

## Online training of sportive technicians: A present with a future

### Formación online de técnicos deportivos: un presente con futuro

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#### Abstract


In this paper, we present the technological possibilities of sports technicians during their distance training. It does special emphasis in the role that the communication has for all participants and as it differentiates of the face-to-face delivery to benefit those sportive specialities with fewer practitioners and/or with heterogeneous distribution in the territory. Besides, this training delivery contributes to the application of the new knowledge to the sessions and trainings in which they participate. The research begins with the following questions: a) does access to the courses facilitate the fact that it is online; and b) how does the use of the platform contribute to communication between participants? The study focuses on participants during their first on-line course under the current legislation of the sportive technicians of the distinct sportive specialities of the Royal Spanish Federation of Skating. The methodology used is qualitative for interviewing the coordinator and both qualitative and quantitative for students' and instructors' questionnaires. This research concludes with a clear need for teachers to be taught using the same technologies that they later have to deliver and, that the communication in the platform is rather limited. Extending the kind of tools that the platform has is a key factor to give an array of possibilities of online training.


*Keywords:* virtual platform, sportive technicians, distance training, new technologies, educational change

#### Resumen

En este trabajo se presentan las posibilidades tecnológicas que la formación a distancia ofrece en la enseñanza de los técnicos deportivos. Se hace especial énfasis en el papel que tiene la comunicación en esta formación para todos sus participantes y como se diferencia de la modalidad presencial para beneficiar aquellas especialidades deportivas con pocos practicantes y/o con distribución heterogénea en el territorio. Además, esta modalidad formativa contribuye a la aplicación de los nuevos conocimientos a las sesiones y entrenamientos en los cuales participan los alumnos de forma casi inmediata ya que no tienen por qué dejar sus actividades diarias. Se inicia la investigación a partir de las siguientes preguntas: a) ¿facilita el acceso a los cursos el hecho que sea on-line?, y b) ¿cómo contribuye el uso de la plataforma a la comunicación entre participantes? El estudio

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se centra en los participantes del primer curso on-line bajo la actual legislación de los técnicos deportivos de las distintas especialidades deportivas organizado por la Real Federación Española de Patinaje, siendo la metodología cualitativa con entrevista a la coordinadora, y cualitativa/cuantitativa con cuestionarios ad-hoc distintos tanto para alumnado como para el profesorado. Concluye esta investigación en la necesidad que el profesorado se forme en tecnologías; también que esta modalidad facilita el acceso a los cursos; y, que la comunicación en la plataforma está limitada por el poco uso que se hace de las herramientas de la misma. Estas son las que dan amplitud a las posibilidades de formación bajo la modalidad a distancia.

*Palabras clave:* plataforma virtual, técnicos deportivos, formación a distancia, nuevas tecnologías, cambio educativo

In this paper, we present the application of new technologies for the training of sports technicians (Alvarez & Dulsat, 2016; Lin, 2016). We have focused this investigation on the courses organized by the Royal Spanish Skating Federation (RFEP), which are currently offered online. The research is based on the questions asked to the students, teachers and the coordinator about the effects of the change of delivery; as well as the existing intragroup and intergroup communication. In sports, the training that technicians receive is important, as this training pass on in the acquisition of skills and capacities (Berengüi & Garcés, 2007; Cruz, 2001). In Spain, this training is regulated by the LOMCE 8/2013. Under this legislation the needs to be addressed are the following: first, grant the degrees an official degree by equating them with the training cycles; second, this similarity is established on the basis of the three existing training levels corresponding to the first two of the intermediate level training cycle and, the third level, to the upper level training cycle; and, finally, any entity, body or individual or legal entity that complies with the conditions established by legislation can organize such courses. In this way, previous field degrees are only federated by official degrees recognized by the Ministry of Education, Culture and Sports, with recognition in any field of society. We must emphasize that the sports specialties of the RFEP, present heterogeneity of participants regarding the territorial distribution of the same. In this way we can find some autonomous communities without participants in the researched course: shown in Table 1. This contributes to the low proliferation of Initial level courses (Dulsat, 2015). In addition, the autonomous communities do not see the viability of these courses except for communities such as Catalonia, Galicia or Madrid. In spite of the fact that with the appearance of training plans, other communities such as Valencia and Aragon have taken advantage of the possibility of carrying them out.

Table 1  
*Student's origin*

Autonomous Community	Participants (%)	Autonomous Community	Participants (%)	Autonomous Community	Participants (%)
Andalucía	10.69	Catalunya	11.32	Illes Balears	1.26
Aragón	3.14	Euskadi	17.61	La Rioja	0.63
Asturias	4.40	Extremadura	0.63	Madrid	10.07
Castilla y León	10.69	Galicia	28.30	Valencia	0.63
Castilla-La Mancha	0.63				

In short, this paper addresses the impact that online training produces in minority sports federations similar to RFEP. For this, we will answer the following research questions: (a) Is the access to the courses facilitated under the online mode? (b) How does the use of the platform contribute to communication among the participants?

The proliferation of the current technologies and apps was a social breakthrough in the 1990s and continues to be so (MOOCs, LMS, etc). They facilitate new ways of participating, socializing, collaborating (Johnson &

Johnson, 1989) and communicating. All this establishes a new step towards new ways of building knowledge and the need to develop new competences. These technologies, with which communication and the interrelation with the other are extended and complemented, are adapted to three new uses: leisure, communication and training (Berríos & Buxarrais, 2005).

The use of technologies as an educational tool is not neutral and represents an important turning point for any institution related to the field of learning where the internet represents the medium and space by which the educational act is conceived (García-Peñalvo & Seoane, 2015; Reyes, 2016). In addition, it means not only an alternative to traditional education, but also a complement to it (Rodríguez & Baragán, 2017). In turn, it is adjusted to understand and analyze the new forms of communication that are established by the use of these new technologies (Gómez, 2015).

Increasingly, education and online training is more often used and preferred way of delivering post-compulsory field (Dulsat & Álvarez, 2017) as in some other fields such as teaching and school management (Paniagua, et al., 2017; Ramos, et al., 2018) as well as in different business fields (Salgado, et al., 2014). In general, communication is the most important element and at the same time, it is where most of the inconveniences among the participants are created (Lobo, et al., 2011), although it is not an adjoining communication and can happen anywhere and at any time (Holmberg, 2001). Reducing face-to-face communication when delivering online courses might increase the chances to a frustrated real communication (Álvarez & Dulsat, 2016) often attribute it to the psychological-communication gap among participants (Moore, 1993). Currently, different learning platforms, especially Moodle®, present a series of elements that, from different perspectives, seek to facilitate the communication between the participants through virtual delivery (Iglesias et al., 2014), however this is yet to be fully experienced.

Moodle® platform is free, open access and that facilitates the creation of courses considering the socio-constructivist bases of education (Borgobello & Roselli, 2016; Mirandas, 2017) and used in most university campuses (Damjanovic et al., 2013). Some investigations treat Moodle as an environment more than a tool (Maza & Tusa, 2015; Onrubia, 2016) because the information, in addition to being transmitted, can be managed and processed. Other authors still consider it an educational tool in itself (Kampa & Kaushik, 2016; Moreno, 2016). Regardless of what perspective, researchers tend to agree in determining that Moodle a series of tools that can be classified roughly into three groups, whether is used synchronous or not.

These three groups can be classified as follows: (a) interactive resources such as SCROM, lessons, tasks; (b) transmission resources such as web pages, books, directories; and, (c) collaboration resources such as forums, wikis or workshops (Iglesias et al., 2014). Among the advantages obtained from Moodle are: first, the online use of content and activities; second, interactive and transparent evaluation; and, third, fluid interaction between teachers and students.

The resources include from the most asynchronous channels as virtual messaging or discussion forums to more synchronous ones such as chats and videoconferences contribute to an improvement in the relations between participants and the establishment of different communication channels through which a more constant contact is established, among them (Ángel & Cano, 2011; Arévalo, 2007). These channels allow us to interact in different types of conversations either between peers or in a large group, but, in short, the concept of virtual context implies the existence of virtual interaction through telematics means and technological support (Barberà et al., 2001); although as indicated (Perazzo, 2010), there are few occasions in distance training that the present communication channels are used in their almost total potential, mainly because the way of sharing knowledge is not specific or explicit.

In virtual environments, both the role of the instructors and students is in a continuous change as they become the main actors of the educational act that changes and increases. This requires a positive adaptation by both groups of participants (Bach & Fortés, 2007). For the students, they have the time they need and the medium is frequently able to be adapted to their own pace.

As far as the communication is concerned, we consider the Conversational Theory proposed by Pask, et al., (1973) where the learning passes from the teachers to the students, since the latter are the ones who must manage their own learning and each of them must adopt it according to their own learning styles (Latchem, 2019). The importance for this author lies in the ability of each participant to self-organize self-pace, during the educational act. Thus, Pask's (1976) proposal is based on the learning process of specific concepts where the limit is marked by the student's understanding of these concepts and gives way to the reflection of the teachers who establish where the learning of their students go individually. In the case of conversational theory (Pask & Scott, 1973), the notion of learning follows Vygotsky's conception that requires interaction among participants because learning is a social phenomenon and acquiring new knowledge requires: interaction and dialogue among different participants. This theory of conversation is relevant for distance education because it understands social systems considering the following aspects: (a) using a natural language when there are debates; (b) language as an object for the discussion of topics. Based on these two aspects, as well as the previous considerations, Conversational Theory is valid for the use of technological tools in learning, including the Internet as a mean of communication.

## Method

### Participants

The research was conducted in the first course organized by the RFEP (Royal Spanish Skating Federation) following the training plans offered (Resolution June 3, 2015). Nine courses were held in three different venues: Logroño, Coruña and Madrid. The courses are level 1 for sports technicians in distance mode. They were offered for the whole Spanish territory with the following distribution: hockey skates, two courses; line hockey, a course; figure skating, four courses; and, speed skating, 2 courses.

The population used to carry out this study consists of: 213 students enrolled in the courses, plus 10 teachers and the coordinator. In the case of the students, the invited sample were all those who passed the theoretical part (164). In the case of the teaching staff, 100% of the population becomes our data producing sample, as well as in the case of the coordinator; while the data production sample for students become 90, 54.88 % of the sample invited.

### Instruments

The students and teachers were given an ad-hoc questionnaire consisting of two parts: a first part prepared with quantitative questions and a second part with short answer questions. This second part is divided into two sections: one related to communication during the course and a second part related to the differences between face-to-face training and virtual training. The students answered a questionnaire with 13 items: 6 for the quantitative part, 7 questions for communication. The teachers' questionnaire consisted of 14 items: 4 for the quantitative part, 8 questions for the communication. In addition, the coordinator was interviewed to check the information given by the other two groups.

By triangulating the results obtained with the instruments applied to different participants, it allows achieving reliability in the results obtained (Creswell, 1998; Denzin & Lincoln, 2000; Latorre et al., 2003). With this triangulation, we also enrich the information obtained that brings us closer to the internal validity of the results (Ruiz, 2003; Villa & Álvarez, 2003). In addition, we must present the Cronbach alpha for two quantitative instruments: Students' Cronbach alpha=0.864 and Teachers' Cronbach alpha=0.786.

### Procedure

Permission is sought from the organizers of the courses for sending the questionnaires. This request was accompanied by an informed consent from the participants, guaranteeing their anonymity and exclusive use for the research. The invited sample for the students were all those who passed the theoretical part. This is important

because the link to the questionnaire was sent to them during the internship so that they would have gained enough experience with the use of the platform. For the teaching staff, various strategies were sought to achieve 100% of the population. So first, they were sent via email and then the different face-to-face sessions were used to carry out a questionnaire in person once the meeting that took place with all the teachers was completed. Finally, the interview was conducted with the coordinator after analyzing the information provided by both groups (teachers and students) to ensure that the coordinator could provide their views on them. The analysis of the quantitative information was carried out using the IBM SPSS-22 software. For the qualitative analysis, NVivo-10 software was used, and the creation of nodes for the interpretation of the dendrograms generated by similar words within each node.

## Results

### Quantitative analysis

**Teacher and coordinator analysis.** The quantitative analysis based on the data obtained from the teaching staff places us in a group of 10 people of which 20% are women and 80% are men. There is a teacher for each sport specialty and a teacher for each specific area, which is common to the four specialties, in total three, and two teachers from the common areas outside of the specialty. 60% of the teachers consider that they have a high level of acceptance of the new technologies, three have enough acceptance and only one teacher expresses that he has little acceptance of the new technologies.

It shows in the Table 2, the age teachers' percentages. The coordinator is a woman from the group of 36 to 40 years with previous experience in distance training but only under the role of student in various continuing education courses for their position as a teacher. It has a high degree of acceptance for new technologies.

Table 2  
*Age teachers' percentages*

Age (years)	%	Age (years)	%
26-30	10	41-45	20
21-35	30	46-50	0
26-40	30	51-55	10

**Students' analysis.** The student body is composed of 54.7% women and 45.3% men. The experience in distance training is divided into: 42.8% with experience and 57.2% without experience. In Table 1 we present the origin of the students according to their autonomous community and in Table 3, we represent the frequencies of their ages.

Table 3  
*Student range of ages*

Age (years)	%	Age (years)	%
16-20	23.9	36-40	11.9
21-25	20.8	41-45	5.0
26-30	18.9	46-50	3.8
31-35	13.8	51-55	1.9

Regarding students' age, it should be noticed that the minimum age to participate in the course is 16 years, since this is the minimum legal age from which a person can enrol in these courses. Finally, the data obtained based on the students' responses regarding the degree of acceptance of the new technologies are the following: the answers are between 1 and 9 of a maximum of 10, where 1 is maximum acceptance and 10 minimum acceptances. The mean is 2.47 with a standard deviation of 2.23. Next, Table 4 is presented regarding this degree of acceptance.

Table 4  
*Percentage of the degree of acceptance of the new technologies*

Degree of acceptance	%	Degree of acceptance	%
Non acceptance	0	6	2.27
2	14.77	7	3.41
3	7.95	8	2.27
4	4.55	9	3.41
5	6.82	Total	54.55

We can highlight that more than 50% of students consider their degree of acceptance of new technologies in full and that there is no student who considers rejection or negative acceptance of new technologies. It should also be emphasized that just over 10% of the students consider a degree of acceptance of new technologies above grade "6".

### Qualitative analysis

**Teaching and communication.** Among all participants, teachers are by far the ones who preferred to use email messages and phone calls. To this, it is necessary to add the face-to-face sessions. Teachers when talking among themselves they keep using email and phone calls and they all agree they do not use for communication: chats and meetings. Furthermore, other tools they realized they do not use when communicating during the course delivery: forums and videoconferences. Teachers also point out that they do not require any type of media because they consider that the ones they use are sufficient.

Two out of ten teachers do not feel isolated basically because they are the only ones in their specialty. The rest of the teachers do feel isolated mainly because they do not know each other, they are from different disciplines and, they also emphasize the lack of time for meetings. The exchange with the rest of the teaching staff is either little or non-existent. The little exchange that takes place occurs in the face-to-face, by telephone or by mail; all of them solve problems with the use of the platform, and issues related to students by using the e-mail is associated Moodle.

The communication between teachers and the coordinator was a fluid communication, and it carried out via email and telephone (again old-medium) and, individualistic. The communication between teachers and students was scarce but immediate for those who want to contact and help to the questions raised. This communication is always initiated by the students having teachers a more passive attitude. There are teachers who consider that communication is very good, being the face-to-face most of the time.

Teachers have mixed feelings as to the communication between participants. On one hand there are positive responses overall. However, there are problems that arise with the use of the platform and some challenges with email addresses that make either that the message might not arrive at all or they do later than expected leaving teaching staff unsolved questions. Furthermore, teachers are aware that students communicate with their classmates and solve questions through the forums. It is the communication between students that gives more information to the teaching staff regarding the communication established between students and coordination manager.

**Student body and communication.** What is more given in percentage regarding the questions about the students' colleagues is the solving doubts and the help between the groups for their academic obligations. There is a group of students who comment that there is very little on-line collaboration while others consider that, if there is collaboration, it is only during the face-to-face sessions. The presence of other means different than those provided by Moodle are also discussed, such as WhatsApp, the telephone or email addresses outside the platform, as well as the face-to-face meetings of those students who live in the same town.

Communication among students was null or non-existent (above 25% of the answers). The communication is done in broad strokes by proximity with colleagues, as well as by the use of open forums to facilitate the interrelation from the platform itself. They continue to value external Moodle, WhatsApp for instance. Basically, it is commented in these answers that the academic obligations and the existing doubts are the questions that contribute most to establish communication with their classmates.

The most commented answers about the communication between students and coordination consider that it is regular or improvable, although there is also a similar percentage that believe it to be correct and fast. This communication with the coordination manager is done to solve and correct issues that appear throughout the course. All of them are done exclusively online. It is worth highlighting some answers that indicate the existence of aspects to be improved.

The communication between students and teachers is basically carried out for the resolution of doubts. Students consider that their relationship with the teaching staff is fast or correct for strictly academic matters. This communication is established mostly via email and none of them refers to face-to-face communication. Some of the answers given by the students are oriented towards the lack of credibility on the part of the teaching staff towards the new technologies. In general, students are aware of the many possibilities that exist in on-line courses to communicate with teachers, these being those that take in some cases to respond to asynchronous communications of students.

The student's point of view between coordinator and teachers, in the largest case, many of the answers show lack of awareness or assumptions are made. Based on the above, it is considered that the communication between the other two groups is correct and effective, complemented at all times with the responses of those who consider that there is no relationship between the coordinator and the teaching staff.

**Coordinator and communication.** The coordination proposed the use of the forum as a tool to facilitate communication with the students. However, the communication with the faculty was continued through the use of the telephone or email, because the forum non-use by the instructors. The coordinator recognizes, that in this initial phase of using Moodle®, the teaching staff has little knowledge to maximize their use, especially in a collaborative way. Instructors need more practice to see all the potential use for their courses. However, the coordinator knows that there is a lack of time for this kind of training. It is well-known by some teachers that they do not enter the platform and that they use personal email to contact their students instead of making Moodle their personal space for delivering and contacting students.

### Discussion

If the teacher considers that the communication is low between students, then they compensate by having students' email address of each other and even, some of them, share their phone number and WhatsApp (Sarhandi, et al. 2018). Some researchers begin to appear regarding their use for purposes centred on the teaching and learning process (Bouhnik & Deshen, 2014; Suárez, 2017). These last two are the most used for the most immediate communications, being the email an element less used for the relationship among the teaching staff. Instead, staff meetings are an element used, and more demanded, for relations with the rest of the teaching staff, in other words, there is a need for a virtual team trust (Ok & Kyu, 2018). To this, it must be added those answers given by the teachers who consider the use of videoconferences, as a facilitator element of meetings of the distance training mode, but they ask for the possibility of these meetings being held on a regular basis.

The existence of several specializations in the same course with instructors who do not share students, conditions some of the answers that imply that meetings are not necessary, but it is also complemented with the feeling isolation where, two out of the ten, teachers appear. In the case of those who do not share students, this feeling does not appear because students pertain to different specialties, although, three out of ten, teachers acknowledge not having any kind of communication during the courses with other workmates. The feeling of isolation stems from the fact of not knowing each other at all, and insists on the idea of regular meetings and the participation in common spaces as forums to unify criteria as indicated before (Wang, et al., 2010) as facilitators and as a form of social influence among members.

Teachers consider that there is a flowing communication with the coordinator although they need a dossier, at the beginning of each course, with the different uses of the platform. Regarding the communication between these two groups, students make assumptions due to the messages answered by the other two groups that either complement or agree on their responses according to the obligations of each of them. The communication between organizers and teachers contributes, a great deal, to reducing the isolation feeling while delivering the courses (Cheek & Wong, 2015).

According to the students, there is a feeling that teachers do not believe in these technologies, although they express a high degree of acceptance. This does not coincide fully with the conclusions (Boza & Conde, 2015) in which the youngest teachers have better predispositions towards the use of technologies according to the contributions of the students. It is in the communication between the virtual and face-to-face that the teachers show their limitations in the virtual delivery and compensate it with the face-to-face meetings.

Teachers perceive that there is some communication between students and coordination and vice versa as they confirm the existence of forums as the preferred space for finding solutions to problems that have arisen during the course. The students comment that the communication with the coordinator has been carried out basically to solve managerial issues, and that it is a fast communication and always via email. This communication with the coordinator also appears as the most commented aspect to be improved regarding the course.

Collaboration among students end up being non existing. Students resolve individually because teachers do not include collaborative tools such as wikis, groups or discussion forums (Villalonga & Ibáñez, 2017) for improving and promoting collaboration.

Students and teachers both are deeply affected by this lack of face to face communication with the rest of the participants, being the main cause of missing or lack of synchronization between questions and answers mediated thanks to the tools presented in the platform, mainly email. For teachers, the main advantage of this online training is the fact of reaching out students that otherwise they would not have these training possibilities available in our context. Thus, not only teachers continue with their activities, but they can also apply the new knowledge and deliver it more efficiently.

In conclusion, the questions that guided this investigation are answered as follows:

*Does it facilitate the access to online modality courses?*

We can answer this question affirmatively because students know that these courses can be done because they are delivered online, otherwise it would be impossible for them unless they would quit their jobs. In addition, not just due to the type of delivery but due to its organization, this is the only way that some students have to take part in these courses as there are no other options: no face-to-face courses near their location nor other entities that organize them on-line. Teachers, on the other hand, highly reward that online courses help them work from different places and locations and by doing so, they can still keep other jobs.

*How does the use of the platform contribute to communication between participants?*

We can conclude that the use of the platform contributes little to the communication established among the participants. Instead, the communication goes through old-ways such as the email. Among teachers, they also communicate through the use of their personal email, telephone or instant messaging apps. Nor does the coordinator communicate with the teachers through the platform. Instead, she does so through her personal email. The only moment in which communication is carried out using the existing mail on the platform is that of the coordinator with the students (as a very formal way of communication). The coordinator is aware of the obvious scarcity of knowledge of the teaching staff, in addition to the initial difficulties mentioned regarding its use. There are still some teachers who do not access the platform and are helped by the coordinator to access it, as well as others who send documents and information to their students through their personal emails. To all this, we must consider that communication is rather limited and used as a container for delivering documents.

In short, everything is oriented towards the training of teachers in technologies because it allows them and contributes to a more efficient way to increase efficient communication among all the participants. From this study, we observed that Conversational Theory proposed by Pask, et al. (1973) is largely missed as a “natural conversation” because several issues concerning both teachers’ lack of full potential use of Moodle delivery tools and students’ needing and wanting quick answers throughout the forums. We believe that introducing short videos could be an element that both participants, teachers and students, might regard it as positive step further for solving



doubts. Also, by creating a rubric to help evaluate videos or other kind of delivery material might lower stress for both participants and increase the chances to help communication build-up through the course of a period of time.

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