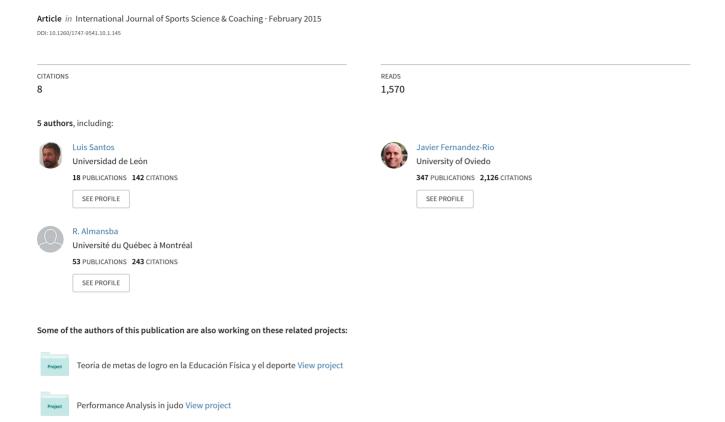
Perceptions of Top-Level Judo Coaches on Training and Performance



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Title

Perceptions of Top-Level Judo Coaches on Training and Performance

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ABSTRACT

The main goal of this project was to assess top-level judo coaches' perceptions on two capital elements in coaching: training and competition management. 41 experienced, high-level coaches from Europe, Asia and America agreed to participate. An openended questionnaire was selected as the assessment instrument. The two main topics (training and competition) were divided in two areas: methodology and access to high-level performance, and combat strategies and coaches' roles and tasks during combat, respectively. Results showed that in order to access high-level performance, judo training must consider the most effective techniques in competition, judokas must develop their special technique and they must work on physical, technical, tactical and psychological aspects. Regarding competition, combat strategy is determined by the opponent, and coaches must provide precise information to their judokas, focusing on their grip and body alignment.

Key words: Coaching, Qualitative Research, Competition Management.

INTRODUCTION

Judo is a Japanese martial art, and it is also an Olympic sport practiced by millions all over the world. Judo competition expresses enormous complexity for competitors. It demands technical and tactical skills, but psychological, emotional and physiological factors are also indispensable for success^{1,2,3}. Obviously, this complexity also affects judo training, since coaches have to design, elaborate and put in practice each judoka's training protocol to obtain the best results in competition.

Several authors have highlighted the need to study the role of sport coaches^{4,5,6}. Others have showed that training and competition must be considered two different subcontexts in the general context of sport⁷. However, scientific literature on judo coaching includes very few references (inexistent in combat management). Therefore, we decided to conduct a research project to try to fill this gap.

PREVIOUS RESEARCH

Regarding training management, Sterkowicz et al.⁸ analized the importance of coaches' professional activities to achieve success in judo competition. The method used for data collection was a questionnaire that included several factors that were considered a key to success in judo coaching, and 20 types of professional activities defined by Tumanian⁹. Some topics included were: organizing the competitor's rest and recovery processes, controlling the judoka's technical, tactical and physical schooling, planning the training process, conducting scientific research works or coaches qualifications. Results showed that planning and organizing the competitor's training and recovery processes are very important in judo coaching.

Collins¹⁰ moved a step further and examined judo coaching in three stages. Firstly, he questionned five elite coaches on what they believed was an effective coach. Based on their answers, he developed a questionnaire: the Judo Coaching Scale (JCS) to assess judo coaching effecacy. Secondly, he tested the validity of this instrument with judo players and coaches using a multi-method approach that combined quantitative and qualitative methods. Responses indicated that perceptions of coach effectiveness vary as a function of being a player or a coach, and depending on the level of participation (elite versus non-elite). Qualitative results emphasised the importance of emotional control. Finally, the relationship between JCS scores and emotional intelligence was assessed using the Emotional Intelligence Scale (EIS¹¹). Results showed a significant connection between judo coaching scale scores and emotional intelligence factors, with further analysis showing that elite coaches reported higher emotional intelligence scores than club coaches.

Callan¹² studied the Team Bath Judo Programme as a single bounded case study, to illustrate the sport development process as a model. Thereby, analysing the structural phases involved in establishing a judo environment within a university context. In considering this judo environment within a university context, Callan selected an appropriate framework for those structural phases, which one would expect within a sports development process. The author concluded that Team Bath Judo programme brings together sporting performance, academic standards and research opportunities.

Regarding judo compettion management, Mesquita et al.¹³ analyzed the instructions of Judo coaches immediately before competition, during the preparation process for the fight. Their goals were: study the coherency between the amount of information the coach transmits and the amount the athlete retains, identify the correlation between the coherency, the extension and the number of ideas conveyed by the coach, and determine if the retention varies in relation to variables such as the type and nature of the information provided, as well as the gender and level of the athletes. Results showed the

need of coaches to improve their instructional strategies to minimize the loss of information.

Martindale and Nash¹⁴ examined UK coaches' experiences and perceptions of the usefulness of sport science (support and knowledge) across three levels (novice, developmental and elite), and four sports (judo, rugby, football and curling). Their results showed three themes: practical application and relevance, integration and access, and language. In addition, they found significant variability in the extent to which sport science was considered relevant and to whom, although interestingly, this was not strongly related to coaching level¹⁴.

There is a need to review, update and increase the number of studies on judo coaching during practice and competition. Thereby, the main goal of this research project was to assess high-level judo coaches' perceptions on two capital elements to achieve high-level performance: training and competition management. We expected high-level coaches to share information on training methodology, technique selection, elements needed to reach high-level performance, combat strategy, and roles and task during competition. This project aspired to develop practical knowledge for other coaches who want to improve their athletes' performance.

METHODS

PARTICIPANTS

The targeted population (experienced, high-level coaches) was identified based on these criteria: expert judo players (black belt 1st Dan degree, minimum), ten years of coaching experience at all levels (state, national, international) and ages (from children to senior elite men and women), excellent results (national and international-level judo players), and different nationality. A total of 73 coaches were invited to participate. 12 declined the call due to time constraints, while 20 were rejected because of the scarce information they provided. Therefore, 41 international judo coaches from 3 continents (Europe, Asia and America) were included in the final sample: 16 from Spain, 8 from England, 4 from Brazil, 4 from Croatia, 3 from the USA, 2 from Japan, 2 from France and 2 from Germany. 80% were black belt 5th-7th Dan, 18 % were 8th-9th Dan, and just 2% 1st Dan. At the time of the study, 36% were working in a National/Olympic team, while 21% had been part of the National/Olympic Coaching Staff at least once in their coaching carreer. Finally, 70% of them had more than 30 years of coaching experience at all levels. Hence, this group of participants could be considered high-level judo coaches.

Insert Table 1 over here

PROCEDURE

A qualitative research approach was selected to provide a more in-depth insight on expert coaches' knowledge on training and competition. Due to the international nature of the project, direct interviews of the different participants were very difficult to implement (they were disseminated all over the world). Therefore, this assessment tool had to be disregarded. Finally, an open-ended questionnaire was selected as the best instrument, since open-ended questions could be considered a modified non-directive type of interview¹⁵. This type of assessment tool allows each participant to fully explain their ideas, with no space and/or time limits.

The questions were developed with the aim to make participants feel comfortable to write about their training experience and its relevance for current high-level judo coaching. The goal was to develop open-ended questions on basic aspects of training and competition management that high-level coaches could easily identify and reflect on. The first version of the research instrument (questionnaire) was developed by one of

the researchers. It was reviewed and modified by the other judo-expert researchers. A second version was tested on a small sample of high-level judo coaches who examined the questions for comprehensiveness and comprehension. Their imputs were used to create the final version of the questionnaire (see Table 1). It was composed of 30 items grouped around two main topics: Training and Competition (see Figure 1). The first one was divided in two areas: Methodology (questions 1-15) and Access to High-Level Performance (questions 16-20). The second one was also divided in two areas: Combat Strategies (questions 21-24) and Coaches' Roles and Tasks during Combat (questions 25-30).

Due to the worldwide character of the sample, the original questionnaire was written in English. Following Hambleton et al. 16, it was translated into Spanish and French by a specialist, and then again into English to test their similarity with the original one. Finally, two experts assessed all the items, and they approved their adequacy to obtain information on judo training and combat on the different languages selected.

Electronic mail messages were sent to the selection of judo coaches around the world compiled by the researchers based on the previously explained criteria. They were informed about the whole research project, goals and methods in detail. 83% agreed to participate, and the assessment tool (questionnaire) was sent to all of them. They did not have a deadline to finish it, but they were asked to send it back by electronic mail, after they were done filling the answers. Sujects were also asked to fully explain every response. Assurance of confidentiality was given to all participants.

DATA ANALYSES AND TRUSTWORTHINESS

Open-ended questionnaires' data were analyzed via thematic content analysis¹⁷ and constant comparison¹⁸. Thematic content analysis focuses on searching for patterns in the text. Descriptive and pattern coding was used to analyze both within-case and crosscase patterns¹⁹. Themes were identified inductively as they emerged naturally from the data. Thematic content analysis related to specific topics was simply a matter of determining which ideas were exhibited by coaches in their open-ended responses. The themes that emerged in the first independent analysis were critically examined by the first and second authors through a reflective dialogue. Both researchers discussed the themes that they had previously found separately. Trustworthiness was supported through continuous feedback and participative analysis on the part of these two researchers as they reviewed and refined the emerging categories, so that the findings could be considered dependable, credible, and transferable²⁰. The goal was to use the information obtained to enhance the potential contribution of the paper to a wider judo community through the transferability of findings in regards to the practice of expert coaches. The themes that emerged from the data are presented explicitly through the results section and supported by several example quotes²¹.

Insert Figure 1 over here

RESULTS

Through the systematic analysis of the coaches' perceptions on training and competition management, several features emerged naturally from the data. They are presented below and quotes are used to exemplify each one of them²¹.

TRAINING - METHODOLOGY

All participating coaches considered that it is extremely important to teach judo in different contexts:

"A judo throw, such as *uchi-mata*, has many variations and these variations are required if *uchi-mata* is to be used against a range of opponents with different styles and different levels of skill" (coach No. 34)

Regarding the best training methodology, all coaches agreed on 5 traditional methods: *uchi-komi, yaku-soku-geiko, kakari-geiko, nage-komi* and *randor*i. Many added *renraku-waza, renzoku-waza, tandoku-renshu* and *shiai*, and a few mentioned *kuzushi, tsukuri and kake*. It was remarkable that a majority included an interesting concept: the search for each judoka's *tokui-waza* and its evolution:

"Uchi-komi is basic but is not enough. Competitors must employ yaku-soku-geiko, kakari-geiko and nage-komi for achieving high-level" (coach No. 40)

This group of high-level coaches highlighted the importance of competition in training, because it develops the judokas' motor-perceptual, conditional, technical, tactical and psychological potential:

"Master the basic technique, lots of *uchi-komi*, start practicing the move, and later with distaste, and finally *randori* and *shiai*" (coach No. 20)

Half of the coaches confirmed that they conduct specific training sessions on *ne-waza*, and a majority include it in regular practice, because they believe that it is a distinct element for performance:

"Some people misguidedly belief that if you dominate *nage-waza*, you won't need *ne-waza*" (coach No. 33)

However, participants also agreed that referees limit the importance of *ne-waza*, because they tend to stop the combats too early:

"The IJF rules applied by referees only allows short duration of *ne-waza* and judoist will respond by focussing on competition strategies that they believe will bring them most success" (coach No. 22)

A vast majority of coaches believed that children and youngsters should be coached using traditional methods (*uchi-komi*, *yaku-soku-geiko*, *kakari-geiko*), while competitors should be trained with traditional and modern methods (proprioception, 3D motion analysis, mental training...). Many of them also included the judo players' *tokui-waza* for everybody. Finally, a few considered that young, brilliant judoists can also be trained using modern methods:

"All judo players, young and adults, should learn traditional or classical judo techniques first, because in doing so judoist will learn important principals, *kuzushi*, *tsukuri* and *kake*. The judo player will also develop physically in strength, flexibility, timing and balance" (coach No. 5)

All coaches agreed that global training methods are better for children and analytic methods work better with adults:

"When teaching beginners I do not ask for perfection, but I do ask for improvement, with higher level players training needs to be more analytical and specific to the needs of the players for instance focusing on grip patterns, combinations and variations to throws" (coach No. 16)

When asked about the number of factors that should be controlled in judo training, many coaches agreed that the higher the level of the judoist, the more elements should be controlled, because the demand is also higher:

"I consider the following six factors: posture, grip, breaking balance (*kuzushi*), step pattern-entry, positioning (*tsukure*—placing the opponent in a disadvantageous position and the process of *tori* fitting into the throw), throwing action (*kake*)" (coach No. 31) Regarding technique selection, all coaches agreed that the morphological profile of the judoist is determinant:

"The physique of judo players undoubtedly determines the techniques they are physically able to do and therefore the choice of techniques" (coach No. 10)

Furthermore, some coaches mentioned legendary judokas that adapted their technique to their attributes:

"Gessing, Kimura, Yamashita, Muneta, Koga, Riner, Iliadis... every one of them made it out of his judo career, the ideal technique for their morphology" (coach No. 28)

When asked about the most effective technique in judo, a vast majority of our coaches mentioned *seoi-nage* (*ashi-waza* group) and *uchi-mata* (*te-waza* group). However, many believed that every technique is effective; it only depends on the judo player:

"At beginners' level they should focus on *o-soto-gari* and *kesa-gatame*, although both techniques are used to good effect by elite competitors" (coach No. 6)

The majority of coaches believed that a judo player should master between 5-7 techniques (*nage-waza* and *ne-waza*) to reach high-level:

"On the players' dominant side (normally the right), they should have 8 techniques and on the other side (normally the left) 3 techniques" (coach No. 23)

Many coaches mentioned again the "judoka's special technique", adding that different champions have used just one or two techniques in their sport career:

"Everybody knows that Inoue works only on *uchi-mata...*" (coach No. 38)

The majority of coaches believed that it is important to have a repertoire of techniques for the right and left side to achieve high-level performance. However, they know that it is very difficult to achieve the same level of both sides:

"Techniques to the right, left, combinations (*renraku-waza* and *renzoku-waza*, counters (*kaeshi-waza*) are essential to succeed at in high-level performance" (coach No. 12)

Regarding each judoist's "special technique", a majority of coaches confirmed that they let their judokas select theirs. Many believe that this decision depends on the judo athlete (some need advice and others do not), but the special technique should be learned on both sides:

"I try to provide players with ideas and encourage them to adapt according to their own physique, particular strengths, weaknesses or preference" (coach No. 13)

All of our coaches valued video analysis to correct and improve technical and tactical elements of their judokas' performance:

"To correct mistakes and develop our tactics" (coach No. 18)

Many coaches added that video analysis should also be used to study future opponents: "I use it to study the opponent and prepare the strategy to beat him" (coach No. 37)

Concerning athletes' conditioning, all coaches agreed that strength and endurance are the most determinant physical capacities in judo, while a few added flexibility:

"Very strong competitors struggle to finish a combat, while fast judo players with endurance can finish a combat in a minute" (coach No. 21)

Finally, conducting research is not a priority for the vast majority of these coaches. However, all of them believe that it is a source for improvement. They try to be updated through courses and seminars. Surprisingly, internet is another source of information:

"Techniques that we learn in seminars with high-level competitiors and teachers and that can be watched in internet videos" (coach No. 29)

TRAINING - HIGH LEVEL ACCESS

The majority of coaches agreed that high-level judo demands new training techniques that "make a difference in competition". However, a minority believed that traditional techniques are enough. Many also believed that both types of techniques are equally important to reach high-level, because the judoka needs everything to improve his/her level:

"Even some great Japanese developed or changed traditional judo techniques to suit their own capabilities and if judo player are to succeed at the highest level they must be able to vary or change a traditional technique to suit their own physique and strengths" (coach No. 9)

Our group of coaches highlighted that the goal should be to improve the weaknesses and maximize the strengths of each judoist:

"This is dependant upon the athlete" (coach No. 24)

Regarding the factors needed to reach high-level, physical, technical, tactical and psychological training were mentioned:

"For competitors: technical 45%, tactical 10%, psychological 40%, theoretical 5%" (coach No. 27)

COMPETITION – COMBAT STRATEGY

Participants agreed that several elements should be considered in competition: technical and conditioning level, special techniques, psychological profile (motivation, performance under pressure...) and tactics:

"At certain times (last part of the combat, fatigue...), the technical level of a judoist determines his strategy" (coach No. 37)

However, the majority of coaches mentioned the opponent as the most importat factor in combat:

"The number of special techniques of the opponent and how many can he combine are crucial for our judo player" (coach No. 6)

Most coaches agreed that each judoist should have a pre-determined combat style, based on the previously mentioned elements, which can be modified when necessary:

"It is important to have a style in competition and try to develop it, but it should be adapted and modified to fit the changing conditions of the combat" (coach No. 41)

Nevertheless, a few coaches did not agree:

"Only top competitors are capable of enforcing their style in every combat" (coach No.

Many participants believed that the best combat strategy is to avoid the opponent's grip and body position to limit his/her special techniques and be able to use our own:

"The judoka must control his opponent using the right grip and displacements, creating the conditions for his special technique" (coach No. 15)

Attacking to umbalance the opponent physically and emotionally was another strategy mentioned. Anticipating the rival's actions was also considered important, but it requires a previous analysis (weak and strong points):

"Opponents should be analysed, work on their grip and anticipate their actions to win the combat, and use *ne-waza* to let time help us" (coach No. 8)

All participants agreed that judo techniques should be modified for every combat, considering if the opponent is right or left handed:

"Ippon-seoi-nage with a lapel grip (eri-seoi-nage) or seoi-nage with the unique foot entry pattern used by Koga are excellent examples on how a basic technique can be adapted into an effective contest winning throw without detracting from skilful judo" (coach No. 35)

COMPETITION – COACHES' ROLES AND TASKS DURING COMBATS

All participating coaches agreed that they should provide their athletes with information during combats, without making them loose concentration:

"During a judo contest (*shiai*) players need to focus on their opponent. If the coach provides too much information, the player's concentration will inevitably be diverted away from his opponent and the contest" (coach No. 4)

When asked about which elements should be controlled during combats, our coaches agreed on three: grip, body position and displacement. They are considered the most important because they determine the technique that is going to be used:

"I focus on any element that can help my competitor, but I only talk about the grip and the displacement" (coach No. 18)

However, coaches also suggested that any factor that could help the athlete perform at a higher level should be observed by the coach during combat:

"Every aspect: grip, displacements, techniques, the score, the referee..." (coach No. 7)

All coaches agreed that the most relevant information should be transmitted prior to the combat:

"During the fight, the trainer can only suggest the tactics or timing, technical analysis is done after the fight" (coach No. 11)

This information should be transmitted verbally and/or through gestures:

"I transmit information through precise words and gestures previously trained" (coach No. 22)

DISCUSION

The present study examined high-level judo coaches' beliefs on two determinant judo coaching areas of knowledge: training and competition management. Results revealed that judo training is a multifactorial and complex process determined by the judo player and the coach's sporting culture, which is his/her training experiences as a judo player and a coach. It is also based on the combination of traditional and modern training

methods. All participating coaches agreed that judo techniques should be practiced under different conditions and contexts, including *ne-waza*. Words such as variability, adaptability, combinations, dynamism, counterattacks, and linking emerged from the coaches' responses. Previous research has showed that a typical judo training format is based on the repetition of a variety of technical and tactical skills, practiced through a series of drills¹⁰.

However, our high-level coaches believed that the number of techniques that a judoka should master should be limited. Previous studies showed that olympic and world champions use an average of 6 *tachi-waza* and 2 *ne-waza* techniques^{22, 23, 24, 25}. Our coaches agreed that the morphological profile of the judoist (i.e., height, weight, arm span, body-fat percentage) is determinant in technique selection. Inamura et al.²⁶ established a relationship between throwing technique selection and the judoka's morphologic profile. They believed that *harai-goshi* and *o-soto-gari* are power throws well-suited for large and strong judo players, while *seoi-nage* is more technical and better for shorter players with good agility.

Our group of high-level coaches also believed that the most effective techniques in judo are *seoi-nage* (*ashi-waza* group) and *uchi-mata* (*te-waza* group). Sterkowicz and Franchini²⁷ also showed that *ashi-waza* and *te-waza* are the most widely used techniques in competition, reinforcing our results. Almansba et al.²⁸ also showed that *o-soto-gari* (*ashi-waza* group) is a very easy technique for any judoka.

When considering the best training methodology, all coaches agreed on 5 traditional methods: *uchi-komi*, *yaku-soku-geiko*, *kakari-geiko*, *nage-komi* and *randori*. A few also mentioned *renraku-waza*, *renzoku-waza*, *tandoku-renshu* and *shiai*. Ishikawa and Draeger affirmed that these methods are specific to judo and crucial in a judoka's development. Hence, judo players must work with them throughout their sport carrer ²⁹. The vast majority of our participating coaches believed that children (non-competitiors) should be coached using traditional methods (*uchi-komi*, *yaku-soku-geiko*, *kakari-geiko*), while older judokas (competitors) should be trained with traditional and modern methods (proprioception, 3D motion analysis, mental training...). Previous studies refer the use of videocameras and 3D technologies for biomechanical assessment^{26,30,31,32} or error detection³³ in judo training.

Regarding athletes' conditioning, all coaches agreed that strength and endurance are the most determinant physical capacities in judo, followed by flexibility. The vast majority of research on judo conditioning has highlighted the importance of these bioenergetical and neuromuscular parameters ^{34,35,36,37,38}.

All of our high-level coaches valued sport science techniques (i.e. video analysis) to correct and improve technical and tactical elements in their judokas' performance. Authors such as Collins¹⁰ believed that sport scientists (psychologists, physiologists, biomechanics, nutritionists...) are important in current judo competition. However, this author also mentioned that, sometimes, these sport proffesionals can be perceived as a threat for a minority of coaches. In a group of coaches from different disciplines (football, rugby, curling) including judo, Martindale and Nash¹⁴ found that there was significant variability in the extent to which sport science was considered relevant, and it was not related to coaching level. Open mindedness, time management, understanding how to access information, or having access to knowledgeable others have been mentioned as elements that could hinder or facilitate the connection between coaches and sport scientist³⁹.

Our participating coaches also believed that a great amount of training time should be devoted to psychological training. Previous research¹⁰ has showed that coaches expend a great deal of effort in helping judokas develop their physical potential, but the same

effort is not placed on the judo players' psychological development. However, Nelson⁴⁰ considers that judo coaches can intentionally influence the psychological development of their judokas which, in turn, can positively influence their performance. Certainly, mood state changes in judokas prior and during competition. Stevens et al.⁴¹ found that tension increases before competition, when the judoka is matched against an opponent. Acording to Lane⁴², this finding indicates that judo players experience intense emotions at the contest area, and coaches should consider how to develop emotional control techniques in their judokas.

Regarding judo combat, our high-level coaches believed that the opponent is the key element to consider for combat strategy. They talk about his/her technical and conditioning level, special techniques and psychological profile as the most determinant elements to assess and study in opponents. Furthermore, avoiding the opponent's grip and body position to limit his/her special techniques and be able to use our own, as well as attacking to umbalance the opponent physically and emotionally are the two combat strategies most mentioned by our expert coaches. Takahashi et al. 43 believes that strategy and tactic in judo must be very carefully crafted, because what works for one judoka may not necessarily work for another.

Finally, our high-level coaches agreed that very little information should be transmitted to the judokas during combat. An excessive amount of information can confude the competitor and force him/her to make mistakes. Mesquita et al. 13 believed that athletes cannot retain all the information they are exposed to. Therefore, this should be very precise. Other researchers, in different sport disciplines, also agreed on the importance of selecting the amount of information provided to athletes during competition, indicating that it should be concise 44, 45, 46, 47. Elements such as grip, displacements or body placement are cues to anticipate opponents' actions and set the pace of the combat and they should be the focus of the coaches' instructions.

CONCLUSION

According to high-level coaches, judo training and competition is characterized by a combination of traditional (*uchi-komi*, *nage komi*, *randori*...) and modern training methods (proprioception, 3D motion analysis, mental training...), and it is also highly influenced by the coach's sport culture.

In order to access high-level performance, judo training methodology must consider several basic factors: (1) the most effective judo techniques in competition are: seoinage and uchi-mata from tachi-waza, and kesa-gatame, juji-gatame and sankaku-gatame from ne-waza; (2) it is necessary to master 5-7 modern judo techniques between tachi-waza and ne-waza; (3) it is very important to develop techniques' combinations and counterattacks; (4) each judo player should develop his/her special technique; (5) it is not necessary to master throwing techniques on both sides (right and left), but some must be mastered on every side; (6) it is important to work on physical, technical, tactical and psychological elements.

Regarding combat strategy: (1) the opponent determines it; (2) each judoka must possess his/her own style, which can be modified during the course of the combat; (3) the judoka should put pressure on the opponent, wait for a mistake and take advantage of it (he/she should be fast and explosive and be able to create something unexpected, trying to score first and manage the advantage).

Regarding the coaches' roles and tasks during combat: (1) they must provide very little information to their judo players and be careful not to distract them; (2) coaches must concentrate on any element that could help their judoka, but just a few (no more than three); (3) coaches should focus on their judoka's grip and body alignment, but also on

their opponents'; (4) information should be transmitted verbally, through gestures or "any via" that fits the purpose.

The coaching sample used in this research project is one of its assets. The high level of the participant coaches gives additional value to the findings. They can be of great help for other coaches' work. The information gathered can be labelled as *on-hands*, and it could be considered *practical knowledge* for current judo coaching. It shows the need for coaches to improve and update their knowledge on technical, tactical and conditioning aspects of training, but also their psychological and pedagocial knowledge.

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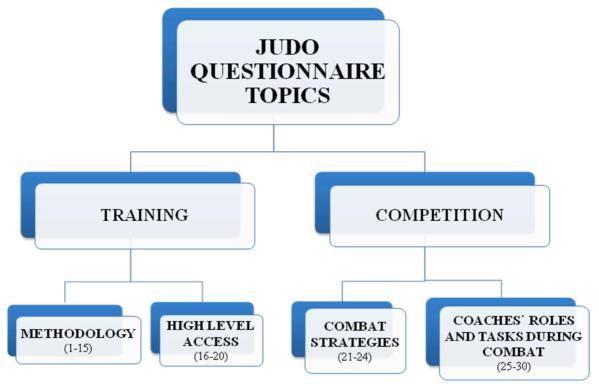
Table 1. Judo Coaches' Questionnaire

Judo-Coach Questionnaire

Please Fully Explain Each One of Your Answers.

- 1. Do you think it is necessary to teach the judo techniques in different situations?
- 2. Why judoists perform very little Ne-waza in competition?
- 3. Do you carry specific training sessions of Ne-waza?
- 4. How much time do you practice Ne-waza in your training sessions?
- 5. Should adult competitors work on judo techniques in a traditional way or in a modern way?
- 6. Describe the technique training methodology which you consider most suitable
- 7. Considering the different training methods, which should be used more frequently to acquire and improve Judo technique?
- 8. Which method is the most appropriate to teach judo techniques to beginners: analytic or global?
- 9. How many factors do you try to keep under control when a judo technique is executed?
- 10. Do you research new training techniques or do you use only traditional techniques?
- 11. Do you think the morphological profile of the judoist is determinant in technique selection?
- 12. Give us a practical advice on technical training. Something "your own style"
- 13. Do you use video analysis to correct and improve technical elements?
- 14. Do you select special techniques for each judoist or he/she chooses his/her own?
- 15. Which physical capacity is the most determinant in judo combat?
- 16. Which techniques seem to you the most effective in judo combat?
- 17. How many techniques (average) should a judoist master to reach a high level?
- 18. Is it necessary to develop right and left side judo techniques, combinations, counterattacks... to achieve high-level performance?
- 19. Are modern techniques, not classified by the IJF, indispensable to access the highest judo level or traditional techniques are enough?
- 20. Give each factor a value (percentage) according to their importance to access high-level judo performance (physical-technical-tactical-psychological-theoretical...)
- 21. What factors determine combat strategy?
- 22. Should a judoist be faithful to his/her own style at all times?
- 23. Which strategy is the most appropriate against a physically or technically superior adversary?
- 24. Should a judoist change his/her way to perform judo techniques or should they never be modified?
- 25. Should information be given during the combats?
- 26. How much information do you give during combat?
- 27. What relevant information should you communicate during combat?
- 28. Which elements should you observe during combat to help your judoist?
- 29. How do you transmit information to your judoka?
- 30. How many factors do you try to keep under control during combat?

Figure 1. Judo Questionnaire Topics



*Numbers Refer to Items in the Questionnaire