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ORIGINAL

DIFFERENCES IN FORMS OF ORGANIZATION OF THE PADEL LESSONS WITH STUDENTS

DIFERENCIAS EN LA FORMA DE ORGANIZACIÓN DE LAS SESIONES DE PÁDEL CON ESTUDIANTES

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ABSTRACT

The aim of this study was to determine the effects on the quantity and effectiveness of strokes and perceived satisfaction / fun, boredom and effort through four different organizational forms of paddle sessions. Study participants were 48 students from the Technical Training Course in Animation and Sports Physical Activities (33 boys and 15 girls) with ages between 18 and 26 years. The amount and effectiveness of beatings through direct observation of a sheet was evaluated. The perception of fun and boredom was evaluated through the Sport Satisfaction Instrument and perception of effort through the Pictorial Children's Effort Rating Table. The results show that the form of organization based on the rally among students is seen as the most effective in teaching paddle. A significantly greater and more effective number of strokes and significantly higher values of amusement / satisfaction and effort and lower boredom have been proved as a result of this form of organization.

KEY WORDS: Forms of organization, paddle, performance, fun, boredom, stress.

RESUMEN

El objetivo del presente estudio es conocer los efectos en la cantidad y eficacia de golpeos y la percepción de satisfacción/diversión, aburrimiento y esfuerzo a través de cuatro formas de organización diferentes de sesiones de pádel. Los participantes del estudio fueron 48 estudiantes del Ciclo Formativo de Técnico en Animación y Actividades Físico Deportivas (33 chicos y 15 chicas), con edades comprendidas entre los 18 y los 26 años. Se evaluó la cantidad y eficacia de los golpeos a través de una hoja de observación directa. La percepción de diversión y aburrimiento fue evaluada a través del Sport Satisfaction Instrument y la percepción de esfuerzo a través de la Pictorial Children's Effort Rating Table. Los resultados obtenidos muestran que la forma de organización basada en el peloteo entre los alumnos se plantea como la más eficaz en la enseñanza del pádel, obteniendo un número significativamente mayor y más eficaz de golpeos, así como valores significativamente superiores de diversión/satisfacción y esfuerzo e inferiores de aburrimiento.

PALABRAS CLAVE: Formas de organización, pádel, rendimiento, diversión, aburrimiento, esfuerzo.

INTRODUCTION

The exponential growth in the number of padel practitioners, licenses, and clubs in the last few years has also produced an increase in the number of studies focused on this sport practice (Courel-Ibáñez, Sánchez-Alcaraz, García, y Echegaray, 2017). But there are hardly any studies concerning the methodology or organization of padel sessions (Sánchez-Alcaraz, Cañas and Courel, 2015; Courel-Ibáñez, Sánchez-Alcaraz, y Muñoz, 2017). In teaching practice, the session is the minimum programmed unit that structures and organizes the syllabus, and it requires a frame of reference in order to, in conjunction with other sessions, take on a meaning in the students' learning (Zagalaz, Cachón and Lara, 2014). Thus, in order to reach the different learning aims set up by the teacher, an adequate session structure will be necessary (Romero, Latorre and Lasaga, 2010).

In the organization of exercises and tasks in a racket sport session there exist the so called training systems, which aim at showing the distribution of the students and teacher on the court (Courel-Ibáñez, y Sánchez-Alcaraz, 2017; Torres-Luque, Sánchez-Pay, Gago and Ros, 2013). Thus, in padel teaching, the use of lines, or the participation of the coach in the exercises seeking to control the work that is carried out, the kind of execution and the pace of the task, are common practices (Sánchez-Alcaraz, 2014). Thus, following Torres-Luque, Ferragut and Alacid (2006), there are four kinds of training systems: trolleys or baskets, rally with the teacher, rally between students with help from

the teacher, and rally between students. However, following these authors, it must be also kept in mind that in the teaching and organization of racket sports exercises, factors such as the age and number of students, the available material, the educational context, or the length of the session, will all bear an influence.

Although these kinds of organization have been broadly described for such sports as tennis (Torres-Luque et al., 2006; Torres-Luque, Sánchez-Pay and Zagalaz, 2010), their effect on students' performance, satisfaction, learning or effort have hardly been studied (Sánchez-Pay, Sempere, Torres-Luque, and Palao, 2011), and there are no researches that apply them to padel. The organizational model influences in uneven manner the teaching and learning process, so that training ought to include a good organization in order to provide high levels of activity (a high number of shots) and variety and creativity in the exercises (Calderón and Palao, 2005; Calderón, Palao and Ortega, 2005; Courel-Ibáñez, Sánchez-Alcaraz y Cañas, 2015; Sánchez-Pay et al., 2011; Lozano and Viciiana, 2002). These studies show that, for instance, the use of long lines or large groups of players reduces their participation and motivation (Calderón and Palao, 2005). Therefore, the right environment will aid the players to enjoy the process, be stimulated, acquire inner motivation and, finally, commit to the activity (Elderton, 2006).

Along the same lines, when a student enjoys herself she tends to be intrinsically motivated (Baena-Extremera, Granero-Gallegos, Bracho-Amador and Pérez-Quero, 2012), which entails a higher level of participation in the sport and, even, more practice of physical activity in their free time (Ntounamis, 2005). Thus, it is essential to know this variable in the sport training sessions, since through the students' satisfaction and fun will it be possible to inculcate habits of physical exercise, which are so important for the health of the practitioner (Ardoy et al., 2010; Gómez-Mármol, 2013), to improve performance at school (Dwyert, Sallis, Blizzard, Lazarus, and Dean, 2001; Sánchez-Alcaraz and Gómez-Mármol, 2015), or the relationships among peers (Baena-Extremera and Ruiz, 2009; Gómez-Mármol and Sánchez-Alcaraz, 2015). Therefore, fun is a key factor, as it acts as a strong predictor of the will to initiate a continued physical-sport activity and, just as much, to sustain the activity already begun (Garita, 2006; Gómez-Mármol, 2013).

At the opposite end, the investigations by Sallis, Prochaska and Taylor (2000) and Trost, Owen, Bauman, Sallis and Brown (2002) have demonstrated that the intensity of the physical exercise is a negative correlative with the practice indexes. The measure of intensity through effort perception has shown a positive correlation with objective physiological indicators both in subjects trained and not-trained (Casamichana, Casteñer, and Blanco-Villaseñor, 2012; Castañer, Saúch, Camerino, Sánchez-Algarra and Anguera, 2015) and, furthermore, it allows, among other advantages, to study great groups of population with economy of resources and ease of application (Cuadrado-Reyes, Chirosa, Chirosa, Martín and Aguilar, 2012; Hernández-Álvarez, Del Campo-Vecino, Martínez de Haro, and Moya-Morales, 2010). The studies that have measured effort perception in padel have always used it in competitive

contexts (Amieba and Salinero, 2013; Castillo-Rodríguez et al., 2014) and not in different organizational models for padel sessions.

Therefore, the aim of the present study will be to understand the effects of the different organizational models of padel sessions in the quantity and efficacy of shots and the perception of satisfaction/fun, boredom and effort in students.

MATERIAL AND METHODS

Design

A methodology of a quantitative kind has been used, which satisfies the needs of a quasi-experimental, transversal study where studies of a descriptive kind and relational studies are combined.

Participants

The study sample was made up of 48 students of the Professional Training Program on Sport and Physical Activities Coaching¹ (33 boys and 15 girls), aged between 18 and 26 years of age ($M = 21.82$; $T.D. = 1.94$) that lacked a previous experience in this sport.

Instruments

Organizational model: Four different organizational models were used for a padel initiation session (Image 1), following the indications of Sánchez-Pay et al. (2011):

- 1) Participation in groups with coach intervention at the net (baskets): The coach sends balls to the players one by one at the other side of the net. The students must perform two longline and two crosscourt shots. After the shots, the student picks up four balls and returns to the line.
- 2) Participation in small groups started by the coach (students rally with help from the coach): The students, lined up in two cues facing each other, rally with each other, and the coach plays the ball every time the rally is ended. Each student performs four crosscourt shots and returns to the line, as the exercise is continued by the student behind him.
- 3) Rally with the coach at the net (rally with the coach): One by one, the students play with the teacher, performing four shots. Once they finish their series, they return to the line. When the coach cannot return the ball, it is he who plays it again.
- 4) Play by couples with net in a narrowed court (rally among students): The padel court is divided lengthways in two. The activity is one of cooperative

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participation between the members of the couple, who take shots alternatively, playing the ball themselves.

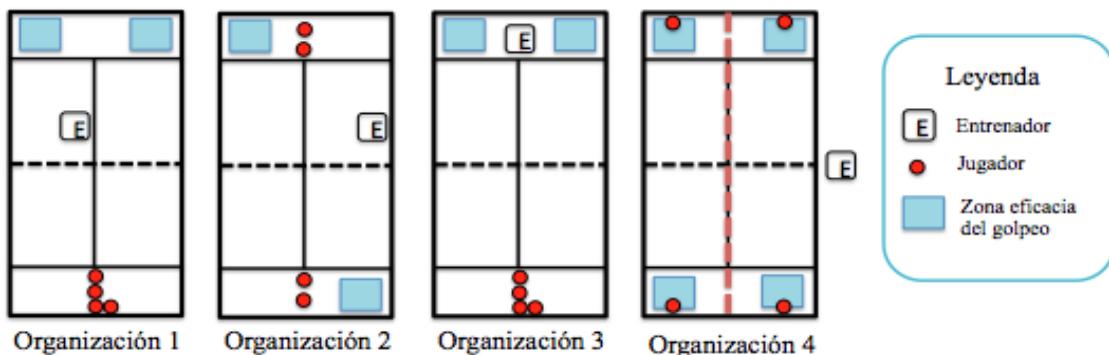


Figure 1. Organizational models used in the research.

Quantity and efficacy of the execution: The instrument employed was a direct record sheet for the shots. Regarding the quantity of execution, the number of shots carried out by the subject was recorded in each of the four models, whereas in order to assess efficacy, the number of shots sent into the marked areas of the court (blue area in Image 1) for each model. Each zone had a dimension of 3m long and 4m wide and were placed in the corners of the court.

Satisfaction/fun and boredom perception: To assess the perception of fun and learning the Spanish version of the Sport Satisfaction Instrument (SSI) of the authors Balaguer et al. (1997) was used. This instrument is made up of 8 items to measure intrinsic satisfaction in a sport activity, by means of two subscales that measure satisfaction/fun (5 items) and boredom (3 items) in sport practice. In the instructions subjects are asked to indicate their level of agreement with the items that reflect criteria of fun or boredom, collecting the answers in a 5 points Likert type scale that goes from (1) strong disagreement to (5) strong agreement. The internal consistency of the subscale satisfaction/fun was of $\alpha = 0.82$ and that of boredom $\alpha = 0.71$.

Effort perception: Effort perception in each of the models employed was measured with the Pictorial Children's Effort Rating Table (PCERT) validated by Yelling, Lamb and Swaine (2002), which has a single item that says: "The intensity of the exercise is..." to be answered in a Likert type scale presented in the form of graphic scale (a 10 step ladder) with 10 answer options going from (1) very, very low to (10) so hard I want to stop.

Procedure

In the first place, students were informed about the research procedure before the valuation and filling of an informed consent form. Participants were randomly distributed in 12 groups of four students each. Then, a titled coach from the Spanish Padel Federation with 8 years of sport teaching experience imparted a 1h long padel session to each group of students. In total, 12 padel sessions were conducted, three sessions with each of the organization models. The padel session structure was the following: general warm-up (10 minutes), main part (40 minutes) and cool-down, (10 minutes). The warm-up and cool-

down were identical in every session. The main part was made up of three exercises of 10 minutes each, in which were trained the drive, the backhand shot, and the drive and backhand in alternative shots, varying the design of the exercise depending on the organizational model, so that the contents that were worked on were similar. The session ended, the main researcher delivered the effort perception and fun and learning perception questionnaires to the students. Students were assured at all times of the anonymity of their answer, their freedom to participate or not in the study and the importance of leaving no question unanswered. The time required to fill up the questionnaires never exceeded 10 minutes and no difficulties were found for the understanding of any of the items. All the sessions were filmed for their evaluation, following the recommendations of Anguera (1999). With the aim to establish the reliability of the observer, previously a double blind study was carried out with 10 subjects, obtaining an intraclass correlation coefficient higher than 0.95 in all variables.

Data analysis

Results were analyzed with the statistical package SPSS 21.0 for Windows. In the first place the descriptive statistics of all the variables that were an object of study (averages and typical deviations) were calculated and, after that, for the assessment of the differences in the performance parameters with regards to the organizational model the test of average difference was used. Significance was considered at 95%.

RESULTS

Results related with the students average performance are shown in Table 1. As it may be observed, with regards to the shot quantity data, each student took an approximate average of 15-20 shots per exercise in the baskets organizational model, students rally with help from the teacher and rally with the teacher; whereas in the organizational model of rally between students, a significantly higher number of shots were taken, surpassing 45 shots. With regards to efficacy, significant differences were found in favor of the rally between students model, with an efficacy of 19.5 points per exercise, a much higher result than that found in any of the other three organizational models. Similarly, although the data that refers to efficacy percentage [(shots number / efficacy) x 100] are more even, the organizational model of rally between students remains significantly the most effective.

Table 1. Parameters of student average performance found in the different organizational models.

	Baskets	Rally students with aid from the coach	Rally with the coach	Rally between students
Number of shots ($M \pm T.D.$)	18.16 ± 0.71	16.83 ± 1.46	19.16 ± 1.85	46.75 ± 8.55 **
Efficacy ($M \pm T.D.$)	5.91 ± 1.62	4.74 ± 2.01	7.25 ± 0.96	19.5 ± 6.84 **
Efficacy percentage (%)	32.5	28.16	37.83	41.71 **

Note: M = Task shot mean; $T.D.$ = Typical Deviation; * $p < 0.05$; ** $p < 0.001$.

Table 2 below shows the results regarding fun/satisfaction, boredom and effort perception obtained in the different organizational models. As may be observed, the organizational model rally between students has obtained significantly higher levels of fun/satisfaction and lower of boredom, as well as significantly higher values in perceived effort.

Table 2. Fun/satisfaction, boredom and effort perception obtained in the different organizational models.

	Baskets	Rally students with help from the coach	Rally with the coach	Rally between students
Fun/satisfaction perception ($M \pm T.D.$)	2.66 ± 0.65	2.91 ± 0.99	2.83 ± 0.93	4.00 ± 0.85 **
Boredom perception ($M \pm T.D.$)	3.03 ± 1.24	2.66 ± 0.79	2.41 ± 0.79	1.53 ± 0.99 **
Effort perception ($M \pm T.D.$)	4.75 ± 2.13	4.91 ± 3.06	4.41 ± 2.31	6.66 ± 1.43 **

Note: M = Mean; $T.D.$ = Typical Deviation; * $p < 0.05$; ** $p < 0.001$.

4. DISCUSSION

The aim of this research was to find out the effects of the different organizational models of padel sessions in the quantity and efficacy of shots, as well as in the perception of satisfaction/fun, boredom and effort for the students. With relation to the performance parameters, it has been observed that with the organizational model of rally between students almost three times as many contacts with the ball were made than with any of the other models. It may be shown how the three first organizational models based on lines or cues do not seem to offer a minimum number of repetitions for the student to practice and assimilate the rest of the practice. However, methodological researches carried out in racket sports show how in sport initiation the traditional organizational model, based on lines, predominates for the greatest part of the session (Carreras and Giménez, 2010). The results obtained with respect to the number of shots per student coincide with the studies by Sánchez-Pay et al. (2011) using tennis sessions and by Palao and García (2006) using volleyball sessions. In the same way, the shot efficiency percentage showed the highest values in the situation of rally between students, maybe because they made a

greater effort to carry out the aim of the activity, as they found it more fun. Thus, there are numerous studies in tennis that have shown that, using organizational models that are based on the game or rally between students, technico-tactical concepts such as efficiency are more quickly improved (Elderton, 2009; Milley, 2010; Wilson, 2009).

The class organization based in rally between students has shown lower boredom indexes and higher perceived satisfaction/fun and effort indexes. These results coincide with numerous studies carried out in tennis that have shown numerous benefits in the perceived fun/satisfaction, motivation or effort through an organizational model based in rally play in couples of students, both in the sports court (Sánchez-Pay et al., 2011) and in the school (Julián, Sanz and Del Villar, 2010; Khaniukova, Griukova, and Kireyev, 2012). These variables related with the students' sport session quality perception are of the utmost importance, as it has been demonstrated that they act as a predictor of sport abandonment (Nuviala, Tamayo and Nuviala, 2012). On the other hand, the authors Gómez-Mármol and Sánchez-Alcaraz (2014) also observed higher levels of fun and effort in the Physical Education lessons that used session organizational models through the method of inquiry or search, as opposed to direct instruction tasks. Therefore, the high efficiency values associated to higher effort values in students may be due to the fact that, in this kind of organization the court is smaller (which may favor efficacy), the significantly higher number of shots per session may produce a higher sensation of tiredness and effort in the students, as different studies carried out in tennis have shown (Sánchez-Alcaraz, 2013b; Tennant, 2010). However, these results differ from those of Reid, Duffield, Dawson, Baker and Crespo (2008) that measured the physiological and performance demands in the four tennis exercises most broadly used by tennis coaches, finding that in those in which the player's effort was higher, the efficacy of their shots went down.

CONCLUSIONS

In the light of the results obtained it may be concluded that the organizational model based in rally between students is the most effective in padel teaching, obtaining a higher and more efficient number of shots, as well as higher values in fun/satisfaction and effort and lower in boredom. Therefore, this kind of studies prove themselves a useful tool for padel coaches and Physical Education teachers in the design and organization of their racket sport sessions.

Nonetheless, this research presents some limitations as a result of the limited size of the sample, so it has not been possible to compare the studied parameters with variables such as the sex, age or level of the students. In addition to this, although the number of sessions has been superior to those in other studies that evaluated the sport organizational models (Palao and García, 2006; Reid et al., 2008; Sánchez-Pay et al., 2011) from a more thorough application of these organizational models changes in the students' performance or body composition could be studied. Finally, it would be interesting that future studies compared these parameters not only in relation to

the organizational model employed, but also to the teaching methodology or learning contents.

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