judo philosophies. The following are examples of the questioning process:

Question: Tell me a little bit about your coaching philosophy. How did you develop it?

*Well, I was very interested in Eastern philosophies for a while because of judo. There has been an association between judo and Zen Buddhism, for example. This makes judo a bit different because of its Asian or Japanese origins. As a youth, I got very interested in Asian philosophy. I remember when I was between the ages of 13 to 16 or 17, I learned a lot of Eastern philosophies including those that dealt directly with judo and the philosophy of judo. I must say that one's own personal philosophy evolves with the years. After that, as I grew older, other influences had an impact on my philosophy of life. Now, I am not sure that I would buy wholesale all of the philosophies that I bought as a youth. My views have evolved obviously. In those days it attracted me very much. (FC3)*

Question: From another perspective, Coach JC5, a Japanese-Canadian coach brought views of Japanese judo to Canada. Did he later change his views?

*Through the years Coach JC5 has changed a lot. I remember him when I started with him in 1984. I knew him from 1979. At that time he was more Japanese. He would call you at home if you missed the practice. He really followed you closely. He gave you no room. He was really strict. Through the years I think he has changed his mind because the athletes always have reasons not to train. They always have reasons not to perform. It is always somebody else's fault. (P2)*

During the main study, the investigator videotaped the interviews in order to facilitate cross-comparison of conflicting views, possible doubts regarding the transcripts, or to interpret non-verbal behaviors.

## Data Collection

Two phases made up the data collection process: the pilot study and the main study.

### Pilot Study

During the first phase, two judo coaches were interviewed and audiotaped for approximately one hour using a semi-structured, open-ended, in-depth technique in order to guide future interviews and content analyses. Videotape was not used during these interviews. Immediately upon completion of the interview, it was transcribed verbatim. The investigator, together with a peer member, analysed the transcript of one coach in order to situate his beliefs on the traditional to modern continuum of judo coaches. At this time, the investigator did the analyses three times apart from his peer, and then, they combined their opinions about beliefs of the selected coach for the stimulated recall procedures.

To examine how beliefs were related to actual behaviors, the coach was also videotaped in action during four training sessions. The same peer member assisted the researcher at this time. As soon as possible before the next practice, the investigator selected and discussed with his peer behaviors that stood out based on personal knowledge of the sport and from the literature on beliefs. Then, the investigator interviewed the coach using each video session for stimulated recall procedures. Initially, the coach was questioned about the selected behaviors before being shown the videotape; after this phase, the investigator audiotaped the interview with the coach during the video-retrospective, stimulated recall sessions. These sessions lasted between 40 to 60 mins. This constant comparative method (Merriam, 1995; Miles & Huberman, 1994;

Patton, 1990; Straus & Corbin, 1990) facilitated the inductive analysis and description of the beliefs and actions of this particular coach. The pilot study helped the investigator gain insights into the understanding of certain Canadian judo phenomena and provided a baseline for future data collection. It was during the stimulated recall interviews that the investigator gathered substantial information related to beliefs and the behaviors of the coach in action. The meaning unit below describes one coaches' interpretation of athlete behavior and was reflective of his style of teaching:

Question: I noticed that during these three training sessions there was no talking or joking in the *dojo*. Is this because you do not allow them to talk to or joke with each other?

*I don't know. I don't think so...I really don't know. I just think maybe they're not used to it or perhaps...I don't know. Maybe it's my attitude that doesn't encourage them to do it. (P1)*

During the pilot study, the investigator also collected additional information from a single participant observation session. As well, field notes about the environment were collected during training sessions when the researcher was not actively engaged with or watching the coach. The peer member videotaped all four training sessions.

### Main Study

After having made certain procedural adjustments to the interview process and having become more familiar with these techniques, the researcher continued with the same approach described during the preceding phase. The interviews took approximately one to one and a half hours with each of the seven coaches. Before starting the interviews, each coach was informed about the purpose of the investigation and how the interview would be conducted. After accomplishing of the interviews, the coaches were asked to sign the informed consent form. All coaches were interviewed in their offices, with the

exception of one coach who was interviewed at home. Two coaches were interviewed twice, on different days. The investigator videotaped all seven coaches during the interviews.

Subsequently, four coaches were selected to participate in the stimulated recall interviews since the fifth coach was travelling abroad with the national team, the sixth coach was working in an administrative position with Judo Canada, and the seventh female coach was only working with a recreational program for children. Initially, the investigator videotaped the first coach during three training sessions for approximately one and a half hours. The last three coaches were videotaped during two training sessions. The selection of only two training sessions for the last three coaches was the result of having reached data saturation, as in later interviews and during video sessions of the subsequent coaches, little new information or significantly different behaviors were noted. Field notes of all training sessions and three participant observation sessions were gathered during this data collection (Table 2).

The same peer helped videotape two coaches during the training sessions, and a second peer helped videotape one coach during this phase, for the stimulated recall procedures. Many probe questions were used during and sometimes after videotaping the training sessions in order to clarify any interpretation of the data in the future. On these occasions, the coaches sometimes voluntarily approached and talked in front of the camera and explained what they were doing at that moment and why. These forms of interventions facilitated the investigator's understanding of each particular situation and also helped raise further questions for the stimulated recall procedures. Each stimulated recall interview lasted approximately 40 to 60 mins. and was completed by the next day.

The coaches were videotaped during the training sessions and this process provided substantial material from both the observational and stimulated recall procedures. During this phase, various behaviors of the coaches were recorded by video camera.

Table 2

Distribution of Data Collection Techniques by Coach during Pilot and Main Studies

Coach	Interview	Participant Observation	Stimulated Recall	Video Analysis	Field Notes
Pilot					
P1	✓	✓	✓✓✓✓	✓	✓
P2	✓				
Main					
FC1	✓		✓✓	✓	✓
FC2	✓	✓	✓✓	✓	✓
FC3	✓				
EC4	✓✓	✓			✓
JC5	✓		✓✓	✓	✓
JC6	✓	✓✓	✓✓	✓	✓
JC7	✓				✓

✓ = technique used

For example, in one session, the coach attended to an athlete right after a mild injury, and these details were recorded. Insights from that episode were later explained to the researcher during the recall process.

### Participant Observation

During the participant observation, the researcher was an active participant and assumed different roles such as coaching and sparring in the dojo. The researcher was then able to gain better access to events or groups. And most importantly, this method enabled the researcher to perceive reality from an insider's viewpoint rather than as an outsider Yin (1994). This was possible as he was familiar with judo and was involved in many activities that occurred at the *dojo*. However, one problem with participant observation methods is the possibility of the researcher becoming more of a participant than an observer (Adler & Adler, 1994). For example, during the pilot study, the researcher was encouraged by the coach both to spar with and coach his *judokas*. This resulted in missed opportunities to observe and record the coach's behaviors, though the rapport between the researcher and the interviewees was enhanced. In response to these behaviors, the researcher had one assistant videotaping the sessions during the participant observation, allowing the researcher to have more direct contact with the coach instead of having to deal with the recording and training.

The researcher was involved in four participant observations, one per coach (Table 2). Multiple participant observations increased the credibility and added insight to the present findings. During a single session, a peer member always videotaped the actions and verbal field notes were registered on videotape. These strategies provided a more holistic view of the training session and minimized possible misinterpretations. The researcher was also able to have direct dialogue with the coach without having to attend to field notes and taping.

### Stimulated Recall

Coaches were videotaped during training sessions for the stimulated recall procedures. This method of inquiry has helped researchers overcome certain limitations regarding the study of thought processes, and offers a useful means of studying the interactive thinking of teachers in education (Calderhead, 1981; Clark & Peterson, 1986; Keith, 1989; Marland & Osborne, 1990; Nespor, 1985). The same method has also been applied to the study of physical education teachers of (Balboa, 1991; Ennis, 1994), and coaches (Wilcox & Trudel (1998). However, certain limitations have been shown to exist with this methodology (Calderhead, 1981; Keith, 1989; Yinger, 1986).

Stimulated recall is a technique that helps the investigator to draw and interpret self-reports about what teachers are thinking during classroom interactions (Keith, 1989). Basically, this is a method that “involves the use of audiotapes or videotapes of skilled behavior, that are used to aid participants’ recall of their thought processes at the time of a specific behavior” (Calderhead, 1981, p. 212). This method was first applied by Bloom (1953) to assess the thoughts of university students in the classroom during lectures and discussions. The videotaping of participants during classroom interactions provides stimuli that help them recall what they were thinking at any given moment in time. Currently, researchers have combined stimulated recall with other methods to provide useful information in the area of teachers’ thought processes.

The stimulated recall in this study involved the coach viewing the recording of the previous training session and commenting upon his or her coaching behaviors. The advantage of this procedure was that it provided an opportunity to record coaches’ verbalizations while they reviewed various tasks that were performed. According to Fang

(1996), participants may have problems retrieving information from long-term memory and this can be a disadvantage in stimulated recall procedures. If the time between the actual training session and the stimulated recall procedure is lengthy, this may lead to difficulties in the precise recall of events.

Four coaches were videotaped for two training sessions each and these recordings were later used in the stimulated recall procedures. The stimulated recall phase was generally completed the day after the training session. In some cases, the researcher would ask the coach to explain a particular behavior at the moment it occurred or directly after the training session. Thus, some of the stimulated recall occurred during the training sessions that were being videotaped. Demands on the coaches' short-term memory were minimized in this context by the short time interval between training session and recall.

The researcher also collected additional documentation including: pictures, training program information, videotapes of the *judoka*'s notice board, and trophies on the wall. These materials were filed for future consultation. Many field notes were taken to add to, and assist in the interpretation of observed behaviors in the field. These notes that referred to specific events were made before, during and after interviews. As well, details during participant observation or direct observation during casual visits in other training sessions were recorded, and helped the researcher to infer relationships or support arguments during discussion of the findings. All field notes were stored for easy access as memos or field notes in the database (Bogdan & Biklen, 1992).

### Member Checking

The member checking technique allowed the participants to review the transcripts and correct, amend or extend them before the analysis phase. One copy of the transcribed

manuscript was sent by mail with a stamped, self-addressed envelope to each interviewee. The purpose of the member check was to authenticate the interview, eliminate any undesirable information, make possible changes, and to establish the meaningfulness of the findings and interpretation of the data (Lincoln & Guba, 1985; Merriam & Simpson, 1995). Two coaches added additional written information to their transcripts, while one coach indicated certain citations with political overtones should be removed.

### Peer Debriefing

Peer debriefing was also used to help establish credibility, prevent researcher bias, and clarify future interpretations of the data. As suggested by Lincoln and Guba (1985), a debriefer should be a person with experience, neutrality and a background with this type of qualitative data. Fifteen percent of the total MUs were randomly selected for coding. Three experienced graduate students with knowledge in qualitative research in coaching worked as debriefers. The investigator provided a conceptual map of the distribution of the main and sub-categories for facilitation of this coding. The peers randomly checked and coded each MU from the data, and provided pertinent feedback to the investigator. The investigator then reviewed the coding process for the classification of the meaning units, as well as the descriptive labels and categories, in order to enhance trustworthiness (Côté & Salmela, 1994).

### Data Organization

The software program QSR. NUD-IST-4 for Qualitative Data Analysis (1996) assisted the researcher with the organization of the database. This software was very important during this phase because storing information as memos and field notes, as

opposed to manual measures, provided easier retrieval of that information for future analyses (Côté, Salmela, Baria, & Russell, 1993). The database was indexed making available material for different purposes such as: creating tables of distributions and percentiles of categories or sub-categories, and the merging or attaching of MUs to various groups of categories. These data processing capabilities provided a reliable and efficient system of tagging, coding and creating of categories from the text. This data processing was used to assist the retrieval, modification and transformation of the data. The interpretation of the data is a much more complex process and was the principal task of the researcher.

### Transferability

The task of establishing external validity is complex even in conventional quantitative studies, because of difficulties in replication within varying contexts. In qualitative inquiries studies are difficult to replicate due to the existence of multiple realities and because the phenomena under investigation are complex, necessitating detailed descriptions of time and place (Guba & Lincoln, 1989; LeCompte & Goetz, 1982; Lincoln & Guba, 1985). These authors suggested that this problem may be partially solved by providing highly detailed descriptions of the context and the methods of the study, that is, thick description. Based on this information, other researchers can apply the same method to their own research contexts. Therefore, every effort was made to clearly and accurately describe each step used in order to ensure transferability.

### Confirmability

Lincoln and Guba (1985) refer to the criterion of confirmability to ensure trustworthiness, since the researcher must examine the data, findings and interpretations,

and attest that these are supported by the data and are internally coherent. The investigator repeatedly reviewed all coding processes and discussed these with peer members who were experienced with qualitative data. The researcher created a conceptual map based on all categories and sub-categories, illustrating the conceptual map with symbols and colors. The map facilitated and clarified different aspects of the coding process and helped the peer members to reach consensus during the discussions. This strategy was very useful because it helped the researcher visualize the data that was to be interpreted (Krane, Anderson & Streaan, 1997).

### Data Analysis

The interviews were systematically transcribed verbatim from the cassette or from the video camera immediately after the completion of each interview, and a total of 779 MUs were extracted from the data set. Grammatical and spelling errors were corrected, though any changes that would compromise the authenticity of the text were avoided (Tesch, 1990).

The data was decontextualized and broken up using an inductive procedure for analyzing unstructured qualitative data (Côté, Salmela, Baria, & Russell, 1993). During this procedure, tags were created, meaning units were placed into larger categories, and then the relationships between these broad concepts were formulated into a conceptual model. A description of each step in this analysis follows.

Creating tags was the first step. This consisted of dividing the interview text into “meaning units” (MUs), or separate pieces of text that contained one idea, concept, or piece of information that could stand on its own (Tesch, 1990). Each MU was tagged, or labeled, based upon its content.

Categories were then created. This involved listing and comparing the tags identified in the first step. For example, the tags “The bow, it is a show of respect” and “I was putting a lot of emphasis on etiquette” were regrouped with similar MUs into a large property named “Rules of Conduct”.

Finally, the categories identified in the preceding step were regrouped into broader conceptual categories and the relationships between these categories were established. This rule-guided process of data analysis allowed the investigator to make inductive inferences of the content, thus minimizing the creation of any unnecessary categories (Corbin & Strauss, 1990; Côté, Salmela, Trudel, Baria, & Russell, 1995; Lincoln & Guba, 1985; Miles & Huberman, 1994; Tesch, 1990). After exhaustive reviews of the MUs and further regrouping of categories, the investigator identified and conceptualized the inductive research process.

#### Strategies for Establishing Trustworthiness

Qualitative research designs include techniques that judge the quality of conclusions made by the researcher. Questions such as “Are these results and interpretations representative of the participant’s original reality?” or “Do these findings make sense in light of the research question?” reminded the researcher of the importance of using different strategies in order to guarantee and enhance the evaluation of the findings. Quality conclusions must be trustworthy. Selection of a technique that establishes trustworthiness is made based on the criteria and relevance of each strategy to the research question under study (Miles & Huberman, 1994). The strategies employed in the present study were based on the three qualitative criteria for ensuring trustworthiness outlined by Lincoln and Guba (1985): credibility, transferability and confirmability.

These criteria reflect the conventional paradigm measures of internal validity, external validity and objectivity.

### Credibility

Most techniques that involve credibility are related to the integrity and authenticity of the findings and serve to increase the trustworthiness of the evaluation. Probe questions during the interview, prolonged engagement, member checking, triangulation, peer debriefing, and computer assisted data entry, were the strategies used to establish credibility in the present study.

Probe questions are used to further explore the field of inquiry, to allow follow-up questions and to permit questions to be re-framed. These forms of inquiry are done in order to ensure more comprehensive reports, the clarification of dubious interpretation and/or misunderstanding of different aspects of the coaches' narratives (Rubin & Rubin, 1995). This also ensures that all coaches have a chance to return and add any new or important information during the interviews (Lincoln & Guba, 1985; Patton, 1990). For example, one coach requested another interview in order to complement his responses from the previous one.

Prolonged engagement refers to the familiarity and rapport between the researcher and the interviewee, the background of the researcher and his familiarity with specific environments. This engagement facilitates field perceptions, collection, organization, and analysis of the findings (Guba & Lincoln, 1994; Lincoln & Guba, 1985).

The researcher has been involved in the sport of judo for more than 20 years, first as a national level athlete and later as a coach. He has extensive experience training in judo in countries such as the United States and Germany. He also spent one year training

and competing in judo in Japan, and therefore, gained experience with the traditions and philosophy of the sport. This knowledge assisted the researcher during the data collection and analysis in a number of ways. For instance, because of his background he was able to gain easier access, and conduct interviews with expert coaches and establish rapport with these individuals. This rapport was strengthened by the researcher's familiarity with Japanese terms, and traditional aspects of the philosophy of judo. These factors all served to establish credibility between the interviewer and the interviewee. It was also essential to understanding the judo environment. The data collection required precise positioning and freedom of movement of the researcher and the video camera in the training area. This judo specific knowledge provided the opportunity to increase the quality of the interviews and ensure the trustworthiness of the findings.

The next strategy, triangulation, is a very powerful means of increasing the quality and validity of the research findings. Triangulation refers to the use of multiple methods and data sources to enhance the validity of the research findings (Miles & Huberman, 1994). Denzin (1978) specified four means of triangulation as research strategies: data sources (data triangulation), methods (methodology triangulation), investigators (researcher triangulation) and theories (theoretical triangulation). Mathison (1988) discussed the importance of the use of these strategies for confirming emerging findings, but noted that "The value of triangulation lies in providing evidence – whether convergent, inconsistent, or contradictory – such that the researcher can construct good explanations of the social phenomena from which they arise"(p. 15).

In this study, triangulation involved the use of multiple data collection methods. Cross-validation comparison of the interviews with videotaped observations and/or

analysis, participant observation, stimulated recall and field notes helped the researcher to clarify and compare various aspects of the investigation, as well as to validate the findings (Table 2).

## CHAPTER 4

### RESULTS

The primary objectives guiding the present study were to elicit categories of knowledge regarding the beliefs and actions of expert judo coaches all working in Canada, though originating either from Canadian, Japanese or European origins, and then to conceptualize their relationships and adaptations within the Canada context. The present chapter is organized according to these objectives, beginning with a brief overview of the full data set. Then, a description of each elicited knowledge category along with its links to other categories will be presented with supporting citations on how these expert coaches operate within high level judo in Canada. Finally, the relationship between these beliefs will be compared to actual behaviors through use of stimulated recall procedures, and video analysis.

#### Nature of the Data

The total number of meaning units from the interviews was 779. The inductive analysis process resulted in regrouping these interview transcripts into six components, 11 categories, 18 properties and 10 dimensions (Table 3).

Table 3

Frequency of Components, Categories, Properties, Dimensions and

#### Meaning Units (MUs) in the Inductive Content Analysis

Components	Categories	Properties	Dimensions	MUs
6	11	18	10	779

From this group 174 MUs were collected from the stimulated recall interviews. Overall, the MUs per coach varied both by number and nature, ranging from 49 to 165, with an average of 111 MUs (Table 4).

Table 4

Frequency and Percent of Meaning Units (MUs) from the Interviews with each Coach

Code	Origin of Coach	MUs (N= 779)		Percent of Total
		Semi-Structured	Stimulated Recall	
FC1	French-Canadian	107	47	19.76%
FC2	French-Canadian	64	52	14.89%
FC3	French-Canadian	93	-	11.93%
EC4	European-Canadian	165	-	21.18%
JC5	Japanese-Canadian	89	50	17.85%
JC6	Japanese-Canadian (3 <sup>rd</sup> Generation)	24	25	6.29%
JC7	Japanese-Canadian (3 <sup>rd</sup> Generation)	63	-	8.10%
		605	174	100.00%

The difference between numbers of MUs can be attributed to the open-ended nature of the interviews, where boundaries were not imposed on the subject areas. The fact that some interviews lasted longer was not necessarily an indication of greater knowledge of a particular coach, as these numbers do not reveal the quality of the interviews.

Table 5 reports the number of MUs that varied for each coach by categories and components. The same categories can be seen in Figure 2 as a visual complement of the data.

**Table 5**

**Number of Coaches and Meaning Units (MUs) within Components and Categories**

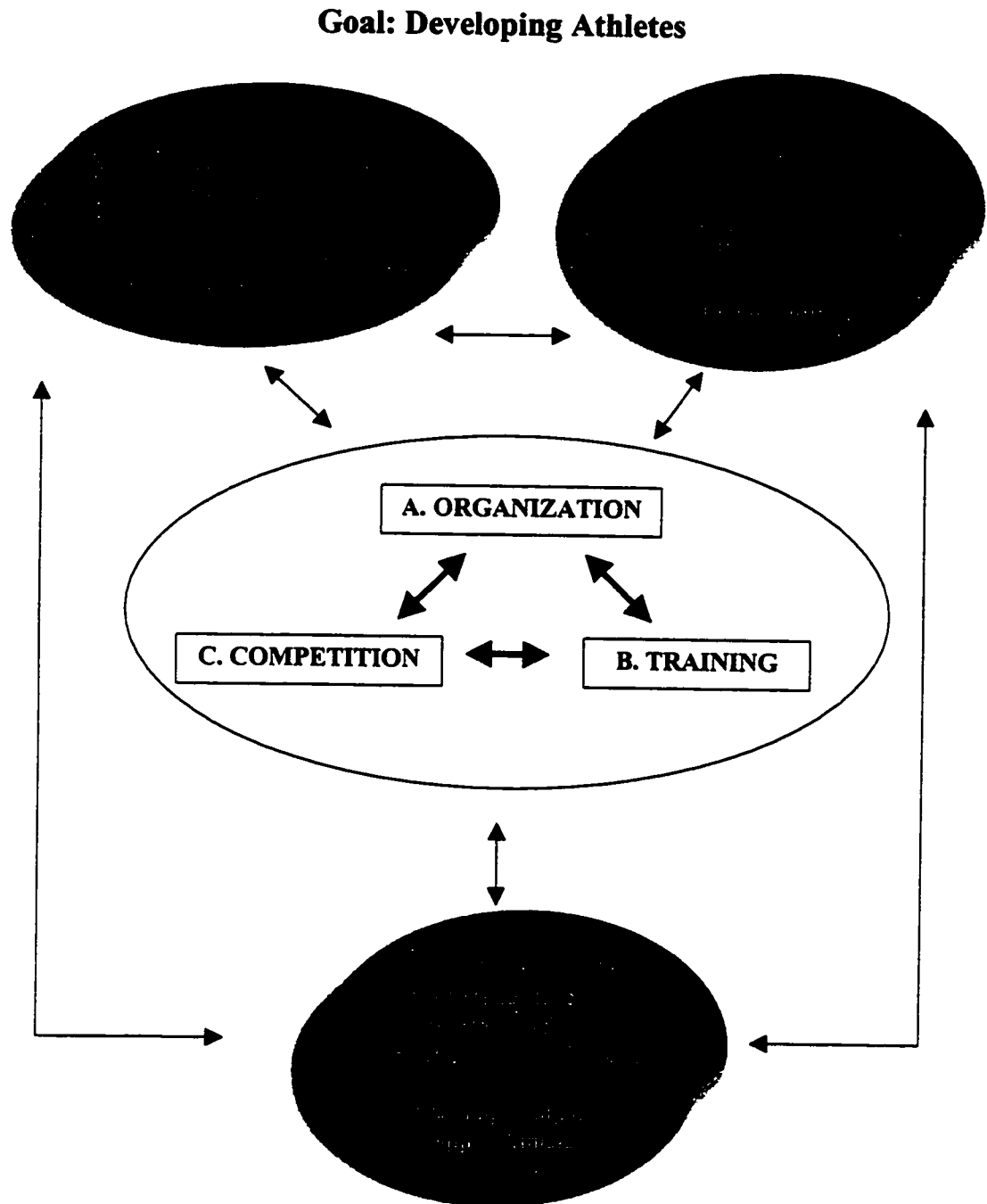
Component and Category	N	Coach						
		FC1	FC2	FC3	EC4	JC5	JC6	JC7
<b>Contextual Factors</b>	<b>128</b>							
Canadian Culture	95	6	4	13	29	5	4	4
Japanese Culture	6					6		
European Culture	27				27			
<b>Coach's Personal Characteristics</b>	<b>290</b>							
Career Development	85	37	28	23	34	22	7	34
Philosophies of Judo	105	14	17	16	23	23	6	6
<b>Athlete's Personal Characteristics</b>	<b>17</b>							
Developing Athletes	10	1	2	1	2	2	2	
Olympic Level Athletes	7	2		1	4			
<b>Organization</b>	<b>41</b>							
Traditional	4	5			8	1		
Science based	7	4	1	4	13	4	1	
<b>Training</b>	<b>288</b>							
General Training	175	44	27	1	3	22	5	15
General Strategies	113	21	36	20	9	10	4	3
<b>Competition</b>	<b>15</b>	3	1	3	3	4		1
<b>TOTAL</b>	<b>779</b>	<b>154</b>	<b>116</b>	<b>93</b>	<b>165</b>	<b>139</b>	<b>49</b>	

The total number of MUs distributed by coach, for each component and for each category within these components is in Table 5. It must be noted, however, that higher frequencies of MUs in, for example, “contextual factors” (128), compared to “training” (288), does not mean the former component was less important than the latter, but does perhaps relate to its complexity. A component such as “training”, is straightforward and easy for coaches to verbally elucidate as it contains common principles from an often verbalized knowledge base. A topic such as “contextual factors”, on the other hand, may be more abstract and complex, and thus more difficult to comment upon by the coaches, and this may result in fewer MUs.

#### Identification of Coaches' Beliefs

The Côté (1993) model was used as a heuristic for the organization of the data once the inductive analysis was completed (Figure 2). The description of the results will follow from the highest order components, then to categories, properties, and finally to the dimensions; quotations will illustrate the nature of the content within each area. While examining the tables for each component, it is important to note that the analysis was inductive, beginning with the interview transcripts and progressing to the creation of dimensions, properties, categories and finally the higher order components.

The presentation of results will follow a non-linear path, beginning with one of the peripheral component of context (Côté, 1993). It is necessary to begin with this component, since the Canadian context for judo has perhaps differentially impacted upon the coaches originating from various cultures, and this may have later determined how they acquired their coaching knowledge and later shaped their interactions with their *judokas*.



**Figure 2.** Conceptual Model of Expertise in Judo - Adapted from the Coaching Model (Côté, Salmela, Trudel, Baria, & Russell, 1995)

Although the contextual factor component category was not considered to be a primary coaching component by Côté (1993), it does provide a logical starting point for all that follows for each of these coaches, beginning with the development of their own personal

characteristics and those of their athletes. As well, the contextual factors particular to Canada will be shown to affect the way the coaches approached organization, training, and competition. Following the presentation of the contextual component, its relationship with the development of the coach's personal characteristics and the athletes' characteristics will follow. Then, the three primary components of organization, training, and competition will be presented, followed by an analysis of the stimulated recall procedures.

Tables 6 to 10 present results from the initial steps of the analysis, including the creation of dimensions and their further division into properties, when appropriate. In the following section, the properties and dimensions will be analyzed within categories for each component. A short summary will be provided for each property, followed by citations from selected coaches. Due to the large number of meaning units in this analysis, only representative citations will be used, providing an overview that delves into the beliefs of judo coaches regarding specific components of coaching.

Table 6

Occurrence of Coaches' Identification of Properties and Categories of Contextual Factors Component

Category	Property
Canadian Culture	Canadian Education Human Resources in Judo Financial Resources in Judo Physical Resources in Judo
Japanese Culture	Human Resources in Judo
European Culture	European Education Financial Resources in Judo

## CONTEXTUAL FACTORS

The meaning units classified in the *contextual factors* are related to the practice of judo within Canadian society in general, and the sport subculture of judo in particular.

The contextual subcategories include, the *educational system* and the *available resources*, either *human, financial or physical*, as reported by coaches who originated from Canadian, Japanese and European societies (Table 6).

### Canadian Culture

Canadian born judo coaches recognized that working within the more permissive Canadian context predisposed them to working within the norms of the Canadian lifestyle. However, they were also aware that it was necessary to incorporate the way that judo was practiced in other countries into current practices in a modified fashion, in order to be compatible with the Canadian judo mentality:

*We should develop a style of judo and an approach to judo, which fits in Canada. A bit of a rougher style which relies more on impeccable physical conditioning and strength. A very tactical style compared to what we may have had in the past. (FC3)*

*The society has changed now. You see, people don't want to suffer anymore. If you go too hard they quit. It is the same everywhere. They cannot suffer. (FC2)*

One Japanese-Canadian coach and another third-generation Japanese-Canadian coach reflected upon how Canadian *judokas* have been raised differently and that their participation in training situations in Japan often met with mixed results:

*We can try to have some influence, but in Canada it is not the same. The children have a different mentality. The children aren't going to do judo unless it is fun. (JC7)*

*That's why some people go to Japan and stay for one year. They think they can come back and beat everybody and it never happens. Only one person ever did that, Doug Rogers. He was in the 1964 Olympics. When*

*he started he was weak. He was a tall, skinny guy. When he first went to Japan, nothing. He was almost zero in Japan. Then he spent three to four years training hard. In Japan he got strong. Not in Canada. These things are very rare. (JC5)*

Finally, one European judo coach who was brought into the Canadian judo context, was the most severe of all of the coaches interviewed regarding training in Canada:

*When I said, "I considered myself as a kind of missionary, at that time, because I realized that the training in Canada was backward in comparison to European countries." The training was just no training at all. I called it practice or high intensity, in some places, high intensity recreation. In the rest of the places it was just recreation, strict recreation. Students and most of the instructors and coaches thought that this was training. It had nothing to do with training. (EC4)*

In sum, the nature of the Canadian culture required modifications to traditional methods seen in both Japan and Europe.

### Canadian Education

In this property, the European-Canadian coach stated that the origin of the manner in which young Canadians approached judo was, in part, traced to the Canadian educational system, a system that is particular to each provincial jurisdiction:

*In North America the educational system was established on different philosophies by Montessori, Dewey and the French philosophers who said that the most important factor was the individual experience. Schools are based on this philosophy today in North America. Kids are not asked to perform anything against their will. They are basically tapped on the shoulder all the time and whatever they do is okay. Nobody tells them, "It's wrong. You can't do that. You have to work on it. You have to do this. You have to do that." (EC4)*

*Well, it's like the schools. Basically they are allowed to do whatever they want. There are no disciplinary problems but it's because the people in judo are very nice and they grow up in the atmosphere of respectfulness in the Japanese dojos with the Japanese senseis. It's not really a disciplinary problem at all. An attitude problem, I should say, exists because a conflict of interest develops. (EC4)*

Thus, it appeared that during the formative period of these young *judokas* values and work habits were developed that differed from those in Japan and Europe.

### Human Resources in Judo

This property revealed problems associated with encouraging the practice of judo in Canada. Coaches remarked on the small number of potential athletes and this was associated with not detecting suitable athletes and this had therefore, slowed down the progress of the sport, particularly at the international level. The small number of athletes in this sport was clearly not conducive to developing high level international performance:

*Here in Canada, you are on the mat with the same people every night. So, after a while, it becomes stale. You have fought the same guy four nights in a row. What are you learning from this? Zero. This is where I said that we must start to think a bit differently. Not throw out the idea. (FC3)*

There is a lack of human resources in the form of athletes in Canada, and this is due to many factors as described in the following citation:

*When I am coaching in Canada, I am going to give clinics and watch tournaments. When I go there I will have to see many things. The population is totally different you see. There is such a small number of judokas. In a way we cannot afford to lose any students. When we practiced at Tokai University there are 120-130 members training and all of them are top level. So you if you lose a few it is okay. Here you cannot lose any. You have to have fun. In Japan there is a different level of people than here. (JC5)*

Canadian youth are presented with a variety of options to practice other sports or cultural activities:

*It is hard to get the general public hooked on it. Well, I think there are so many activities for people to do. People just don't have time. They are already playing hockey or football and basketball and figure skating, gymnastics, or soccer. There are so many activities for people to do today and there is*

*also karate and taekwando. (JC6)*

*In Japan judo is part of their lifestyle. It is part of their culture. In Canada the parents say, "Well, what do you want to do this year? Judo? Gymnastics? Soccer? Play guitar?" It is a choice. The child has, in most cases, the ability to choose their activity. It is different. (JC7)*

Great geographical distances in Canada also created problems for centralizing athletes for group training:

*The other thing is that Canada is such a big country and it is hard to get together to train the whole team and prepare them as a whole. Often you won't see an athlete until the training camp before the tournament or you might not see them except for a few times a year. That is not just Canadian women. That is Canadian men as well. (JC7)*

One European-Canadian coach pointed out the need for funneling more resources toward a few promising athletes:

*In America never take 'no' for granted and everybody beliefs in that. Everybody believes that everything is possible. They do not realize that they are here, at the National champion level, and the top level of the world is there. There is a huge multitude of steps to go through to get from here to there. Of course there is a group of a few, that are capable to go there. I was talking about when I mentioned sensei (name of an coach) He knows those few and he will concentrate on them. He will try to help them get as high as possible. (EC4)*

It was also recognized, that due to the resultant lack of experience at the international level and the constant upgrading of skills and knowledge was therefore essential:

*What used to be prevalent 10-15 years ago in terms of technique or skill is not anymore. New techniques come in and new skills and tactics. If the instructor has not been kept abreast of these changes, the judo that is being taught in the club doesn't match the reality of international judo. (FC3)*

### Financial Resources in Judo

The practice of judo for Canadian athletes is difficult because participation is

voluntary, athletes have to pay for their own training, and they do not receive respect compared to athletes in other countries:

*In Canada, we must not forget that our athletes are, compared to other athletes in judo in the world, without professionals. Our athletes are volunteers really because we don't support them that much. The top French guys, the top German guys, the top Japanese guys, they make a living with that. They are well considered in society because they are champions. (FC3)*

The Canadian athletes therefore, are required to work in order to train and support themselves:

*In Canada after you are 18 years old you are on your own. These athletes have to earn money or receive a school grant to keep on going. In Canada when you do sports you have to be a university student at the same time to support yourself. So that's one of the things you can see. Basically they spend their own time and their own money to play they judo. You cannot force them. You can educate and motivate them how proud should be when they are going to the World championships or the the kind Olympic Games and how to be grateful if they receive medals. These are of things you should teach them. (JC5)*

Obtaining resources was especially difficult for women:

*For the women most of them had to be intrinsically motivated or they probably wouldn't have done it. It was harder though because a lot of them didn't have family support. Their parents weren't that enthused about them competing in judo. (JC7)*

Compared to other judo-oriented countries, the small size of the budget attributed to the sport of judo reflects its place in Canadian society:

*So what we were doing at Sport Canada is unbelievable in a way. The strong countries like France, Japan and Germany are spending 3-4 million dollars a year for judo. In Judo Canada the team budget is \$180,000 or \$170,000. Then we get fifth place Olympic medals and second place Olympic medals and World championship and all this. You can compare how much they spent and how many medals they got, to how much we spent and how many medals we got. Of course they have more medals. But per athlete we are more productive. (JC5)*

*No, it's impossible to make money in judo in Canada. Nobody makes*

*money. (name of a Canadian athlete) is the exception now. He's an exception because he is really extremely talented and extremely strong. He is so strong that he has been hired by a French professional club to fight for them. He makes money in France not from Canada. I don't see anybody else who can get even close to his level of judo. (EC4)*

One coach reflected upon the need for greater professionalism within sport governing bodies regarding the ratio of coaches and athletes:

*When they put a person in the position of the National Coach responsible for males, females, juniors and juveniles, you have to compete against the world which has two coaches working with each of the single groups. These are professional coaches on a full time basis and with much more money than we have in Canada for anything. You can not compete against these kind of systems. There is no way that you can. (EC4)*

#### System Resources in Judo

In this property coaches reinforced the need for a more comprehensive national system to help them in their task of preparing athletes for high level performance:

*Now my objective is to maintain good coaches, but how do I do that without the help of the federation? You cannot do it alone. That's my next objective; help a good coach. That's why I always have my dojo. I am a National coach full time, but I have a dojo because if I ever leave the National team coach I will not have a job. So many of them went back and then there was no job after the four years. The federation threw them out. It's too much of risk to concentrate solely on the national team. (JC5)*

*What happens in Canada is that there is a coach, but there is no structure to support the coach. There is no system to support the National team athletes. The coach must do a very simple thing; chose the athlete who is capable of performing. That's the job of the coach because they are asking for a good performance. The better the performance, the better the coach. (EC4)*

#### Physical Resources in Judo

Finally, one coach commented that Judo Canada had not done much to offer better training environments for the development of high level athletes:

*The same thing applies at the dojo. There is potential, but they don't have any structure; nothing. There has been no concern for*

*comfort of the athletes in the private dojos they have selected for training athletes. They could have done that, but they didn't want to do that. I don't know why. (JC5)*

### Japanese Culture

In comparison, the Japanese context was completely different, through perhaps not always as pedagogically sound from a Canadian perspective:

*Kodokan (a judo Institution in Japan) was such a huge place. Right now there is more structure so when a white belt starts, they have a white belt practice course. Kids five or six years old have a course they can take for three months, six months, or a year. During my time there, there was no structure. Kids just went there. Nobody taught you anything. You went on like this and looked around and somebody would bite you. Then you would bow and stand up, and then: badang, badang, badang. You know what I mean? (JC5)*

Even though the Kodokan had different specialists to teach techniques, the methods that they employed were often taught with little explanation:

*I don't know about the maturity of their teaching. Today it's not the same, but in my time they didn't teach you. You had to steal the techniques from them. You watched. A perfect example is, I had one experience with a sensei, (name of his coach). He was a specialist in tai-otoshi or the body drop. This movement is very specialized. I was at the Kodokan and I asked, "Can you show me how to do it?" So he threw me and kept on throwing me thirty or forty times like this and I started getting dizzy. He said, "Do you understand?" He threw me again. He kept asking me, "Do you understand?" "Yes." I said. I was dizzy after falling fifty times. "Yes I understand. I understand." The next day I went back again. I asked, "Can you explain it to me again?" Badang, badang, badang. I did that for about three months and then my body understood. Now he tried to throw me and I was able to escape. See? He tried to throw me hard now and I escaped more. Then I learned how that technique worked. So most of the technique is learning by stealing or by direct body contact. They don't teach you, "The first step you do is this and the second step you do is this and third step you do is this." They don't do that. They throw you all over the place and after that you understand. It's hard, but if I did that here I will lose all my students. (JC5)*

### Human Resources in Judo

The numbers of participants made up for any shortcomings in pedagogy in Japan. Japanese training resources were quite opposite to what their Canadian counterparts had to face in terms of scouting and recruiting promising athletes:

*You don't have to worry about the past because there are so many good instructors in Japan. They teach good basic skills so Yamashita and Sato are going at the high school tournament to pick up the judokas. They go there and scout the talented kids; see the size and the talent. "This judoka is good." They go through the parent, "I want him to be at Tokai or Tenri University " Then he goes there. (JC5)*

### European Culture

The following citations demonstrated how the respect for Japanese judo origins of the European judo coach compared to that of North Americans:

*The Japanese culture was very highly regarded in Europe. It was, I think, different in North America because judo gained popularity in Europe in the 30's, 40's, and 50's, which were the years before and after the Second World War. Europe was not involved in the war against Japan so anything that came from over there was celebrated. It was really greatly appreciated, however in North America, it was just the opposite. I find that what ever comes from Japan was laughed at. I think that judo did not gain popularity in this country because, among others things, it was brought by the Japanese who were considered the enemy. (EC4)*

*I think that there is no judo without Japanese influence. Sooner or later we encounter the Japanese style. The fact that we haven't had Japanese coaches in Poland, in spite of the fact that the base was not developed by the Japanese, does not mean that there was no Japanese influence. There was definitely Japanese influence because people looked at them We have had films and later on we had tapes. We thought what came from there was great. There were the legends about the great champions who came from Japan. So, there was no lack of Japanese influence. I think, sometimes, that maybe because there was no real Japanese in Poland the influence was made greater. (EC4)*

### European Education

This coach also described the system of education in Europe today where the philosophy of strict discipline still has an important influence on students:

*Education in Europe came out of church schools where there was strict discipline. You have to do this and you have to do that and what the student wanted was not an issue. The student had to perform or was penalized. The system, in spite of it being much more liberal today, is based on the same philosophy. (EC4)*

### Financial Resources in Judo

Compared to the Canadian context, financial support for judo did not seem to be a problem in the European environment for the development of good coaches and athletes:

*I knew coaching was very good in Europe. In Germany I made more money teaching judo 15 hours a week and it was not deep coaching. It was teaching kids. I had 2-3 hours with athletes, grown up athletes, but that was all. I made more money in Germany than I did here as a national coach. In Germany I was being paid by private clubs and the Berlin Development Center. (EC4)*

*In Poland, judo players are people who are allowed to do judo first and then they realize they are strong enough they can do judo and make money. In Germany, people who like judo and everybody who wants to do judo, can do judo. They can become good and make some money. They dream about becoming great judo players. In Canada they are just dreamers. Everybody who likes to do judo dreams of being a good judoka, but they will not make any money. (EC4)*

### Summary

Some of the coaches discussed several aspects of Canadian culture and stressed that it was essential for Canada to develop a style and an approach to judo that best fit the mentality of Canadian *judokas*. They argued that Canadian athletes should travel abroad to Japan or Europe to experience these cultures for short periods of time to gain technical and tactical experience, as well as to learn from these advanced judo cultures. Even though some coaches were determined to compete at the international level, one coach

pointed out that if Canadian judo was to succeed at the highest levels of competition, most coaches would have to change their orientations from a recreational to a more scientifically-based form of judo. There were also some aspects of the Canadian culture that coaches considered problematic for the development of judo in Canada, such as the lack of human and financial resources, great physical distances, and the nature of the permissive educational system. When coaches made comparisons with the Japanese and European cultures, they believed that these systems were better suited to the demands of judo because of their more disciplined practices regarding sport and life in general. They also stated that the higher level of financial support that was provided to coaches and athletes in Japan and Europe significantly improved the overall perspective for judo in these countries. Nevertheless, coaches from other cultures were forced to adapt to this Canadian reality and to work within the constraints of this system.

### COACH'S PERSONAL CHARACTERISTICS

The MUs categorized in the *coaches' personal characteristics* component were defined as the knowledge, skills, beliefs, and the evolution of these areas over time, both as athletes and coaches in their *career development*. Given the cultural origins of these coaches, the factors that helped transform these characteristics, such as their *families*, *coaches* and the influences of *other cultures* were also included. These resulting transformations due to these various influences, eventually lead the development of a more mature coaching *philosophy*, which was represented by their *rules of conduct* and the perceived *role of the coach*. These evolving philosophies were believed to influence their actions and beliefs regarding their approaches toward *organization*, *training* and *competition* for their *judokas* (Table7).

### Career Development

The present coaches began to mold their future careers during their early years, training as athletes. Both as athletes and developing coaches, they began to develop the knowledge, skills and beliefs, that later influenced their coaching styles.

#### As an Athlete

In this segment, coaches shared their experiences as athletes and how this later impacted upon their personal development as coaches:

*When I went to the club that evening the National team was training there and I said, "Well, I just hit the right club. I took a terrible beating that night. (laughter) It was a beating, not a terrible beating. I didn't get injured or anything like that. I was practicing with the best players in Canada and they were very good. I said to myself, "You found the right place." Then I started with (name of his coach). He is the one that brought me to the International level in judo. (FC3)*

Table 7

#### Occurrence of Coaches' Identification of Dimensions, Properties, Categories of the Coach's Personal Characteristics Component

Categories	Properties	Dimensions
Career Development	As an Athlete	External Influences of Coaches External Influences of Family External Influences of Other Cultures
	As a Coach-	External Influences of Coaches External Influence of Family External Influence of Other Cultures
Philosophies of Judo	Rules of Conduct	N/A
	Role of Coach	

Another French-Canadian coach learned early on that rigorous training was something that could also be balanced with fun, a characteristic that was later incorporated into future training methods as a coach:

*We were in the same weight category. We would meet in the Nationals, sometimes for the finals, and either I would win or he would win. We were friends outside. We were competitors inside. When I first got to know him he was very similar to my attitude and behavior. We would go into practice and we would joke around. Every time we did this we noticed that we were the ones that were practicing harder and sweating more than everybody else. Everybody came in too straight, too focused. There we were, the jokers, having the most fun and practicing the hardest. It wasn't just the two of us. Eventually, we had other people join in our little masquerade. (FC1)*

In comparison, one Japanese-Canadian coach experienced severe training regimens which also helped forge his character as a coach:

*I came to Canada at age 26, so for about 16 years I was doing judo in Japan. I was a university student at Chuo University, which in my time was one of the top eight centers in Japan. My colleagues in university, we had Okano in 1964 became a gold medalist in the Tokyo Olympic Games and Sekini he was two years younger than me, and was the 1972 Olympic gold medalist. So Chuo University was quite a strong university. (JC5)*

*During training in my time, nothing was fun. Just train, train, train. In Japan the sensei or sempai is pushing, pushing, pushing. It is the same thing in Japan today. There is a little change, but still same thing. That's why the judokas are always looking at their teachers. If the coach is not looking they laugh like this and then he is looking and they go back to work. You can do three or four hours of this kind of training and it means nothing. So many them, even at Tokai University are not motivated at all. They go because they have to. (JC5)*

Another third generation Japanese-Canadian coach was trained in a hybrid-like environment in which he experienced vigorous Japanese-style training with extensive bouts of sparring, in a context that seemed very similar to the *dojos* in Japan:

*I think back then the only difference in the training at the Shidokan (in Montreal) was that they did a lot more randori. That was the main difference, more randori,*

*more uchikomi, and more ground work. Yeah, and that was the thing and doing it for longer periods of time. When I was training, it didn't seem like there was a lot of learning for specific techniques. It was more uchikomi, fighting, and ground work. (JC6)*

Thus, it can be seen that the variety of learning environments that these athletes experienced originating from different cultures, provided many elements for what would later be influential in shaping their careers within the Canadian judo context.

### External Influences of Family

Many coaches reported the importance of family influences, irrespective of their culture of origin, that were often initiated by fathers who were involved in the sport. Two French-Canadian coaches were both directly and indirectly influenced by their fathers, who were themselves judo coaches:

*My father started judo in Saskatchewan. He started judo in Newfoundland. There was no judo there. He started it. He came from France. "Go west young man, go west." So, he went west. He came to Canada and started judo in Saskatchewan. He did his Ph.D. in physiology over there, exercise physiology. He moved to Newfoundland and started a judo club there. He was teaching medical school. He was a teacher at the university. That is how I started, through my father. It was very strict and very demanding. (FC1)*

*Well, I started practicing judo when I was in France. I grew up there for about six years between the ages of 11 and 16. It is a big sport there. It is a very popular sport. That is where I started practicing.. My interest in judo goes back to when I was six years old. I was always attracted to that sport simply because I had heard my father talking about it. (FC3)*

Two third generation Japanese-Canadian coaches were also brought into judo by their fathers:

*It was back in the 60's. It was 1961. It wasn't really a formal thing. I was probably about five years old. It wasn't formal training. Actually, I started in Germany when my father was in the Canadian Armed Forces. He was teaching judo to some of the Armed Forces men at a dojo and we would go sometimes. (JC6)*

*I started when I was very young. My father had a club going with the Air Force and all of my brothers were doing it. Of course I wanted to do what they were doing, so I started with them. My mom made me a little judogi because I was pretty small at that time. I could barely walk. We just started going as a family. It started in Germany. Once a week at first. (JC7)*

### External Influences of Coach

The coaching styles of the early coaches of these future French-Canadian coaches ranged from severe, to thoughtful, and even to bizarre:

*He is very disciplined. He is like my father. He doesn't like you late. If you are late, you do 50-60 push-ups. Before, for every minute you were late you had to do 10 push-ups. If you came 10 minutes late you ended up doing 100 push-ups. (FC1)*

*The second coach also had an influence on me, more for the philosophical aspect of the sport. He was an older man and I used to spend a lot of time with him at the club talking about judo. Not only doing judo, but also talking about judo. I was very into the philosophy of the sport. We spent quite a bit of time talking with one another. I was very fond of that teacher. (FC3)*

*For example, he (2<sup>nd</sup> coach) was a very good athlete. His style was very good. He went to fight at the Canadian Championships and he was going for third place. He decided to eat. "I'll quit. I'm finished. I'm hungry. I don't want to fight, I am going to eat." And that was it. He lost because he didn't want to fight because he wanted to eat or see flowers or things like that. When he went to a tournament he fought for three or four times and then said, "I quit. I've had enough." He was a very strange person. He lived in the dojo. It was two worlds. One very strict and the other one very relaxed. I had to find my way with those things. I prefer a more strict style than relaxed. (FC2)*

Coaches of Japanese-Canadian origin also used reflective means of delivering their messages:

*He wasn't one to be standing out at the edge of the mat yelling at us at a competition. He would be quiet and then afterwards he would quietly say things to us. I think he looked at judo not just as a sport, but definitely as a martial art or a study of culture. (JC7)*

*I have had many influences. In a way, I was lucky because as a*

*kid I started going to the Kodokan at 12 years old. I saw the big senseis all of the time. I think when your athlete wants to do something, he has to have some ego and a strong mind. One of them came to me when I was a kid training. I was beginning to develop technique, "Ahh, no, no, no! Do this." The old man was saying that, but I was doing it this way and it worked for me. So I thought, "Old man never mind, I know my way of doing it." Now I stop sometimes, stop teaching, and I think, "Ahh, he told me that." Some kids no matter what I teach them they can't do it even if they have talent. Then I think back to my old sensei who told me many things. That really helps me now, but when I was a kid I said, "Well what the heck is he talking about?." I make my own style of judo. (JC5)*

The European-Canadian coach was taught about to be more reflective on the fundamental nature of training in judo:

*Well, he made us think, "What is judo about?" What we were aware of, until I encountered this man, was that judo was about going to the dojo and beating up the people who were standing against you. He started to ask questions. He spent a lot of time on technical training, in spite of the fact that he was not a great demonstrator. He had great knowledge. (EC4)*

Once again, it can be seen that the early experiences that these future coaches underwent with their mentors influenced the later development of their own coaching styles within the Canadian context.

#### External Influences of other Cultures

In addition, French-Canadian coaches also reported on their first hand experience training in Japan, and how they were influenced by the Eastern judo philosophy:

*When we went to Japan there were so many different black belts. You learn from everybody; big, small, and skinny. It doesn't matter how skinny they are, you still get thrown. There is not much power in Japan. It is all very technical. Big difference. They are very quick in Japan compared to European judo. (FC1)*

*Well, I was very interested in eastern philosophies for a while because of judo. There has been an association between judo and Zen Buddhism for example. This makes judo a bit different because of its Asian or Japanese origins. As a youth, I got very interested in Asian*

*philosophy. I do remember when I was between the ages of 13 to 16 or 17. I learned a lot of Eastern philosophies including those that dealt directly with judo and the philosophy of judo. (FC3)*

The European-Canadian coach reflected upon his visits to Japan as a measuring stick for the high quality of judo in Poland:

*I think many people in Poland developed very good technical judo. We went to Japan. The coaches and the team that I was a part of included Waldemar Legien, two time Olympic champion. We had great judo. It was not like we were winning because we were stronger. We had really good judo. (EC4)*

### As a Coach

Canadian-based judo coaches developed their particular style of coaching not only from their own personal experiences as *judokas*, but also from lessons learned over their years of working with athletes. These latter experiences were gained through both formal learning, and trial and error:

*I am taking Level 4, NCCP so I took nutrition and I took weights. You get a bit of this and a bit of that and you tell the athlete. You read something and you give another athlete this information. If they get improvement it is great, but if there is no improvement you try something else. (FC1)*

*At that time, in 1969, I was 18 years old and a black belt. I went to tournaments and I fought, but at the same time I had school (dojo) where I made a lot of mistakes as an administrator. In fact, we were too hard for a lot of people. (FC2)*

One Japanese-Canadian coach had experienced difficult moments in Canada trying to adapt his former coaching style to the make up of Canadian athletes:

*After 1976, a bunch of the athletes quit and they didn't appreciate what I did very much. I think it was because I used the Japanese style of training exactly. They were not used to it and they did not appreciate it. They did not enjoy training. After that I started to think, "How come it doesn't work." Until 1982, I was pushing students still. (JC5)*

In the meantime, one third-generation Japanese-Canadian coach seemed to have already adapted her coaching style to the Canadian context, especially in light of the evolving role of women in judo:

*At the time (head coach) had a certain coaching style, but the women that I coached found it helpful to have my style as kind of a buffer. (JC7)*

*Hopefully I will have been a role model for the younger girls. Also, after I retired from competition, almost immediately, I got into a Women in Sports and Fitness Leadership Program offered by Sports Canada. They were trying to increase the number of women in coaching in Canada because they found that there was a lack of women in this area. I hooked on as an apprentice National Coach with Judo Canada and I started coaching the women almost right away at international tournaments. (JC7)*

#### External Influences of Family

Both parents and siblings were reported to have ultimately contributed to the coaching styles of both Canadian coaches:

*I think the strictness and discipline of my father's style influenced me, but I tried to stay away from it. I always believed that the more you have fun the harder you will practice. The more you downsize people or push them down and make them do things, the more you will lose the enthusiasm. If you lose the enthusiasm, they won't perform. (FC1)*

*(Name of two brothers) are three time Olympians. At the elite level, they were good role models as far as the amount of training that had to be done and the kind of self discipline that they had to go through. Also, technically, they were very good. I learned a lot from them. They used to help me out coaching. I shouldn't just mention (name of first brother) and (name of second brother) because my older brother (name of third brother) was also a champion. They were good role models as athletes as far as their value; good sportsmanship and being humble. (JC7)*

#### External Influences of Coaches

The former mentors of the French-Canadian coaches were appreciated both for their technical skills, and for their pedagogical and mentoring abilities:

*He (name of coach) is very technical. As a technician, you couldn't ask for a better coach. He is very focused on the little things. He is very good. He can go to a tournament and he will remember a certain move very easily. He is very observant and very technically focused. (FC1)*

*He was a good teacher. One of the reasons I think he was a good teacher is because I am still involved in judo. He gave me a lot of judo, which I still have in my mind. A lot of people, in Quebec City, are still doing judo at 50 or 60 years old because they started with (name of his coach), lots of people had begun with him and are still doing judo because he was a very impressive man. (FC2)*

*One advantage I have that some other national coaches have, and I don't want to underplay, it is a big advantage, is that I have a very good working relationship with (name of his coach). He is the person who coaches, on a daily basis, most of the top athletes in Canada. Because of this good relationship I have, he was my instructor for many years, we are friends. I feel very at ease to talk to him openly about anything. So, we discuss a lot about training. We can exchange ideas without feeling threatened by one another or feeling this is a revolution or something like that. I think this is an advantage. This is a plus. I think you have to be able, as a National coach, to have a good relationship with the club instructors. Especially the most influential ones. Otherwise it is not going to work. (FC3)*

However, certain of these acquired qualities learned from former coaches later had to be transformed to more appropriate styles for the Canadian context:

*At the beginning, I was more like him. Now I have changed. I have been teaching since 1969. There are things you can not do anymore because they are obsolete. There are a lot of things like practice, throwing each other. At that time there was a lot of wasted time. (FC2)*

One third generation Japanese-Canadian coach and the European-Canadian coach also learned significant lessons and coaching skills from observing the teaching of others, which were later adapted into their own personal style:

*My father is a great teacher. I think he is an excellent teacher. I think that is his forte at the dojo. I only wish he would get out there more often. I always learn something new every time he teaches. He takes his time. I learn something just from the way he teaches and he has such nice technique and kata. It looks so easy the way he does it. He always gives you little tips or funny things, but they work. (JC7)*

*(Name of the coach) was my Master Coach when I was doing my apprenticeship program with Judo Canada so I would say that I learned a lot from him. I didn't follow his style of coaching, but I learned a lot as far as the aspects of coaching. There are many aspects to coaching organization, managing, and drills. I learned a lot from him. (JC7)*

*Then I met a coach who had a great influence on me. His name was (name of the coach). He was the National coach of the Polish team from 1980 until 1988. He basically brought up Polish judo from an average level to a very high level. He was not only very good in sports theory, but was also one of the promoters of judo in Poland. He was the National Champion in Poland 11 times at the beginning of judo in the early 60's. He brought up World Champions and Olympic Champions. (EC4)*

### External Influences of other Cultures

One French-Canadian coach expressed his view that visits to Japan by foreign *judokas* and *sempais*, or master coaches, resulted in significant developments and progress in judo at the national level, as well as its expansion all over the world:

*It is the same when you go to France. All of these clubs have the Japanese influence. All top athletes have been to Japan to train, even the Russians. Everybody has been to Japan to train. Everybody has the Japanese influence. That is why you are doing judo, because you like the sport and you like where it comes from. Later on, his athletes would benefit from knowing why he is doing judo and Japanese customs and all that. (FC1)*

The European-Canadian coach's views of coaching were also forged by communist, state-based sport science and technology systems established in Poland:

*I think, in general, if you talk not only about judo, about everything, they created a factory. They developed technology and they put money into it. They asked people to look for solutions to certain problems and they developed sport theory. The sport theory of the Germans was more advanced than the Russians or other countries in the Eastern bloc, but it spread slowly. It was spreading across Eastern European countries and we learned that in university. However, many people in Poland never applied sport theory. (EC4)*

In sum, it can be seen that these judo coaches developed their present coaching styles based upon a variety of influences, as both athletes and as coaches. These factors, whether they originated from family, other coaches or cultures, ultimately transformed their own personal coaching style to be more effective within the Canadian context, and helped to develop their personal coaching philosophy.

### Philosophies of Judo

In a sport that has its origins in oriental philosophy, it would be expected that different interpretations of the sport of judo would be present in a group of coaches from various backgrounds and cultural origins. The MUs in this segment represent how these judo coaches defined their own way of understanding cultural norms, and their views of the world of coaching in judo. The three MUs reflected the Canadian ambivalence toward adopting the oriental philosophy of judo:

*The whole idea of yin and yang, positive and negative, and how they interact in nature. I was quite glad that I went through that stage because I learned about something else. I learned about other views than the traditional plastic Western philosophy. I started learning more about this philosophy later on in life. I was able to make the comparison. (FC3)*

Even though of first-generation-Japanese-origin, this coach still maintain a skeptical view with respect to the application of traditional Japanese philosophies in Canada:

*I know I can talk about bushido but it's not my style. If somebody is interested they can read the books. We have the books here that talk about bushido. That is the reason I said that many second-generation Japanese-Canadian judo instructors are more Japanese than the Japanese. They talk about more philosophy and more samurai and bushido than me. (JC5)*

The European-Canadian coach, however, had completely eliminated the mystical, oriental aspects of judo from his beliefs and actions in the *dojo*:

*Judo for me was a sport. For the majority of the population in Canada it is a martial art. That is different. For me, in my country, judo was considered strictly as a sport. Nothing else. (EC4)*

### Rules of Conduct

It appeared however, that the Japanese qualities of attitude, respect, and concentration during training were very important norms within the *dojo*, as best evidenced by the roles of bowing in various situations during training, while still conforming to the Canadian judo context. It is also of interest that traditional rituals were also integrated with more contemporary notions, such as goal setting and mental preparation:

*The bowing is influential because the Japanese have great respect for each other. Especially the older people. In Japan, if they are older that means they are more experienced or they are wiser. They show more respect. It is not like in America. The mentality is totally different. The younger you are the more respect you have for older people. (FC1)*

*Any club or dojo will have rules specific to that club, but general rules such as respecting all people, are important for all clubs. These kinds of things kids learn when they go to school. They also learn what to do when you step in the door. The Kodokan, when they have a sensei kneeling down to bow to enter the dojo, you bow. They don't do that now. International rules state that you stand to bow. Now at the Kodokan you have to kneel. You have to bow. That's what they teach you. The kneeling position bow is just for kids. It's not like here. Kids say, "Why? Why do they do that?" Some other kids say, "No, we don't bow like that." (JC5)*

*I try to put my foot down as far as respect goes and bowing and sitting on the mats. I would tell the athletes to do it. If they didn't I am not sure what I would do. Maybe, I would tell them to leave. (JC7)*

*It is part of the sport itself. When we start to practice, traditionally, we always bow. After practice we always meditate. Meditating is not just to meditate. What (name of the Master coach) likes to say is that during the time that we meditate or bow before practice we should have in mind what we are supposed to do for the next two hours. Then, if you meditate after practice, it is for, "Did I do what I was supposed to do?" and, "If not what should I do?". It is for your own self-analysis. Before,*

*it is to focus on what you are supposed to be doing. It is like mental preparation. (FC1)*

Within the current Canadian context, the traditional Japanese philosophies were also transformed by the Japanese-Canadian coach as he adjusted to this new environment:

*When I first came here in 1968, and I had a group of students who were very nice and respectable people. I didn't speak English or French, so I used my hands to speak, and they tried to understand me. They tried to teach me technique and everything. They became more Japanese than me. I found out that these nice and respectable people, judo-wise, were technically good but they weren't very good for medals. Competitive-wise they were good, but that doesn't make a champion. (JC5)*

This coach later reported better results in training after making a personal change, by behaving in a Japanese style that was less strict which allowed the *judokas* more freedom in the *dojo*:

*After that the second generation of young people started training, I didn't enforce manners, too much. They were a wild bunch of guys, with no respect for the etiquette of judo. Those guys started performing. If you are nice and say, "Yes, sensei for this and that" you won't become a champion. They are not like tigers. So I didn't say anything to the second or third generation of guys. I didn't enforce etiquette and all those Japanese manners. They were just a wild bunch of Canadian kids. So these kids started performing really well. (JC5)*

It is of interest that while the Japanese ceremonies and rules of conduct were compulsory in Canada, they were totally eliminated from the judo in Russia during their state run regime:

*No, it's not optional. The ceremonial aspects of judo practice were always followed here, unlike Soviet judo in Russia. They accepted judo, but the coaches there had their whistle and nobody bowed. They did not adopt the Japanese nomenclature. They had everything on their own. They even could train in shoes at that time. Bowing was absolutely unknown to them. They didn't know what bowing meant. (EC4)*

### Role of the Coach

Both the French and Japanese Canadian coaches had established multiple rules of conduct for themselves depending on the needs and goals of the athletes:

*I think one of the tasks of the coach is to let people be autonomous. We have to give them autonomy. So, the first thing you have to learn is force and weakness. Look at your level and find a weakness. If you cannot see a weakness, there is a problem. There are a lot of problems and when you are a shodan you cannot know everything. If they cannot say, "I have difficulties with that", we have to show them. (FC2)*

*The other thing is my role as a teacher. In the dojo I'm doing two jobs. One is a teacher or instructor. The other is the coaching. To me it's not the same thing. We have different classes. Judokas who are six to nine years old. Then 10 to 15 years old. Then also 16 to 74 years or older. Recreational judo and team competitive judo are separate. For recreational judo there is more teaching. They like to learn techniques so there is more teaching. (JC5)*

However, the European-Canadian coach was more pragmatic in his views of appropriate training behaviors for successful competition:

*I don't think coaching is about being a guru to an athlete in the time of competition. Showing technique and giving them advice on mental training or who can be on the mat and advice on how to beat this or that guy must come through the training. If it doesn't come on a daily basis in the preparation, it is not going to help them in the competition even if the greatest guru is just beside the tatami. I believe coaching is about giving the right training to athletes. (EC4)*

*Students should be given the basic principles of anything they do, which including the technique. By basic principles I mean mechanical principles will make them do it safely. Everything else is up to them. I believe in that. I was not taught that way in Poland. I came to that conclusion when I started to teach people first in Poland and then in Germany and then in Canada. This is the way to do it. (EC4)*

### Summary

The characteristics of the judo coaches were a product of many life experiences. Coaches were influenced by various cultural and training methods of different countries

during their career development, both as athletes and as coaches. Family appeared to be a very important support group for most of the coaches' careers, particularly for the four Canadians whose fathers were involved in the sport. All coaches were greatly influenced by the philosophy of Japanese judo, however, there was a noticeable transformation in their beliefs, now viewing judo strictly as a sport with useful traditional Japanese rituals, but not as a way of life. An exception could be made for coach (JC6) who considered judo to be a way of life with her family. The cultural characteristics present in Canada contributed to various transformations of judo coaches, resulting in adaptations of their coaching styles and thus allowing them to coach successfully within the Canadian context. This adaptation was particularly influential for those coaches whose country of origin was not in Canada.

### ATHLETE'S PERSONAL CHARACTERISTICS

The meaning units characterized in the *athletes' personal characteristics* component were defined as those factors that contributed to Canadian *judokas'* within the Canadian context, for both *developing athletes* and *Olympic level athletes* (Table 8).

Table 8

#### Occurrence of Coaches' Identification of the Category of the Athlete's Personal Characteristic Component

Category
Developing Athletes
Olympic Athletes

### Developing Athletes

The development of less skilled Canadian *judokas* was perhaps to be expected considering the Canadian reality and the relatively permissive nature of the lifestyle. Even though the coaches came from different ethnic backgrounds, they agreed that judo in Canada was unique because their particular cultural backgrounds had to be integrated into the Canadian judo context:

*Well, you don't want to make it too hard. If we did judo like they do in Japan everybody would quit. Don't you think? It is too hard. Practices are very long. (JC6)*

*This is a Japanese way to do it, but in Japan they want to make the team. They don't mind the price. They want to be on the team. In Canada, it is quite different. They do not want so much to be on the team. They want to practice. Don't threaten them. (FC2)*

*It was like the tougher you are the better you fight. That is when injuries happen. We do not have the same mentality as the Japanese. Over there, you come whether you are injured or sick. You come to practice. It makes you a man. It is more like the army. (FC1)*

One Japanese-Canadian and another third-generation Japanese-Canadian coach shared their views of developing athletes in Canada:

*I think it is important. I don't think they have the same discipline or motivation like judokas do in Japan where people just get beaten up for six months and then they start doing judo. The people here won't last like that, so you have to take it down a little bit and do things in a more structured way. (JC6)*

*I made a three-year plan before the 1976 Montreal Olympic Games. For the first year they went there to train with the Japanese. They didn't have to beat them when they trained, they were just supposed to train as much as they did and watch what they did. We sent three to five guys. We put them in (judo school) at 5:00 AM or 7:00 AM in the morning to start running and two or three times a day they practiced judo. They did that for three months and then one guy came back. He lost his girlfriend, so he quit judo. He came back and he said, "Sensei I quit judo. I have had enough. In three months I did a lifetime of judo training." And I said, "Come on you just started." He said, "No, no, no. I*

*lost my girlfriend and everything. Forget it. I quit judo." (JC5)*

This contrasted with the European coach's perspective of athletes in Canada:

*Going back to what I said about the Olympic Games in Barcelona; I think we were doing our best as the coaching team and somehow it wasn't enough. I don't know what the solution is. We brought up the expectations of the athletes to higher level than it was possible for them to achieve. I believe all of them achieved their maximum potential. They were being totally unreasonable, which is probably normal for athletes sometimes. I don't know, maybe it's not the right thing to say. They expected more. They expected medals. Their dreams became the reality for them. Only a few of them could assess their potential in a reasonable way. Most of them assessed their potential according to their dreams, so they did not achieve their potential. Of course, the problem was the training. (EC4)*

### Olympic Athletes

In terms of top level athletes, Canada is unique since it currently has only one current international caliber athlete who has any chance of winning medals. While the French-Canadian recognized his ability, it was unclear how much of this success was due to the individual characteristics of this particular athlete or to the quality of Canadian coaching. What is of interest is that this current Olympic medalist is the only Canadian at that level and was probably successful in spite of the Canadian "system", otherwise more athletes would have been successful. However, several Canadian coaches were consistent in their appraisal of this Olympic medalist:

*I saw him at a tournament lately. In France, at the big international tournament, he won three matches simply by bringing the opponent down and keeping him there. The opponent got stalled out of the matches three times. He is so strong and so powerful that he can do that. Most of our athletes cannot do that. (FC3)*

*If it weren't for (an Olympic athlete), judo in Canada would be pretty ordinary. He has brought a lot to Canadian judo. Everybody is more aware of what judo is and he is a super good spokesman. He speaks well and he has a good attitude. If he loses, he blames himself. He doesn't go, "Oh, I had a bad day." or "My shoulder hurts." I think he is a good example for kids. For people, or especially kids, who want to*

*continue with their judo career he has helped a lot in Canada. (FC1)*

The European-Canadian coach believed that in general, athletic success was the result of working within a solid system, then permitting *judokas* to have the necessary freedom to optimally perform:

*I believe that athletes who reach a high level of international performance can be left alone. You don't have to interfere with them anymore if they don't feel you can help them. If they find somebody else who can help them more or they feel just more comfortable without your help then it's better for them. But, if they came through a system which tells them how to get to that level they will never make great mistakes. They will never harm themselves. If you have athletes who have never encountered a good training system and they tell you that everything you are trying to do is wrong and they will follow their own way, what they are basically doing is undermining all of the work of the coaching team. (EC4)*

The European-Canadian coach was even more specific regarding modern techniques used by the current Canadian Olympic medalist, both in terms of the importance of properly gripping the opponent, and also in the process of overlearning and fighting in an automated state:

*That is an absolutely unbelievable example of everything that is required from today's champion in judo. The guy who does every throw in every direction and can work for five minutes at the level of intensity which nobody else except (an athlete) is capable of doing. Everybody else would be dead and on top of that nobody can grab this guy. The first thing he does is rip off all the possible grips which are applied on him and as soon as somebody has a grip he is under left or right. He throws for ippon on everybody. (EC4)*

*In today's very high level competitive judo, athletes are acting unconsciously during the match. During the match, when there is a longer break caused by different reasons, athletes have time to think. Only very few very high level athletes are capable of thinking and realizing what they are thinking during a match because most often everything happens unconsciously. They have to respond unconsciously in order to be able to defend or to find a solution. Unconscious reactions are so sure but they are not trained properly if they are not repeated over and over again. (EC4)*

## Summary

Coaches reported that the Canadian athletes' characteristics differed from their counterparts in Japan and Europe because of the more relaxed and informal nature of the Canadian judo context. For the Canadian *judokas* who are still practicing judo at lower levels, the price paid for becoming a high-level competitor appeared to remain too high for most of them to excel. There was however, a small dedicated group of coaches and athletes who were working diligently to compete at the international level and who sought better systems to direct their training. Presently, only one Canadian athlete from this group has had success at the Olympic level, though it was not clear if this athlete's accomplishments were a result of the Canadian judo system, personal efforts, or from constant training abroad.

## ORGANIZATION

The MUs that characterized the *organization* component were defined as the knowledge, skills, and beliefs used outside of training and competition, which naturally refer to the training process in order to maximize performance outcomes in judo. The categories were mainly related to planning for training and competition, both of a *traditional* and a *scientific* nature (Table 9).

### Table 9

#### Occurrence of Coaches' Identification of the Categories of the Organization Component

<u>Category</u>
Traditional Approach
Science Based Approach

### Traditional Approach

All of the coaches were in agreement that the sport of judo has evolved from Japanese forms of training based on traditional practices carried out over centuries to the current sport science-based practices:

*I think judo has evolved. All sports have evolved. Before, we weren't looking at macro cycles and micro cycles. Before it wasn't like that. You just trained as hard as you could and you went to a competition and hoped you did well. We weren't looking at rest periods and nutrition and all that. Basically, you kind of knew what you were supposed to do. (FC1)*

*Japanese judo is changing, but still basically not that much change. They have spent 20 years with a science committee testing everything they do. They make reports all the time. Then the scientists said, "Thank you very much." And they put the reports on the shelves and they still coach the same way. When they are coaching the judokas they never integrate the information from the reports. For example, what is physically different between the Japanese fighter and the European fighter? They have all the data and they did the testing and everything, but still they don't use the information. So I think they train the same as I did in my time. Five hours of hard training every day. (JC5)*

Despite the availability of sport science information the European-Canadian coach still thought that a majority of coaches in Canada still maintained many of the same methods of training used in Japan:

*They were used to the same kind of training over and over again for 20 years. They came to the dojo and they did the same kind of warm up every day, every time of year. The same kind of warm up exercises and then randori. Nothing else. (EC4)*

### Science-based Approach

Some French-Canadian coaches have evolved in their organizational skills by using acquired knowledge from their practical experiences, combined with a more science-based form of organization:

*If I am a coach, I am teaching judo the sport, and judo the sport is something which is bound by specific rules which affect tactics. And judo the sport is bound by rules which affect physical preparation.*

*So, the sport of judo is a very rational endeavor. You have to be very logical, rational, scientific if you want to do judo the sport. (FC3)*

*It is an idea I had arrived at more or less independently, years ago. I had developed a sort of different periodization training that was reinforced talking to (a coach). When I talked to him he told me about the way the Europeans train now and this kind of stuff. I could see it in my mind and it sort of made sense. It sort of resolved some of the confusion I also had. (FC3)*

Sometimes, French-Canadian coaches complemented their own experiences with the use of sport scientists who provided specialized information for their organization:

*Now I have an athlete who failed to make the Olympics in my dojo I don't give her any weight training program. I am not a weight training coach. I don't know about that. I do some things, but I am not so sure. I give it to the weight training coach. I'm only the judo coach. That is different than before. I have many specialists helping me now. (FC2)*

In the beginning, the European-Canadian coach initially succeeded in implementing his science-based program of training:

*The first two to three years, when I was training with the National team, I considered myself much more a sparring partner than a coach despite the fact that I prepared a training program. I developed a program for training preparation until 1992's Olympic Games. It was very specifically prepared. I knew it should be done according to sports theory. We made the team work according to the specific problem. (EC4)*

However, later on the Canadian athletes began to resist these more rigorous training methods:

*I gave up a lot of my ideas about general training, or general preparation, or general coordination. I basically gave up all of the parts of exercises, which I try to incorporate in training with the team for the first two years. First of all, I realized that it was not well liked and second of all, I had to find what was most important because I could not incorporate everything that I wanted to. (EC4)*

### Summary

All Canadian coaches recognized that their judo had evolved from a traditional approach influenced by Japanese judo, to a more scientifically-based coaching system.

However, it appeared that the traditional Japanese view of the organization of practice still predominated, even though some coaches indicated that they were adjusting to the new scientific forms of training in judo.

### TRAINING

The MUs which characterized the *training* component were defined as the knowledge, skills, and beliefs used by judo coaches to create an appropriate practice *atmosphere* for their *judokas*, as well as to develop *strategies* for the acquisition and performance of necessary *physical, technical, tactical, and mental skills* essential for competition. In addition, several *recovery* strategies were developed in order to obtain maximum benefit from the demands of training (Table 10).

Table 10

Occurrence of Coaches' Identification of Dimensions, Properties and Categories of the Training Component

Category	Property	Dimensions
General Training	Teaching Atmosphere	Discipline Positive atmosphere Fun/- Humor
	Teaching Styles	Work Ethic
General Strategy	Physical Technical Tactical Mental Recovery	N/A

### General Training

The coaches' knowledge bases varied from those developed from their own experiences practicing judo, combined with taking formal courses for training of a more scientific nature. All coaches had their own beliefs about how to provide the best form of training in order to prepare their athletes for competition. The forms of judo training varied according to the receptivity of the athletes and the nature of each coach's personal philosophy. One French-Canadian coach pointed out the need to explain to the athletes the difficulties that they might encounter when they began training at the Regional Training Center as compared to in their home *dojos*, due to the demanding competitive characteristics of this training environment:

*Those judokas who moved to the Regional Training Center from outside of Montreal already know what it is going to be like from talking to me or from talking to other people who train here. Of course not everybody makes it through the system. It is understandable. Judo is not exactly a non-combat sport. It is very competitive. You actually get thrown, hurt, thrown about and hit the wall. (FC1)*

Training for high-level competition demands a considerable time commitment as well as a great intensive practice for optimal preparation of athletes:

*Everyday. They train judo every night plus whatever the weight program is and jogging or whatever activities they are doing. You are talking about two and a half-hours every night plus Saturday. That is 12 hours plus three or four hours of weights. You are talking about 20 hours a week of exercise. (FC1)*

In order to succeed at the international level, coaches needed to focus on innovative training approaches for competition that required significant amounts of speed training:

*Maybe a match is going to last 20 seconds or 10 seconds. You don't know. Your system has to always be at a high level. Your reaction speed, your attack speed, your defense speed must be at a high level. It is not just your body, it is mentally too. (FC1)*

One Japanese-Canadian coach combined various training styles to adapt to the demands of international competition:

*I was studying the different styles and I tried to mix the whole thing. After that I created the mixture of the power and the technique of judo. So it's not exactly following Japanese style or Russian or French style. We try to mix all the good things, the different styles. (JC5)*

However, the same coach was obliged to make changes in his own training mentality and that of his athletes, especially with respect to training abroad:

*We went to Japan before the Olympic year and we made matches with the university. It was not a strong university. Win, lose, win, lose like this. We did not do much Japanese training style, so I pulled them out. "OK, one day rest today. Tomorrow we meet with these teams. You will have two or three matches each." They totally changed their mentalities. We didn't lose to the Japanese competitors. For myself too, I adopted Canadian thinking as soon as I got the international head coach job. I got citizenship and I said, "Look I am Canadian. You are Canadian." (JC5)*

*Most of them go to Japan and they try to imitate Japanese judo and they lose what they learned so many years before. They come back just trying to imitate the Japanese. It's no good. So I don't suggest that to anybody. I only say to people, "OK, you go now and make a plan. A yearly plan. A four year plan. This time next year you go to Japan for so many months and then come back and three weeks after that go to Europe for two weeks." Then they can see the difference in training and technique. Everything is different. (JC5)*

The European-Canadian coach's vision of training was complex, detailed, and demonstrated considerable knowledge of sport theory:

*Training is when you have goals. You know what you want to achieve and you know how to achieve those goals. You know how to work on this aspect of physical fitness. How to work on this aspect. Because training for strength and speed, speed endurance, strength endurance, and general endurance requires different tools. Not to mention tactics, strategy or mental preparation. (EC4)*

This coach further explained the specific nature of training for judo competition:

*It is very difficult to say how many thousands of times it must be repeated to make the ready pattern in your mind. It's impossible to develop them to that level during the competition. If something that is not trained is required during the competition, it is only a matter of luck if you are able to defend. It is not statistically right to expect that you are going to do something that you have never done in your life. What the training is set up for is to prepare athletes for this kind of situation. (EC4)*

His perspectives of training top international judo teams suggested that most countries in the Americas, including Canada, were not training correctly for high level competition:

*Young athletes in this country see a Pan Am Champion trains in such and such a way and they think that it is the right way of training. In fact, the level of the Pan Am Championships is way too low to give a chance for reasonable conclusions. It is still possible to win gold in the Pan Ams doing totally wrong training. That is why Cubans win 70-80% gold - they learned sport theory in East Germany. In categories where Cubans do not have a very strong man or female, somebody must win. It may be Canadian - why not - all other countries in the Pan Ams still practice judo just like in the 60's. So we are on the same level. But this kind of training will not bring a success in the Olympic Games or the World's. (EC4)*

This coach also stated that in order to produce champions, the best training system was not just intensive training but also required reflection by the *judokas* on their actions during practice:

*But once again, it is not the practice. It is not the practice that makes champions. It is the perfect practice that makes champions. The time put in and the effort put in and the sweat put in means absolutely nothing. It's just crazy. It drives me so nuts. A guy goes to university and has a physical education degree. He knows all the theory on the physiology of training. When he comes to the dojo he pushes athletes to death to do more when they can't do anything. He is driving them crazy with endurance training and then after that is going for speed training. After two hours of training and speed uchikomi and speed drills I say, "What the hell is all this knowledge for?" Where is the knowledge? I know he has the knowledge because I just talked to him and there is no application of it whatsoever. Zero. It is nuts. (EC4)*

## Teaching Atmosphere

The practice of judo is long and painful and requires considerable discipline, motivation and determination from the judokas as reflected by its Japanese roots. However, the implementation of such practices in Canada required a number of adjustments.

### Discipline

Over time, the coaches' beliefs about discipline had to be adjusted to the Canadian lifestyle of their athletes. Some coaches, even though they knew that their athletes were required to train with intensity, were less strict since their own athletes, especially the adults, were old enough to be aware of their own needs. Other coaches changed their training regimens for different reasons, and those with radical coaching styles were forced to adopt a less disciplined approach. One French-Canadian coach believed that certain athletes had different mentalities depending upon their country of origin. Therefore, training rules could not consistently be applied to everyone:

*He (his master coach) doesn't like people being late. He believes that when you come here to practice you practice hard. It is hard to keep that kind of control or attitude. The kids that are coming up, the athletes that come here, all have different mentalities. Like in the province of Quebec, people here have different mentalities. (FC1)*

This coach also said that he liked to push the athletes without being too strict:

*I am not exactly known for being really strict. I train people hard, but I am not strict. There is a big difference between being really strict and making them really train hard. You have to want to train hard. You can't make somebody train hard. They can easily fake it. (FC1)*

Another French-Canadian coach reported that he learned his judo through the old Catholic style of discipline predominant in the school system of Quebec in the 1950's:

*The discipline changed. In the 1950's it was like a school. In Quebec*

*City there was a religious system. All the priests and the brothers were in the school. That was the model of teaching. Everybody, who was coaching at that time, was coaching as the brothers in the class. It was like that. It is impossible to talk. It is impossible to ask some questions. If you didn't understand you just had to leave it alone. We were not allowed to ask a lot of questions. We could ask one or two and if you didn't understand after that, get away. (laughter) (FC2)*

Even though one coach said, “My teaching style is fairly traditional” this coach used a more relaxed type of discipline:

*For the elite, discipline should already be there. I try to have a fair amount of discipline, but it depends. For me, when I was coaching the National team, I found it tough because a lot of them were just a little bit younger than me and some were even older than me. It was tough for me to be the heavy disciplinarian at that time. It was more of a relaxed type of discipline. As far as their discipline at tournaments, I had to make sure that they were very respectful and that they had good discipline. (JC7)*

A third-generation-Japanese-Canadian coach shared the same belief:

*When they are young there should be more discipline, but when they get older they are going to have their own ways of doing things. The older the athlete, the more space you have to give them. For guys 28 years old, they are going to have their own ideas. They already have their own ideas. They are going to think they know it all anyway. They probably know everything. (JC6)*

However, this coach still believed that hard work and disciplined training helped many athletes in their future lives:

*A lot of these guys in judo work pretty hard. So, maybe they take that work ethic and apply it to other things. A guy like (an athlete), for example, he was a champion many times for 65 kilos. He did a lot of ground work. He was a really hard working guy. Then he went into university and he got really good marks because he was so disciplined. He studied hard and he got into the M.B.A program at Western. He did really well. It is an example. It can be a way of life for a lot of people. You are probably an example too because you did judo really hard and now you are doing your Ph.D. (JC6)*

The European-Canadian coach emphasized that athletes needed to have the discipline to train, otherwise they would not succeed at the elite level:

*You will know exactly what is happening when you are going for ippon, but you can't do anything about it because you didn't practice it. To practice is to repeat it 2000, 3000 or 5000 times if necessary. Similar situation. It is boring. Yes, definitely it is boring, but you have to do it if you want to be a World Champion or an Olympic Champion. If you have this problem, because it could happen that somebody has no problems whatsoever. (EC4)*

#### Positive Atmosphere

The development of commitment, attitude and appropriate behavior for the training environment appeared dependant on each coach's particular beliefs, which were developed during their careers as athletes and as coaches. Based on these beliefs, coaches tried to create a coaching environment that best suited their own needs as well as those of their athletes. Fun and humor were often incorporated with intensive training and this formula seemed to be the best for Canadian *judokas*. For instance, one coach talked about the importance of establishing this kind of training atmosphere:

*(Name of his athlete) on a good work out or hard practice, will lose seven to nine pounds in pure sweat. That is a lot of intensity. We don't stop. That is why it is so important to have a good atmosphere here or you get physically and mentally drained. (FC1)*

According to some other coaches, the training atmosphere was very important to promote maximum performance for their athletes, and one of them included music to created this environment:

*We did some drills and put on some music. If we were doing a monotonous drill, for example, we would put some music on to help keep the motivation up. We used to do things as a team and tried to have some fun. We tried to have good one-on-one communication. I think maybe the sensei was pretty traditional with his coaching at that time. Later on I saw him playing some music at some practices. (JC7)*

## Humor

The characteristics between the training groups varied in terms of their goals. However, the importance of promoting a congenial environment for the athletes was unanimous among all the coaches, independent of the level of their athletes. Basically, it appeared that fun often developed while incorporating a specific drill during training, and joking with the athletes or playing a game. The recreational aspects of these activities and the maintenance of the high spirits of the *judokas* were vital environmental forces for these coaches. For instance, one French-Canadian coach of an experienced group of black belts stated that "If you look around, who stayed in judo? People who had fun" (FC1). He often used games to add a bit of enjoyment to the environment before the start of practices:

*When you have 40 guys after you, you have to be mentally prepared and strong. When you incorporate games and events it kind of takes their minds off practice. Practices are hard. (FC1)*

The use of humor at the right time, also helped the athletes cope, even when they were getting thrown:

*If you add a bit of humor it kind of relaxes the situation. They will go back to their actual style instead of trying to be, "Oh, I got thrown I have to get even." In judo you can't get even. Every time you get thrown it is because you made a mistake. You have to analyse. (FC1)*

*It has to add to the atmosphere. It doesn't matter if you get thrown. Big deal. Don't even think about it. If you start thinking about it every time you get thrown then you will start getting disappointed. You try to change their frame of mind by going, "Oh, it is no big deal to get thrown." or you laugh about it. It makes them not think about the mistake they made. (FC1)*

Another coach of experienced athletes also believed that they needed to control rivalry and that fun could help them cope with mistakes during training, thus facilitating the creation of a pleasant environment:

*I think that sometimes the training gets too serious. Sometimes they get too aggressive and make some jokes. Sometimes they make a mistake. Then I make some jokes and forget about it because otherwise it will hurt their egos. Then they get stiff and don't want to fall. That is no good. So I change the atmosphere and the feeling and also motivate them. A little laughter for their egos. Nobody wants to fall. Sometimes they fall and they get so mad on the inside so I just throw out jokes. (JC5)*

### Variety

One coach of a group of *judokas* with different belt levels explained the importance of involving athletes in the practices, both to aid in their thinking processes and at the same time, to have fun:

*They have to be involved. We have to make people involved with their practice. If they are just there and you say everything they are not involved. They have to think and they have to get involved; mentally, not only physically. "Okay, we are going to make 20 minutes of randori." That is not enough. They have to get involved, not just 20 minutes. You have to get them involved with a lot of other tasks. It changes. Training has to be varied. Each time you come, you don't do the same thing because they don't have fun. (FC2)*

### Teaching Style

Coaches were accustomed to coaching based on their own experiences that they had learned over the years in Canada and which were adapted to their current circumstances. They also learned that *judokas* in Canadian society would not accept the Japanese work ethic and style of judo training.

### Work Ethic as a Personal Choice

Coaches attempted to adapt their coaching styles by focusing on their athletes' personal choices. This formula helped Canadian coaches better deal with individual

levels of commitment during training without pushing the *judokas* into unacceptable practices. One French-Canadian coach allowed his athletes to choose their own level of responsibility with respect to training:

*The second thing, as I said, is I always want to deal on an adult to adult basis. I think athletes should be able to understand the consequences of their actions and then make a choice. (FC3)*

Another French-Canadian coach explained this issue in this way:

*I don't call because if they want to have a party and have a lot of play it's OK, but you cannot be the World Champion if you do that. It's not my choice. It is their choice. If they want to succeed they have to be very disciplined. I don't have to make the discipline anymore. I let them choose. If they don't come to the training in the morning then I say, "It is impossible. You cannot make it." (FC2)*

Athletes needed to pay a high price for their level of commitment and this decision had to be a personal one:

*We have a different group of these kids. Like (name of his athlete) and about five or six others whose objective is to get medals and to win an award in the Olympics. They are dedicated. Instead of school taking three or four years it takes seven or eight years. They don't mind. That is the first group. For the second group, school and judo are almost equal. The third group puts school first and then judo comes after. There is nothing wrong with that. That is up to them. They have to decide. It is not for me to decide. (JC5)*

A third generation Japanese-Canadian coach added that without commitment to training, athletes could not succeed and the result would be failure, even for the most talented:

*I had a couple of very good athletes that I couldn't motivate from the grass roots level. I couldn't motivate them to put that training into it. They were very talented, but they didn't have that work ethic. (JC7)*

One Japanese-Canadian coach was obliged to change his attitudes with his athletes, leaving them free to decide about their futures in judo:

*But in 1982, I wondered, "What am I doing?" After that I changed*

*my ways. If you want to do it, I will help you. I can bring a horse to water, but if he doesn't drink I cannot force him. In the same way I said, "Okay, if somebody wants it, I will help them as much as I can, but I'm not going to drag them out of bed and drive them down to the club for training." (JC5)*

This coach went on to explain that he was forced to create a “Canadian training atmosphere” to succeed in his career:

*I found out that I needed to change my way of training around 1982. I said, "It's not good just pushing, pushing, pushing." Then I stopped pushing. Instead of pushing when they came to me I would talk to them and then they wanted to train. So we changed the environment. That's why the kids come here. I said, "Fine." That's why the kids come in from outside. We don't take kids under 18 years old. The minimum is 17 or 18 years old so they can go to university or CEGEP. Not before. (JC5)*

The same coach understood that in Canada, athletes needed to have fun while engaging in judo, otherwise they would not continue to work hard during training:

*Here you have to keep them motivated. They have to have fun. They like to have fun in judo. They can even come here every day and be thrown by (Olympic medalist), but they have to like it. That's the kind of environment that keeps them coming and training. We just have the top A group. As I explained to you before in the top groups there are maybe 5-10 people. We cannot make them all champions. (JC5)*

Another third generation Japanese-Canadian coach also understood that a more relaxed atmosphere helped athletes maintain their interest in learning:

*It has to be structured, so you are not feeling repressed as an athlete. You have to have the feeling that you are there because you want to be there and you want to train hard. You don't need someone always yelling at you. You want to have some enjoyment out of doing judo just for doing judo. At the same time you don't want the atmosphere to be too harsh where you feel that you are going to get beaten up or the sensei is always yelling at you like in a marine boot camp. (JC6)*

However, the European-Canadian coach expressed an opposing view to the role of fun in high level judo, that is, that focusing on the task was more productive than having fun:

*He did everything according to what we asked him to do. He was ready for the competition; for anything that was possible to come. He felt better than ever in his life. Later he said he didn't have fun and he didn't feel his judo. He beat the World champion. (EC4)*

### Democratic Style

Coaches had different teaching styles but seemed very convinced that the dialogue between the coach and the athlete was one way to sustain motivation and the spirit of the group. Some of them believed that feedback from the athletes was also important for the mutual progress of athletes and coaches.

Several French-Canadian coaches tried to stimulate reflection in their athletes in order to solve certain technical problems:

*Personally, I would like the athletes to always question what I am saying. I don't want to tell athletes to do this and leave them with that. I want to be able to say, "You should do this because..." and I want the athlete to think for him or herself. I want to convince with logic than with decree. I don't decree something. I would rather the athletes understand and get back to me because if my logic fails then I am ready to change. I'd say, "Okay you have a point, maybe you are right. (FC3)*

*We discuss with the athlete in a relaxed way. You have to be friends because we are going in the same direction. I have more experience than them. We have to be not the boss and the employee or the boss and the slave. (FC2)*

*I never say to an athlete, "Oh, that is stupid." I always say, "Try it this way instead." or "Why do you do it this way?" I ask a lot of questions and it makes them think twice. Sometimes, you just do things not thinking why you are doing it. If you ask them why, sometimes they say, "I don't know." "Why don't you try this way?" "Oh, I never thought of that." (FC1)*

Another French-Canadian coach learned by experience that shouting was inappropriate for coaching Canadian athletes and consequently, this resulted in a significant number of dropouts: "We lost a lot of people. The training was too hard and I

imposed things.” (FC2) This coach also had to change his style of maintaining discipline to survive in his business:

*Before we used to shout like that. There was nothing else. People now won't accept that. In our society people won't accept that anymore. Articulate people won't accept that. You have to argue with the athlete. "If you do that you will fail because of that and that and that. It is your decision now." Don't shout at them. "If you do that, I will kick you out." He will do it, against his own will, because he wants to get in the group. "He will do it but not with his heart. His heart says no and his body says yes." You have to convince them that it is a good way to train. (FC2)*

However, the European-Canadian coach's lack of understanding of the Canadian judo mentality interfered with his initial attempts instructing Canadian athletes:

*When I came to Canada, because of lack of good communication skills, my English was very poor. I used to use "must" a lot, meaning you have to. They called me Captain Intensity from the beginning. Because they said, "We must. We must. We must." I didn't say, "You must." because if they didn't do it I would kill them, but that is how they considered my asking them to do something. (EC4)*

Another French-Canadian coach stated that athletes in judo must be treated with respect and the establishment of a personal link with Canadian athletes was what really mattered most:

*Also, as a coach, to be able to convey that you really love the athletes. I think that if you are there and you take them seriously, that they are grown ups and you treat them like adults. I believe in that more than, BANG, BANG, BANG. Especially in Canada. (FC3)*

### General Training Strategies

Coaches were required to prepare their coaching strategies by providing their athletes with the best and most innovative knowledge possible, in accordance with the characteristics of the Canadian *judoka* training within the Canadian context. The

following coach discussed the trade-offs between training and competition with one of his athletes:

*What is one more tournament when you could maybe go to a training camp? You will learn a lot more in a week doing a training camp than you will doing a tournament. A tournament is, of course, very important, it is mental and physical preparation. But when you are going from tournament to tournament, your physical preparation starts going down because you can't train anymore. You have to stay at a high energy level for the tournament that is the week after." (FC1)*

Another French-Canadian coach intended to train his *judokas* based on four qualities required for exceptional athletic performance:

*The first thing I want them to be is healthy. Strong. I am going to tell them, "I want you to be the strongest, physically, you have ever been. Confident. I want the techniques that you know how to do now even sharper." Four simple things. It sounds simple, of course, but there is a lot of work that goes into those four things. (FC3)*

This coach also adapted a program of training for his athletes based on periodization principles developed in European sport:

*I think the system I described to you was fairly much adapted from other systems. I think this idea of dividing the training into blocks of intense judo and recovery and strength training is something that many European nations do now. (FC3)*

The constant changes of the rules in international judo competition obliged one Japanese-Canadian coach to adjust to new forms of training in order to provide athletes with the latest training information:

*Well at first he cannot adopt to it, but if you are training for three months then he can learn it. The International Judo Federation changed the rules and judo changed so much. Athletes used to have their kimono sleeve small like this. Now they have to have five centimeters from here, and here it is 10 centimeters. Now you can grab more than before so judo changed. You have to adapt all the time and give information to athletes and we have to change training for them too. (JC5)*

However, the European-Canadian coach remembered that the traditional *randori*, or sparring, would not be enough to adequately prepare athletes at this level:

*Randori is not going to prepare today's competitors for what is required of them during high level international competition. Preparations and the right approach towards physiological preparation through tactics and strategy are needed. There are several hundred different ways of doing things. (EC4)*

### Physical

Judo is a sport in which from the moment one enters the *dojo*, until the end of practice, the athletes are continually stressing the physical components of their body with each maneuver they execute. However, coaches also attempted to incorporate very specific physical training to prepare their athletes for various levels of performance. One French-Canadian coach mentioned the importance of the endurance aspects of physical training because of the necessary power that athletes require during international competitions:

*The other thing I will do, is I will probably underplay the endurance aspect of training. I believe that the endurance training outside of the mat adds needlessly to the tiredness of the athlete and the athlete's ability to gain strength. I want the endurance aspect to be trained on the mat. That means that when they will be on the mat they will train hard within limits, but they will train really hard. That is where I want them to gain the endurance, which will be very specific to the sport. (FC3)*

*I believe that they must become strong enough not to fall prey to that kind of tactic (of the Koreans). I am a strong believer in strength training. I think it is important that athletes improve their strength and I believe, at this moment, that none of our athletes, except for (name of an athlete), have yet neared their potential in strength. I know that there is still great improvement that can be done very quickly in that area. If they are still far away from their potential improvement will come quickly at first. (FC3)*

The European-Canadian coach was more specific with respect to the complexity required in training these physical qualities:

*Physical training did not include anything related to judo. It included; exercises with partners, speed exercises, strength, calisthenics, this kind of stuff which built up general fitness and coordination. (EC4)*

*You know what you want to achieve and you know how to achieve those goals. You know how to work on this aspect of physical fitness. How to work on this aspect. Because training for strength and speed, speed endurance, strength endurance, and general endurance requires different tools. (EC4)*

### Technical

Coaches were also required to apply various training strategies using specific techniques appropriate for the size of their particular groups. The coaches' approaches varied depending on the total number of black belts present in the *dojo*, or the ratio of black belts to lower level belts. Within this particular context, coaches were required to be creative in order to best deliver their messages. For example, one French-Canadian coach divided the mat into two areas of training and worked separately with the lower level belts:

*I would have to change the training to adjust to the number and levels of judokas. Usually, there are maybe 40 people on the mat and 20 are brown or black belts. Half of the class is made up of very experienced people. I put them on the mat and I work with the beginners. (FC2)*

Sometimes the higher level belts were required to teach techniques to the lower belts:

*Once I did that for half of the time of practice. "Half of the time you have to be teaching ouchiwasa with her." You see? You have to teach the beginners. You have to work with young people, the inexperienced ones, because if you can show or demonstrate or teach. Yes, but I have to understand it before. You have to think how it works in order to explain it to the beginner. (FC2)*

This coach also tried to help the beginners and lower level belts have a better chance of not being thrown:

*For example, when they are fighting with green belts I say, "No arms. You have to block with the hips. I want to see that." It is quite difficult. The green belt, the beginner, or the less experienced people have less fear to fight because they know they won't be thrown on their heads. I stipulated the techniques. They improve. Both improve. (FC2)*

This type of strategy seemed easier to introduce than those adapted from Japanese judo:

*They say, "How do you do that?" They throw you 100 hundred times. "I do it like that." They don't explain anything. I can give them some tips. "I have this problem." "OK, there is only one way you can solve it. Find it. This way. Not like that. You have to find it." (FC2)*

On the other hand, another French-Canadian coach used various strategies with athletes who were training for high level competition. At this level, the coach was able to discuss technical problems due to the relative maturity and experience of his athlete:

*As a coach, sometimes I see that and I have to be able to very quickly guide the athletes. To tell them, "Look, in today's judo this is not going to work." or "Perhaps you should change things in such a way, modify the technique a little bit." or know that gripping, for example, is more important than ever. These are the things that you don't necessarily practice in the clubs that are more for a recreational type of judo. There is a lot of work to do at the technical level also. (FC3)*

Even though this coach was working with high level athletes, he also needed to adopt new training strategies:

*Back in Canada, I also want a bit more of a technical type of training because I do think that doing a lot of randori might be wasted here because there are not enough partners. (FC3)*

The training of basic techniques was not believed to be effective for elite athletes, and one Japanese-Canadian coach suggested that technical training should be more specific and individualized:

*When he becomes a black belt and goes into a tournament at a higher level, you are not teaching basic techniques. We teach them what is best or the strongest point for their body and how to make them reach their maximum capacity to cover up the weaknesses. We try to make the best out of this and make this guy a World or an Olympic champion. (JC5)*

Another coach was obliged to create a more effective structure for training techniques, working with a mixture of low and higher level belts to balance their skill differences:

*Sometimes the beginner might feel intimidated at first. After a while they get used to it because there is a give and take and helpfulness; cooperation that is a part of judo. I think the more experienced person likes that too. They like to help out. I think if they have that kind of atmosphere it is better for the group. Many times you see competitors training and they just go and BAM! KILL! BAM! KILL! Sometimes that is hard to take. (JC6)*

This was not the case in Japan. As the European-Canadian coach explained, that in that country large groups of black belts train together and this situation facilitates intensive technique training:

*When you have hundreds of sparring partners you don't have to worry because you will find different fighting styles, different intensities, and you can go with randori and randori. You just regulate the time. You ask the athletes for specific things, tasks. (EC4)*

But when the number of athletes within the group is limited, the coach was required to become more creative:

*Then there are drills that must be done. Without them there is absolutely nothing to do in international judo today. Most teams I know of come from countries where there is a very limited number of good judo players. They have no choice but to practice judo through drills. (EC4)*

### Tactical

According to these coaches, tactical training was crucial in order to prepare athletes, particularly for international level competition. Coaches had to be innovative by incorporating drills that simulated competition, or by using videos to learn more about the different styles of their competitors. A Japanese-Canadian coach explained these procedures in this way:

*It's not only teaching skills and strategy. You have to learn about the opponent too. You take videos and you have to make strategies when you fight these guys. How to fight. It's not a two-hour a day job. (JC5)*

This coach also added that the constant changes to the international rules of judo affected their entire system of training:

*First they have to understand themselves. Like they cannot get judogi first because everybody is breaking kumikata. The first time somebody comes here from a different level in the dojo he doesn't even catch the judogi so they come to me and say, "I couldn't even grab his kimono." I say "Okay. But today judo is changing." The rules changed and this totally changed judo. (JC5)*

Other coaches were also obliged to create innovative ways to simulate competition during regular training sessions:

*I try to do drills that are going to simulate what it is going to be like in competition. I try to make them think too. I try to make them think of combinations that are going to work for them. Everybody has their favorite technique. They have to work on things to compliment that. As far as fitness and physical training is concerned, as long as they are putting in 100% effort that is just one part of it. The judokas have to think in the training and they have to think when they are competing as well. (JC7)*

*It's the same thing as before. In Japanese style, there's holding like this. So then for the first five minutes, there is not much action. They just move around. Then suddenly: boom bang. Ippon. Yes. Then the International Judo Federation came in and said, "No, if you're not attacking in 15 to 20 seconds then he is out." So no matter what you have to attack. Now we start training for every 20 seconds or 15 seconds. We have a machine there. Every 15 seconds, "Beep, beep, beep." They have to attack. (JC5)*

The European-Canadian coach called attention to the new style of competition at the international level today, which required that coaches continue to modernize their methods:

*The variation of strategy is as rich as the imagination of the coach and the athlete because they can do it together. They face a problem together and they have to find solutions together, but they have to understand each other. For example, they have to understand that in*

*order to defend against Koreans, who train six times per week one hour and a half gripping only and they are the best grippers in the world, you have to get a grip. (EC4)*

This coach also criticized the old system of training in Canada in relation to that of their Koreans counterparts, who have created a different style of competition that has revolutionized the sport:

*In order to beat them you have to be ready for their strategy. You cannot do easy practice randori like this and go on the tatami the same way every day. For 6 years or 10 years we did exactly the same in the morning and exactly the same in the evening and then we came to somebody who did judo like a totally different sport, like the Koreans. (EC4)*

In order to deal with this style of judo, coaches in Canada needed to adapt to the new characteristics of the players and methods that go beyond currently accepted practices:

*The year prior to the Olympic Games in Barcelona, he did everything. He was young and he was open-minded. He did everything that he was asked to do. We did different drill training. What we introduced at that time, for the first time in Canada, was different lengths of randori with specific tasks. (EC4)*

### Mental

Judo is a sport like any other, where participants, especially those at the highest level of competition, are obliged to control their emotions in order to perform at their best. Working effectively by maintaining appropriate emotional states during *randori* (sparring), or competition, can be a central task for both the coaches and the athletes. They must be aware of their emotional states and the need for and the benefits of mental training. Thus, coaches were constantly trying to adjust to the emotional needs of their athletes, especially during training. The coaches referred to these factors indirectly, relating their importance to all aspects of their own and their athletes' performance. Only

two coaches made direct comments related to specific mental control training. For example, one French-Canadian coach explained that the athletes' minds and bodies were not yet prepared and that it takes a long time to adapt to rigorous training and the intensity of *randori*:

*There are a lot of people who come here for the first couple of times and they don't come back because it is hard. It is really hard. It takes at least two years before you get into the system...before you become mentally and physically stronger. (FC1)*

When the group was large and included a variety of personalities, it was necessary that the coach know who was in a proper state of mind, and who was not:

*That is very important in judo because you have a lot of ups and downs. Some days you have great days and you can throw everybody, but a lot of times it is tough. Somebody else has a great day and you are not having a good day. When you have 40 people on the mat everybody has different personalities. Everybody has a good day; nobody has a good day. (FC1)*

As the demands of training increased, the athletes attempted to reach their highest level of performance during competition, which required them to concentrate fully to attain optimal performance:

*Mentally, you have to be well prepared. That is why sometimes, when you get thrown and all of this, you have to stand up right away. You cannot lose that concentration. If the guy in the tournament is a lot more aggressive than you then for five minutes you have to be alert and mentally prepared. It is not just physically prepared. It is mentally prepared too. That is very important. (FC1)*

In one case, the European-Canadian coach engaged a specialist to improve the mental skills of his athletes:

*The atmosphere at that time was great. We also used a lot of mental preparation. We had a psychologist who came and gave lectures on psychology and individual practices with athletes and so on. (EC4)*

## Recovery

The intensity of a single judo training session is extremely taxing, so athletes must have periods of recovery, both during and after the practice, to restore energy supplies spent during that specific practice and to prepare for the next one. This is how one French-Canadian coach explained how recovery periods were carried out in the past in Japan, and currently in Canada:

*In Japan you don't go for water. You practice, but even in Japan now it is very much not like it used to be. When (name of his coach) first came we practiced, practiced, practiced. We waited until he said, "OK, water break". You never went for water, only when he said to go for water break. (FC1)*

*Now we know, through science, that you should replenish your water as much as possible. You have to drink water during practice. Some of them every five minutes after randori or some of them will go do four or five randori in a row and not go for water. (FC1)*

Another French-Canadian coach shared the same philosophy of training and reported that in the past there were no such rest periods:

*We didn't know anything about training 25 years ago. We made a lot of mistakes. Twenty-five years ago there was a lot of hard training from September 1 to August 31. We trained hard always. No rest. No peak. We didn't know anything about that 25 years ago. (FC2)*

After training incorrectly for many years, this coach later learned that his training methods were inappropriate:

*I changed one step at a time. I changed as society changed. Before 1976 it was hard training. Every time you got on the mat you had to be exhausted when you got off. You gave 100% all of the time, all year long. No rest. You couldn't go drinking. You just trained for 20 or 30 hours. It was impossible. That was a risky thing. That was a mistake because we could go far with our minds, but with our bodies it was a mistake. I even practiced with a cast because I still had one arm to go. (FC2)*

Over the long term, coaches were forced to monitor the duration and intensity of both training and competition to maintain an essential dimension of their athletes' health.

One coach explained how he discussed the issue of recovery with his athletes:

*Sometimes it is lowering it [intensity] because, sometimes, athletes think they can do more than what they really can do. "No, no, no you shouldn't use so much." You have to slow down their horses. "Oh, I am going to do this tournament right away." "No, you should take a break. You just finished three tournaments. That is all you need. You can do a few tournaments later on. It is no use beating up your body for nothing when you have just started winning tournaments. (FC1)*

One French-Canadian coach anticipated the possible health problems for his athletes and, therefore, monitored the progress of their training programs:

*There is nothing worse than going to a major championship suffering from an injury. You have to be healthy. So, what does that mean? Healthy. That means that, as a coach, I will be monitoring their state of fatigue very closely. You are more likely to become injured when you are fatigued than when you are fresh. I want to be able to make sure that the dosage of training and rest is proper. (FC3)*

*I am dealing now with mature athletes; people that have many years of experience behind them. They have gone through a lot of injuries already. So, at that point, I would rather have them a little bit under trained than over trained. That is one point. (FC3)*

Although one third generation Japanese-Canadian coach had experience with pause-free training similar to that experienced in Japanese judo, he now recognized the benefits of recovery during training:

*I know in many places, even at the Shidokan (Montreal) back in 1978-1980, they didn't want anyone to go get a drink of water. They said, "It is like going to war. You can't go and get a drink of water whenever you want to. You have to stay there and concentrate. I think that comes from the Japanese tradition where they train very hard. Everything is to make you suffer to make you stronger. If you go to Shidokan now it has changed. They have guys who get a drink of whenever they want. (JC6)*

*There is a big thing on now, people should be allowed to drink water because you don't want the athletes to get dehydrated. (JC6)*

## Summary

Canadian judo coaches benefited from their own experiences while also adopting more scientifically based approaches to training. Depending upon the nature of the coaches' knowledge and beliefs, they applied a variety of coaching methods, such as employing fun and games, in an attempt to sustain the athletes' motivation to continue training in judo. There was, however, some reported skepticism on the advisability of such a training regimen. Furthermore, if the majority of coaches did not change their old judo style from the 1960's, the prospects for judo in Canada were reported to be dim.

While Canadian judo originated from the rigid training discipline of the Japanese system, even the Japanese-Canadian coaches adjusted their methods to the demands of the social environment of judo in this culture. Most Canadian judo coaches concurred that a pleasant training atmosphere was essential for the persistence of their athletes in judo. Coaches were unanimous that a positive training atmosphere and the use of humor were appropriate for success in coaching, and that judo should no longer be taught with traditional methods. Overall, coaches declared that they tried to nurture the work ethic of their athletes, but they understood that it was the *judokas* who must decide how far they wished to progress in judo, depending on their own personal goals. These coaches also recognized that a rigorous, disciplined training atmosphere would not work well within the Canadian context. The necessity of establishing a dialogue and taking on a democratic attitude were very important strategies for a coach's survival in Canada.

The strategies for training the physical, technical, as well as the mental preparation of the athletes also had to be adapted to the characteristics of each group. Coaches created special training strategies for high-level black belts, to fully prepare

them for the demands of high-level competition, which often incorporated a variety of methods from other countries. Coaches sent their athletes abroad to increase their level of confidence and performance.

## COMPETITION

The meaning units characterized in the *competition* component were defined as the knowledge, skills, and beliefs used by judo coaches necessary to perform to their optimal level during competition (Table 11).

Table 11

Occurrence of Coaches' Identification of the Category of the Competition Component

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Category  
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General Competition

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### General Competition

While the central focus of the stimulated recall portion of this research was on the training process, certain coaches also raised issues related to competition, particularly for those coaches who worked with the national team. Though the amount of information on competition was limited, a number of insightful comments about training also made reference to this process. Thus, the following citations illustrate the evolution of current competitive judo practices. For example, one French-Canadian coach still remembered “the good old days” of judo, when less power was employed:

*Judo is always evolving. There are always different throws being shown in tournaments. Right now judo is not the same as what it used to be. Before, it was nice throws and things like that. (FC1)*

*When you look at judo here a match is five minutes. You have five minutes to knock down your opponent. There is a lot of speed involved in it. There is also a lot of endurance. (FC1)*

Another French-Canadian coach reported that the main objective of competition was to fight well, with winning being secondary:

*You have to think, "Okay I am going to try this and after I am going to try that. I don't have to win. I have to fight well. If my fighting well leads to victory it is Okay ." But, sometimes, the other side is better than you so you have to fight well. If you win, but you didn't fight well, it is a shame. You could have won, but it is a shame. You have to fight well. (FC2)*

On the other hand, the European-Canadian coach emphasized the Korean style of fighting, which was based upon high levels of skill:

*They have chosen the ultimate uncomfortable fighting style which means no grip. "You can't have a grip on me. As soon as you have a grip I am under you or I will rip it off and start again." They are ready for that because they trained in that particular fighting style. (EC4)*

*Koreans had this from the time when they started to dominate judo in the world. They are number one right now in the world. They do it with a very small number of athletes. They have incredible training methodology and flow of athletes. There was a young athlete, 19 years old, and this guy was the best in the world. Nobody could beat him for two years. At 21, he fell apart and out of the system. The next competitors came. There is only (name of Korean athlete) who is three years now in the same business. This guy from 86 kilos is the Olympic hampion. CEverybody else is new in the Korean team. (EC4)*

This coach continued with an explanation of the best way to defeat the Korean team:

*Who ever is fighting Koreans knows that the problem is just to get a grip on those guys. If you get the grip you can beat them, but if you cannot get the grip you lose the match before you know that you had the fight. (EC4)*

## BELIEFS AND ACTIONS OF JUDO COACHES

In order to further describe and validate the beliefs of judo coaches in actual practice, the researcher interviewed and later analyzed videotapes of four out of the seven coaches during two training sessions, using stimulated recall procedures.

Coaches were interviewed and video-recorded either in their *dojos* during and/or after the training sessions. This procedure facilitated the coaches' recall of events related to their coaching during specific training sessions. In two instances, the coaches were interviewed right after the training sessions without the help of the videotape, since events during training were still fresh in their minds. In these two cases, the researcher used field notes of the coaches' actions observed during training. When immediate interviews were not possible, the researcher conducted the interviews later, either in their offices or homes, using the videotape of that particular session to aid the recall process. Coaches were asked to discuss selected behaviors, which were videotaped or observed during practice, or to clarify statements of beliefs made during the principal interview.

In all, 174 meaning units were elicited from the stimulated recall procedures (Table 4). In the following section, the focus will be those citations which were believed to be the most relevant to understanding the beliefs and actions of the selected judo coaches.

### Code of Respect in the *Dojo*

When discussing the ceremonial aspects of judo during the stimulated recall phase, the researcher asked the coaches to explain the importance of the ceremony, which was performed in a similar manner in Japan. The researcher had an opportunity to experience these rituals in Japan, and was later able to compare these same judo practices

in Canada. One coach replied that when you bow “It is to the founder [Jigoro Kano]...” and “...to show respect to your teacher and the knowledge that we are their teacher, not their boss.” (FC1) This coach’s beliefs with respect to bowing were very consistent with what was stated during the principal interview:

*When we bow to each other it is for self-respect. When we bow at the beginning of a match, for randori it is a sign of acknowledgment, of respect. We respect your knowledge. Then, when we are finished, we still show respect. We thank you for your hospitality. It is mostly a show of respect because in judo we all try to consider ourselves as equal. (FC1)*

Another French-Canadian coach explained that bowing was not only a means of showing respect, but was also a form of group concentration before training and preparation for practice. This response was consistent with previous interviews with respect to this coach’s beliefs:

*It is not important, but it has to be like that. People like rituals and in modern society there are no more rituals. Most people like to be in a place where you have to do things like that. They like to play the Japanese way too. It won't improve judo, but it reinforces the feeling of belonging, of being in the group. A lot of people come to judo for that. (FC2)*

One Japanese-Canadian coach reflected upon the same issue during the stimulated recall session, and suggested that coaches should not place too much emphasis on these spiritual, or mystical, aspects of Japanese culture in Canada:

*We teach that you respect each other, respect older persons, but after that we are not teaching Japanese culture here. Many instructors or coaches push those kinds of things too much. After that the people have too big of a head and not enough judo. So let them. They are Canadians. I cannot change them to Japanese. It's wrong. We show respect because judo comes from Japan. (JC5)*

The ritual of showing respect before, during and after training sessions was the most common non-combative behavior observed in the videotapes of coaches in the *dojo*.

These characteristics of the coaches were congruent with their previous interviews. Even though there was no evidence that the practice of these rituals actually affected performance, respect was expected and never neglected, as was the case in traditional judo. It is interesting to remember that, while at the present time, Canadian coaches did not adopt the Japanese philosophy of judo training, they still practiced the rituals as a sign of respect and adhered to the hierarchy so common to the Japanese social organization of judo.

The researcher's attention was only directed to actions during training in the stimulated recall sessions with the coaches, since this was the only opportunity to ascertain whether or not the coaches' actions were consistent with their beliefs.

#### The Atmosphere and Dojo Discipline

The interaction between the coaches and their athletes varied depending on the coach. One coach introduced a game similar to handball, called 'Piggy', that was used to warm-up the athletes before starting the training sessions. During the stimulated recall interview, this coach explained that this game was a strategy used to help create a positive atmosphere. Previously, this coach alluded to certain adjustments that he had made in practice:

*Well, before we would never play a game called 'Piggy'. It was as soon as you came in you started practice straight on. Now we have a little game to warm up and then we have our stretches after the game. (FC1)*

In general, the atmosphere during the training sessions was very respectful, though still relaxed. All coaches, independent of the level of athletes in their charge, were very consistent with earlier interviews and unanimous regarding the need for the introduction of pleasurable activities during training sessions. Coaches FC1 and FC2

continually joked with their athletes, especially during warm-ups. However, they maintained an atmosphere of discipline, which was blended with humor. One coach explained why fun was an important element for the training atmosphere: “I think we have to make people happy. They choose judo without choosing other things, like music” (FC2). Coach FC1 though, expressed that fun was important in order to help athletes who wished to persist in the practice of judo:

*You see all of these other competitors who didn't have that much fun, who just did it because they just wanted to go to the Canadian Championships and that's it, they are all gone. They are not involved so much in judo. Those who had fun in judo and practiced hard, you have to incorporate both of them, are still in it. (Name of his friend) is coach of a judoka in Metropolitan, Toronto. Now, I am coach here. It is because I have fun. I am still having fun. I am sure if I was super serious all the time I wouldn't have fun as a coach. The athletes wouldn't have fun-as athletes. (FC1)*

Coaches also appeared to adapt established rules of discipline during the training sessions as was clearly observed with these coaches in action. There was no evidence of any episodes of an antagonistic training atmosphere, and athletes often stopped for short chats or sat on the mat for brief breaks. Coaches FC2 and (JC6) never shouted during training, and coach FC2 commented that shouting, “Was the old way...the discipline changed” (FC2).

#### Coaching Styles and the Work Ethic

Coaches developed their particular means of either expressing themselves, providing instruction, or making corrections. One coach, upon observation of his actions during the stimulated recall commented about his coaching style, giving the impression that his body language required adjustments, even though the researcher noted that the atmosphere in the *dojo* appeared very relaxed:

*Yeah? That's good. I think it is because you don't want to make it*

*too hard. Sometimes, I know that my body language is bad. Like I might make a bad facial expression and some people might think, "Oh no, he is criticizing me." I hope I am not being too negative as a coach. Sometimes you get angry and say, "Don't do that." You know? That is a mistake I make. (JC6)*

The training sessions at the Regional Training Center were much more intense and vigorous than those observed with other coaches at other dojos. In this Center, the majority of *judokas* were experienced black belts, and on this day, Canada's best international *judoka* was also training. During one training session, when coaches (JC5) and FC1 were coaching together, they were extremely technically focused even though they demonstrated very different approaches. When the researcher observed this training session, coach (JC5) was quiet most of the time, though he closely observed every manoeuver of his athletes, especially during the *randori*. He talked to the athletes when only necessary, and his knowledgeable technical interventions were very short, yet precise. Raising his voice in a positive manner was a means of providing an incentive to the athletes during these training sessions. On the other side of the *tatami*, Coach FC1 talked continuously with the athletes during the entire session, especially regarding technical matters. This coach had a very loud vocal manner, but was still encouraging, and provided the group with the incentive to train intensively. During the principal interview this coach commented about his style saying, "I train people hard but I'm not a strict coach".

The researcher better understood his statement after observing his actions during the training session. He was convincing without being too disciplinary or authoritative. Once in a while, both coaches told jokes during the *randori* in order to temper the atmosphere between athletes during the rugged sparring sessions. It was also evident that most athletes at the Regional Training Center had a warm relationship with these coaches

and it appeared that the interventions in the form of pleasantries which were often delivered in a firm tone of voice, did not appear to disturb the athletes. On another night, the researcher observed coach FC1 attempting to help his athletes as much as possible by correcting certain weaknesses. Later he taunted a *judoka* to escape from a certain hold while the opponent was trying to immobilize him. When this coach was not actually sparring with the athletes, he would often challenge or tease them at various moments during training.

When the coach was queried on how his athletes felt about these actions, the coach explained that “One athlete tells another athlete, “Don’t worry about it, it is all for fun.” (FC1) The researcher learned that with this coach, this was yet another strategy employed to motivate the group. The coaches seemed to have established a convivial atmosphere of communication, while still maintaining total control of the training environment. Even though the controlling attitude of the coaches was evident, the coaches appeared to create a complicity with the *judokas* that mirrored their stated beliefs regarding exhorting appropriate levels of effort or commitment. This was most evident at the schools where both coaches FC2 and JC6 were employed. However, when the researcher probed (JC6) regarding his beliefs about controlling almost all aspects of the practice, he remarked:

*I think it is important. I don't think they have the same discipline or motivation like judokas do in Japan, where people just get beaten up for six months and then they start doing judo. The people here won't last like that, so you have to take it down a little bit and do things in a more structured way. (JC6)*

### Coaching Methods and Strategies for Training

The coaches adopted a number of training strategies, for example, they varied the length of time between different segments of training based upon the athletes' belt level or weight category. This occurred both with coaches at the Regional Training Center and other lower level judo schools. All coaches segmented the training sessions into two distinct sectors, separating their athletes by belt level or weight. For instance, at another dojo, because of the number of low level belts, one coach spent a significant amount of time teaching sparring strategies to these athletes. Coach FC2 explained one of these strategies during the stimulated recall, "When they are fighting with green belts I say, "No arms. You have to block with the hips." It was also interesting to note that this coach used a variety of structured training strategies to facilitate the learning processes of the athletes. Coach FC2 used various cue words to better inform the *judokas*. Phrases such as, "Position at one o'clock", helped the athletes better understand how to visualize certain techniques.

During *randori*, coach JC6 either spent time coaching, or trained with the athletes and corrected them during sparring. This coach also offered instruction to their athletes regarding specific technical details, sometimes demonstrating or explaining the best way to execute certain throws. This was how coach (JC6) justified his type of instruction during the stimulated recall:

*This is a general class so there are people with different levels of motivation. I think it is good to give them the minimum amount of certain exercises that they should do to improve their judo. If someone is going to be fighting in the World Championships he might be doing a lot more of these with greater intensity. I think this is a good thing for the recreational judoka to do as well. (JC6)*

During the *randori*, coach (JC6) divided the area into two training groups and separated the graduates from the lower levels. He also actually trained with the athletes and corrected them during these periods. He also explained in detail which position their body should assume or in which direction they needed to place their arms.

Both coaches at the Regional Training Center utilized other, more specific strategies since most of the athletes were black belts, and therefore, certain methodologies were believed most appropriate for them. The coaches' previously stated beliefs regarding training regimens were subsequently confirmed by the following quotes regarding training:

*I think a lot of people who come here are already focused. They know what they want. They all either want to be Canadian champion or they want to get to the World's or the Olympics. They are already mentally prepared to come here and train. You don't come here to play. (FC1)*

*When he becomes a black belt and goes into a tournament at a higher level, you are not teaching basic techniques. We teach them what is best or the strongest point for their body and how to make them reach their maximum capacity to cover up the weaknesses. We try to make the best out of this and make this guy a World or an Olympic champion. (JC5)*

Some coaches were also obliged to create a more competitive atmosphere which demanded that athletes deal with the exigencies of international competition. For example, during *randori* the athletes were forced to attack their opponent every 15 to 20 seconds, prompted by an apparatus that intermittently beeped during the entire training period. *Judokas* were made aware of the time spent attacking their opponent in order to conduct actions within these short intervals, since the international rules do not permit "non-combat" or defensive postures outside of these particular time constraints. Overall, the coaches demonstrated that they were able to adapt to these new philosophies, as well as to the actual physical demands of training. Normally, athletes were permitted time-outs

for recovery purposes, and for at least two water breaks during a 90-minute training period. These modifications from traditional Japanese training rules of conduct were clear evidence of the processes of transformation in Canadian judo, and confirmed the previous statements of the coaches:“ [Before] we weren’t looking at rest periods and nutrition and all that.” (FC1)

In summary, the judo coaches, while in action, appeared to be consistent with their beliefs recorded in earlier interviews. In general, these coaches all went through some form of personal transformation in order to coach judo at either the top or lower levels in Canada. These coaches, first of all, established particular forms of strict, ritualized, training environments based on the traditional Japanese roots of judo. They then were required to make some Canadian style compromises by creating a positive training environment. This created a hybrid mixed-serious training discipline, with the use of humor and empowering training strategies that helped maintain the motivation of their athletes. All coaches meticulously provided relevant information to facilitate the learning process of their *judokas*. All were unanimous in declaring that these Canadian athletes should decide for themselves their level of commitment to training. The incorporation of fun and positive dialogue between coaches and athletes contributed to a training atmosphere that was most appropriate for these Canadian *judokas*. These coaches also employed various strategies to accommodate differences between belts and levels of experience. However, in spite of their divergent styles, all coaches maintained what seemed to be total control of their *judokas* and their training behaviors in the *dojos*. Thus, the central processes of learning were based on each of the coaches’ decisions and the training demands within Canadian judo environments.

### ADDITIONAL SOURCES OF DATA

This section deals with additional sources of information gathered during the data collection process: the videotaped training sessions, participant observation and the use of field notes. This material helped the researcher to better understand the multiple facets of the coaches' actions during training. The basic justification for this segment of the research project was to present additional information from other recorded or observed episodes, which may not have been addressed during the presentation of the primary interview results.

For example, the researcher selected three training sessions ( $M = 95.52$  mins.) for videotape analysis of the coaches in action. The structure of the training was quite similar among all of the coaches. Overall, the training sessions were divided into seven groups of activities in the following sequence: 1) the ceremony, 2) physical exercises or *taiso*, 3) break falls or *ukemis*, 4) rehearsal of techniques or *uchikomi* in the standing and walking positions, 5) ground work or *ne-waza*, 6) sparring or *randori*, 7) cool down and the ceremony to finish the training session (Table 11).

The researcher selected part 4 (rehearsal of techniques or *uchikomi* in the standing and walking positions), part 5 (groundwork or *ne-waza*), and part 6 (sparring or *randori*) of the training because they were the most appropriate intervals during which to observe the coaches in action. Part 1 (the ceremony) was also included in the analysis because the ceremony helped the researcher to better observe the nuances of these Japanese-rooted rituals. Therefore, comments will be presented only from the videotape of these intervals (parts 1, 5, and 6) which represent a total of 201:25 mins from 286.55 minutes, or 70.23% of the video taped sessions.

This traditional training sequence appeared to be very similar to those observed in other schools and judo clubs in which the researcher has participated around the world, particularly those influenced by Japanese judo traditions. However, the time between each activity varied between the coaches depending on the belt and experience levels of their *judokas*, especially for parts 4, 5 and 6 of the training.

Table 11

Distribution of Time (mins.) for Various Segments of the Training Session for each Judo Coach

Sections of Training	Coach		
	FC1/(JC5)	FC2	JC6
	7:16*	-	-
Part 1 – Ceremony	:23	1:16	:30
Part 2 – Exercises	6:88	11:14	7:00
Part 3 - Break falls	7:15**	4:10	15:15
Part 4 – Rehearsal	6:18**	12:59	23:75
Break	-	-	:48
Part 5 – Groundwork	17:99	17:38	20:65
Break	2:00	1:10	-
Part 6 – Sparring	35:61	22:00	12:43
- Combinations	-	20:24***	-
Break	3:94	:45	2:00
Part 7 - Cool down	9:01	2:06	11:43
Part 8 – Ceremony	:25	4:34	:40
Total	96:40	96:56	93:59

\* = Time spent in a game called “Piggy” before the ceremony started.

\*\* = In the session spent by the coaches FC1/JC5 on break falls (part 3), and the rehearsal

(part 4) which were done after the groundwork segment of the training (part 5).

\*\*\* = Different lengths of sparring with combinations of techniques (*taisabaki*).

In the four *dojos* visited by the researcher had basically the same physical appearance. These schools were rectangular in shape and the floor had a training mat, or *tatami*, with a protective plastic covering. Usually, the walls had tradition-based icons such as illustrations of the founder of judo, Jigoro Kano, memorabilia of the coach with his athletes, or photos of the coaches during their earlier days as athletes. There was a wall for trophies and one for illustrations of Japanese symbols that signified either, “Judo” or “Hard Work. Discipline. Efficiency”. The training sessions were taught in French, English, or both, however coaches often used Japanese during the ceremony or whenever they wanted to point out specific techniques.

The ceremony in which coaches and athletes bowed to each other varied from 30 secs. to 1:16 mins. at the beginning of the training session, and from 25 secs. to 4:34 mins. at termination of the training session. All training sessions followed the same structure used in traditional Japanese judo, even though there were some small variations in the components sequence. Basically, each session lasted about 90 mins. plus the brief transition periods between one activity and another, for instance, during the organizational or instructional phases. The time coach FC2 spent on the ceremony (part 1), as well the exercises (part 2) was much longer than that of the other coaches. This same coach employed different forms of exercises working either with partners or individually, which seemed to be more enjoyable for the *judokas*.

During the training sessions of coaches FC1 and JC5, the break falls (part 3) and the rehearsal (part 4) were practiced after the groundwork (part 5). During this session, the groundwork (Part 5) was practiced without interruption, to enhance the learning of certain general technical details, and the instructions were usually transmitted individually.

However, the groundwork performed at coach JC6's session was longer than that during other coaches' sessions, perhaps due to the greater experience of the athletes. This coach in his earlier interview reinforced the importance of work on the mat (*ne-waza*), and that only then, did athletes pay attention to winning the *randori* by using techniques such as immobilisation of the opponent.

Part 6 of coaches FC1/JC5's and FC2's sessions were longer than those of coach JC6. Coach FC2 broke down part 6 into two parts, first using free sparring, and then free sparring oriented towards combinations of different techniques. The *randori* or sparring (part 6) was done in the form of a competition with the coaches intervening only when was necessary.

The ritual bow was always initiated by each *judoka* in the standing position, in front of the coach or *sensei*. The students formed lines according to their rank, then stood and waited quietly for the command to assume the kneeling posture, or *seiza*. Usually, the senior *judoka* (*sempai*) gave this order. While in the kneeling position and after the command for kneeling contemplation, or *mokuso*, the coach and *judokas* closed their eyes, calming their minds for training. The coaches reported that the meaning of *mokuso* varied, from focusing on achieving specific goals, to concentrating on that particular session. After the *mokuso*, all *judokas* in the *dojo* usually bowed directly toward the

picture of judo's founder, Master Jigoro Kano. Bows were sometimes directed to other items of traditional significance: to mementos from the founder of that school (*ryō*), to symbolic symbols within a picture, or to a small shrine on the wall. Then, all *judokas* bowed to their coach to the command "One bows to the teacher", or "*Sensei ni rei*".

During the video analysis, it was noticed that even though all the athletes followed the rules for bowing, one athlete at coach FC1's training session did not perform the bow like the others, i.e., smoothly, deliberately and without haste. This athlete was reported to be one of many that evening from the Middle East. Although this individual's cultural peers bowed correctly, this black belt's inclination was to bow very shallowly and quickly in the direction of the mat. Perhaps the bow for this *judoka* had a different cultural meaning, or it may have been in conflict with his religious beliefs, which included bowing toward Mecca (Video Analysis, 10.7.97).

Each coach had his/her own particular style of conducting training, and seemed to maintain a warm relationship with their athlete even though the hierarchy between coach and athletes was ever present. All coaches had total control of the sessions. The intensity of training varied between the coaches, but the observed atmosphere always remained friendly. This finding corroborated earlier statements made by the coaches regarding the training atmosphere.

At the Regional Training Center, coaches FC1 and JC5 followed each component of the training previously expressed in the initial interviews. Both coaches usually spoke during the *randori* stating short corrections for technique, for example, "Push to the right" or "Watch your position". Or they made corrections in order to reinforce for the athletes, that the same mistake should not be repeated. The researcher noted during video

analysis, that jokes, such as, “How was it up there?” were common when the *judoka* was thrown in the air. The athletes, especially at the Regional Training Center, appeared to enjoy the training sessions.

One night, after the training session, several *judokas* continued to train on their own. It was very evident that the coaches had adapted, by creating a style of coaching which permitted the athletes to feel that they could freely extend their training. It was interesting to note that at the end of the training sessions of coaches FC1, JC5, and JC6, that it was the lowest-grade *judoka* 's duty to sweep the tatami after the training sessions concluded. According to coach FC2, this was a very traditional Japanese way to teach humility to the younger belts (*kohai*) and, in some instances, even to the older ones (*sempai*). For instance, he stated that, “Right now some of my black belts won the Canadian championship, and the next day right after they finished training I told them to sweep. They laughed about it, but they did it”.

In the *dojo* of coaches FC2 and (JC6), the structure of the training sessions was quite similar, but varied between groups in Parts 4, 5 and 6 (rehearsal, groundwork and sparring). The training components also varied between the sessions for coaches FC1 and JC5, due to the divergent skill levels of these groups. Both coaches controlled the training environment with a relaxed but respectful atmosphere. These coaches also used demonstration or modelling, in order to better deliver the directives that they wanted the participants to practice. This method seemed very similar to the Japanese judo that the researcher had experienced in Japan, especially when teaching young *judokas*. However, it appeared that the Canadian coaches spent significantly more time helping the group, correcting each athlete verbally and physically, and providing necessary feedback. Often

they provided very specific details in their instructions, breaking down particular techniques. It is also interesting to add that both coaches used a variety of structured training strategies to facilitate the athletes' learning. Coach (JC6) seemed to push the athletes more than coach FC2, as he kept his eyes on those who did not put enough effort into carrying out his directives. In fact, this coach in his previous interview, commented that he liked to push the athletes even more, since they sometimes had difficulty pushing themselves. Overall, the coaches' actions were consistent with their previously reported beliefs with respect to how they approached coaching judo in Canada.

The participant observation portion of this research project was initiated with a visit to the judo school of coach (JC6), to attempt to set up an appointment for the initial interview with this eminent third-generation-Japanese-Canadian coach. Contact was first made with his father, a second generation Japanese-Canadian and a 7<sup>th</sup> *dan* black. He was one of the pioneers of judo in Ontario and the founder of that particular school. He does not teach judo anymore though he still supervises the school because of his love for the sport, or as he stated "it was his life". During the visit, the researcher explained his background in judo. The *sensei*'s first reaction was to ask "Did you bring your *judogi* (uniform or kimono for training) with you?" That question was an indirect and very Japanese way to invite someone to train, as was experienced within other judo contexts by the researcher.

Over the next two months, the researcher visited the school a number of times hoping to make a future appointment with his son. During this time, the researcher trained at that school three times. This participant observation was not imposed by the coach but seemed conditional to fostering an open dialogue before the principal

interview. Coach FC2 also politely invited the researcher to train with the *judokas* as soon as he learned about his background in judo. This invitation was part of the tradition in judo, and indicated that many aspects of the roots of judo were still present in the behaviors of these coaches.

Many months later, while talking to coach FC2 in a telephone conversation, the researcher asked about this invitation and he answered that: “When you wore the *judogi* I was not talking with the doctor anymore, I was talking with my friend”. The experience of being a participant observer in three of coach (JC6)’s and one of coach FC2’s training sessions, helped the researcher better understand the coaches’ styles while in action. Both coaches were very patient during this training, did not impose their ideas, nor did they try to make everything easy. They explained the training instructions in detail, in order to facilitate learning. It was evident that the coaches had adapted to the current Canadian situation, and coached very differently from what they called “the old days”. However, they also maintained many aspects of the traditional forms of judo from which they had originated.

During the participant observation in coach FC2’s training session, a *judoka* was late and the coach approached him at the entrance and invited him to enter the *dojo*. This gesture illustrated the transformation of his ways from what he called “...old traditional rules of judo”, since in the past, as the coach had explained in his previous interview, this athlete would have been punished for his late arrival. However, this coach was still very attached to traditional judo when it was convenient for his own interests. At the end of the session with this coach, the rituals of the ceremony (part 8) were longer compared to the final ceremony of the other coaches. The reason for this was that on this night a

*judoka* was receiving a belt promotion. After all the *judokas* knelt in front of the coach, the older *judoka* (*sempai*) walked slowly using the formal walking pattern for these moments (*ayumi-ashi*) in the direction of the *judoka*, and then, kneeling in front of her, presented her with her new belt. This was the traditional Japanese manner of performing this ceremony (Participant Observation, 16.6.97).

The night of this participant observation, the researcher took notes describing the formal atmosphere of the ceremony in coach FC2's *dojo*. The following is an excerpt from the field notes, and helps to better understand the importance that this coach attributed to this ritual:

*All the decorations in the room were perfect to help create an environment for training similar to the Japanese "dojo". On one wall there were three big wall pictures of martial arts founders, of Judo, Karate and Aikido. I was quite sure that other coaches of martial arts were also coaching in the same room. On another wall, a series of Japanese symbols and words written in Japanese calligraphy decorated the place. A third wall contained a series of little pictures of famous Japanese coaches together with coach FC2, and also a lot of trophies. All of these details gave me the impression that the coach was famous, successful and an experienced. The posture of the coach was very martial and he performed the ceremony exactly as like the Japanese judo ceremony. In fact, this act took more time than his counterparts in this study and in many judo schools I had visited in Japan. (Field Notes 16.6.97)*

The following is an example of other notes taken while observing one of coach (JC5)'s training sessions:

*The training is very intense but one athlete from the Middle East is wearing a type of headphone on his ears. Is he listening to music during the training? No, I don't think so! This is a very unusual situation to see in any dojo in the world, especially here, a Japanese-Canadian origin dojo! (Field Notes, 14.3.97)*

The coach later clarified that the use of the "headphones" (in fact, these were protective ear coverings) was to protect the athlete's ears during training, but these are not permitted in competition.

The researcher noted an interesting moment while observing another training session, this time led by coach FC1:

*The atmosphere of the training here is very vigorous but the athletes still have permission to stop to deal with personal problems. One athlete asked in the middle of the training session for permission to call and he is right here beside me phoning somebody. The phone is close to the tatami and seemed to be here for this purpose! (Field Notes, 10.7.97)*

The response to this request seemed to be very permissive in this dojo and perhaps this happens in others as well. The researcher was very surprised to face this type of scenario, as he had never seen this before, either in Brazilian or Japanese *dojos*.

Overall, the four coaches were very similar in terms of what they reported about their beliefs and how they actually behaved during the training sessions. It was evident that these coaches adapted what they had learned from Canadian, Japanese or European judo to the particular coaching environment in Canada. The year spent in judo training in Japan helped the researcher better understand the differences between Japanese judo coaches and these four Canadian judo coaches. In Canada, these coaches had to create a positive atmosphere for training, whereas in Japan coaches sought to push the athletes further, and created a more demanding atmosphere both inside and outside of the *dojo*. It seems that pain and suffering were more a part of their heritage and very common in the Japanese *dojos*.

Thus, these coaches had compatible beliefs and actions which stemmed from their experiences as athletes and coaches of the Canadian judo. Many of these influences still continued to direct their coaching behaviors in a number of their current training circumstances. These adaptations have contributed to the creation of innovative styles of coaching over the years. Many of these coaches integrated their past traditional

experiences in judo into more flexible mixed or modern approaches to coaching. This helped them overcome various difficulties that they had faced in the profession of coaching judo in Canada. However, many dilemmas still persisted since some conflicting beliefs were generated, which were in opposition to their earlier beliefs and past experiences.

## CHAPTER 5

### DISCUSSION

The purpose of this study was to describe the beliefs of traditional and modern judo coaches and how these were represented in their actions during training. Three main issues were addressed with respect to expert judo coaches working in Canada whose philosophies ranged from traditional to modern judo orientations. These issues included how the coaches: 1) conceptualized verbalized their beliefs with respect to traditional values in judo, 2) differed in their beliefs regarding judo traditions and, 3) whether these beliefs translated into their actions in actual training sessions. These research questions shall be discussed within the context of the extant literature.

The first issue to be addressed will be the coaches' conceptualization and verbalization of their beliefs, that were elicited from their narratives and from the resultant decontextualization of their text into the following six components: *contextual factors, coach's personal characteristics, athlete's personal characteristics, organization, training and competition.*

The second research question shall be answered in light of the relationships between the complexity of the *contextual* component category in relation to the evolution of the *coaches' characteristics*. It appeared that these categories were quite complex in the practice of judo in Canada. The fact that judo is a Japanese-based sport and that the current coaches in Canada are of either Canadian, European or Japanese heritage may explain the diversity found within these categories. As these coaches were obliged to work within the Canadian context, they developed their own belief systems based on their acculturation within this society, their adjustment to mainstream value systems, certain

role determinants and their personality. Thus, these contextual factors contributed to the increased complexity found within the other conceptual categories, since many compromises had to be made within their system of beliefs in order to adjust to the realities of the Canadian context in judo.

The consistency of the *coaches' beliefs and actions* shall then be discussed, and the nature of their beliefs will be considered in terms of their country of origin, and their past and present athletic and coaching careers. These factors will then be discussed in terms of their influence on current coaching styles.

Inductive analyses revealed categories that characterized the beliefs of judo coaches. After preliminary analyses, it became clear that the inductively induced primary categories mirrored those of the Coaching Model (CM) (Côté, 1993; Côté, Salmela, Trudel, Baria, & Russell, 1995). The CM has been found to be a powerful construct which reflects coaches' mental models both in team sports (Bloom, 1996; Salmela, 1996a; 1996b) and individual artistic sports (Côté, 1993). The present study has now shown the applicability of this model to the individual combat sport of judo. Bloom (1996) found that the internal architecture of the CM was much more complex for coaches of team sports, compared to the original model developed by Côté (1993) in his analysis of gymnastic coaches. This was particularly true for the central relationships between the coaches' and the athletes' characteristics in team sports. In the study of expert judo coaches, the nature of these inter-relationships, which are rooted in the Canadian context in sport, will be discussed.

## CONTEXTUAL FACTORS

Coakley (1993) stated that socialization, in a general sense, has been defined as a process of interactions and the development of individuals defining who they are and how they are connected to the social world in which they live, as they adopt the values and ethics within a specific culture. Socialization develops explicitly through relationships between persons, and implicitly through the processes of observation, inference, modelling and trial-and-error. The author stressed that socialization in sport settings is an interactive process in which individuals are critical human beings and cannot be separated from their particular context. Thus, forces such as contextual influences, coaches, and the ethics of the team or players, will contribute to the moral development, attitudes, values and beliefs of the sport participants.

In terms of the acquired knowledge of the judo coaches in the present study, their particular social milieu influenced them both as athletes and developing coaches, and was a significant force on learning processes during their coaching careers. Thus, contextual factors were considered to be the logical starting point for this discussion, since the Canadian environment was a critical element in the acculturation and development of the judo coaches' beliefs within Canadian society.

### The Culture

Canada's vast geography, small population, high standard of living, quality of health care and educational systems, and its advanced socio-economic status have contributed significantly to Canadians' ways of thinking and acting. Most of these influences still shape the lifestyle and the evolution of the country's institutions, including sport, and in particular, the sport of judo.

Judo is a sport with traditional Japanese roots, and is known for its vigorous and disciplined training characteristics. High-level judo training demands prolonged effort and the full dedication of its *judokas*. In Canada, judo coaches were compelled to create new training methodologies which were adapted to their particular cultural context in order to gain the acceptance of its participants, and to remain viable within the judo community. As coach FC2 explained, “The society has changed now...if you go too hard they quit.” In other countries with cultural characteristics and backgrounds that differ from Canada, the present judo coaches may have met with more success. Perhaps in countries with large metropolitan areas, over-population, high demographic density and low income athletes, the coaches may have better adapted to the intense, combative aspects of judo found in the most successful judo nations. And thus adaptations or transformations may have been unnecessary, since the competitive nature of their everyday existence and survival can be likened to the demands of the sport. For example, in crowded cities such as Rio de Janeiro, Brazilians seek the skills of self-defence and judo which may prove useful in everyday life. The researcher discussed this issue with one of the judo experts and he made an interesting comment about this matter:

*In Trinidad, they were captured and molested and abused by maybe seven different European countries. Spain, England, Netherlands, Germany, and France all grabbed it. Trinidad is a small country, and it has the highest crime rate in the world. It has a mixed race. There is a big gap between rich and poor. It is a musical country. The country that grabbed that country could be producing the champions.*

The present arguments indicate that certain countries with different objectives and resources may provide a more propitious environment than others for the optimal development of judo athletes. As well, the bringing together of large numbers of judo practitioners, along with well-trained coaches and significant institutional support, will

ultimately determine the success of sport and its future progress in a particular country. These last concepts appeared to be congruent to the findings discussed by Csikszentmihalyi, Rathunde and Whalen (1993).

Csikszentmihalyi et al. (1993) studied the implications of the development of talented teenagers and emphasized that the interaction between individuals, domains and fields were conditional elements for the development of excellence in any area of expertise, including sport. The authors stated that the success of an area of knowledge was dependent upon the group of experts involved in that area, the right tools, and a desirable context.

One of the best examples of investment in sport was the United States' recent support of soccer. Their campaign promoted soccer all over the country, and included bringing a number of expert players, like Pelé from Brazil, and Beckenbauer from Germany, as well as proven coaches from Europe. The culmination of this campaign was that the United States hosted the 1994 World Cup, the most desired event in sport. Thus, each segment of society needs to face challenges to address these elements for exceptional performance, in order to make possible progress within their specific domains. At the present time in Canada, it does not appear that there exists the necessary and sufficient resources for the development of the sport of judo.

#### The View of the Coaches about the Canadian Educational System

All coaches agreed that, in general, the Canadian youth participating in judo would not accept the imposed harsh training conditions and the required discipline that is prevalent in the countries, that are international powers in judo. Perhaps this is due to Canadian liberalism, permissiveness, and the acceptance of the view that children should

have everything they wish, including the option to choose whatever sports they want, and at what level of investment they are willing to make. “Kids are not asked to perform anything against their will”, said coach EC4. This privileged situation may work well in normal Canadian life, but having low intensity as an option in a sport like judo may prove to be counterproductive. Thus, this lifestyle is probably also reflected in school and in other segments of society, as well as sport.

As Goodger (1986) stated, people bring to sport cultural experiences acquired outside of the sport as well as from school, work, and from the mass media. On the other hand, as coach EC4 explained that in the Polish system, discipline was strict and students had to perform or were penalized. He emphasized that students first had to obey and were not allowed many choices. This traditional, educational philosophy was rooted in former church practices that still influence the educational system, although to a lesser degree in current practice.

In the same manner, the Japanese are still influenced by the practice of strict principles of discipline from their past (Reischauer, 1990). Therefore, the combative spirit and discipline of the *samurais* are part of the legacy that is still influential within the institutional organizations in Japan, and especially in the martial arts (Suzuki, 1959). Based on these premises, a sport with traditional characteristics, such as judo, would find much more adherence in countries where these underlying values had meaningful significance in their culture. In the case of Canada, for some, the practice of judo became an attractive and almost mystical sport form because of its oriental characteristics, although the participation motives were probably less influenced by the ascetic rigour necessary to this sport. However, small groups within the judo community still struggle

to find ways to stimulate the rigorous nature of training and instill in athletes the necessary qualities to compete at the international level.

### The Resources

The number of national judo practitioners, the quality of expert coaches in the area, the availability of sufficient financial support and adequate facilities, are all conditions which define the development and success of any sport. These optimal conditions are not present in Canadian judo, since very few resources are available for the sport. In addition, the judo coaches are still trying to survive financially in a context where the opportunity to practice other sports has become a constraint for the practice of judo, as well as other martial arts. Therefore, the lack of mass participation in the sport of judo is problematic in Canada.

### Human Resources in Judo

K. Kitamura (personal communication, July 7, 1998) reported that in the Kodokan the number of black belts registered in this particular institution in 1997 included 20,684 males and 3,282 females. These numbers represented only a fraction of the number of *judokas* from other judo institutions, associations or university teams in all of Japan.

In Europe, especially in France, the number of black belts *judokas* is 100,000 since 1939 (M. Brousse, personal communication, July 30, 1998). France has won seven medals at the 1992 Olympic Games, six medals at the 1996 Olympic Games and nine medals at the World Judo Championships (d'Arripe-Longueville, Fournier, and Dubois, 1998). It is evident that the large number of participants in these countries facilitates the recruitment and selection of the best athletes for high level performance training.

However, the existence of necessary training environment and the athletes' disposition

for rigorous engagement, play an important role in the development of these champions. In Japan, the chance to recruit the best potential athletes starts at the high school level (Aoyagi, 1996). Usually, famous university coaches pick the best junior *judokas* at competitions because they know that these future athletes are already committed to judo. The parents strongly support them to attend because it will guarantee their immediate entrance to a particular prestigious university. In addition, these potential champions already have sufficient technical skill to train with the best athletes, since they have been coached by so many good instructors in Japan. Since the founder of judo, Kano, was Japanese, there was no necessity to learn another set of cultural values for judo, as was the case in Canada. The incredibly large number of *judokas* in Japan has also created a rich environment for the scouting of skilled *judokas*. A comparative situation could not be found for Canadian scouting in judo, as was explained by coach (JC5):

*Also we must consider where he comes from. Which dojo? Some dojos don't train the basics. Nothing. It takes a long time to correct them. They are already 17 or 18 years old. It is very difficult to change everything. Whether or not a past judo coach or instructor has trained them right is a very important element. (JC5)*

According to Judo Canada, their total membership in 1995 consisted of 12,505 male and 4,535 female practitioners (A. Sadej, personal communication, June 22, 1998). Over the last 20 years, Canadian judo has had three Olympic medallists, and eight coaches, some of them on a voluntary basis, recruited by Judo Canada to coach the national team. This low number of participants and coaches is an indication that in Canadian judo, the lack of human resources limits Canadian *judokas*' impact internationally. Compared to other Canadian sports, such as ice hockey, and in relation to

practices in other places in the world, it can be seen that judo is not a popular sport in Canada.

### Financial Resources in Judo

According to the judo coaches, few can make a full-time living with judo in Canada since coaches here still work part-time jobs to support themselves and their families. At the national level, the coaches have to survive with minimal financial support while facing the considerable demands required for training at the international level. A. Sadej (personal communication, June 22, 1998) indicated that Judo Canada received \$ 800,000 a year to cover expenses which includes the coaches' pay, trips to international events, judo training camps and athletes' expenses. Many of the coaches complained about having to create a strong team based upon volunteers. "In Canada our athletes are volunteers really because we don't support them that much", said coach FC3. At this level, athletes need thousands of hours of training, year after year, and opportunities to train abroad. Together with that, the athletes need time to work during the summer in order to cover their own living expenses. Many of them also have to work to finance their own education because their parents cannot afford to do so. Thus, some of the dropouts from the sport of judo occur directly because of this lack of financial support. The level of involvement and effort required from these athletes was due solely to their own motivation and personal love for judo. However, in Canada all judo coaches were unanimous that the financial support for judo was insufficient.

### The Canadian Sport System

Other countries have been shown to provide much more governmental support for sport and this has attracted many judo coaches and athletes who are willing to train

hard. This has contributed to a more functional system, which also enhanced the professionalization of judo coaches. Coach EC4 worked as a local judo coach in Germany and received a better salary than when he was coaching for the national team in Canada. In France, the sport governing body created a strong infrastructure to support judo because of the tradition of judo excellence in this country (d'Arripe-Longueville, Fournier, & Dubois, 1998).

In Japan, judo coaches receive funding from the government and corporate sponsors who have helped maintain the status of Japanese judo. Aoyagi (1996) found that Japanese judo coaches received a salary sufficient enough to maintain a stable socio-economic lifestyle compared to coaches of other sports. Most of the judo coaches were also policemen or professors at university whose finances further contributed to their economic stability. In Korea, it is prestigious to become an Olympic champion, which provides status and lifelong financial support for successful athletes. In Brazil, gold medallists in any sport are granted an award that varies from a car, money or a bar of gold worth \$25,000,00, depending upon which sponsors are involved that particular year. The above indices demonstrate that at the highest levels of competition, coaches and athletes require full financial support for their many years of dedication and effort spent in the sport. In Canada the financial support for judo is considerable less (Judo Canada, 1998).

Clearly, Canadian judo coaches are not in the best environment in which to develop exceptional athletes, since the necessary resources are not available. Judo is a sport that requires special and extended involvement as well as high levels of motivation to achieve at the international competitive level. These problems appeared systemic to

sport in Canada (Draper, 1996; Salmela, 1996a; 1996b) particularly in the case of judo, where financial problems are more critical. Thus, all these arguments indicate that judo in Canada is still struggling to have a better system that assures adequate support for athletes at the international level. The present judo coaches declared that they could not do much to solve these constraints, and consequently, they had to adapt their training methods to keep the Canadian athletes motivated to continue in judo. In the mean time, the Japanese, Koreans, and French judo coaches are increasing their daily levels of effort in their training sessions. In these countries, the large number of *judokas* and the mentality of these elite athletes, permit them to work within a successful, highly competitive atmosphere for training, which is very different from their counterparts in Canada. With these particular judo powers they have the luxury of eliminating those who do not adapt or accept the imposed training conditions (d'Arripe-Longueville et al., 1998). The opposite is true in Canada.

### COACH'S PERSONAL CHARACTERISTICS

Walton (1992) described the thoughts and wisdom of six legendary coaches including Vince Lombardi, Woody Hayes, John Wooden, James "Doc" Counsilman, Brutus Hamilton, and Percy Cerutti. These coaches built their careers based on dedication, hard work, commitment and guts which were later forged into their coaching philosophies. Each one of them developed a unique style of coaching. The author defended the idea that sport is a microcosm of daily life, and that during this time, individuals gain insights into their development that influence their future philosophies. Bloom (1996), Miller, (1996), and Walton (1992) also emphasized that successful coaches tapped the same desire and quest for knowledge that they had developed as athletes, and later during their coaching careers. This

knowledge emerged from reflection and refinement over their years of coaching, and was influenced both by their families and former coaches. The combination of these factors contributed to their evolution into expert coaches.

The formation of the character of the present judo coaches also resulted from their socialization during their experiences, both as athletes and as developing coaches. As athletes, they developed the thought processes that would later influence their future coaching style. During this formative period, they received support from their families and coaches, and were shaped by experiences in other countries where they trained or competed. It was within this process of socialization in judo that these coaches learned as athletes the values and behaviors of traditional judo (Hamada, 1990; Suzuki, 1959), such as honor, hard work, a good attitude and respect for the *sensei*.

### Career Development

Miller (1996) described the significance of the role of communities and schools in the formative years of expert coaches' athletic careers. Leisure activities provided them with their first taste of various activities and the pleasure of participation in sport. After years of involvement in a number of activities, these athletes began to dedicate themselves to their favorite sport, with diligence and seriousness. Most of them could not have done this without the support of their parents and initial coaches. These mentors effectively taught their charges and encouraged them to persist in their sport careers. Then as novice coaches, they also learned by noting other coaches' personal and team ethics, as well as their leadership styles. Walton (1992) explained how some coaches really made a mark on their athletes' careers because of their unique styles of coaching, and their wise application of knowledge gained through their life experiences.

Many of the experiences and beliefs that the present judo coaches applied to their training programs were acquired during their development both as athletes and as novice coaches. There was no doubt that these beliefs became a powerful instrument in their personal development, and provided meaningful guidelines for later coaching decisions.

For instance, one coach commented on the concept of respect in judo:

*As soon as you start judo, from six years old, you show respect. You don't just come to a National team and say "Okay, I will show respect." If you are brought up from the age of six. Why judo? Where did it come from? What is the philosophy? You don't just jump into it and go, "I'm doing judo." (FC1)*

### As an Athlete

Each coach developed their own characteristic style based upon their society of origin. As athletes, many of the judo coaches received significant support from their parents, which provided the necessary environment to begin the practice of judo. For example, the father of coach FC1 initiated his first experiences in judo and was his first coach. Coaches JC6 and JC7 began judo at the age of 5, and were also introduced to judo by their father as a form of recreation. Coach FC3 was also directly influenced by his father to begin the practice of judo after hearing him talk numerous times about the sport. Furthermore, these young practitioners later became skilled athletes and future champions in their countries of origin with the additional help of trained coaches. These findings were consistent with several studies that discussed the nurture paradigm of talent development for children in sport, academia, and music (Bloom, 1985; Côté & Hay, 1998; Côté & Sedgwick, 1996; Csikszentmihalyi, Rathunde & Whalen, 1993; Partington 1995).

These authors emphasized the role of encouragement and stimulation received from both parents and mentors during these formative years and the development of the

children's potential. Most of the judo coaches started to train more diligently in judo during their "middle years" of learning (Bloom, 1985), that is, between 14 and 17 years of age. During this period, the nature of their socialization varied by having either: a very strict father/coach, a father/coach with a traditional judo background, a traditional Japanese coach, or through a mystical attraction to judo. One exception was coach EC4, whose first years of involvement in judo took place in Poland. During his career, he learned from many coaches, and was particularly influenced by a coach who was very oriented toward sport training theory. Similar relationships were also reported in the research of Salmela and colleagues (Bloom, 1996; Côté, Salmela, Trudel, Baria, & Russell, 1995; Salmela, Draper & Laplante, 1993; Salmela, 1996a; 1996b; Schinke, Bloom & Salmela, 1995) who discussed the powerful effects of mentoring in the organization, training and competition of athletes in various sports.

These coaches also travelled abroad, especially to Japan, to acquire knowledge and develop their skills in judo. After long experience, these future Canadian coaches understood that to copy the style of another country would not help their own technical development, since they were faced with training based on the Canadian reality. These results were consistent with Bloom (1996) and Moraes (1996) who found the same precaution when Olympic coaches from volleyball described their experiences abroad. These coaches would use the information gathered abroad, but adapted it to the Canadian context. This was apparent for all judo coaches in this study, especially those who worked with the Canadian national team.

### As a Coach

Miller (1996) found that the critical factors for the development of expert coaches included acquiring mentors and years of experience observing other coaches. Also, aspiring coaches learned how to lead their athletes, and developed their own values and coaching philosophy. Bloom (1996) discussed the influence of former coaches on the lives of expert coaches, when they were in assistant coaching positions and aspiring to the role of head coach. All these unforgettable experiences marked their careers and their future beliefs.

All of the coaches in the present study, with the exception of the European-Canadian coach, came from the same philosophical roots of Japanese judo. Their teaching methods were based on the influences and beliefs acquired from their previous coaches. However, these methods were not well accepted in Canada due to the particular characteristics of Canadian *judokas*. This judo sub-culture mentality borrowed from the Japanese, did not lead to a successful pedagogy in Canada, since overloaded training, hard work and strict discipline were not acceptable here.

Csikszentmihalyi, Rathunde and Whalen (1993) also found that outstanding students often did not develop to their full potential due to limitations of the teachers in providing ideal practice contexts. This appeared to be the reality for many of the judo coaches in the past. The traditional coaching characteristics which helped them earn their titles in judo were found to be effective in Japan. In Canada, they were forced to incorporate more dialogue and permissive methods of training, which both improved their coaching and kept their athletes in the dojo. Partington (1995) also underlined the importance of competent coaching in his study with expert musicians. What was found to

differentiate the good musicians from the best was the presence of effective teachers and adequate supervision during their formative years. The coaching environment is not an exception to comparable learning processes.

Note that the European coach's approach was to apply sport theory, as well as a more reflective style in training, when he coached in Canada. However, his experience within the Canadian judo community was not always a positive one despite the success of some of his Canadian *judokas* at the international level during his period as the national coach. At that time, the athletes complained about his training style perhaps because of its gruelling, repetitive specificity. According to this coach, one Canadian *judoka* told him, "You are not in Poland. This is not a country where you can tell me what to do".

However, what really upset the coach was the fact that some of the athletes declared after the Barcelona Olympic Games that they did not experience fun in their judo. However, these athletes were among the best eight *judokas* at the Games. The complexity of balancing the trade-off between enjoyment and performance, points to the difficult task of coaching within the Canadian context.

### The Coaching Philosophy

Bloom (1995) found that expert coaches were influenced by a variety of factors, including other coaches during their formative years in coaching. The coaches also learned that hard work, discipline and coach leadership were key factors to success in their careers. They also developed their own philosophy while observing other styles of coaching, and later developed their own ideas with respect to directing athletes. However, in Canada, the present coaches often had to adapt their former coaching styles, based on a number of factors.

The beliefs of the traditional judo coaches, their philosophies were based upon values from the Japanese culture which were integrated into judo practice by Jigoro Kano, the founder of judo (Goodger & Goodger, 1977; Jazarin, 1972; Kim & Shin, 1983; Nishioka & West, 1980). The rules of the sport created difficulties in other countries than Japan which cultivated contrary beliefs to reliance on the group, and an emphasis on hierarchy, duty and passivity (Connors, 1977). For the Japanese-Canadian coaches, the development and the solidification of their philosophies was a process that took many years. Sacrifice, respect and obedience, and a disciplined training atmosphere were some of the rules and beliefs these coaches learned during their training as athletes, and later had to adapt. It was interesting to note that even though the two French-Canadian coaches reported that they did not adopt the training methods from the past anymore, they still behaved “as Japanese” in the dojo; standing, walking and following a teaching style that emulated Japanese practices in judo. Coach (JC5), who was of Japanese origin, stated that judo in Japan was also in a state of transition though many people in Canadian judo were not aware of this fact.

In support of this change in perspective from traditional values to sport performance, both Tanabe, Tanaka, and Hika (1981), and Tanaka (1980) demonstrated through surveys of martial arts coaches that the present principal aim of training was to improve performance in competition. These coaches were now also very interested in increasing the memberships within their clubs rather than improving the students' minds and bodies through disciplined training, as was the case in more traditional times. This competitive goal orientation was a signal indicating that there was a change in Japanese judo, even though the practice of value-oriented goals of judo are still present in martial

arts education and in self-defence classes (Donohue, 1994; Kim & Shin, 1983). These two coaching philosophies are in opposition to one another, and represent two different ways of interpreting martial arts and sport. Therefore, the task-oriented approach to coaching appeared to be the key component in the present competitive orientation of athletes (Gill, 1986; 1993).

In sport, expert coaches to an increasing extent attempt to breakdown every skill, analyze each movement and carefully use all available tools such as computers and advanced audiovisual technology, to achieve peak performance with their athletes (Durand-Bush, 1996a) in (Salmela, 1996). Whereas traditional martial arts' practitioners, often search for spiritual education. This self-cultivation is practiced in *aikido*, *naginata*, and *kyudo*, as well as in *judo* (Furuya, 1998; Hamada, 1990). These practitioners seek the beauty of the technique, and their main goal is not the final *ippon* or point, but attaining maturity and becoming better human beings from the holistic view of eastern tradition (Draeger, 1977; Foster, 1986; Jackson, 1977; Johnson, 1986; Kim & Shin, 1983; Little & Encel, 1991; Schmidt, 1986).

### Rituals

One obvious aspect of the sport that influenced the beliefs of the judo coaches while they were athletes was the omnipresence of rituals. These codes of behavior have a Japanese-based symbolic significance, and there are tacit understandings of these norms among the *judokas* because they were the basis of the origins of judo.

Suzuki and Oiwa (1996) in their fascinating analysis discovered another side of modern Japan, and their respect for tradition and their past. In an Okinawa village, they learned that rituals preserved the culture and the origin from whence they came, and

when rituals are gone, everything goes with it. Thus, rituals in judo were intended to preserve this culture. These codes have their basis in the structure of the *samurai* war lords (Connors, 1977; Kobayashi, 1976), which were then formalized in martial arts (Hamada, 1990) and Kodokan-based judo (Harvey, 1973; Kawashima, 1957; Saeki, 1994), and are still present in Japanese culture (Furuya, 1998; Reischauer, 1990).

Much of the influence of Kodokan judo came from the principles of hierarchy and collectively derived from the strong emphasis on the household or *ie*, which is the primary unit of social organization in Japan. This concept is so strong that it overshadows the importance of the individual (Saeki, 1994). Kodokan created an educational philosophy that reinforced mutual respect and the moral code through practice in judo. The Kodokan system influenced many judo coaches and athletes and spread around the world (Goodger & Goodger, 1977; Jazarin, 1972; Kim & Shin, 1983; Nishioka & West, 1980).

Thus, part of the relationship between coaches and athletes was based on some of these traditional values, and remains an important norm that the *judokas* would never neglect:

*When I was in Montreal, if one night I was at home and I decided not to go to the club and the telephone was ringing I was scared of answering because we had respect and we didn't want to disappoint the sensei." (P2)*

These rituals can often be observed during training and have particular codified significance during practice. The way one walks in the *dojo*, the manner in which one bows and the execution of the *katas* or traditional forms, remain significant components of the judo context and practice in most places in the world. Bernstein, Elvin and Peters (1966) in their discussion about the consensual meaning of rituals explained:

*The symbolic function of rituals is to relate the individual through ritualistic acts to a social order, to heighten respect for that order, to revivify that order within the individual and, in particular, to deepen acceptance of the procedures which are used to maintain continuity, order and boundary and which control ambivalence towards the social order. (p. 429)*

The authors pointed out that rituals also served to maintain status-based distinctions within the group, which they termed “differentiating rituals”. A context bound, or what the authors called “restricted codes”, is exemplified by the color variation used for different grades of belts in judo (p. 431). Whether conscious or not, rituals were a useful way to express and share values, and they continue to be an effective instrument that these judo coaches use to communicate, control and maintain the hegemony of the members within their judo clubs. There was no doubt that these judo coaches remained very attached to both the significance and the function of rituals. They continued to practice these traditional values, but not to the same extent as were formerly practiced in Japan. According to many of these coaches, rituals were part of the soul of judo and were important for its survival. It is this researcher’s impression that if the rituals were eliminated, this would mark the beginning of the end of the Japanese influences and the dawn of a new undefined era in Canadian judo.

### **ATHLETE’S PERSONAL CHARACTERISTICS**

All the issues previously outlined, particularly those relating to the Canadian judo context, had significant effects on the careers of the athletes. Judo in Canada does not appear to be rooted within a robust system that could support both the judo coaches and their athletes.

### Developing Athletes

Gill (1993) pointed out that individual athletes' achievement motivation differed considerably, and the success of their individual orientations was a critical component in their motivation. Gill stated that achievement motivation was an internal energy that drove people in certain directions to perform various tasks. Therefore, personality factors may predispose individuals towards different motives to participate. The model of the competitive process (Martens, 1977, 1982, 1986, 1997; Martens Vealey, & Burton, 1990) assumed that individuals perceived the competitive environment, either situation objectively or subjectively, depending on their personality traits. The consequences of these perceptions result in avoidance or maladaptive responses to performance, and may influence dropping out of sport (Gould, Feltz, Horn, & Weiss, 1982; Orlick, 1986; Orlick & McCaffrey, 1991; Smith, 1986). Csikszentmihalyi, Rathunde and Whalen (1993) also found that many gifted math students gave up because they could not stand to work alone, while others could not bear the supercharged atmosphere of their math clubs, and competition became a major stumbling block for many of them. Thus, people have different motives and orientations to participate in sport according to their personal characteristics and perceptions of dealing with certain tasks.

The competitive orientation of many *judokas* in Canada appeared to take various directions. Some athletes were task oriented and eager to compete while others attempted to avoid the challenge of competition and tended to compete below expectations. According to the present coaches, Canadian *judokas* in general, did not demonstrate the same level of motivation and discipline of other world caliber athletes. Many of them did not aspire to high level competition, but simply practiced judo for recreational or even

mystical, oriental reasons. Overall, it was believed by these sampled coaches that the athletes did not wish to be pushed harder or to engage in long hours of intensive practice compared to those reported either in Japan (Tetsuya & Okano, 1973; Yamashita, 1996) or France (d'Arripe-Longueville, Fournier, & Dubois, 1998).

Since not all developing athletes are willing to invest sufficient energy and resources to be part of an international elite group, the training strategies with them must be adapted so that the group can continue to train within their particular parameters. However, for athletes in Japan, France and Korea, ascending to the national team level is a source of motivation because of the prestige and economic benefits accorded them. These athletes are highly motivated with respect to challenges, and competition at this level is attractive because it reinforces their motive orientation (Gill, 1993). This accomplishment orientation is sufficient to spur these *judokas* to participate intensively and to adhere to the rigorous demands of the required training loads at this level, qualities which differentiate the good from the best athletes.

### The Olympic Athletes

Durand-Bush (1996a) and Durand-Bush and Salmela (1998) outlined the prerequisite mental skill profiles of high level performance athletes using The Ottawa Mental Skills Assessment Tool (OMSAT). The authors found that the most highly committed athletes had generally high levels of goal setting, commitment and confidence for sport competition. Orlick and Partington (1988) found similar results in a study with Olympic medallists. Elite athletes also appear to have mental skills that allow them to avoid distractions, low levels of concentration, and competition anxiety (Martens, Vealey, & Burton, 1990). This profile to excel and the capacity to perform at extreme

levels demanded intense effort, and many years of training (Simon & Chase, 1973). This lengthy period of training was necessary to overcome psychological and physiological constraints of motivation and effort as suggested by Ericsson, Krampe, and Tesch-Römer (1993).

More specifically, d'Arripe-Longueville, Fournier, and Dubois (1998) observed that elite *judokas* in France adapted to constraints, such as interpersonal rivalry, verbal provocation, displays of indifference, and facing challenges imposed by the coaches, which increased their motivation, commitment, mental toughness, and their winning spirit.

International judo competition demands highly committed athletes to succeed in this sport. High levels of skill, strength, volition, and speed are also requirements of a champion in judo today. Therefore, training must be specific and requires significant amounts of focused attention. Athletes need to repeat techniques thousands of times to develop the necessary automated reactions required during competition, and need more than 10,000 hours of deliberate practice before they can become the best (Simon & Chase, 1973). Ericsson, Krampe, and Tesch-Römer (1993) have suggested that the constraints of resources, motivation, and effort can hamper the development of expert performance. However, as coach EC4 commented, it is necessary to remember that training intensity is important only when combined with training quality.

The need for high level training appears to be continually increasing, and athletes must possess even higher levels of determination to survive within the unique Canadian context. Over the last few generations, the number of aspiring gold medal winners has not increased in Canada, and this country is still struggling to develop exceptional athletes.

At the present time, only one Canadian athlete has reached this competitive level, and has all the qualities necessary to become champion in his weight category. This athlete is far removed from his counterparts, and part of this success was due to the support of his coach, and his family in particular, who allowed him to travel abroad for international training and competitions. Today, according to the coaches' reports, the French judo federation sponsors him. Even though the Canadian judo community is proud of this athlete, his success was not the result of the Canadian judo system. Thus, in this instance, success appears to be due more to one person's initiative and not the system, otherwise, other such athletes in judo would have surfaced in Canada.

### ORGANIZATION

Team success is due in part to the detailed planning that the coach employs to establish optimal training programs based on the athletes' physical, technical and tactical aspects, which better prepares them for competition (Côté, 1993). Riley (1993) stated that team building is strongly related to leadership and the organizational capacity of the best coaches in the world. He explained that "My driving belief is this: great teamwork is the only way to reach our ultimate moments..." (p. 15). Thus, action plans depend upon who is in charge of the planning process. This remains one of the most significant tasks for successful coaches in most sports. As Desjardins (1996) emphasized, successful coaches stated that planning ahead for the season and the flexibility to adapt to various circumstances, particularly to bad seasons, is important for organization in coaching. Both the success of the athletes and team cohesion, depend upon the development of an appropriate mission for the team, the setting of rules, and then particularly attending to the monitoring of these goals. In today's modern judo, the concept of organization has

been expanded due to the available amount of information in the area and the various methods of training that best predict performance. These coaches applied two different methods of training: *traditional* and *science-based* strategies.

### The Traditional Approach

Judo coaches reported that in the past they used traditional-based, non-systematic training, and in most cases the athlete would discontinue his/her training only if a serious injury occurred. The coaches' reports revealed that athletes were used to training hour upon hour without a break or rest period to replenish the energy expended during training sessions or competitions. In fact, little organization was required in this tradition driven form of judo. However, according to the present coaches, all have modified most of their traditional methods of training with respect to water breaks or periods of rest for their athletes

Today, judo coaches recognise the importance of various strength, speed, and power training methods in the development of their *judokas* (Sadej, 1996). Coaches admitted to transformations of their practices, with the exception of ritualistic behaviors. There was also a hint of nostalgia which remained concerning the tough training sessions that were common in the old days. Coach (JC5) complained that the research committee in Japan did not help judo training in that country because of the non-applied nature of their results, "... they train the same as I did in my time. Five hours of hard training every day". It appeared that the coach believed that his training hours were worthwhile in spite of their intensity. Coach (JC6) also appeared to believe that there was nothing wrong with the former rigorous, ascetic training methods because one could stop when one felt sick: "In periodization they don't want you to get tired. They just let you do it and then that's

enough. In the old system you just did it.” These beliefs appear difficult to change since the training culture of these coaches was effective for them.

### The Science-based Approach

The researcher remembered a conversation he had in Japan with a champion of the First Jigoro Kano Coup, a famous international event. The *judoka* was asked how he controls his training. He answered, “When I get sick, then I know that I need to stop and rest”. Even though this philosophy of training rationally represents a potential source of injury for athletes, in general, the traditional judo coaches at this informal reception considered this *judoka* to be a perfect example of the spirit of fighting in judo. One fights until one has gone beyond all physical and mental limitations.

Scientific research has developed different types of analyses to better understand the nature of both individual and collective training in different combat sports, including judo. Lehmann (1997a; 1997b) provided important information regarding the structure of the endurance abilities of combat sport athletes and discussed the current problems of training regimens. Sadej (1996) defined the relationship that exists between technique and conditioning, as well as the physiological benefits of specific individual training to better monitor the content of macro- and micro-cycles in top level judo. Heinisch (1997) also contributed to the knowledge base in the judo community regarding the functional evaluation, monitoring and direction of training, and the analysis of the adversary’s training programs and plans. The author developed an observation system to describe the nature of the European judo championships from 1991 to 1996, and other significant information concerning international *judokas’* profiles and training.

The process of transformation from traditional training to science-based methods still has a long way to go in Canadian judo. The coaches involved with the national team, however, applied both their experience and principles of sport science to their training sessions. Since 1985, Judo Canada has established a Medical/Therapy Standards and Policy (Boulay, 1997) to provide health care needs, emergency care, injury prevention, evaluation and rehabilitation during training and competition.

It appeared that Coach EC4 was one of the first to introduce scientific principles to judo training at the elite level. On various occasions in the past, this coach had developed a training program for the national team. He had some success, but overall he faced much resistance to the changes he wished to apply to training. He had to abandon some of his ideas in order to remain employed as a judo coach. He radically concluded that if Canadian coaches in general did not change from their 1960's style of judo, they would stagnate with respect to the evolution of the sport. In terms of high performance, they would be lucky if they did not harm the athletes. The coach emphasized that the duration, volume, length of practice and recovery should also be considered in order to increase the physical condition of the athletes and thus avoid harmful health consequences. In a recent telephone conversation with this coach, who is now the director of Judo Canada, he informed the researcher that Judo Canada is implementing a new program for the National Coaching Certification Program (NCCP) to provide future coaches with scientific material that is relevant to the demands of training.

## TRAINING

This section will first discuss the coaches' *general training* beliefs with respect to the *atmosphere of training* and their *teaching styles*. Then the *general strategies* will be

discussed along with the *physical, technical, tactical, mental, and recovery* strategies applied by the coaches in their training programs.

### General Training

Coaching authority Geoff Gowan (1998) pointed out that, “It is relatively easy to motivate an international-calibre athlete for the actual performances, particularly at something like an Olympic Games” (p. 5), however, the big challenge is to motivate the athlete for 365 days of the year. Thus, the time spent in training is significantly longer than that for competition, and to maintain athletes’ motivation for extensive training it is necessary to have adequate sport facilities such as national training centers, and appropriate environmental conditions that include skilled coaches who are good communicators. These are critical conditions that need to be addressed in order to gather outstanding athletes together to train at the elite level.

The Regional Training Center in Montreal provides the best judo training in Canada. The training structure and the competitive orientation of the center have attracted most of the best athletes and coaches in the country. The large number of black belts that train during the week provide a diversity of styles which enhance the environment at this training *dojo*. According to coach (JC5), the training sessions are oriented towards a mixture of power and technique. The demands of international competition and the more effective strategies of Canada’s adversaries, especially France, Japan, Korea, and Russia, require the maintenance of such a training environment. According to the coaches, all of the athletes know in advance about the intense, competitive training environment at the Center. The Centers’ coaches, especially coach (JC5), have accumulated considerable experience in the international judo arena. Coach (JC5) learned that athletes required

international training experience at the world's principal judo centers. However, the length of time and the type of sparring that the athletes encounter when they train abroad in these countries should not be neglected and needs to be monitored to protect the athletes from "burn-out". These views appeared congruent with some of the comments of Gowan (1998) with regard to Canadian international medallists in different sports who trained abroad and later learned that they needed to train more at home.

Compared to the Regional Center, coaches FC2 and (JC6) nurtured a less competitive training atmosphere. Their sessions included mixed training with black belt judokas as well as lower level belts, and this combination of skill levels diminished the intensity of training. Thus, their training pedagogy needed to incorporate both learning and competition strategies. During these sessions, the coaches closely monitored the athletes' different levels of experience appropriately and modified to their preferred teaching style. The training was well structured, the coaches were effective in their teaching and they paid attention to all requests. One coach said, "We discuss with the athlete in a relaxed way. You have to be friends because we are going in the same direction" (FC2). This coaching atmosphere appeared similar to the findings of Aoyagi (1996) in Japan where coaches now emphasized fair play, setting an initial training plan and gradually entrusting the *judokas* to practice, intervening only when necessary.

#### Teaching Atmosphere

As outlined by d'Arripe-Longueville, Fournier and Dubois (1998), French coaches in contrast, created a very uncomfortable atmosphere in training to push the athletes to their limits, both technically and psychologically. The athletes' adaptations to this harsh environment were congruent to their willingness to win. Thus, they leaned to

train in these hostile circumstances and this helped them cope with similar combat circumstances in international competition. In the same fashion, athletes from Asia, especially Japan and Korea, are expected to train hard, and they dealt with this demanding training atmosphere with little problem. These athletes were used to and accepted these hard training regimens since it is part of their culture (Gowan, 1998).

The judo training atmosphere in Canada was quite the opposite. The judo coaches unanimously reported that the training atmosphere was an important variable for the success of coaching in Canada. The researcher was left with the impression that the necessity of creating a comfortable training climate was more of a general cultural factor in Canada, rather than something specific to these *judokas*. As coach EC4 mentioned, "It's not really a disciplinary problem at all. An attitude problem. You cannot ask these people here, who were brought up with this educational background, to do something if they don't like it". Thus, the adoption of a less disciplinary approach partially solved the participation issue in Canadian judo.

However, the international competitive judo arena, requires extensive and arduous training of skill, power and speed. These qualities can only be developed if athletes train properly and diligently. According to coach EC4, the Canadian *judokas* still think that they are training, but in fact they are just practicing the sport: "You practice judo. You do not train for competition to win". He recognized that this was a difficult concept to modify here, since it is very difficult to change adults' habits, especially with Canadian judo champions. He explained that one needs to repeat a technique or drill, a 1000 times if necessary, a boring and time consuming process, to attain the right response from one's body. At the other extreme, d'Arripe-Longueville et al. (1998) described the highly

successful French judo national training center as being a much more competitive and hostile environment. Since France's traditions in judo have made their judokas national heroes who also receive financial compensation for their success, they are willing to endure such training within this demanding environment.

Partington (1995) emphasized that the prerequisite qualities for success were based in the passion that expert musicians had for their music, hard work and their personal commitment. What differentiated these expert musicians from other good musicians was their dedication and hours of practice. Partington quoted one musician who called this a "willingness to sacrifice" (p. 21) and this appears to be true for any area of expertise, including sport. For instance, the comments made by coach JC7 regarding potential athletes reinforced this view: "They were very talented, but they didn't have that work ethic." The research on success and failure of young talents (Csikszentmihalyi, Rathunde & Whalen, 1993) also supports this idea by stating that talent alone will not guarantee future success. Besides that, there is a need for good mentors, and an appropriate environment for talented people to succeed.

Tetsuya and Okano (1973) indicated that to become an exceptional judo athlete one needs full-time dedication, and focused physical, technical, and tactical discipline. Ericsson et al.'s (1993) conceptualization of deliberate practice reinforces these requirements. Therefore, the training pedagogy at higher levels requires specific approaches to training together with a consistent, supportive environment to help athletes succeed and maintain them in an activity (Ericsson 1996; Ericsson & Charness, 1994; Ericsson & Lehmann, 1996).

### Positive Atmosphere

A positive environment and the effects of coaches have been shown in the research on cohesion to create situations that maintain the unity of the group (Widmeyer, Carron & Brawley, 1993). To understand cohesiveness, it is necessary to consider team spirit and its relationship with respect to coaching strategies and athletes' willingness to work for and within the group. Carron (1982) found that players' satisfaction was the best predictor of ensuring group unity, performance success, and task integration within the team. The research of Smith, Zane, Smoll and Coppel (1983) has also contributed to the understanding of the coach-athlete relationship, highlighting the role of positive feedback, the perceived equity of rewards and satisfaction, and team building strategies contributing to effective performance. The authors also suggested that social support, positive leadership styles, and appropriate environmental conditions were also important factors for increasing the performance of athletes. However, an autocratic leadership style was shown to be more effective when dealing with male athletes who sought high performance and competitive outcomes (Chelladurai, 1990). Preferred leadership styles have shown individual differences, for example, male athletes preferred a more autocratic behavior whereas their female counterparts were more motivated by a democratic style (Erle, 1981). Erle reported that intercollegiate hockey athletes who were driven to pursue excellence preferred more directive instructions than their intramural hockey counterparts, who were more comfortable with a democratic coaching style and positive feedback.

In the present study, the Canadian judo coaches both preferred and recognized the importance of creating a positive atmosphere, and that humor helped the athletes cope

with the demands of training, as well as strengthened the coach-athlete relationship. For example, they introduced games to lighten the atmosphere, and jokes were used to motivate the athletes and to control rivalry when training got too serious.

However, the results of d'Arripe-Longueville et al.'s (1998) research was in opposition to these findings. French athletes were continually exposed to a negative training atmosphere and competitive performance apparently increased due to this coaching strategy. They also noted that while the athletes preferred a more democratic coaching style, they understood that the approach adopted by the French coaches was effective and helped the athletes achieve higher levels of performance. Thus, their past experiences in such a setting and their willingness to perform facilitated their adaptation to such a hostile atmosphere.

These results appear to be contrary to the reported beliefs of Canadian judo coaches, who without the same resources adopted the conventional wisdom of the benefits of a positive coaching atmosphere. They also contradicted the results in the literature on the role of coaches in youth sport (Smith et al., 1983), athletes' perceptions of pressure (Gill, 1986), coach expectations (Gould, Horn, & Spreman, 1983a, 1983b; McAuley, 1985; Passer, 1983), coach-athlete relationships (Smith & Smoll, 1990; Smith, Smoll, & Schutz, 1990), and cohesion (Widmeyer, Carron, & Brawley, 1993). A positive atmosphere, social support, and positive feedback were definitely not part of the repertoire of the French coaches. This appeared to be congruent with the research on coaching conducted by Salmela (1996a) who identified that some of hockey's most successful coaches were demanding, impersonal, and played mind games with their players. In both cases, the participants were not youths and their goals were world

dominance. Thus, this highly combative environment may be the most appropriate to achieve this goal, although in Canada this training situation would be unacceptable.

### Teaching Style

Bloom's (1982, 1985) research suggested that the development of gifted students was directly related to the quality of teaching or coaching activities and the stimulation of skill acquisition processes in children. Csikszentmihalyi et al. (1993) also stressed the importance of flow in the process of assimilation and the development of talented teenagers. Fun was also considered to be an important variable, together with family support and mentors' strategies to increase the chances of these children becoming experts in the future. Gilbert and Trudel (in press) found that contextual factors such as the level of competition, characteristics of the athletes, and socio-economic conditions affected the interactive decision-making of the coaches, as well as of the learning of their youth athletes. Wilcox and Trudel's (1998) cognitive map of coaching principles and beliefs included 16 categories that were deemed beneficial to players' skill development. The authors also included fun in their cognitive map, which corroborates the beliefs of the Canadian judo coaches and their use of this dimension during training.

These results substantiate the fact that judo coaches in the present study developed a teaching style similar to the above mentioned styles in order to adapt to the characteristics of their athletes. In general, all of the Canadian judo coaches emphasized the fun aspects of training while the training at the Regional Training Center was much more intense and vigorous, and the commitment to training was higher than that in the *dojos* of the other coaches. It appeared that the fun aspect of training was applied at all levels, and that the athletes determined their own degrees of commitment and work ethic.

This approach to coaching was very different from the situation in France where it appeared that training diligently was a condition for the athletes remaining on the team (d'Arripe-Longueville et al., 1998). During his time in Japan, the researcher observed a similar environment, and the training discipline of the high performance *judokas* appeared to be much more intense than that of novice group.

### Democratic Style

Smith, Smoll, and Curtis's (1978) research on coach-player relationships found that coaches used positive leadership approaches in little league baseball motivating participation through reinforcement, encouragement, and technical instruction designed to elicit and strengthen desirable behaviors. The authors also evaluated the leadership styles of the coaches, and how their positive approaches increased effective performance and reduced the fear of failure among youth athletes in basketball. Their findings indicated that coaches contributed to an increase in the self-esteem of players by providing positive feedback and an environment that encouraged team solidarity. These types of behavior were considered to be the favored leadership approach of athletes of this age and competition level (Smith, Zane, Smoll, & Coppel, 1983).

Chelladurai (1993) stated that in order to understand the role of coach leadership, it was necessary to observe the team members' characteristics, and the behaviors required of the coach in various situations. For instance, some groups differ in their levels of sport participation and their expected performance outcome. For example, high school athletes' leadership preferences will differ from university athletes due to the variable characteristics of the two groups, and the type of performance required at these levels. It was found that male university basketball players when compared with high school

players preferred coaches with a more autocratic style and who were socially supportive, structured, and rigorous in their training (Chelladurai & Carron, 1983; Chelladurai & Saleh, 1978, 1980). Therefore, group characteristics and the required behavior necessary to accomplish the task outcome will determine the style of coaching (Chelladurai, 1978; 1990; 1993).

Contrary to these findings, though similar to Smith, Smoll, and Curtis, (1978) and Smith, Zone, Smoll and Coppel (1983), the Canadian judo coaches described themselves as very democratic in their relationships with their athletes. Overall, the coaches agreed that the best form of communication was one-on-one dialogue, and that judo athletes in Canada would no longer perform within a strict training atmosphere. Similarities to the Canadian judo coaches were revealed in a study of 45 expert coaches in Japan (Aoyagi, 1996). These Japanese coaches had from 16 to 20 years of coaching experience. It is of interest that as athletes, these coaches rated victory as the most significant component of their philosophy, as opposed to doing their best and skill development which were rated as “not as important”, as well, fair play was considered “not significant at all”. Clearly, as athletes, the coaches shared an ego-orientation towards competition that was based upon performance outcome, rather than a task or process orientation (Duda, 1993).

However, their present coaching philosophy was a transformation of how they viewed judo during their own athletic careers, as they later placed more emphasis on fair play and doing their best, as opposed to attaining victory. These coaches also reported high ratings for having the coach initially setting the plan and then gradually encouraging the players to practice and to coach only as the need arose. It is important to note that the majority of these coaches came from domestic level training groups during their careers

as athletes (70.8%), as opposed to a smaller percentage (15.3%) who trained at the international level. These results indicated that, in general, some similarities existed with respect to the transformation processes that have occurred among with Canadian judo coaches, particularly for those coaches at the domestic level. The nature of these orientations to coaching appeared to be not unlike those of Canadian coaches who reported more recreational and philosophical views of judo, and who were more focused on the art of judo (Aoyagi, 1996; Nakabayashi, 1997), rather than on a strict competitive orientation (d'Arripe-Longueville et al., 1998).

The characteristics of the training philosophy observed by the latter appeared to be in opposition to the training environments observed in Canadian judo. An exception can be made for the small group of athletes at the Regional Training Center in Montreal, and a few of the *judokas* who were willing to train at the *dojos* of coaches FC2 and (JC6). However, even at this level in Canada, coaching styles were very tame compared to their French counterparts who based their training styles on provocation, indifference, conflict, rivalry and favoritism.

### Training Strategies

Sadej (1996) discussed the benefits of a scientific training program in judo and emphasized the factors that increased performance, such as age level, sex, somatotype, motivation, health status, past training loads, and recovery rates, or what the author called the "capacity for effort" (p. 13). In the present study, most Canadian judo coaches applied various strategies to training according to their principal training goals and their athletes' skill level. Coaches of domestic athletes diversified their training, creating an environment that promoted learning through more structured activities that best matched

the relative characteristics of their athletes. This personalized training system has been observed with other expert Canadian coaches of team sports, and is characterized by nuances within the training strategies, goal setting, and short- and long-term planning (Desjardins, 1996; Durand-Bush, 1996b). Even though these judo coaches gave the impression that they were aware of the benefits of scientific training, it was not clear if they always adapted their training strategies to adhere to these principles. These strategies were probably applied more during basic training. Even though the level of intensity and the strategies applied to sessions at the Regional Training Center were specific to high level performance, it was unclear to what extent the training system incorporated sport theory, such as the principles of compensation, training specificity, volume and intensity. However it was clear that at the other judo coaches' training sessions, sport theory was not incorporated into their programs.

Sadej's comment regarding the necessity for intensive effort corroborated, from both theoretical and practical points of view, the postulates of Ericsson, Krampe, and Tesch-Römer (1993). In their model of deliberate practice, the authors emphasized how exceptional performers had to overcome three constraints to attain and maintain exceptional performance: resources, effort, and motivation. This approach emphasized the nurture paradigm of talent development rather than the nature perspective. The judo coaches at the Regional Training Center in Montreal applied more than one approach to overcome these constraints. For instance, coach FC3, the present head coach of the national team, along with his staff, applied and continued to promote a number of more rational training strategies.

As Ericsson et al. (1993) and Partington (1995) pointed out in their research with experts, practice must be repetitive and deliberate until one is able to reach the highest level of performance. These practices, however, tend to be boring and demand considerable personal sacrifice, factors which differentiate between the good and the best athletes. Even though some coaches spoke about the science of training, they still incorporated traditional aspects of judo in their training despite the potential benefits of deliberate practice - like the activities used in Europe. Thus, it appears that it is necessary to work with a variety of specific training strategies if one wants to compete at the Olympic level in judo. Coaches need to implement elements of expert practice otherwise training may be a waste of time and effort (Durand-Bush, 1996a). However, the atmosphere of fun incorporated by the present Canadian coaches into their practices might have been quite lenient in compare to French coaches (d'Arripe-Longueville, Fournier, & Dubois, 1998), especially for *judokas* with Olympic medal aspirations.

In summary, the present coaches attempted to create a positive training environment compatible with the characteristics of Canadian *judokas*. In contrast, the French judo coaches created a very antagonistic, negative atmosphere combined with extremely demanding training strategies. For the latter, international medal results were plentiful, and while these practices were not the athletes' preferred coaching style, they still recognized the necessity of these strategies to improve their performance. As pointed out by Yamashita (1993), the example of the European style of training in judo made sense with lower level groups of *judokas* who focused on specific individual tasks, skills, and power to produce impressive international results. The group of *judokas* at the Regional Training Center trained more diligently than their counterparts in other centers.

However, it was clear that current training methods evolved within the Canadian context, which were driven by a blend of fun, Japanese tradition and sport theory.

In returning to the Côté Coaching Model (CM) (1993), it is now clearer how the training component in Canadian judo fits among the constellation of the other variables. Living within the Canadian context has somewhat compromised the training methods that have been shown to be most effective in other parts of the world. First of all, the shared goal of the Canadians is certainly not to dominate world judo, as was the case in the French context (d'Arripe-Longueville et al., 1998), since within the Canadian context, the coaches reported that adequate financial and personal resources, and a large population of *judokas*, were simply not available and, therefore, known effective methods of judo training could not be applied. If the confrontational methods used within the French judo culture, one of the most successful programs in the world, were applied in Canada, many of the *judokas* would drop out. Without the depth within this judo population, the sport would then disappear through lack of funding. It was necessary therefore, for coaches to make training less rigorous than that found in Japan or Europe (Yamanshita, 1993) by adding elements of fun, and humor, coupled with certain Japanese traditions.

## COMPETITION

The philosophical aspects of competition had meaning in traditional Japanese judo, and these principles were cultivated by many *judokas* in the past. Traditional aspects such as fighting well through showing respect, and maintaining dignity in battle, were cultivated equalities in martial arts' philosophy (Furuya, 1998; Hamada, 1990; Inokuma, 1980, Iwata, 1984; Tsuboi, 1985; Ueshiba, 1980). Most of the interviewed

coaches seemed to share this view but recognized that judo has changed for those who wished to compete seriously, especially at the international level. Current practices in international competition influenced the present context of training, and have consequently resulted in the transformation of many aspects of current judo philosophies. Today, the concept of judo as an art form has given way the main objective of modern competition in judo to the pursuit of victory (Goodger, 1986; Goodger & Goodger, 1977, 1980; Tanabe, Tanaka, & Hita, 1981; Tanaka, 1980). For instance, the color change of the *judogi* proposed by the International Judo Federation (IJF) is one example that the traditionalist judo community had to accept in order to guarantee the future of judo at the Olympic Games (Park, 1998).

Even though there are certain conflicts within the sport, some coaches are still interested in placing more emphasis on aspects of fun, and doing one's best (Aoyagi, 1996), as well as maintaining the sense of beauty or art which practitioners seek to perfect in their technique or *waza* (Nakabayashi, 1997). On this matter, the Canadian coaches appeared to share similar views. "Before, it was nice throws and things like that", commented coach FC1. However, some coaches maintain that it is very important to fight well, "If you win, but you didn't fight well, it is a shame. You have to fight well", explained coach FC2. When coach (JC5) talked about Japanese judo he commented that, "Japanese judo is more technique and nice form." This coach had to change his training philosophy to incorporate new norms and the constantly changing rules set by the International Judo Federation. These changes have contributed to a decrease in the domination of the Japanese style of fighting which first became formalized when judo became an Olympic sport at the 1964 Olympic Games in Tokyo (Goodger, 1986;

Nishioka, & West, 1980). Another indication of the occurrence of changes within international judo was when the Olympic *judoka* Anton Gesink from Holland, first proposed the color change of the *judogi* during the IJF congress in Tokyo. This was done to facilitate the scrutiny of the referees and the judgest during combat (Home Page of the International Judo Federation, 1998).

Goodger (1986) concluded that these changes represented a rejection of the “mystical” in favor of a more sport science-based methods within their greater emphasis on individualized training, as well as, the creation of weight classifications in competitions in modern judo. Presently, in international judo competitions, the objective is principally to defeat the opponent within the rules of the competition, but it no longer matters how “ugly” or poorly one fights because it is victory that counts, especially at the Olympics. Therefore, the old characterization of judo as a martial art gave way to a new concept of judo as sport. Judo specific research has increased in this area to help develop appropriate tools to better understand the nature of modern competition and athletic performance (Heinish, 1997; Lehman, 1997a, 1997b).

A recent referee’s report from Ko (1997) to Judo Canada described the physical strength involved at international level competition, and that the “Initial gripping techniques and strategies are obviously critical in light of the referee’s rules interpretation”. In fact, this referee was referring to the use of a blue *judogi* introduced to better differentiate the contestants in the competition area, or *shiai*. In terms of Côté’s (1993) CM, competition was the testing ground for the benefits of the previous components of organization and training. Put within the Canadian judo context, with a single exception, Olympic results were rather modest, as might be expected by the

previously reported, but necessary compromises in training. However, Aoyagi (1996) reported that even in Japan, there appeared to be a softening of coaches' judo practices compared to what they previously experienced as athletes.

The Canadian coaches at the Regional Training Center have developed a style of judo that incorporates a mixture of competition strategies originating from different countries. Thus, it is fair to infer that the defenders of traditional judo are facing a dilemma that involves both technical and philosophical issues. Canada's relatively small judo population is not the only reason that they have not succeeded internationally, as can be seen with Korean judo: "They are number one right now in the world. They do it with a very small number of athletes. They have an incredible training methodology and flow of athletes" (EC4). This suggests that if a *judoka* is not successful he/she will be eliminated from the team, an option that is not practiced in Canadian judo.

### Summary

According to the coaches' narratives, their current philosophies stemmed from beliefs of traditional philosophies based on Japanese judo. Contextual factors had a great impact during their socialization period in judo. Some of the coaches learned elements of their judo philosophy from their parents, who were themselves judo coaches and were more influenced by Japanese judo. Others were influenced by very strict coaches and learned within a very harsh training atmosphere, that was also influenced by Japanese judo. During their athletic career development, all of the coaches learned through a regime of discipline, a strict work ethic and hard work. These future coaches travelled, trained, and competed with the best athletes in the world.

Many coaches learned from experience that respect, attitude, hierarchy, and hard work were the basis for the development of their careers as athletes and as novice coaches. This was a normal process in judo since knowledge is usually passed down from one coaching generation to the next. This coaching sub-culture helped them develop their own coaching styles early in their careers. As well, this environment also helped shape the coaches' personal characteristics, as their careers developed. Their reports lead the researcher to attempt to understand the range of traditional and modern beliefs of expert judo coaches working in Canada. Traditional coaches illustrated many characteristics inherent in traditional judo philosophies that were based on Japanese judo. At the other end, was the European-Canadian coach, who had trained with coaches influenced by sport-based judo and sport science, rather than upon traditional Japanese practices even though his initiation to judo was through reading Japanese judo books. This coach was coded as *modern*.

In terms of the second research question, the coaches were situated at different points along the continuum from *traditional* to *modern* since they all developed their personal beliefs depending on their own philosophy and particular training circumstances. However, the coaches' traditional or modern beliefs, as well as their coaching styles had to be adapted to a new judo pedagogy in order to accommodate the process of training transformations that were imposed upon them by modern Canadian society and the characteristics of their athletes.

After a long period of trial and error some of these coaches came to understand that their methods and strategies did not adequately fit the Canadian reality, especially with Canadian *judokas*. Overall, the coaches created the "fun atmosphere" solution to

help some unwilling Canadian *judokas* adjust to the demands of international judo. In spite of the fun training atmosphere, the coaches associated with the national team were totally focused on competition. These coaches attempted to develop a Canadian style of training that also matched the demands of modern judo at the international level. These beliefs were in part, based on a mixture of various approaches to competition and modern strategies of training based on sport theory.

### **BELIEFS AND ACTIONS OF JUDO COACHES**

In the field of coaching, most research carried out at the University of Ottawa (Bloom, 1996; Côté, 1993; Côté, Salmela, Trudel, Baria, & Russell, 1995) has permitted the development of a conceptual model of coaches' mental representations, based solely upon of what they reportedly carried out in action. However, to date, there are few instances of the systematic behavioral recording or participant observation studies that have assessed the validity of these beliefs (Wilcox & Trudel, 1998). With that in mind, the goal of this section is to discuss the coaches' beliefs and their actions, and whether or not these components were consistent during training sessions.

Kamil and Person (1979) suggested that the philosophical background of teachers guides their future behavior and their interactive thoughts and decision-making in the classroom (Clark & Peterson, 1986; Keith, 1989; Yinger, 1986). It was also shown that the teacher's roles, values, beliefs, and philosophical principles shaped their future pedagogy (Fang, 1996). These concepts similarly guided the researcher's understanding of the constellation of coaching beliefs and actions, and assisted in the analysis of the salient dimensions of the various aspects of the characteristics of expert judo coaches. Pajares (1992) discussed beliefs based on the assumptions that beliefs are context/subject

specific, and that beliefs are centered around a cluster of considered attitudes. The author considered beliefs to be different than knowledge, and highly resistant to change compared to knowledge. Nespor (1987) suggested that knowledge is based on a “system of information and is semantically stored” (p. 309), whereas beliefs, “reside in episodic memory drawn from experience or cultural sources of knowledge transmission” (p. 309).

The assumptions discussed above were in accordance with the reported beliefs of the judo coaches in the present study. This reinforced the understanding that beliefs require making inferences about individuals’ underlying states, but they can also be inferred from verbal reports, intentions and actions (Rokeach, 1968). This interpretation and critical vision of observed reality (Bain, 1989; Earls, 1986; Locke, 1989; Sage, 1989; Schutz, 1989) helped the researcher better understand and describe how these expert judo coaches understood their coaching world in terms of their beliefs and actions.

One aspect of the adaptations process was evident from the principal interviews, in which the coaches expressed that they were involved in a give and take training atmosphere. The coaches’ reports of the appropriate methodologies that they used to address the constraints of Canadian judo were reflected in their training. This led the research to infer that the coaches’ beliefs were congruent with their actions. For example, as was observed during videotape analysis and/or during the stimulated recall interviews, the coaches adapted their training methods to the different skill levels of their athletes. The disciplinary aspects of the training atmosphere were also congruent with the beliefs they reported during their principal interviews. Although the researcher was able to infer the consistent relationship between beliefs and actions of the judo coaches, the manner in which they may have adapted their beliefs regarding the traditional philosophy of judo,

particularly the rituals and rules of conduct, requires further attention. However, the beliefs and actions of the judo coaches were highly congruent and these findings differed from the divergent actions and beliefs found by (Nespor, 1987) with physical education teachers. Why might this be so? One could hypothesize that national level coaches' attention is directed to the competition component of the coaching process (Côté, et al. 1996), since it is the competitive outcome that determines their accountability to the sport federation as well as to their job security. Thus their beliefs and actions are congruent. On the other hand, physical education teachers do not have this same accountability, since there rarely are significant competitions, and thus their beliefs and actions may be allowed to become divergent. A similar congruence between beliefs and actions in sport was found by Young and Salmela, (1998) with middle distance runners of various levels of expertise. All groups from club to national levels had the same beliefs regarding what was the relative importance of the various training activities which contributed to successful running performance, within deliberate practice framework (Ericsson, et al., 1993). However, only the top level runners actually practice those relevant to a greater extent, making their actions and beliefs more congruent than lower level athletes. Thus, it may also be the level of expertise of the coaches and athletes which contributes to the coming together of beliefs and actions

Parental engagement, together with quality mentors within enriched environments have been shown to have direct effects on the development of the coaches' beliefs from their first contact with the sport of judo. Pajares (1992) emphasized that the early lives of teachers as students, in this case coaches as athletes, reinforced appropriate values, beliefs and attitudes in their future careers. This model helps to understand the nature of

coach development, due to the long period during which both their families and coaches influenced them, and the effects of this period in establishing their future values, beliefs, and attitudes. The stimulated recall interviews as well as the researcher's observations, helped confirm that the coaches' expressed beliefs were consistent with their practices and coherent with views stated in their previous reports concerning the *dojo* atmosphere, discipline, work ethic, and their training strategies. Before they could succeed, these judo coaches had to create new ways to integrate elements into their training methods that were compatible with the Canadian context and this required years of experience, especially for the two coaches whose national origin was not Canadian.

In fact, their evolving beliefs about training were their most valuable coaching resource, since earlier attempted methods did not work effectively. Nespor (1987), in his discussion of the knowledge and beliefs of teachers supported this idea:

*Beliefs are far more influential than knowledge in determining how individuals organize and define tasks and problems and are stronger predictors of behaviors (p. 311).*

Thus, the coaches were obliged to learn how to adapt their style of coaching in order to survive in Canada. According to many of the coaches, the Canadian *judokas* would not accept the rules of training perhaps because "the society has changed" (FC2). The issue of personal development, commented upon by the coaches, required further in-depth study since the learning process was often complex and driven by intuition. Similarly, in the education literature, O'Brien and Stewart (1990) reported that preservice teachers expressed the feeling that much of content reading instruction was "common sense" and "common practice". Jackson (1986) further suggested that many teachers based their teaching on intuition and relied on personal experience rather than on reflective

knowledge and professional education. Therefore, methods of trial and error would require extensive periods of experience in the field in order to become effective rule-based styles of teaching, or coaching. The teaching style that some of these coaches eventually adopted appeared to reflect this pattern of learning. These findings were congruent with those of Clark (1988), Clark and Peterson, (1986) and Nespor (1987), who found that teachers tended to incorporate into their teaching style what they had learned during their apprenticeship, for example, how peers ought to behave in class and what it took to be an effective teacher (*episodic storage*). As coach FC2 commented, "We didn't know anything about training 25 years ago. We made a lot of mistakes". According to this coach the results of these inappropriate coaching methods generated a great number of dropouts, and coach (JC5) commented that this also resulted in a lack of medals.

Since then, the judo coaches have learned the art of coaching from extensive experience and from solving difficulties along their careers that were due to their beliefs and styles of coaching. However, with respect to the non-malleability of belief systems, it is fair to infer that some of the statements made by the coaches regarding the general characteristics of Canadian athletes may have been stereotypes based on the *existential presumption*, described by Nespor (1987). This presumption describes a tendency for teachers' to exhibit strong beliefs about students' ability, maturity, or laziness, based on past experiences and beliefs and not on the present reality. Similarly, coaches are susceptible to adopting a type of training based on their ideal instructional formats, which Nespor called "alternativity" (p. 318). These key features then, called attention to the performance of teachers in the classroom, and differentiated beliefs from knowledge in

order to increase the chances of facilitating the learning process. These same features can be observed in the coaching environment.

The legacy that evolved from Japanese cultural roots provided rituals with deep meaning in the early forms of Japanese judo. This legacy emphasized collectivity, duty and obligation, hierarchy, deference, and dependence as established by Jigoro Kano when he founded the judo Kodokan (Kawashima, 1957; Saeki, 1994; Shishida, 1992). In contrast, individualism, equality, rights and privileges, self-reliance, and self-assertion have characterized the North American culture and their institutions (Connors, 1977).

Alexander and Dochy (1995) carried out a comparative analysis of the concepts of knowledge and beliefs between educational communities in the United States and Europe. They found that adults' beliefs and knowledge in the United States differed from those in Europe based on their cultural background and educational experiences. Based on these factors one may question whether the present coaches, especially those born in Canada, actually assimilated these beliefs and rituals from traditional judo or simply adhered to them because they were part of 'the roots of judo'. As one coach commented, in general the *judokas* had a lack of critical thinking regarding the traditional beliefs of judo since they readily conformed to the norms of their *senseis'* cultural background, and in Canada these coaches were often considered as gurus.

Today, Canadian coaches are still trying to find the most appropriate system to fit the Canadian reality while trying to cope with the demands of international judo competition. These coaches stated that innovative training methods that incorporated a less strict environment would help create a better system for Canadian judo. What was not clear, however, was how these new methods and changes in coaching styles were

represented in adaptations of their actions, or changes in their beliefs. This dilemma suggests that beliefs are not easy to change. According to Pajares (1992), beliefs are resistant to change due to the long periods of experience that become layered one on top of another, that represent the individual's values.

In fact, it appears that a philosophical dilemma may exist for those traditionalists who defend the roots of judo and still maintain that it is necessary to adapt to modern Canadian society. There is no doubt that the coaches' established beliefs are in a process of transformation, and that the existence of the two contrasting philosophies has influenced individual coaching styles. The study of the impact of these philosophical differences on the effectiveness of the learning processes in a judo class may be a fruitful field for future research.

#### **ADDITIONAL SOURCES OF DATA**

Multiple methods and data sources have been shown to enhance the validity of research findings (Denzin, 1978; Miles & Huberman, 1994.) and are useful triangulation methods which may provide confirmatory evidence with respect to the consistency of emerging findings (Mathison, 1988). In the present study, the interviews and the stimulated recall sessions were not the sole sources of data. Additional strategies, which included videotape analysis of various aspects of the training session, the use of field notes, and participant observation were very essential for the triangulation of data and added complementary information for future discussion. Videotaping the training sessions and participant observation provided a useful way to compare, for instance, how the different coaches adopted and created various training atmospheres, coaching styles, and types of practice sequences previously reported. For example, domestic level coaches

appeared to adopt a similar type of training protocol, though they displayed different coaching styles. As well, one coach appeared to be more relaxed and communicative than another, though both of their training sessions had the same duration, mixture of ritual and exercises, and forms of randori. On the other hand, the national training coaches who trained their *judokas* solely for competitive purposes required a different approach to coaching. The intensity level of their practices was more deliberate and the technical involvement during the sessions required more specific interventions when compared to the other coaches. However, the intensity levels were much lower than those observed in the dojos of Japan and France (d'Arripe-Longueville et al., 1998; Yamashita, 1993).

Coaches unanimously declared that the rituals in judo, for example, the ceremony, bowing, respect, hierarchy and discipline needed to be preserved in order to maintain judo's roots. This appears congruent with the discussions presented by Hamada (1990) and Kawashima (1957). For instance, certain activities are not accepted practice in the Japanese judo culture, such as chatting, and receiving telephone calls on the mat or *tatami*, though the permissive Canadian context sanctions such behaviors. Canadian judo coaches were obliged to create a training atmosphere that also promoted fun to enhance athlete motivation, to ensure that they remained in the sport, and for the coaches' continued employment in Canada. For instance, the researcher observed that the coaches created a tolerant environment in which athletes could stop during training to rest and socialize, and even telephone calls were permitted. On the other hand, the researcher observed that the ceremonial aspects of Canadian judo were practiced in the same way as their Japanese counterparts, and in some cases were even more formal than in Japan. For example, the ceremonial aspects of the belt promotion observed during the participant

observation in one school, reflected a very traditional Japanese manner in which to praise the practitioner, as well as to enhance the martial arts atmosphere of the *dojo* at that moment.

Even though most coaches did not agree with the old ways of practicing judo, they still selected certain appropriate traditions to adopt such as: bowing during the ceremony, sparring or *randori*, showing respect for the coach, as well as having the athletes clean the *tatamis* or mat. It was observed that these tasks carried out with apparently no complaint from the athletes. Therefore, it was the researcher's impression that there was at least tacit approval between the coaches and athletes for behaviors that were perhaps only marginally acceptable, especially in the *dojos* of coaches with developing athletes. Therefore, one can assume that these norms were adopted for the purpose of mutual convenience. The cultural philosophy of judo, "Do it without question or complaint" was very common in the Japanese survey of judo coaches as athletes (Aoyagi, 1996), and in French judo (d'Arripe-Longueville, Fournier, & Dubois, 1998) indicating that a large number of athletes were willing to accept these rules. This was not as evident in Canadian judo according to the interviews and observations of the coaches during practice. The present dilemma is to understand how coaches adapted the rules and principles of traditional judo to their current beliefs. In other words, how did they define what was both permissible and desirable in their *dojos*?

## CHAPTER 6

### CONCLUSIONS

The purpose of this study was to describe the traditional and modern beliefs and the actions of judo coaches and how these beliefs were represented in their actions during

training. Three principal issues were addressed with expert judo coaches who worked within the Canadian context: 1) how these coaches conceptualized their beliefs regarding traditional values and behavior in judo, 2) how they differed in their beliefs regarding traditions and modern judo orientations, 3) whether these beliefs that ranged from traditional and modern perspectives, translated into the actions of judo coaches in actual training session.

The means of responding to these questions was through the use of qualitative analyses based on in-depth interviews, participant observation, field notes, and stimulated recall of their actions which were videotaped during training sessions.

The analysis revealed that the Canadian context for the sport of judo significantly shaped the coaches' personal evolution both as athletes and coaches with respect to the regards to the development of their personal philosophies of the practice of judo in this country. The inductive analyses revealed that these coaches conceptualized their sport in a manner that was analogous to the mental model of gymnastic (Côté, 1993) and team coaches (Bloom, 1996). Six components emerged from the analysis including the three central components of the Coaching Model (Côté, Salmela, Trudel, Baria, & Russell, 1995): organization, training and competition. In addition, three peripheral components of the context factors and the coaches' and athletes' characteristics were found. While conceptually similar to the findings of Côté (1993) and Bloom (1996), the present results indicated that the contextual factors of the Canadian judo environment were more complex than in the gymnastics (Côté, 1993).

Secondly, coaches who originated from other countries appeared to have

different beliefs regarding the traditions of judo and were required to make significant adaptations of these philosophies and coaching styles due to the constraints of practicing judo in Canada. All coaches appeared to develop a hybrid set of beliefs regarding judo training in Canada, which included Japanese-based traditional methods and science-based procedures which had to be adapted to the more particular mentalities of Canadian *judokas*. These coaches also developed a set of modern beliefs especially regarding training and international competition

Thirdly, the beliefs of the coaches which were recorded during the interviews, appeared to be congruent and consistent with their videotaped actions during the stimulated recall procedures. It was apparent that considerable adjustments were required carried out their practices, especially in terms of whether they viewed “judo as art” or “judo as competition”. The coaches also demonstrated that a number of their behaviors, especially those which related to creating the training atmosphere, were necessary with Canadian *judokas*, although it was clear from the researcher’s experiences in Japan that such practices were not the most effective in making Canada a world power in judo.

In sum, the present study has contributed to the understanding and conceptualization of the factors which affect the mental model of coaches and their evolution across their career. It also has added significant elements to the understanding of a variety of the traditional and modern beliefs and actions, and their adaptations in the Canadian judo.

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## APPENDIX A

### Information and Consent Form for Expert Coaches

#### INFORMATION AND CONSENT FORM

When a research project is designed to understand human beings by a member of the University of Ottawa, the Ethics Committee of the University requires the written consent of the participants. This does not imply that the project involves risks; the intention is simply to assure the respect and confidentiality of the individuals concerned.

This project is being directed by Dr. John H. Salmela of the University of Ottawa and investigated by Luiz Carlos Moraes. The intent of the project is to examine coaching practice of expert judo coaches. Interviews will be used to trace the nature of expert training procedures and description of the coaching process in judo. Data will be collected as follows:

- 1) Each coach will be involved in a audiotaped interview carried out by the investigator which will last approximately 1 hour.
- 2) Each coach will be videotaped during 2 training sessions lasting approximately 40 minutes each.
- 3) During a one hour restropective interviews (stimulated recall), each coach will look at a videotape of his/her training session and comment on his/her coaching.

The participants are free to withdraw from the study at any time without fear of reprisal. All interviews will be transcribed verbatim and the complete transcript will then be returned to the coaches for authentication. At this time, the coaches may remove anything they would rather not have said and have the opportunity to transform, correct or adjust any part of the interview transcript. Payment will not be made for participating in the interview, however, meals may be covered if the participant is required to remain longer than the allotted time due to participation in the interview process.

After being informed on the goal of the research project being conducted by Luiz Carlos Moraes, I consent to participate in this research project. I understand that there is no direct benefit to me from participating in this study. I will be advised on how my interview is related to that of the other expert coaches when all analyses have been completed. This will take place by means of a summary report including anonymous citations from myself and other coaches. There will also be a debriefing session immediately after the interview. I understand the results will be kept strictly confidential and that my name will not appear in any publications. In addition, the audiotapes will be erased when the analyses are completed. If the transcripts are appropriate to illustrate the data analysis procedures, I give my consent to have them used under conditions that the strictest confidentiality and anonymity will be ensured.

Signature (Interviewee) \_\_\_\_\_ Date \_\_\_\_\_

Signature (Researcher) \_\_\_\_\_ Date \_\_\_\_\_

Please fell free to contact us at any time:

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**APPENDIX B**

**DEMOGRAPHIC QUESTIONNAIRE**

Name: \_\_\_\_\_ Age: \_\_\_\_\_

Club: \_\_\_\_\_ Black belt grade: \_\_\_\_\_

NCCP level \_\_\_\_\_ Full-time coach \_\_\_\_ junior \_\_\_\_ senior \_\_\_\_

Part-time coach \_\_\_\_

Years of experience: judo \_\_\_\_ athlete \_\_\_\_ coach \_\_\_\_

Important titles as a coach: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Important titles as an athlete: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## APPENDIX C

### Semi-Structure Interview 1

#### INITIAL QUESTIONS

Open-ended questions related to the coach's fundamental principles, values, beliefs and his vision of coaching:

#### Philosophy of coaching:

What are the most important qualities of an expert judo coach?

Different coaches have their own particular style of coaching, rules and disciplinary conduct in judo. What is your particular style of coaching and how has it been influenced by Japanese judo?

What are your short, medium and long-term expectations for your career as a judo coach and for your trainees?

At this level is your role different from others judo coaches? Please elaborate.

What is your philosophy of judo?

#### Training considerations:

Describe a typical training session.

What are the main concerns (ability, characteristics, expectations) you have with your athletes?

#### Competition considerations:

#### How does competition relate to your philosophy?

What are the tendencies of this sport in the future?

**Semi-Structure Interview 2****PROBE QUESTIONS DURING STIMULATED RECALL****Phase I - Verbal Report**

Before the start of the interview, the investigator will make sure that the participant is in a proper environment for the stimulated recall, and then the main ideas behind this technique will be explained. The investigator will audio record the participant's explanation of the pre-selected information gathered during observation of the training session, for example, "What do you mean by.....during beginning of the *handori* (free throwing)?"

**Phase II - Video Recall**

Before the start of the stimulated recall procedure, the participant will be informed that he/she is free to stop the videotape any time he/she wants to talk about what he/she is seeing.

**Types of questions:**

"Tell me about what is going on in this situation"

"What are you thinking about that made you do what you did?"

**Final question:**

"What was your impression about this stimulated recall?"