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Perceptions of teachers and students about the use of ICTs in physical education classes: uses, advantages, and projections

Percepciones de profesores y alumnos sobre el uso de las TIC en las clases de educación física: usos, ventajas y proyecciones

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Abstract. The digitalization of societies is not a homogeneous or mechanistic process that moves in parallel to technological processes, since the uses of ICT are linked to the social and political contingency of each country. Consequently, this paper set out to analyze the perception of teachers and students about the use of ICTs in Physical Education classes in schools in Santiago of Chile. The use of ICTs in Physical Education is uncommon in Chile, these are focused on physical exercise and folklore teaching. A qualitative methodology was used. Based on structured interviews with teachers and students from schools in the southern area of Santiago. These were analyzed through Atlasti software. A qualitative analysis of content and a thematic analysis was carried out through data coding. The results show that there are differences in the perception of ICT by teachers and students. The former prioritize technologies applied to physical exercise. The latter consider that technologies are important for obtaining information and managing communication between teacher and student. It is concluded that it is necessary to generate institutional mechanisms that allow socialization in new skills and knowledge of technologies, since the lack of training in these skills could produce severe problems in the integration into the new digital society that is developing in Chile. Likewise, there is a generational gap in the use of this type of technologies, which would affect the older population.
Keywords: ICTs in the classroom; Physical education; Digital society; Education in Chile.

Resumen. La digitalización de las sociedades no es un proceso homogéneo o mecanicista que se mueve en paralelo a los procesos tecnológicos ya que los usos de están ligados a la contingencia social y política de cada país. En consecuencia, este trabajo posee el objetivo de analizar la percepción de docentes y alumnos acerca del uso de las TIC en las clases de Educación Física en las escuelas de la región metropolitana (Chile). Para realizar dicho objetivo, se utilizó un enfoque cualitativo con alcance exploratorio y la recopilación de datos se realizó a través de entrevistas abiertas.

En base a entrevistas estructuradas a profesores y alumnos de colegios de la zona sur de Santiago. Estas fueron analizadas a través del software Atlas. ti. Se realizó un análisis cualitativo de contenido y uno temático mediante la codificación de datos. Los resultados muestran que existen diferencias en la percepción de las TIC por parte de profesores y alumnos. Los primeros, priorizan las tecnologías aplicadas al ejercicio físico. Los segundos, consideran que las tecnologías son importantes para obtener información y gestionar la comunicación entre profesor y alumno. Se concluye que es necesario generar mecanismos institucionales que permitan la socialización en nuevas habilidades y conocimientos de tecnologías ya que la falta de formación en estas habilidades podría producir severos problemas en la integración en la nueva sociedad digital que se está desarrollando en Chile. Asimismo, existe una brecha generacional en el uso de este tipo de tecnologías, lo que afectaría a la población docente de mayor edad.
Palabras clave: TICs en el aula; Educación física; Sociedad digital; Educación en Chile.

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Introduction

Technological transformations have been one of the main paradigms in the transformation processes of human societies throughout their history. Nevertheless, technological advances have had an unequal impact on societies since many of them have had warlike ends, to the detriment of human welfare.

How do we manage technology? In whose hands do we place it? What project is scientific knowledge used for? These are cardinal questions when it comes to wondering about the relationship that technology would have with current societies (Giddens, 2006).

The use of Information and Communication Technologies (hereafter, ICTs) in education has been a goal proposed by the United Nations since the early 1990s, to which Chile has subscribed through a series of cooperation and alliance agreements. However, the poverty and economic instability suffered by a considerable number of families in the country have determined that not all students have access to the use of ICTs in the classroom, which has led to a rocky and challenging road for digitalization processes and technologization of society.

Considering the above, this research aimed to analyze the perception of students and high school teachers about the use of ICTs in Physical Education and Healthcare classes in the Chilean context. It was decided to choose the area of Physical Education because we consider that there has been a massification of digital applications and technological products for sports and recreational purposes in recent years. Therefore, as a result of this trend towards the massification of technologies applied to sports, we wonder if this has impacted the educational processes in schools in the country.

Regarding the systematic literature review carried out for this research, it was detected a significant presence of studies related to the use of technologies in the so-called sports sciences. However, the review conducted through

search engines showed a lower proportion of studies related to the use of ICTs in sports education and physical activity in the school context.

This study was justified, first, by the researchers' perception that there would be low levels of innovation in the pedagogical methodologies used for teaching physical education in Chile since traditional methodologies persist in the teaching of this subject, which is anchored in the traditional Swedish and Anglo-Saxon models (Acuña, 2020). Second, this investigation sought to approach the perception of physical education teachers regarding the use of ICTs in the classroom and the ability of the teachers to adapt to the challenges of the digital society. Namely, studies conducted during the COVID-19 pandemic showed that a significant number of primary and secondary school teachers still lacked efficient digital literacy.

Theoretical framework

According to I. Binder and S. García (Binder, 2020), technological and digital tools have transformed contemporary human society, turning it into an information society (Castells, 1996) Nonetheless, for both authors, the use of ICTs in society is not neutral since digital technology has been instrumentalized as a political and commercial weapon by the major economic powers (such as China and the USA). Furthermore, the historian Yuval Noah Harari (Harari, 2016) has argued that deregulation and lack of reflection on the processes of expansion and advancement of digital technology and robotics would have adverse effects on human societies since they would reformulate a large part of the human fields of operation. For example, according to the author, the current global employment markets would be affected by extensive automation processes, resulting in a massive replacement of a large amount of human labor, such as salespeople, doctors, public officials, or teachers (ECLA, 2020).

In contrast to this pessimistic view regarding the impact of technology on contemporary society, other perspectives have proposed that an ecological and sustainable use of technologies would immunize human society from the harmful effects of their generalized use. Thus, it would utilize the social transformation potential of ICTs for the social and economic well-being of countries since ICTs would democratize access to knowledge and facilitate access to some services (Valdés, Rudman, Ángel, 2021).

Following the previous perspective, there are experiences and alternative political projects that understand digital technologies as tools at the service of citizens and educational projects (Vallejos, 2021). In this sense, the use of information and communication technologies oriented to pedagogical processes seeks to strengthen free access to knowledge and information.

As a result of the complexity of contemporary human societies (Castells, 1996; Alfonso, 2016; Martínez, 2018). ICTs have become increasingly necessary in the employability processes since teaching and learning to use digital tools allows individuals to access basic cultural codes of work sociability (Bruner, 1994) In fact, the massive use of ICTs has been radicalized due to the COVID-19 pandemic.

On the learning model based on ICTs use

One of the most developed educational models regarding the use of ICTs in the facilitation of school learning processes is the Finnish model. This model integrates the use of technologies at all levels of education and has even created a particular subject related to ICTs and digital programming in elementary school students. In addition, the Education Committee of the European Parliament has determined that "digital skills are key for the future" (Ros, 2021).

As stated by Marcos Ros, Member of the European Parliament, Europe is moving towards digitization of society. However, this process requires efficient management of human and material resources since, if the process of digitization of society is not carried out efficiently and democratically, the digitization of society will become partial, generating irresolvable social gaps.

For this reason, the members of the European Parliament have made recommendations to EU countries to include in their training plans the teaching of digital skills to both teachers and undergraduate students (European Education Area, 2023).

In the case of Latin America, both Economic Commission for Latin America and the Caribbean (ECLAC) and United Nations Educational, Scientific and Cultural Organization (UNESCO) have developed regional educational plans that seek to promote and emphasize the importance for students and teachers of acquiring universal and globalized digital knowledge (Vallejos, 2021). In this sense, the ICT revolution has created new forms of production, access, and circulation of knowledge (Vallejos, 2021). Thus, both teachers and students must be familiar with the new material media and basic cultural codes through which information and knowledge circulate.

Within the 2009 Chilean primary education curriculum framework, the subcategory ICTs recognizes its widespread use among students and highlights the need to develop skills for its responsible use for learning and personal development.

Materials and Methods

This study is defined by its qualitative and descriptive scope since its purpose is to analyze the perceptions of teachers and students regarding the use of information and communication technologies in the subject of Physical Education and Healthcare in the specific context of Santiago, Chile.

In effect, this research corresponded to a field study in a specific educational context and was conducted within the framework of the professional internships implemented by the Physical Education career of the Universidad Bernardo O'Higgins (UBO). In turn, as a method of validation of the interviews (TA), peer review was used (Braun et al., 2020;

Creswell & Miller, 2000; Levitt et al., 2017). This research was theoretically positioned within the constructivist paradigm in education because it was born as a joint project between undergraduate students and academics of the Physical Education department and the Center for Institutional Research of the UBO. In this sense, based on the constructivist approach, we sought to analyze the voice of high school students, so that they could also participate in the research and express their own concerns and suggestions regarding the use of ITCs in physical education classes.

The authors conducted the following main research tasks: first, they carried out a literature review to analyze the state of the art concerning using ICTs in Physical Education. Second, they created the scripts for the structured interviews, which were used to collect information on the use of ICTs in the teaching-learning processes of Physical Education. Third, they contacted and interviewed students and teachers to elicit their opinion. Fourth, they analyzed the data of the interviews via a qualitative software analysis (Atlas.ti).

The interviews with teachers consisted of eight questions focused on identifying the ICTs used by the informants in their classes, their perception of them, their disadvantages, and how they perceive the future use of this type of technology. Students were asked questions related to their access to ICTs and their perception of these technologies in Physical Education classes.

Table 1.
Interview Script. (student)

Question 1	¿Tienes acceso a un aparato tecnológico?
Question 2	¿Cómo percibe el uso de la tecnología en las clases de Educación física?
Question 3	¿Que beneficios tiene?
Question 4	¿Qué opines del a implementación de aparatos tecnológicos en las clases de Educación física?
Question 5	¿Cree que sería un plus para el future de las clases de Educación física?

Table 2.
Interview Script. (teachers)

Question 1	¿Qué elementos tecnológicos utilizan par el desarrollo de las clases?
Question 2	¿Qué utilidad tiene para usted?
Question 3	¿Cómo percibe el uso de la tecnología en las clases de Educación Física?
Question 4	¿Qué beneficios tiene para usted?
Question 5	¿Cuáles serían sus desventajas?
Question 6	¿Qué opinas de la implementación de aparatos tecnológicos en las clases de Eduación Fisica?
Question 7	¿Cómo lo implementarías?
Question 8	¿Crees que debido a la pandemia se modificaran los planes y programas de estudio de la asignatura de Educación Fisica, para ser implementados paulatinamente?

The total number of interviewees consisted of five students, aged between 15 to 18 years old, and three Physical Education teachers, aged between 24 to 35 years old, with at least one year of experience. Once the interviews were conducted, they were transcribed in Word, and the analysis was assisted by Atlas.Ti software (2020), which allows qualitative coding data. Likewise, Atlas.ti enabled us to build relationships between the codes extracted from the sample that made it possible to achieve the proposed objectives.

The analysis codes were defined inductively, i. e., they were established as we analyzed the interviews. It should be noted that the codes are directly related to the objectives proposed by the research plan. Subsequently, codes of a more descriptive nature and even live codes led to codes of an analytical nature, which made it possible to generate relationships between codes.

Results

Interviews with students

Firstly, regarding the technologies to which the students have access, it can be observed that all five interviewees have mobile phones. Moreover, four of them have a computer. Mobile and internet at home are mentioned regarding other technologies declared by the students.

In relation to the rest of the questions asked, which seek to gather the perceptions of the students, all the informants express a positive appreciation towards the use of technologies in Physical Education classes. In general, this perception is based on students' notions about their relationship with technologies.

In the first place, the informants consider that ICTs are useful for Physical Education classes, both for the students themselves and the teachers. In other words, they are tools that facilitate teaching. In this regard, subject number 5 points out the following:

"It would help to facilitate the teaching needs of the teacher to his students, for example, to show some exercises that the students do not know or what things help to the health in relation to doing some physical exercise".

Also, it is highlighted that technologies facilitate the learning of the students themselves:

"Yes. Because with this bonus of technology young people will be able to be introduced much easier to the world of sports and in the information necessary for everything regarding it" (Subject 1).

Another element supporting the positive perception about technologies is the closeness these tools have with the students themselves. In other words, it suits the generational characteristics of boys and girls:

"Most of us students have grown up with technologies, so it is absurd to ban them in classes" (Subject 2).

Concerning the previously mentioned, emphasis is placed on the option offered by ICTs to motivate the learning of students, since, on the one hand, they make classes more dynamic and, on the other hand, they provide students with tools to continue doing physical activities outside the classroom. In this sense, the statement is interesting:

"In addition, it would allow students to learn to use these technologies outside of school and thus encourage physical activity to be able to perform, not only when a teacher asks for it or just for a grade" (Subject 2).

Similarly, there are references to the importance of technologies in Physical Education as a tool that makes classes more didactic and even more playful. Thus, one student points out that classes can be "more dynamic and participative" (Subject 2), while another informant considers that:

[Technology] "also helps to make classes or exercise routines more fun". (Subject 2)

Another issue that appears in the interviews is the use of technology in favor of the active monitoring of the progress

of students in their physical activity, as in the case of the monitoring of students who perform a specific sport (Subject 1). For example, through the use of a smartwatch, a student comments the following:

[Technology] "It is useful to know the state of the body, as with the use of a smartwatch." (Subject 2)

In this line, the work with applications that allow planning or knowing in advance the activities to be performed in the physical education class is valued:

"For example, using applications such as Canvas or Google Drive, where the tasks or exercises to be done in the following classes are specified" (Subject 4).

A topic also mentioned by informants is the power of technology to enable access to adequate and accurate information for exercise and sport, as in the following quote:

"With technology, one can have more accurate information." (Subject 1)

However, the disadvantages perceived in the use of ICTs in Physical Education classes are linked to their scarce implementation in the subject, as indicated by one informant:

"Even so, it would be good if they used more technology since, so far, very little is used." (Subject 3)

On the other hand, some students express concern for the teachers, who, when implementing ICTs in their classes, will have to invest time to familiarize themselves with them:

[...] "maybe it could mean more burden for the teachers because they would have to learn to handle something new" (Subject 3).

Finally, regarding the incorporation of technological tools in the future, one of the students considers that it is necessary to detect in which instances it is appropriate to use them, so that good use can be made of ICTs, since Physical Education is a subject that is based on working with the body itself, with the skills and activities of people (Subject 5).

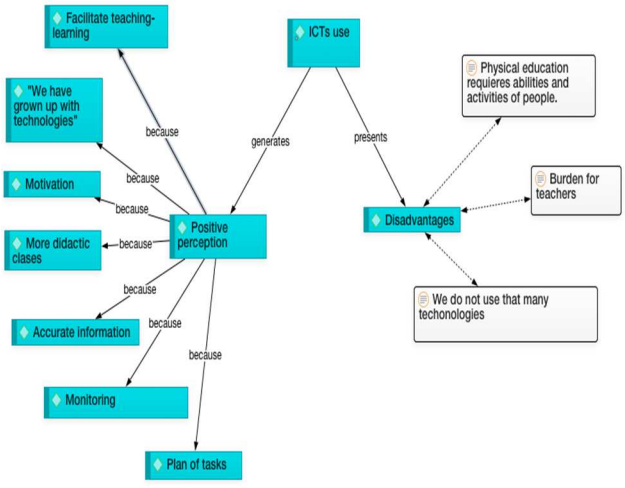

Figure 1. Code network of the data analysis in Atlas.ti, from student interviews. Source: compiled by the authors

The themes identified in this quantitative analysis regarding the students' perception of the use of ICTs can be seen in Figure 1, which corresponds to a code network made with the atlas.ti software.

Interviews with teachers

In all cases, the technologies that teachers indicate using in Physical Education and Health classes are computers or tablets. Two of the informants indicated that they use speakers and a projector. In addition, there are some references to the use of the internet, smartwatch, and video players.

In general, two different situations of ICTs use can be observed: face-to-face and remote, the latter directly related to the COVID-19 pandemic.

With respect to face-to-face, informants reported using the technologies on specific occasions for music or video reproduction:

"It is understood that physical education classes are generally presented in a face-to-face format, with exceptions such as watching dance videos, playing music, and so on" (Teacher 1).

However, with the global health crisis of the last two years, the vital role of technologies in this context is highlighted, thus facilitating the effective conduct of classes, in virtual and synchronous mode, the use of communication platforms and the monitoring of students, as the informant comments:

"But in the pandemic, the use of technologies has become indispensable, allowing us to present the class at a distance (synchronous) and using various platforms (Classroom) that account for student work through videos, portfolio evidence, PowerPoint presentations, etc." (Teacher 1).

In the questions asked during the interviews, we sought to know the perception of teachers regarding the use of ICTs. Thus, it was possible to identify the advantages of using technologies in Physical Education classes from the perspective of the informants themselves. Specifically, the benefits of ICTs detected were: (1) they facilitate communication with students, i.e., as Subject 2 points out, they are "a tool for connecting and communicating with students to carry out activities" and (2) they enable receiving material from students and delivering feedback to them, as we already saw in the quote from Teacher 1.

Likewise, the informants stated that ICTs allow access to diverse information, which enriches the teaching of Physical Education, which can be seen in the following excerpt:

[Technologies] "allow orienting the knowledge of the subject through the research of different topics: videos of a healthy life, biographies of sportspeople, choreographies of dances". (Teacher 1).

At the same time, the familiarization of teachers in digital knowledge allows a better approach to the reality of students:

"Absolutely, they must be modified; students are born in a technological world that is growing by leaps and bounds, and in the same way, we must be friendly with

these implements." (Teacher 2).

On the other hand, teachers also observe disadvantages in using technologies in the subject. In the analysis, the following disadvantages have been identified: (1) they can generate distractions in students, who with the use of ICTs would have access to videos that are unrelated to the activity planned for the class; thus, it is recognized that "the main disadvantage is the distractions to which these elements can lead us, watching videos that do not correspond to the activities" (Teacher 2).

Teachers recognize that not all students and schools have access to ICTs, generating inequality among students. This is stated in the following quote:

"In addition, knowing the diversity of families in our establishment that does not have access to the internet and/or technological elements generates a decrease in the knowledge and growth of the subject" (Teacher 1).

Another teacher continued with the argumentation of his colleague, saying the following:

"We did not use more technology, only computer or tablets since the school does not have so many resources and neither do some students" (Teacher 3).

On the other hand, in the interviews, it is evident that the technologies are exposed to technical failures, which limit the communication and connection between the teacher and the student:

[…] "others [say] that the camera or the audio is lost and not all of them can be evaluated or be seen at the moment of the class, so the interaction between teacher-student and student-teacher is lost" (Teacher 3).

From the field study, it can be observed that, in many cases, ICTs have requirements that are not available in the schools or in the places where the physical education class is held, as is the case with electricity or the internet:

"Moreover, they are implements that need an energy source and/or internet to work, so that they could not be used directly on a sports field if we do not have the electrical resource nearby, the lack of internet access" (Teacher 2).

Another category identified in the data analysis is the projection of ICTs in the subject of Physical Education in specific situations. Thus, incorporating music, videos for the folklore lesson, the stopwatch, and the smartwatch stand out. This last device is mentioned several times by the teachers, who see in the smartwatch a tool capable of executing various functions, which is described by one of the informants as follows:

"Smartwatches can measure heart rate, pulsations, and kilometers traveled. In this way, each student can record his physical performance during physical education classes" (Teacher 2).

Likewise, in the future, the use of technologies is valued as a way of communicating with and monitoring students in a context where the return to physical attendance will be complex. In fact, one interviewee notes that ICTs can even be useful for encouraging physical activity in the environment of the student:

"They can also be implemented for students who cannot attend face-to-face classes, requesting the execution of games in family, in squares, recording and sending the videos, thus promoting physical activity with their close ones and friends" (Teacher 2).

Finally, regarding the perceptions of teachers on the incorporation of ICTs in the Physical Education school curriculum, all informants agree that these should be adapted and include technologies. For example, one interviewee mentions:

"But I do believe that the plans and programs of the Ministry of Education should be adapted and strengthened in the area of communication with technologies (Teacher 3).

In addition, another interviewee emphasizes that it is important to include ICTs in the curriculum since they are part of the daily life of the students themselves:

They are expected to be integrated gradually, considering that students are technologists" (Teacher 1).

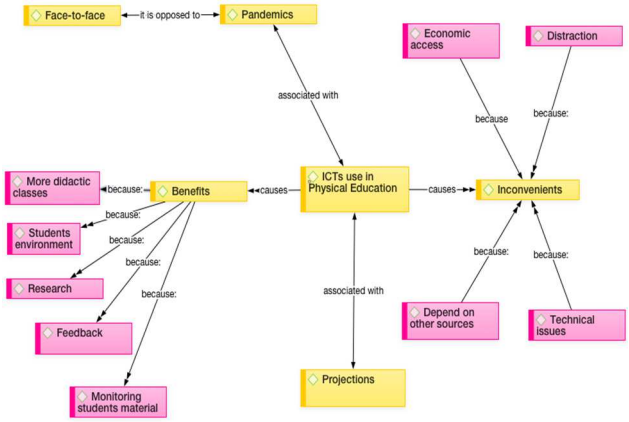

Figure 2. Code network of the data analysis in Atlas.ti, from teacher interviews. Source: Compiled by the authors.

The themes identified in this quantitative analysis regarding the teachers' perception of the use of ICTs can be seen in Figure 2, which corresponds to a code network made with the Atlas.ti software.

Discussion

In relation to the technological devices used, it is observed that teachers make use of more varieties of technological tools than students. Even when all of them indicate that they use computers or tablets, in the case of teachers, these are complemented with speakers, projectors, video players, and smartwatches. Likewise, the latter is more explicit in indicating the need for the internet to use ICTs. This differs from what the students indicate, who, in all cases, state that they have a cell phone as a technological tool.

Regarding the perception of ICTs, a similarity can be found between both types of informants since they all tend to show an openness and a positive attitude towards incorporating technologies in the subject of Physical Education.

Both teachers and students share the common understanding that ICTs are close to the daily environment of

students, which is characterized by constant technological advances and exposure to different types of technologies. This is well summarized in the quote of one informant who indicates that they have grown up with technologies.

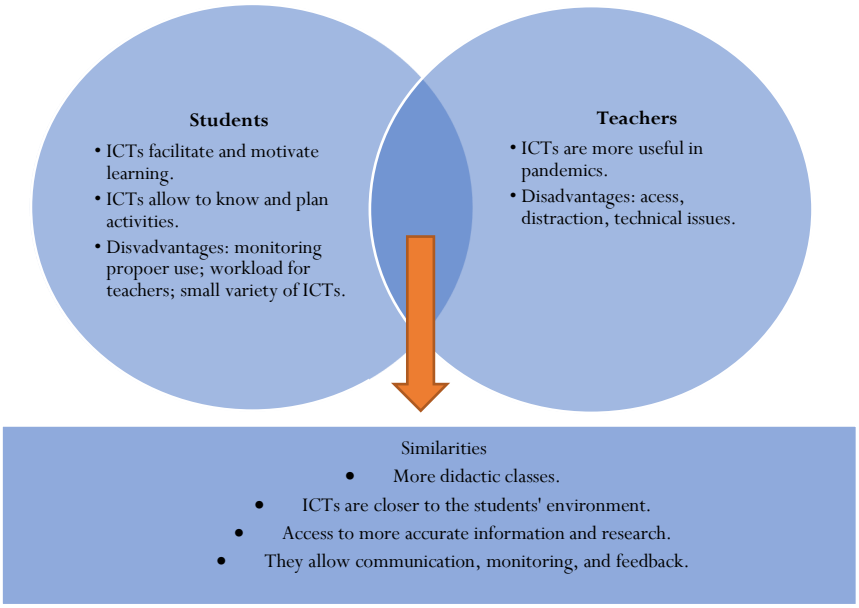

Figure 3. Diagram of the differences and similarities in the perception of students and teachers regarding the use of ICTs in Physical Education. Source: compiled by the authors

Additionally, both types of interviewees agree that ICTs make possible a more didactic environment in Physical Education classes, which can encourage the learning of the different knowledge, skills, and attitudes that are part of the subject's curriculum.

Furthermore, the use of technological tools to develop research skills and access the information provided by ICTs is highlighted. In this respect, the fact that these technologies make it possible to obtain more accurate information and, at the same time, to gain knowledge from videos on healthy living or dance choreographies, as well as web pages containing biographies of outstanding sportsmen and women, is stressed.

Finally, students and teachers note how ICTs encourage close monitoring of the progress of the children themselves, especially those who are practicing a specific sport. In this monitoring, recent technological tools stand out, such as smartwatches, capable of measuring heart rates or kilometers traveled, which allows keeping a record of each student's performance. Moreover, in the virtual modality, ICTs are an essential source for communication between teacher and student and for delivering material related to the physical activity of students and their respective feedback from teachers. In these contexts, platforms such as Classroom are essential to carry out these instances of communication and exchange between teacher-student.

However, it should be noted that there are specific categories identified that are developed only by one of the two groups. Specifically, the group of teachers identifies, as a central axis, the use of ICTs for Physical Education in the context of the global health emergency. Thus, they usually state that before the COVID-19 pandemic, the use of technological tools was reduced to the use of speakers or music players. Nevertheless, they recognize that after this exceptional situation that led to the virtual modality, ICTs became vital in student-teacher communication and student monitoring.

In turn, the perception of the students seems to consider a view of technological tools not only from the health emergency but also from the possibility of incorporating them into face-to-face teaching. In this line, they mention more frequently that ICTs facilitate the teaching-learning process of Physical Education contents and skills. For example, through videos showing how to perform an exercise. In addition, they indicate that, in general, these tools produce more motivation and a better predisposition to learning. Finally, they emphasize the value of certain applications that enable physical activity planning; in other words, they can know in advance what content will be addressed in the classes.

Apart from the positive attitude towards ICTs, the informants recognize that there are disadvantages to using this type of tool. In this category, teachers and students detect different disadvantages in the implementation of technologies. In the case of teachers, references to the possibility that students may be distracted by ICTs, especially with access to videos that may not be part of the class content, are highlighted. They also express concern about the difficulty of accessing technological tools, which means certain families with greater economic capacity can count on them, generating inequality among students in the same class. Finally, teachers observe some practical disadvantages when using technologies in spaces intended for physical activity. Thus, the lack of internet in the establishments or energy sources

to connect the equipment could be detrimental to their implementation.

For the students, the disadvantages are linked to the burden that learning about these new technologies, to which they are not accustomed, may cause for the teachers. At the same time, one informant expressed concern about incorporating ICTs in a subject that precisely requires working with one's own body and physical activity. Finally, students consider that the current use of ICTs is not enough and that more tools should be incorporated.

The comparison between the perspectives of teachers and students can be seen in Fig. 3. The perception of teachers and students about using ICTs in Physical Education shows an openness to these kinds of technologies in a subject that in Chile does not usually consider the presence of multiple technologies.

Nevertheless, technological developments in the world and the impact of the COVID-19 pandemic have transformed the general perception of ICTs since they are the primary way to communicate and learn. In this sense, Chilean education communities have experienced what Valdés Godines (Valdés, et al, 2021) highlights about ICTs: their social transformation potential to democratize access to knowledge. In other words, due to different technologies, students, during the lockdowns from 2020 to 2022, have been able to do physical activities through Physical Education classes, as inferred from the interviews.

Furthermore, as students point out, using ICTs is important not only for emergencies but also to improve the monitoring and performance of children and teenagers that do sports and physical activity at school. The use of smartwatches or the planning of the classes in advance can act as tools that are at the service of educational projects (Vallejos, 2021). In the case of the interviewees of this research, the tools are also crucial in developing more didactic classes that appeal to the motivation of students. Hence, the teaching-learning process has more chances to impact the children.

Finally, it should be noted that the openness of teachers and students to use ICTs in Physical Education is in line with the proposal of ECLAC and UNESCO for Latin America: promoting the acquisition of universal and globalized digital knowledge to product, access, and circulate knowledge (Vallejos, 2021). Moreover, the use of ICTs in classes faces the proposal of Brunner (Brunner, 1994) because it allows students and teachers to access basic cultural codes of work sociability, considering that technological tools are becoming an essential part of contemporary information societies (Bilder, 2020). Learning to use them now could be crucial knowledge for the future when students enter the labor world.

Conclusion

Consequently, the analytical concepts that emerged after the preliminary review of the interviews were the following:

Table 3.
Concepts extracted from the analysis of the interviews

Subject 1	Disadvantages of ICTs use
Subject 2	Types of technology: code referring to the technologies used and accessed by informants
Subject 3	Usefulness of ICTs
Subject 4	Facilitation of learning: perceptions of informants regarding ho ICTs may or may not facilitate teaching and learning in the classroom
Subject 5	Proximity and motivation: code referring to the impressions of students and teachers regarding ICTs
Subject 6	Didactic classes and monitoring: code referring to the perception of the use of ICTs concerning the didactics of Physical Education and, also, to the possibility of monitoring the progress of students
Subject 7	Access to information: references related to the possibility of accessing information through the use of ICTs.

Through the analysis, it is possible to conclude the significant role that the use of ICTs would have in students' learning processes in the Physical Education class. This reality is in line with both national and international policies regarding technology in learning communities.

Regarding the stated objectives, a positive perception of ICTs can be identified by both teachers and students. When contrasting the two points of view, the similarities linked to using technologies as tools that facilitate and motivate learning are outstanding. On the contrary, teachers express concerns about the distraction that ICTs can cause in Physical Education and the inequality resulting from not having the economic resources to access these technologies. This concern is shared by some experts, who have stated that the digitalization of society is a challenge as a whole since the social sectors that are left behind in this process will have a series of difficulties integrating into the labor sociability required in the near future. Nevertheless, the significant role played by ICTs in the context of the health emergency is recognized. On the other hand, students see the introduction of ICTs in face-to-face educational processes from a different perspective, considering, mainly, as a disadvantage, the need for teachers themselves to adapt to new and constantly changing technologies.

This study has contributed to the joint consideration of the perspectives of students and teachers regarding the use of technological tools in the Physical Education class. The results of this research are the first contribution for future research, which should consider a more significant number of participants and incorporate other variables, such as economic resources or a gender perspective.

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