

*Opportunities, Issues and Best Practices in Online Education and Examination of University Students*

## ANALYSIS OF AN ONLINE TAEKWONDO COMPETITION

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**Abstract.** The state of emergency declared in Bulgaria due to the COVID-19 situation has demonstrated that practicing sport under these conditions is limited. The National Sport Academy "Vassil Levski" has been the pioneer in the online trainings in Bulgaria. The Taekwondo department of the Academy was the first one to introduce an online competition in taekwondo during the 2020 pandemic in Bulgaria. The methods we used were theoretical – analytical, expert evaluation, mathematical – statistical method and survey. The feedback from the participants in the online tournament clearly indicate that such an event can and must be used in order to maintain motivation in athletes. Such an event cannot fully replace the "real" competition but it is essential under the conditions of social isolation.

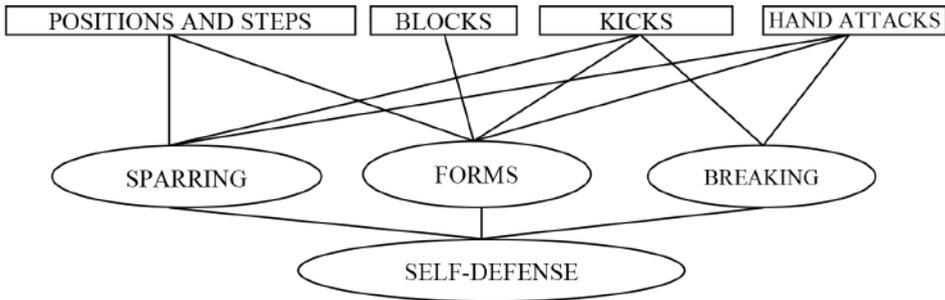
*Keywords:* sport; championships; COVID-19

### Introduction

2020 is unprecedented for our generation in terms of confining us into isolation because of the state of emergency. SARS-CoV-2 or COVID-19 as most people call is not the first coronavirus to cause an epidemic (Ayukekbong et al., 2020), but it certainly has caused the most serious consequences. Within two months, sport regained its conscious social role in maintaining health and preventing negative mental states in the population. A role very often neglected for the last 20 years in Bulgaria. The conditions of social isolation place two main restrictions on athletes in general – training alone (in most cases) and the limited space that most people have at home. There are several sports that responded adequately to the needs of mass sports in Bulgaria in the environment in which we were placed. One of those sports that tried to keep the nation's interest active was taekwondo. One of the forms used for this purpose was to hold an online taekwondo competition.

Figure 1 shows the 3 main aspects in taekwondo and their components. For a long time in each of them (sparring, form, breaking) a competition has been organized in the form of a competition. Conducting sparring (fighting with an opponent) at home is practically impossible for most people. You need a partner

then the area you need to fight safety must be at least 6x6 m. As far as breaking is concerned, breakage materials are needed and again the place of practice must ensure the safety of both participants and audience, as well as the furniture at home, since some debris might fly away and cause damage.



**Figure 1.** Aspects and components of taekwondo (Avramov, 2012)

The third component, taekwondo forms, in addition to being a training tool, is also used to assess the basic technique of the athlete in the examinations for promoting the technical degree. The acquisition of technical skills is one of the most important motivating factors for taekwondo (Zeng et. al. 2015). Belt exams (technical degrees) in martial arts and participation in competitions (Pinheiro et. al, 2015) create short-term motivational goals that are extremely important for retaining the interest of adolescents in a digital society. “Forms are a predetermined series of movements that mimic a fight with an opponent. Since the forms are universal, ie. the sequence of the performed movements is precisely determined, they are the only obligatory condition for passing from one degree to another” (Avramov & Andonov, 2012). Forms in taekwondo are generally divided into two types: student and master (Kukkwon, 2020). The student forms are used for training and testing the skills in the exams for colored belts (student degrees), and the masters are used for training and testing the skills of the black belts (master's degrees). Both types are used in form competitions. There are 7 student forms in Olympic taekwondo (Kukkiwon, 2020). Poomse (form) competitions in taekwondo take place with the usual rituals typical of Eastern martial arts. However, this is one of the features that distinguishes Eastern martial arts from Western sports in general, and is another practical proof of the embodiment of Asian values in these arts and the education of practitioners in morality, etiquette and behavior. The athlete goes out on the tatami with his coach, stands in a “ready” position and bows. After playing the form, he bows again and leaves the playing field. Poomse competitions usually use the so-called “Cut off” system or group

phase, after which 50% of the upper half of the competitors in the group move on to the next round. Usually this system is combined with a system of direct elimination after a certain number of participants remain. The rules for poomse of the World Taekwondo as of 2020 include the possibility of a "round robin" system, in which each participant faces a direct match against all other participants, but in recent years it is not as popular as a method of competition due to the amount of time required to conduct. There is also free style poomse competitions, where participants demonstrate taekwondo techniques, often combined with acrobatic elements for greater entertainment.

### **Aim and tasks of the research**

The aim of the present study arose from the idea that by conducting an online competition we could determine whether this is a new successful form of competition that does not replace but complements the traditional one and can be used as an additional tool (method) to improve the technique in taekwondo poomse.

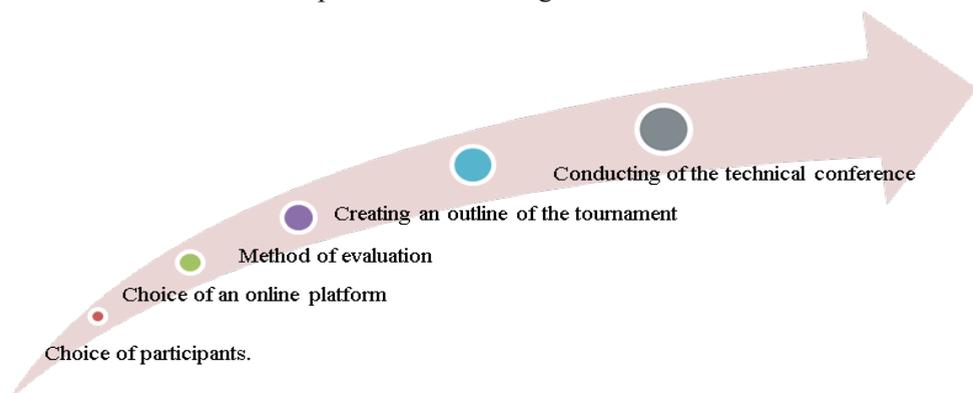
The tasks we performed were:

1. Organizing of an online poomse (form) tournament.
2. Conducting of an online poomse tournament.
3. Analysis of the conducted online forms tournament.
4. Conducting a questionnaire survey amongst the participants of the tournament.

### **Methods**

The methods we used were theoretical - analytical, expert evaluation, mathematical - statistical method and survey.

We outlined several steps when conducting an online tournament:



**Figure 2.** Step guide for preparing an online competition

*Choice of participants* – We chose the students majoring in Taekwondo at NSA “Vasil Levski” because of their competence, commitment and attitude to the subject. The online competition itself was a part of their practical activities, which we were forced to take into account due to the state of emergency.

*Choosing the online platform* – through which we can conduct the competition – in this case we focused on Zoom, as it maintains a conference video connection with over 10 people, something that the most widespread platform in our country Facebook does not do.

All participants had pre-installed the Zoom application on their mobile phones or computers.

*Method of evaluation* – The participants and the members of the organizing committee were evaluating the competitors, the evaluations were announced by voice after the game, and the technical secretary recorded them in an Excel table. After playing the forms, all participants form a score for each of the participants and based on the highest score, the winner of the competition was determined.

*Creating an outline of the tournament* – the students developed an outline of the competition, which was adapted to the situation of social isolation.

*Conducting an online technical conference* – at the online technical conference held the day before, the participants had to measure the playing area at home and marked “the field of play” so as not to leave it, as everyone's cameras were static and participants had to be visible in every moment of playing the forms.

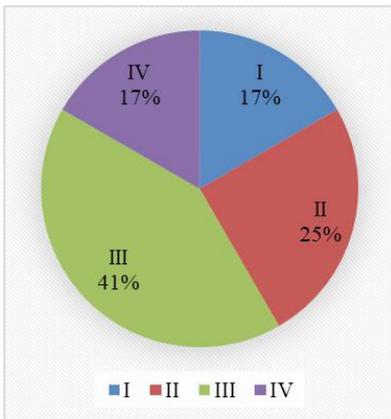
*Media coverage of the competition* – The Zoom platform also allows for video recording of the entire “online meeting”, which facilitated the work of sending video material to the media for PR purposes of the event itself.

### **Analysis and discussion**

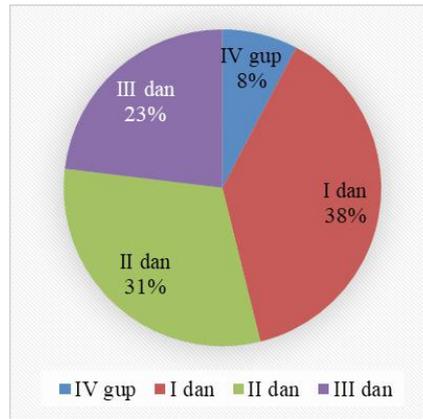
On March 30, 2020, the European Taekwondo Continental Union announced that it was organizing the first online pumice competition. For this purpose, the participants had to send the filmed videos of their performance to two of their chosen form. Then, on the days and hours set for the competition, the participants' videos were broadcasted via the Taekwondo

Europe channel, and the judges evaluated the participants' performance and gave real-time marks. We borrowed the idea for this type of competition, with a significant change in the rules – the competition would be held “live” in real time in order to preserve the competitive nature of the event. 16 students from first to fourth year took part in the competition. The participants also filled in an online survey.

The most active participants were the third-year students (Figure 3). They also took the most active part in the preparation of the competition, as the organization of a competition was one of their tasks during the semester. In our opinion, this

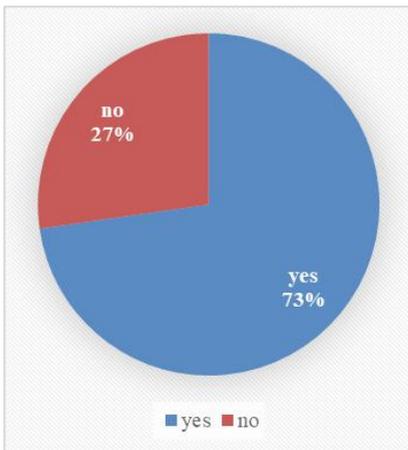


**Figure 3.** Which year at university are you?

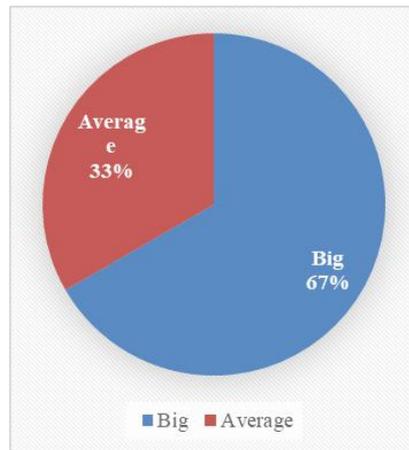


**Figure 4.** Which grade in taekwondo are you?

determined the greater responsibility and the higher participation rate compared to the other courses. During the two months of isolation, many negative psychological phenomena were observed, such as loss of motivation, laziness and inertia, which are the subject of further research. The higher technical level was not a factor in the students' involvement in the competition (Figure 4).



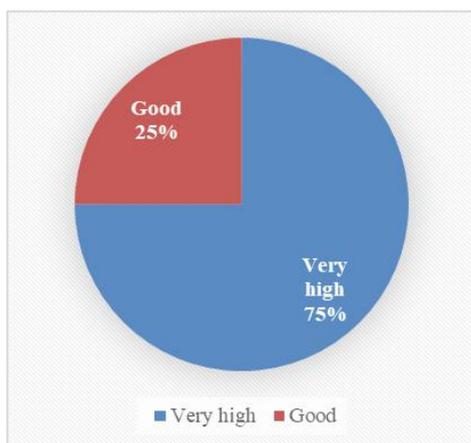
**Figure 5.** Do you work as a coach?



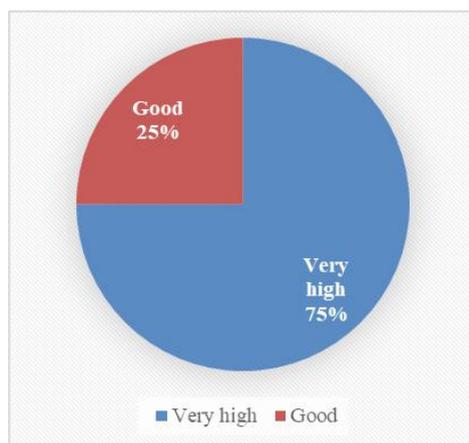
**Figure 6.** Can you rate the role of the forms in taekwondo?

The engagement of participants was rather related to the distribution of the study material by courses. It is interesting that almost 1/3 of the students

are engaged in coaching work in a given form in different clubs (Figure 5). In the course of work it was discovered that in many of them the forms were an extremely neglected aspects. Their commitment to the specific competition put the discipline “form” in a new light for them (Figure 6) and it is quite possible that the future wave of coaches in Bulgarian taekwondo will put in their program more serious training in forms, which in our opinion will only benefit future taekwondo fighters.

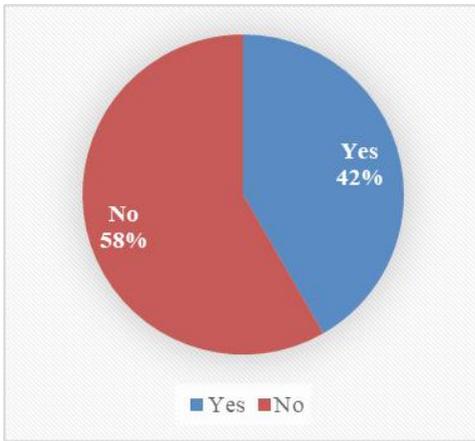


**Figure 7.** Please rate the organization of the conducted tournament

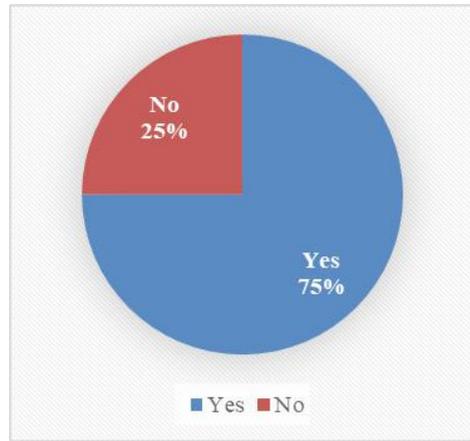


**Figure 8.** Please rate the conducted online tournament from a technical point of view

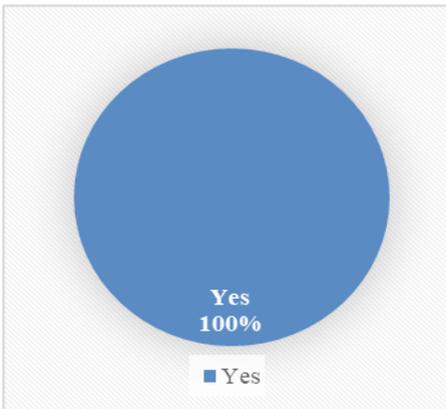
The organization of the competition was rated as “very high” by 2/3 of the respondents (Figure 7). The technical problems during the competition itself were also present, but they were outside the reach of the organizers (Figure 8). Slow internet connection and sound problems due to insufficient quality or damaged mobile communications, as well as time constraints for using the program, as we did not use the paid version, were the basis of the few technical problems that we met during the organization of the championship. Compared to this competition, the championship organized by the European Headquarters, despite the easier conditions for the organizers (competitors sent pre-recorded videos) encountered significant problems both in viewing the videos and in giving real-time online ratings. The number of participants in this competition was over 500, which further complicates its good technical support. The duration of the execution of all 16 participants in our student championship was 110 minutes.



**Figure 9.** Have you ever participated in a poomse tournament?



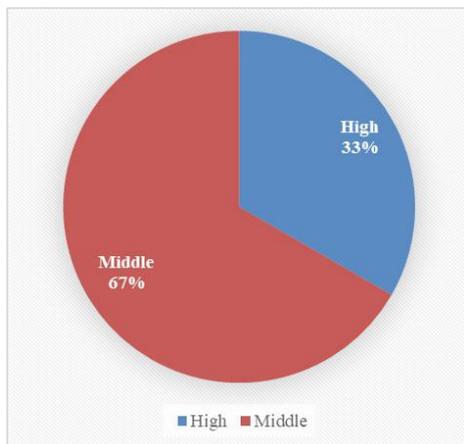
**Figure 10.** Would you participate again in a poomse championships?



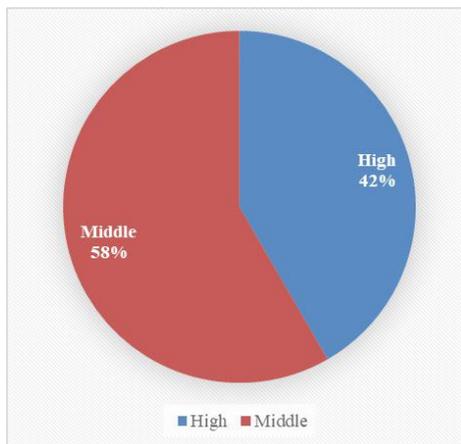
**Figure 11.** Would you recommend the conducting of an online poomse competition? tournament as an additional method for preparation?

The change in the motivation for participation of the competitors (Figures 9, 10 and 11) to the discipline “form” (more than half of the students (58%) had not competed in this discipline so far, and after the competition 25% did not want to participate) is due in our opinion largely to the fact that in conditions of social isolation, this competition appeared as something new and different from the monotony of everyday life of the participants. This is a confirmation of our thesis that such events could provide a short-term motivational goal to taekwondo practitioners.

Most athletes rate the mental load as greater than the physical one, which shows us that such events affect the mental state more than the physical one. We consider this as a positive result, because the goal of sports in such conditions, in our opinion, is not a high sports performance and training with a maximum load, but maintaining good shape, deriving pleasure from practicing sports, and enhance positive emotions and good mental state.



**Figure 12.** How would you rate the physical load during the tournament?



**Figure 13.** How would you rate the psychological load during the tournament?

### Discussion

Analyzing the online championship, as well as the answers we received from the participants, we reached the conclusion that online championships cannot fully replace the “traditional” championships but as an additional method of training it is an invaluable tool in the situation of a social isolation and is a necessity to minimize the negative effect of the human physical condition as well as his psychological well-being. We highly recommend to the sports clubs to be prepared for the conducting of this type of tournaments even under normal conditions for two main reasons – a lot of the young athletes do not participate in organized training sessions during the summer holiday which affects their physical condition in a negative way. Online poomse tournaments could also be a good way to motivate the athlete to train actively outside the club. This type of quarantine could happen anytime and might happen again. Sport clubs must be prepared to fulfill their social role in maintaining good physical and mental health of the nation by implementing such activities if the occasion arises again. This type of event is innovative and can have a huge media impact. Under the social isolation conditions, where the majority of news have a negative effect upon the psychological condition of the audience, this type of initiatives can receive media attention very easy, which elevates the status and popularity of the sport even more.

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