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The Arts and Sciences of Judo – Authors' Submission Guidelines



How Expert Coaches Understand The Application of Rhythm in Judo

By Georgios Bountakis & Mike Callan

Abstract: The goal of this study is to learn about the use of rhythm in judo through the eyes of skilled Japanese trainers. In their native language, six expert Japanese coaches were questioned. The transcripts were coded using thematic analysis software and Interpretive Phenomenological Analysis (IPA) was used to analyse them. The IPA method was used for this study because it enabled the data to provide the framework for themes rather than the researcher influencing them.

Rhythmic training was used for a variety of reasons, including quicker technical improvement, better attack or defence, fitness, speed, skill acquisition, and personal and spiritual growth, according to interviewees. Both the interviews and the codification process resulted in fresh discoveries about the use of rhythm in judo and judo as a pedagogical tool. In the context of training, the rhythm was regarded as an integrated and representational aspect.

This research looks at how professional coaches apply rhythm in judo and gives us some insight into how they think about it. It demonstrates that outside of the training setting, coaches play a significant role for students by educating, coaching, and guiding them. Humans, body, opponent, rhythm, tai sabaki, technique, breakfalls, and training are among the 154 textual pieces divided into eight categories. Human movement, judo rhythm, teaching method, and technical skills emerged as the four key topics.

Keywords: judo; harmony; rhythm; pedagogy; skills; movement

hythm in judo is a concept that draws together a variety of topics including judo history and body movements also found in dance. A detailed study of what expert judo coaches understand by rhythm in judo has not previously been carried out. This study seeks to address that with detailed research aims outlined below.

In Japanese, the word 'judo' is written using the ideograms 柔道 and means 'gentle way' (嘉納治五郎, 2005). Professor Jigoro Kano graduated from Tokyo Imperial University with a degree in Literature in 1881 and a degree in Philosophy the following year. He established the Kodokan as a school to teach the art of judo, which was an amalgamation of many ju-jutsu systems. Ju-jutsu was established by Samurai warriors (lit. "one who serves") to enable them to battle opponents in hand-to-hand combat. With the Meiji restoration in 1868, their reign came to an end (Brousse & Matsumoto, 1999; Japan, 2019; Kanô & Cadot, 2013; The History of Judo, 2019), their legacy, however, goes on throughout the history of judo and martial sports. According to Hoare (2009), the origins of judo are linked to Japanese battle traditions, life arts, and Kano's personality (Hoare, 2009).

Dance has been a sign of conscious awareness of the existence of life since ancient times, due to the idiosyncrasies of rhythm, and it performed an important and neces-

sary function in the period before visual art. This may be found in ancient cultures all across the world when people dance for religious purposes (Sfetcu, 2014).

Aristotle (384-322 BCE) characterised education as a combination of music and gymnastics, while Socrates (470-399 BCE) advocated for more widespread dance instruction, claiming that "those who honour the gods best with dances are best in combat." In his book "Laws," Plato (427-347 BCE) said, "So the well-educated man may learn to sing and dance well," and devoted much of his emphasis to the value of dance instruction.

Dance instruction, like judo, is a somatic experience with the ultimate objective of developing a competent body. Players who receive quality training have a greater awareness of their bodies, which leads to improved movement control, which is critical for judo athletes. This training is found in Japanese kabuki dance (Hahn, 2007), the Greek syrtaki dance, (Zografou & Pateraki, 2007), and in walking techniques used in the traditional and Olympic sports of Japanese judo and Greek wrestling.

Despite the fact that there is no study in the field of judo that tackles why rhythm is vital, scientists and experienced trainers believe that rhythm is a crucial skill in people's everyday life. People who have a strong sense of rhythm

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move better, breathe better, and start and end work on time. In sports, motion and dance can help not just with performance but also with injury reduction or prevention. Those who have a natural rhythm may be able to develop their technique more quickly than others. This study aims to learn more about the relevance of rhythm in judo by looking into how skilled coaches see its application.

A review of the literature revealed no thorough information on judo rhythm and how it might be utilised to improve athletes' abilities. The information was gathered from the researcher's first-hand conversations with experienced Japanese teachers.

AIMS OF THE RESEARCH

The aim is to explore how expert coaches understand the application of rhythm in judo. There is currently no research in the field of judo that addresses the question of why rhythm is important. Scientists and experienced coaches agree that rhythm is an important skill in the peoples' everyday lives (Reilly, 2009).

Judo is made up of three core tools for instruction or practice: *kata, randori*, and *shiai*. Because those three basic training methods have remained unchanged, three research questions connected to this study were developed:

- 1) *kata* stage (fundamentals); how do high-level teachers perceive the contribution of rhythm to the first steps of the practitioners?
- 2) randori stage (free training); how do high-level teachers evaluate the importance of rhythm in randori and its relationship in daily training?
- 3) *shiai* stage (contest); how do top-level players use rhythm for offence / defence?

METHODOLOGY

Interpretative Phenomenological Analysis (IPA) was used to address the study topic, and the technique included interviews with top-level national coaches and university professors. Ethical approval was given by the University of Hertfordshire's School of Life and Medical Sciences Ethics Committee.

The goal of phenomenology is to understand how people make sense of their lived experience (Starks & Brown, 2007), and to elicit a detailed account of a personal event. Phenomenology studies the experience and meaning of phenomena in order to identify phenomena and unearth previously undetected or missed concerns. As a result, rather of forming conclusions, phenomenology unveils 'hidden' meanings or identifies the influence of a phenomena. Simultaneously, this technique gives detailed explanations that enhance comprehension. Researchers may be better able to appreciate the possibilities embedded in the experience of events as a result of acquiring this information (Lutz, 2013).

IPA research, according to Conrad (1987), is a dynamic process in which the researcher strives to take an insider's viewpoint on the participant's experience. Participants are specialists in their fields of experience and, by extension, the subject under examination. According to Conrad (1987) IPA research is conceptualised as a dynamic process where the researcher attempts to assume an insider perspective on the participant's experience. Participants are experts of their experience, and by implication, of the topic under investigation (Osborn & Smith, 2008). According to Smith and Osborn (2004; p. 211) the use of IPA is "particularly suitable where the topic under investigation is novel or under-researched. Where the issues are complex or ambiguous and where one is concerned to understand something about process and change".

For these reasons IPA was preferred as the thematic analysis methodology.

A key informant sampling approach is a research approach whereby key informants are utilised as expert sources of data. Because of their own abilities, key informants are able to supply more information and provide a better understanding of what is going on around them (Marshall, 1996). The key informant approach is a qualitative research method that has been successfully and widely applied in a variety of social science studies. The quality of data that may be acquired in a short amount of time is a benefit of the key informant approach (Marshall, 1996).

As the study seeks to elicit the views of expert coaches on the topic of rhythm in judo, it was felt necessary to apply the principles of key informant sampling to identify the experts. The approach taken is explained below.

The International Judo Federation (IJF) and Kodokan Judo Institute, have a ranking system criteria (IJF, 2018), such as dan grade in combination with age, which leaves no room for misunderstanding about who is an expert and who is not. In this study, the sample selection criteria are in line with the research question and in accordance with the standards of the IJF.

The 1st through 5th dan (degrees) are indicated as low grades, even the minimal age for the 5th dan (29 years) is not regarded enough experience to qualify someone as a high grade. In addition, a practitioner must have been practising judo for at least fifteen years to achieve the 5th dan. Two of the eight variables in the current study (age and belt degree) are based on international standards (see Figure 1).

In certain circumstances, IPA investigations focus just on one participant's experiences and behaviours. However, a modest number of people, such as six, has been proposed as a reasonable amount (Reid et al., 2005). IPA samples tend to be small to allow idiographic data analysis (Smith, 2004). Smith and colleagues (2009) proposed a total of four to ten interviews as standard and suitable. Therefore, a sample of six participants (see interview plan) is sufficient for this research project's high-quality analysis.



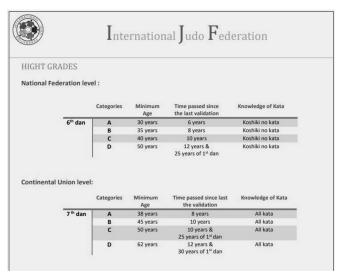


Figure 1. IJF high grades - Source: International Judo Federation. Dan Ranks and Grades (2018) https://www.britishjudo.org.uk/wp-content/uploads/2021/03/IJF-DAN-Ranks-Grades-ENG.pdf

A sample from a selected base of minimum 40 years old (category c) and 6th Dan, gives an average experience of involvement with judo of 25 years from 1st Dan (black belt) to 6th Dan (red and white).

Collins (2009) argues that, traditionally, coaches placed the emphasis on teaching Japanese terminology and demonstrating techniques. Collins stated that, "although demonstrating techniques from the belt system is necessary for students to progress through the belt syllabus, this appears to be a seemingly outdated approach for modern day competitive judo coaching as it is not preparing judo participants effectively for high-level judo competition" (Collins, 2009). However, recent data does not support the notion that conventional fundamentals-based training is an out-of-date strategy for modern competitive judo coaching. The traditional Japanese teaching style has been effective in high-level judo contests such as Olympic Games and World Championships over the years by emphasising basics (see Table 1). Gender and nationality were the other two criteria for the participants in this study.

According to (Lutz, 2013), martial arts remain a mostly male-orientated activity. A recent UK-based survey with practitioners of various martial arts found that over three quarters of respondents were male (Jones et al., 2006). An earlier survey on sport in England also reported more male participants in martial arts (England, 2002). This bias is in part reflective of the greater overall participation of men in sports worldwide.

Table 2. Minimum Sample Selection Criteria

Training Teaching Age Gender Nationality Rank Graduate Current role duration experience National 6th Dan/de-Coach or 40 JPN University 25 years 10 years M Associate gree Professor

According to an examination of the literature, there is no research on rhythm in judo, except for allusions in publications by Japanese judo specialists, making this a ground-breaking study. Japanese experts describe the importance of rhythm in judo in a variety of ways, as well as providing a description of judo rhythm. As a result, Japanese specialists are more suited for this study.

Another reason Japanese experts are ideal for this study is that judo is ingrained in their culture, and second, Japanese experts are guided by international outcomes, including world championships and the Olympic Games, which are regarded as the most important competition in the sport (Daniel & Daniel, 2013; Ferreira Julio et al., 2013; Franchini & Julio, 2015; Franchini & Takito, 2014; Guilheiro & Franchini, 2017; Niehaus, 2006; Sato, 2013; Villamón et al., 2004).

The Table 1 shows the top gold medal-producing countries in either the Olympics or World Championships since 1956 (Ohlenkamp, 2004).

Table 1. Top 10 Countries

GOLD MEDALS	1956-2004
Japan	120
France	39
Korea	28
Great Britain	17
Cuba	16
Former Soviet Union	16
China	16
Germany	15
Netherlands	14
Belgium	11

Source: Neil Ohlenkamp, "Olympic and Championship Judo Analysis" https://judoinfo.com/champs2/

Training in judo is based on three basic methods, *kata* (formal exercises), *randori* (freestyle fighting), and *shiai* (matches), (Kano, 1932). According to Kudo, (1967) *judoka* must have an in-depth experience in each of those three elements.

Three (3) top university professors and three (3) high-performance coaches, all of whom have won Olympic medals, were chosen for this study. Teaching experience and present status (national coach or associate professor) were two additional factors considered throughout the selection process (see Table 2).



The following table provides an overview of individual participant profiles, outlining demographic characteristics, experience in judo and roles. Pseudonyms have been used to ensure anonymity (see Table 3 & 4).

Table 3. Participants' Profiles

Participant	Age	Nationality	Belt rank	Graduate	Training duration	Teaching experience
Kom	68	JPN	8 th cat, A	Tokyo University	56 years	46 years
Mit	69	JPN	^{8th} cat, A	Tokai University	59 years	47 years
Yam	50	JPN	7 th cat, C	Tokai University	46 years	27 years
Mas	49	JPN	7 th cat, B	Tsukuba University	39 years	19 years
Ino	41	JPN	7 th cat, A	Tokai University	36 years	12 years
Kan	40	JPN	6 th cat, C	Tsukuba University	35 years	11 years

INTERVIEWS

Smith and colleagues (2009) recommended adopting an interview plan for semi-structured interviews in order to allow thoughts on the expected range of the topic area and potential challenges throughout the interview. A 'funnelling' approach was used to select and organise interview questions (Osborn & Smith, 2008), with inquiries that progress from general to specific and specialised. This method makes it easier for interviewees to talk about the subject matter and allows them to have a better grasp of it throughout the interview (Tindall, 2009).

Table 4. Interview Questions in Relation to Research Questions

	Research Questions	Interview Questions
Question 1	<i>Kata</i> stage, How high-level	1.1 <i>Ukem</i> i is fundamentally the first thing practitioners learn in judo, how <i>ukemi</i> relate to rhythm?
	teachers perceive the contribution of rhythm in the first steps of the	1.2 Teachers mentioned tai sabaki as a toll for athlete to use body rhythmically, please can you explain more? How tai sabaki can teach the athlete to use his body rhythmically?
	practitioners?	1.3 kuzushi, tsukuri, kake, is the three faces of throwing, based on your experience how rhythm connect?
Question 2	<i>Randori</i> stage, How do high-level	2.1 What aspects of training have been an important part in rhythm development?
	teachers evaluate the importance of rhythm	2.2 In what ways, can you help your students develop rhythm in <i>randori</i> ?
	in <i>randori</i> and its relationship in daily training?	2.3 Please can you describe to me what is rhythm in judo for you?
Question 3 Shiai stage, How top-level players can use rhythm for offence/defence?	How top-level players	3.1 Teachers mentioned the important of rhythm in randori in order players transfer rhythm in to <i>shiai</i> too, please explain more, why this is important?
	•	3.2 Rhythm can be a tool during the training, but during the fight how to break the opponent's rhythm?3.3 Please can you explain more, why it's important to break opponent rhythm?



Data Collection Procedure

The audio-recorded interviews were then translated after each one. Pseudonyms were used in all transcripts for the sake of anonymity. Individual interview transcripts were sent to all interviewees through e-mail. The responders were given this to verify, ratify, and assess the correctness of the information supplied.

The data analysis chiefly followed the analytic process outlined in the literature (Smith, 1995; Tindall, 2009). The interview recordings were reviewed by the researcher and interpreter multiple times. Transcripts were read and re-read repeatedly word for word to ensure accuracy (Fontana & Frey, 2000). For qualitative data analysis, QSR NVivo software (version 12.0 pro) was used to produce preliminary concepts, which were then coded as themes. Following that, NVivo coding was utilised to find sub themes that were comparable. This procedure laid the groundwork for a more in-depth study and the collapse of emerging themes. A comprehensive list of all themes was compiled, and they were categorised into subcategories based on superordinate themes.

System analysis

The IPA qualitative research technique provides researchers with the finest opportunity to comprehend the most in-depth debate about participants' lived experiences. The interpretive phenomenological analysis technique, as a 'participant-oriented' approach, permits interviewers (research participants) to articulate themselves and their lived experience as they see it without distortion. As a result, employing the IPA technique in a qualitative research study reinforces the notion that its primary goal and principle is to examine participants' lived experiences and allow them to express the research results via those experiences (Alase, 2017).

IPA researchers are urged to utilise the procedures proposed by Moustakas (1994) to analyse qualitative data. This research follows the set of analysis methodologies for phenomenological researchers introduced by Moustakas (1994), namely, a set of methodologies that phenomenological researchers were advised to employ in analysing their studies. The goal was that IPA researchers would have a more unified analytic process that reflected their research study's phenomenological philosophy (Moustakas, 1994).

As a starting point for studying the phenomena, Creswell (2013) gave an overview of the history of mixed-methods research and suggested that academics "create a collection of noteworthy remarks." These remarks can be gleaned through interviews and other related research sources that pertain to the experience under investigation. Researchers should "view each assertion as having equal merit and try to construct a list of non-repetitive non-overlapping claims," according to Creswell (2013).

After the development of these statements from the participants, researchers should take the most significant statements and then group them into larger units of information, called themes. The next stage, after grouping the text elements, is to form a large unit of information (Creswell & Poth, 2016).



Figure 2. Analysis Structure Diagram

Themes Results Analysis Model

Initial analysis identified 154 Textual Elements (TE) or phrases uttered during the interviews. These were grouped into 55 subcategories. Then for the next level of analysis, the 55 subcategories were grouped into eight categories: 1. Humans, 2. Body, 3. Opponent, 4. Rhythm, 5. Tai-sabaki, 6. Technique, 7. Breakfalls, 8. Training. Four themes were created based on the above categories; 1. Teaching methods, 2. Technical Skills, 3. Rhythm in judo, 4. Human Movement.

Categories and subcategories were created from the interview data analysis performed for textual elements (TE) and number of interviewees (NI), (see Figure 3).

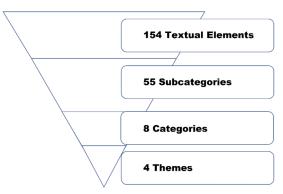
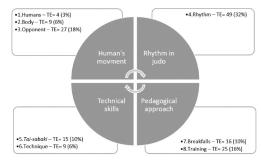


Figure 3. Thematic Analysis Progress

RESULTS

Smith et al (2009) recommended the use of a graphic depiction when analysing larger samples. A diagrammatic model was therefore developed in order to better make sense of, and visually illustrate, the themes in relation to each other (see Figure 4).



Note. TE is the number of Textual Elements that were coded to each of the eight categories.

Figure 4. Model Related to Themes Structure



The six interviews with expert Japanese judo coaches, each contained nine interview questions. An analysis of the transcripts resulted in 154 textual elements being identified. These were allotted to 54 subcategories which were grouped into 8 categories. The 8 categories, mentioned above, were drawn into 4 main themes; Pedagogical approach, Rhythm in judo, Technical skills and Human's movement.

DISCUSSION

Restatement of the Research Problem

This research revealed how a group of expert judo coaches see the use of rhythm in judo, as well as how they analyse rhythm in the context of an athlete's daily life and personal growth. In both the use of rhythm in judo and judo as a teaching tool, the interviews and coding process revealed a number of unanticipated abnormalities.

The summary generally follows the diagrammatic model's organisation of topic areas, which may be thought of as a "guideline" for the most important phenomena. The regularity with which they instinctively alluded to rhythm in judo during the interviews demonstrated its personal relevance. It is critical for rhythm to be second nature, according to interviewees. In the context of training, rhythm was also regarded as an integrated and representational aspect. This framework was deemed necessary in order to provide the reader with a contextualised knowledge of the phenomena that were considered important in this study.

Rhythm training was pursued for a variety of reasons, according to interviewees. Faster technical development, improved attack or defence, fitness, speed, skill acquisition, personal and spiritual growth, and competitive outcomes were among them. The goal of this study was to find out: 1) how high-level teachers see rhythm's role in practitioners' initial steps, 2) how professional teachers assess the value of rhythm in randori and its link to daily training, and 3) how top-level players employ rhythm for offensive and defence.

Pedagogical approach

Pedagogy and training method are two sides of the same coin and Jigoro Kano mentioned many times the importance of the "way" of judo (Kodokan, 2021). The philosophical part of judo is found at every stage of an athlete's development. This can be seen in the various comments given by the expert coaches when interviewed for this study: "at competition level, it enables you to give your best performance or, depending on how you disrupt your opponent's performance, enables you to perform in a way that is beneficial. This is not just limited to judo or sports but is also found at work and other aspects of life" (interviewee 6).

Rhythm in judo

"Optimum rhythm and timing for proper, efficient, performance" (Ota, 2019). Based on this study rhythm in judo is much more than this: "sense of rhythm should not just be treated as an important aspect but thought of as second nature" (interviewee 4).

Technical skills

Technique is undoubtedly another important point in the basics of athlete development and begins with posture: "in order for athletes to improve their technique, it is exceedingly important that they repeatedly practice and gain a firm understanding of the logic of the fundamental principles of judo shizentai (natural posture), jigotai (defensive posture), way of walking, control of your body turns" (interviewee 2).

Human movement

The fact that this theme brings together 40 of 154 text elements shows that participants consider this parameter very seriously: "Judo is about opponents, human opponents, so you need to have a good understanding of a human's movements. Humans move forwards, backwards, sideways, diagonally. Your opponent will move in those ways and their balance will also adjust itself. If you feel those movements in your own body, it will empower you, and that is very important in judo" (interviewee 4).

The implications of this study

It's critical to recognise the role of education in a child's first steps on the mat. The findings demonstrate that the educational approach is a crucial component for practitioners, and as a result, athletes who take the tough road are more likely to win medals. Many studies have explored the coach's educational function, and the training process equips practitioners with philosophical and basic ideas that work together for the good of society. Jigoro Kano stated, "before and after practicing judo or engaging in a match, opponents bow to each other. Bowing is an expression of gratitude and respect. In effect, you are thanking your opponent for giving you the opportunity to improve your technique", a statement in which the pedagogical character in teaching judo can clearly be seen. A remark that clearly demonstrates the educational nature of judo instruction.

Another takeaway from the findings is that the athlete's rhythm development must be such that it becomes second nature. The diagrammatic model analysis depicts the role of rhythm in breakfalls, implying that if an athlete develops rhythm to the point where it becomes second nature, he improves his degree of safety in both training and everyday life. All of the above can be summarised in one phrase, "shin-gi-tai", Inokuma & Satō (1986) wrote: "You have to train hard so that these three elements will be in harmony with each other when you face your opponent in the judo arena" (Inokuma & Satō, 1986), interviewee 2 mentioned: "In Japan, judo embraces something called shin-gi-tai - body, mind, spirit - literally mind, technique, body". Judo stands for all of these, something highlighted in this research.

Limitations

The study has a variety of limitations, some of which could not have been expected, such as COVID-19. Language was another of the obstacles that, while being solved, remained a barrier. While the interviews were done with the



help of a skilled interpreter, the researcher would have benefited enormously by being able to speak Japanese directly. In a more open conversation, this would have led to the emergence of new questions. Although the researcher's judo background indicates that Japanese teachers wish to share their expertise and pass it on throughout the world, respondents appeared happy that the questions were targeted rather than a more conversational discussion.

The impossibility of the interviewer and interviewee to be physically present on the mat at the time of the interview, as the researcher had planned, was a second constraint. All of the interviews were conducted online due to CO-VID-19 constraints. The ability to offer a physical demonstration with many of the questions and answers would be one of the advantages of having both participants physically there rather than online. All Japanese teachers are capable of not only explaining but also demonstrating through examples. One solution to this problem may be to create a list of exercises based on recorded films that show how to establish or enhance rhythm, and this is something that should be thoroughly explored.

The third constraint was travel limitations, which applied not just between Europe and Japan but also to the rest of the globe, preventing the researcher from travelling for an extended period of time and forcing her to postpone scheduled appointments with European specialists. Furthermore, because to COVID-19, admittance to universities was difficult. On a more positive note, where it would normally take months for the researcher to be able to work all the interviews into the experts usually busy calendar, a reduced workload on their part meant that the interviews could be completed in less than a month. Initially, the researcher designed the research plan whilst based in three dojo, across three countries; Sport Wales National Centre (UK), Tokai University (Japan) and Budo Center (Greece). Later, due to COVID-19, when completing the research there was no access to a dojo, with the result that the study of specific exercises or even seeing judo in practice was not possible. On the other hand, a big improvement was observed in the study when writing up this work due to the continuous lockdown.

Further research

The author's participation in this study has been a fascinating adventure. However, further research is needed to completely comprehend and analyse rhythm in judo. Extending this study to athletes and coaches appears particularly pertinent, especially in light of the study's findings on the use of rhythm in everyday training. Furthermore, a female teacher replication of this study would be a significant addition to the judo literature.

More qualitative research focusing on elite athletes' training experiences in the context of personal development should supplement the existing findings. This would supplement existing information and contribute to the development of a body of research from which more general conclusions could be drawn. Larger-scale study utilising

diagrammatic analysis could progress this problem area in the future. Future qualitative studies should look into other facets of training that high-level coaches or top athletes may encounter and how they affect their personal growth. According to current research, the advantages of rhythm in athlete development are a longer-term undertaking at every stage. As a result, it appears that quantitative research should at the very least be supplemented with qualitative study.

After the COVID-19 years are through, more research should be done in which a series of workouts at all levels of the athlete's rhythm development, from novice to top athlete, are documented. These activities could be the next step in solving coaches' and athletes' rhythm concerns, as this research demonstrates rhythm development methods.

CONCLUSION

This study offers first-hand accounts from professional teachers of a hitherto unknown phenomena, namely the use of rhythm in judo, and sheds insight on how judo experts understand rhythm in terms of training, competition, and personal growth. To answer the main question, how do high-level judo teachers comprehend the concept of rhythm? These findings suggest that outside of training, coaches play an important role in teaching, mentoring, and leading students.

IPA is an excellent methodology to apply, especially in a topic like judo. "It's a qualitative investigation into how people make sense of their key life events" (Charlick et al., 2016). This research looked at how rhythm is used in judo from the perspective of skilled instructors. It has indicated that coaches play a vital role for students, giving instruction, mentoring, and guiding outside of the training context, and has provided important insights into how expert teachers perceive the application of rhythm in judo (Bloom et al., 1998; Jones et al., 2009; Miller et al., 2002).

In judo, this research has both theoretical and practical ramifications. The researcher has been practising judo for 43 years, and his knowledge of the sport influenced his expectations for how and in what way to interpret the results. The researcher's experience can be viewed as a positive quality, and this is in accordance with Columbus and Rice's argument that, in martial arts research, the researcher's familiarity and experiential involvement with the subject area is critical to successful exploration (Columbus & Rice, 1991).

Sport has peculiarities that stem from technical particularities and historical and cultural characteristics, which ultimately affect development in their respective systems and in different environments and countries (Brouwers et al., 2015; Sotiriadou et al., 2014). Judo has its own characteristics, its own standards, and its own culture. Japanese judo is accepted as a model not only because of its results, but also for the way it developed. It is no coincidence that the European Judo Union has as its motto, "Judo - more than sport" (Knaup, 2021).



In conclusion, the research revealed four important points which form the basis of a new method of teaching judo: (1) humans movement, (2) rhythm in judo, (3) technical skills and (4) pedagogical approach.

All stages of a judo practitioner preparation are destined to be applied to the competition, the same applies to the rhythm, "I put this rhythm to use in order to improve my game and, as judo is a combat sport, I always had an awareness of the need to break my opponents' rhythm. I practised keeping both those aspects in mind" (Interviewee 6). After consideration and the findings of this study, leads the researcher to define rhythm in judo as follows.

Therefore, Bountakis definition of rhythm in judo is: The imposition of *tori*'s rhythm on the *uke*'s movement to create a skilful effective attack with the best use of softness in time and space. Therefore, learning judo requires a pedagogical approach to rhythm in judo.

REFERENCES

Alase, A. (2017). The Interpretative Phenomenological Analysis (IPA): A Guide to a Good Qualitative Research Approach. *International Journal of Education and Literacy Studies*, *5*(2), 9-19.

Bloom, G. A., Durand-Bush, N., Schinke, R. J., & Salmela, J. H. (1998). The importance of mentoring in the development of coaches and athletes. *International journal of sport psychology, 29*, 267-281.

Brousse, M., & Matsumoto, D. R. (1999). *Judo: a sport and a way of life*. International judo federation.

Brouwers, J., Sotiriadou, P., & De Bosscher, V. (2015). Sport-specific policies and factors that influence international success: The case of tennis. *Sport Management Review, 18*(3), 343-358.

Charlick, S., Pincombe, J., McKellar, L., & Fielder, A. (2016). Making sense of participant experiences: Interpretative phenomenological analysis in midwifery research. *International Journal of Doctoral Studies*, *11*(11), 205-216.

Collins, M. D. (2009). Beliefs and attitudes in judo coaching: toward a new model of coaching.

Columbus, P. J., & Rice, D. L. (1991). Psychological research on the martial arts: An addendum to Fuller's review. *British journal of medical psychology, 64*(2), 127-135.

Creswell, J. W. (2013). Steps in conducting a scholarly mixed methods study. DBER Speaker Series. 48. https://digitalcommons.unl.edu/dberspeakers/48

Creswell, J. W., & Poth, C. N. (2016). *Qualitative inquiry and research design: Choosing among five approaches*. Sage publications.

Daniel, L. F., & Daniel, R. (2013). Study regarding the prediction of medal winning in Olympic Games judo competitions. *Journal of Physical Education and Sport*, *13*(3), 386.

England, S. (2002). Participation in sport in England. *Sports Equity Index, London, 3*.

Ferreira Julio, U., Panissa, V. L. G., Miarka, B., Takito, M. Y., & Franchini, E. (2013). Home advantage in judo: A study of the world ranking list. *Journal of Sports Sciences*, *31*(2), 212-218.

Fontana, A., & Frey, J. H. (2000). The Interview: From Structured Questions to Negotiated Text. I: NK Denzin & YS Lincoln (red.), Handbook ol Qualitative Research (sid. 645l672). In: London: Sage.

Franchini, E., & Julio, U. F. (2015). The Judo World Ranking List and the Performances in the 2012 London Olympics. *Asian J Sports Med*, *6*(3), e24045. https://doi.org/10.5812/asjsm.24045

Franchini, E., & Takito, M. Y. (2014). Olympic preparation in Brazilian judo athletes: description and perceived relevance of training practices. *The Journal of Strength & Conditioning Research*, 28(6), 1606-1612.

Guilheiro, L. M., & Franchini, E. (2017). Be seeded or not be seeded? A study with Olympic judo athletes. *J Exerc Rehabil*, *13*(2), 148-152. https://doi.org/10.12965/jer.1734904.452

Hahn, T. (2007). Sensational knowledge: Embodying culture through Japanese dance. Wesleyan University Press.

Hoare, S. (2009). A history of Judo. Yamagi.

IJF. (2018). *Dan ranks and grades*. https://www.britishjudo.org.uk/wp-content/uploads/2021/03/IJF-DAN-Ranks-Grades-ENG.pdf

Inokuma, I., & Satō, N. (1986). Best judo. Kodansha International.

Japan, K. W. (2019). *The History of Judo*. https://web-ja-pan.org/kidsweb/virtual/judo/judo01.html

Jones, G. W., Mackay, K. S., & Peters, D. M. (2006). Participation motivation in martial artists in the West Midlands region of England. *Journal of sports science & medicine*, *5*(CSSI), 28.

Jones, R. L., Harris, R., & Miles, A. (2009). Mentoring in sports coaching: A review of the literature. *Physical Education and Sport Pedagogy*, *14*(3), 267-284.

Kano, J. (1932). The contribution of Jiudo to education. *The Journal of Health and Physical Education, 3*(9), 37-58.



Kanô, J., & Cadot, Y. (2013). Du judo et de sa valeur éducative comme pédagogique: texte introduit, traduit et commenté par Yves Cadot. Metatext.

Knaup, M. (2021). *European Judo Union*. https://www.eju.net/eju/

Kodokan. (2021). What is "Seiryoku-Zenyo"?

Lutz, M. (2013). A therapeutic relationship?: an interpretative phenomenological analysis exploring aikido practitioners' perspectives on their relationship with their instructor.

Marshall, M. N. (1996). The key informant technique. *Family practice*, *13*(1), 92-97.

Miller, P. S., Salmela, J. H., & Kerr, G. (2002). Coaches' perceived role in mentoring athletes. *International journal of sport psychology, 33* (34), 410–430.

Moustakas, C. (1994). *Phenomenological research methods*. Sage publications.

Niehaus, A. (2006). 'If you want to cry, cry on the green mats of Kôdôkan': expressions of japanese cultural and national identity in the movement to include judo into the Olympic programme. *The international journal of the history of sport, 23*(7), 1173-1192.

Ohlenkamp, N. (2004). *Olympic and Championship Judo Analysis*. https://judoinfo.com/champs2/

Osborn, M., & Smith, J. A. (2008). The fearfulness of chronic pain and the centrality of the therapeutic relationship in containing it: An interpretative phenomenological analysis. *Qualitative Research in Psychology*, *5*(4), 276-288.

Ota, K. (2019). *The Importance of Ukemi, Rhythm, and Timing in Aikido* — *The Cultural School* [Interview]. https://goletaaikido.net/blog/2018/05/10/the-importance-of-uke-mi-rhythm-and-timing-in-aikido

Reid, K., Flowers, P., & Larkin, M. (2005). Interpretative phenomenological analysis: An overview and methodological review. *The Psychologist*, *18*(1), 20-23.

Reilly, T. (2009). The body clock and athletic performance. *Biological Rhythm Research*, 40(1), 37-44.

Sato, S. (2013). The sportification of judo: global convergence and evolution. *Journal of Global History*, 8(2), 299.

Sfetcu, N. (2014). The Music Sound. Nicolae Sfetcu.

Smith, J. A. (1995). Semi structured interviewing and qualitative analysis.

Smith, J. A. a. O., M. (2004). Interpretative Phenomenological Analysis. In Breakwell, G.M., Ed., Doing Social Psychology Research, Blackwell Publishing, England, 229-254. - References - Scientific Research Publishing. https://www.scirp.org/(S(351jmbntvnsjt1aadkposzje))/reference/ReferencesPapers.aspx?ReferenceID=1389608

Sotiriadou, P., Gowthorp, L., & De Bosscher, V. (2014). Elite sport culture and policy interrelationships: The case of Sprint Canoe in Australia. *Leisure Studies*, *33*(6), 598-617.

Starks, H., & Brown, T. (2007). Choose your method: A comparison of phenomenology, discourse analysis, and grounded theory. *Qualitative health research*, *17*(10), 1372-1380.

The History of Judo. (2019). Kids Web Japan. Retrieved October, 20 from https://web-japan.org/kidsweb/virtual/judo/judo01.html

Tindall, L. (2009). JA Smith, P. Flower and M. Larkin (2009), Interpretative Phenomenological Analysis: Theory, Method and Research. London: Sage. In: Taylor & Francis.

Villamón, M., Brown, D., Espartero, J., & Gutiérrez, C. (2004). Reflexive Modernization and the Disembedding of Jūdō from 1946 to the 2000 Sydney Olympics. *International review for the sociology of sport, 39*(2), 139-156.

Zografou, M., & Pateraki, M. (2007). The Invisible Dimension of Zorba's Dance. *Yearbook for Traditional Music*, 117-131.

嘉納治五郎. (2005). Mind over muscle: Writings from the founder of judo. Kodansha International.

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