

BODYTASKING. ANALISI E PERCEZIONI DI UN'ESPERIENZA DI DANZA A DISTANZA.

BODYTASKING. ANALYSIS AND PERCEPTIONS OF A DISTANCE DANCE EXPERIENCE.

Luigi Aruta

Dipartimento di Scienze Motorie e del Benessere,
Università degli studi di Napoli Parthenope,
lu.aruta@gmail.com

Ferdinando Ivano Ambra

Dipartimento di Scienze Motorie e del Benessere,
Università degli studi di Napoli Parthenope,
ferdinando.ivano.ambra@gmail.com

Francesco Vincenzo Ferraro

Bournemouth University, Department of Health and Social Science
fferraro@bournemouth.ac.uk

Maria Luisa Iavarone

Dipartimento di Scienze Motorie e del Benessere,
Università degli studi di Napoli Parthenope,
marialuisa.iavarone@uniparthenope.it

Abstract

To stop the spread of COVID-19 in March 2020, the Italian government declared a health emergency, imposing the national lockdown. A year later, the pandemic still blocks the non-professional sports sectors, including gyms and dance schools, to reopen. The distance created with remote, online training session might deprive all the cognitive, emotional, social and communication development expressed in the embodied theories. To investigate the perception of distanced learning in physical education, the multidisciplinary research team used the novel, holistic, dance-based intervention named bodytasking. Eight sessions, one each Monday, were carried out by two teachers between December 2020 and February 2021. Five students aged range between 6 and 10 years old, all girls took part in the study. Qualitative interviews were collected during and after the dance intervention to report students and teachers perspective on distanced learning. The results showed the benefits and the deficits of carrying out a sports practice in distanced learning. We reported the importance of using Information and Communications Technology tools such as videos and music tracks to challenge and stimulate the students and the role that imagination plays in the learning process.

Il governo italiano, per fermare la diffusione del COVID-19, nel marzo del 2020 ha dichiarato l'emergenza sanitaria, imponendo il lockdown nazionale. Da allora, un anno dopo, la pandemia blocca ancora la riapertura dei settori sportivi non professionistici tra cui palestre e scuole di danza. La distanza creata con la didattica a distanza può privare i giovani studenti dello sviluppo cognitivo, emotivo, sociale e comunicativo espresso nelle teorie dell'embodied cognition. Pertanto, per indagare la percezione dell'apprendimento a distanza nell'educazione fisica, il team di ricerca multidisciplinare ha utilizzato il nuovo intervento olistico basato sulla danza denominato bodytasking. Otto sessioni, una ogni lunedì, sono state svolte da due insegnanti tra il dicembre 2020 e il febbraio 2021. Cinque studenti di età compresa tra i 6 e i 10 anni, tutte ragazze, hanno preso parte allo studio. Per riportate i dati in prospettiva dell'apprendimento a distanza, sono state raccolte interviste qualitative durante e dopo l'intervento di danza svolte con gli insegnanti e gli studenti. I risultati hanno mostrato i benefici e le mancanze nello svolgere una pratica sportiva in didattica a distanza. I risultati che riportiamo mostrano l'importanza di utilizzare strumenti digitali come video e brani musicali per motivare e stimolare gli studenti e il ruolo che l'immaginazione gioca nel processo di apprendimento

Keywords

Dance, Embodied Cognition, pedagogy, Distanced Learning, Covid.
Danza, Cognizione Incarnata, Pedagogia, Apprendimento A Distanza, Covid.

Introduction

To stop the spread of COVID-19 in March 2020, the Italian government declared a health emergency, imposing the national lockdown (Shultz et al., 2020). A year later, the pandemic still stops the non-professional sports sectors, including gyms and dance schools, to reopen. Physical activities and sports practice are extremely important to prevent diseases, including COVID-19 (Jakobsson et al., 2020). The World Health Organization reported more than five million deaths a year could have been prevented if every one of all ages and abilities became more physically active (WHO, 2020). Thus, many sports centres have been moved into distanced, online activities (Hammami et al., 2020). In today scenario, all coaches and trainers must think of didactic guidelines that stimulate some of the dimensions of well-being and health deriving from the experience of movement and sports practice while remaining at home.

The distance created with remote, online training session might deprive all the cognitive, emotional, social and communication development expressed in the embodied theories (Minghelli & Palumbo, 2020). However, according to the embodied theories, the body works as a link to both learn and communicate (Iachini et al., 2013; Iavarone et al., 2010; Wilson, 2002). This is further supported by the embodied simulation's mechanism (Ferrari & Coudé, 2018; Gallese, 2005). As in distanced learning it is possible to create educational actions of corporeality for physical activities (Iavarone & Iavarone, 2004; Iavarone et al., 2010).

We have previously reported distance learning perceptions with adolescents from secondary school in Naples (Italy) between April and May 2020. By using a student-centred perspective approach, we reported that there were no gender differences in the perceptions of distance learning, and students showed strong positive resilience with additional ability to deal with technology never seen before in previous generations (Ambra et al., 2020; Ferraro, Ambra, Aruta, et al., 2020). Similar results were also reported by a study concerning the first six months of distanced learning (Save The Children, 2020), in which there was a decrement in attention skills, a higher level of tiredness and an overall less engagement with teachers. However, there a gap of information concerning physical activities on the perception of distanced learning with young students.

Our research aims to evaluate physical activity experiences, carried out with distanced learning, with young participants. In particular, we intend to examine a specific dance technique (i.e., Bodytasking (Aruta & Ambra, 2020)) as a vehicle for experiential knowledge.

1. Materials and Methods

To investigate the perception of distanced learning in physical education, the multidisciplinary research team used the novel, holistic, dance-based intervention named Bodytasking. It is defined as an experimental didactic model that uses dance motor practice and creative movements capable of activating sensitive experiences. Its action is based on tasks, inputs for the genesis of movements capable of stimulating the imagination and reflection, as well as raising awareness around specific issues.

2. Participants

Five participants aged range between 6 and 10 years old, all girls, were recruited between the 16th December 2020 and 1st February 2021 at Centre Artè di Laura Merlino in collaboration with ARTUR Association. All participants and their parents/tutors were informed about the qualitative study's purpose and scope before sign the consent form and progress with data

collection. All data were collected under the guidelines of the 1975 Declaration of Helsinki, revised in 2013.

3. Intervention

Eight sessions, one each Monday, were managed by two tutors, a Performer (L) and a Dance-Teacher (G). The first role was to create the content for each of the eight sessions, with the aid of asynchronous video-tutorial, recorded images and pictures. The Dance-Teacher aimed to assist and support the Performer with additional material to boost and increase the bodytasking experience.

Each module was assisted by the use of didactic materials, including video tutorials. These were used to limit movements' learning difficulties caused by the lack of physical proximity or connection problems. They were constructed showing the sequences or single movement twice and slowly: the first time, accompanying the physical demonstration with the oral explanation of the creative strategy underlying the composition; the second time, giving indications on the possibilities of execution or, in the case of a specific movement routine, communicating the precise execution methods.

The videos were used to motivate and raise awareness and facilitate and stimulate imaginative and creative action. They have been chosen after careful selection from the National Geographic YouTube channel. The videos used in the module dedicated to urban dances were chosen by Vevo or edited as extracts from TV series on Netflix.

The musical tracks selected from Spotify were chosen to facilitate the imagination by selecting only instrumental tracks of different moods and styles, without speaking or vocalisations.

All teaching materials were provided every morning of the day scheduled for the session. A We Transfer link was to the virtual class created with Google Meet. In this way, each participant self-managed their session autonomously. The research team was confident to use video tutorial during distanced learning based on previous results in sports practices where these techniques are used to enhance memory and skill acquisition (Emmen et al., 1985; Schenk & Miltenberger, 2019). In particular, concerning dance intervention the evidences show a positive significant use of videos tutorials with older adults (Forsman et al., 2018; Xu et al., 2020) and with young participants (González González & Navarro Adelantado, 2017; Maloney et al., 2008).

Each of the eight sessions lasted between 90 to 120 minutes. Each session was divided into four modules, as fully described in Tab 1.

Tab 1. Structure of each of the eight sessions used in the Bodytasking Intervention.

Session	Activities	Aims
Animal movements: birds, spiders and peacocks (3 Modules)	<ul style="list-style-type: none"> · Vision animals · Video-tutorial for learning movement tasks inspired by the animals viewed · Creation of a personal movement routine inspired by animals, for the invention of a new "species" · Personalization of the movement routine through the identification of some character peculiarities of the invented animal 	Raising awareness on the relationship between body and emotion through the imagination and the invention of a new "species"

Moving energy: the street dance (2 Modules)	<ul style="list-style-type: none"> · Vision of videos about the styles of urban dances · Video-tutorial for learning a movement routine with given spaces and times · Customization of the movement routine 	Boost the attention and precision on structure movements routine and increase improvisation skills
The motion of planets: earthquakes, tsunami, avalanches, volcanoes, and icebergs (2 Modules)	<ul style="list-style-type: none"> · Viewing of videos concerning the natural phenomena · Video-tutorial for learning a movement routine inspired by the imaginative path elements in the human body · Shared choice of five movement actions related to the natural phenomena viewed · Video-tutorial on composition strategies to combine the five chosen movement actions · Creation of a movement routine starting from the five chosen movement actions 	Enhance body-environment relationship by feeling on, in, and through the body, the peculiarities of the natural phenomena
Run Trough: the uniqueness of the movement (1 Modules)	<ul style="list-style-type: none"> · Reflection on the activities carried out in the previous thematic modules · Choice of the most remembered motions, movements or tasks · Composition of movements routine based upon the choice of the most remembered motions, movements or tasks · Time challenge with gradual and increasing difficulty in presenting the created movement routine 	Final assessment that produces motor-memory stimulation

Each of the modules described was then structured into three phases (i.e., cognitive, core and retro-active), as fully summarized in Tab 2.

Tab.2. Didactic structure of each Bodytasking session.

Phases	Activities
Cognitive (20 to 30 minutes)	<ul style="list-style-type: none"> · Introduction the tasks and sessions · Viewing of teaching materials · Comparison and sharing of ideas and reflections on the topics of the day

Core (40 to 60 minutes)	<ul style="list-style-type: none"> · Study of the movement routines presented in the video tutorials · Guided composition of a movement routine starting from the tasks presented in the video tutorials
Retro-active (30 to 40 minutes)	<ul style="list-style-type: none"> · Instant composition sessions stimulated by the experience achieved · Creative dance-motions with increased complexity · Comparison and sharing of ideas and reflections on the experience achieved · Creative challenges built on the most enthusiastic activities of the meeting.

4. Questionnaires

The research team developed three questionnaires. The first questionnaire was a self-managed questionnaire at the end of each session and was formulated by the principal investigator (LA). It included the following questions summarised in Tab 3.

Tab 3. Questionnaires issued by the principal investigator at the end of each session

Session	Questions
Animal movements: birds, spiders and peacocks (3 Modules)	Is the character of your invented animal understood by your companions?
Moving energy: the street dance (2 Modules)	From 1 to 5, how much did you manage to learn with the video tutorials?
The motion of planets: earthquakes, tsunami, avalanches, volcanoes, and icebergs (2 Modules)	Can you tell me what you imagined during the dance of your “wave motion”?
Run Trough: the uniqueness of the movement (1 Modules)	What was your favourite module?

The second and third questionnaires, one for the students and one for the teachers, were developed by FIA and FVF, with the principal investigator blinded to the questions’ development. These two questionnaires were completed only at the end of the entire course and are summarized in Tab 4 and Tab 5, respectively.

Tab 4. Students’ questionnaire

1. Can you describe to me the course you just took?
2. What did you like most about the course you just completed?
3. What did you really dislike about the course you just completed?
4. Did you learned something new?
5. Would you rather do the same course again from your computer or in your presence? Why?
6. What sport would you like to do next time?
7. Did you already know the other students? With how many are you still in contact?
8. If I ask you to tell me about the course what are the first 3 words that come to your mind?

Tab 5. Teachers' questionnaire

1. Can you describe to me the course you just completed?
 2. Was it the first time for you to engage with Distanced Learning?
 - a. If Yes. Why you did not used before?
 - b. If No. When did you use it?
 3. What were the main difficulties in using the Distanced Learning?
 4. What were the main advantages in using the Distanced Learning?
 5. What outcomes did you achieved with Distanced Learning?
 6. Do you believed you could achieve different outcomes with standard learning instead of distanced learning?
 - a. If Yes. Why?
 - b. If No. Why?
 7. Can you provide us with 3 positive adjectives concerning this experience with Distanced learning?
 8. Can you provide us with 3 negative adjectives concerning this experience with Distanced learning?
-

5.Data analysis

All interviews were recorded and transcribed on Software NVivo 12 for further evaluation (Bazeley & Jackson, 2013). The analysis was conducted by a blinded researcher (FVF) that was unaware of the specific modulates and sessions the bodytasking.

6. Results

All participants completed the bodytasking intervention and took part in the interviews. The students' interviews took between 12 to 15 minutes whilst the teachers' interviews' lasted between 20 to 30 minutes.

7. Self-managed questionnaire

The first questionnaire was delivered during the modules, and data were collected anonymously. The direct feedback helped to understand if the students were following the course and how to adapt the bodytasking between sessions. To the first question, "is the character of your invented animal understood by your companions?" all students replied positively, "yes". To the second question, "from 1 to 5, how much did you manage to learn with the video tutorials?" two students replied "3" and the three students "4". To the third question, "can you tell me what you imagined during the dance of your wave motion?" the students replied with motion-related feeling, including "I felt like swimming", "I was dancing in the sea, and then I played with drums on the beach" or "I was crashed on the rocks like a wave". To the fourth and final question, "what was your favourite module?" three students replied that they enjoyed all the modules while two were more specific. One student enjoyed the most the last module (i.e., Run Trough: the uniqueness of the movement), whilst the other preferred The motion of planets.

8. Students' interviews

The interviews were carried out by the PI (LA), which facilitated students' responsiveness and increased recruiting as the parents/tutors, and the students were both familiar with the researcher. The interviewers are presented each time with their initial and age.

To the first question, "can you describe to me the course you just took?" most students reported the activities in each module with particular emphasis on the animals and the motion of the planet. E (6 years old) said, "we did the spider-peacock. It was the first time I saw such a big spider! At home, I see tiny ones. I have never seen one like this, that went on plants, and then below it.". Another student L (10 years old), reported, "it was very nice, very nice, very interesting and full movements, and the lessons were very interesting with very animated videos".

To the second question, “what did you like most about the course you just completed?” S (9 years old) replied, “what I liked the most about the course was when we did the birds because we used videos. Then we have... how to say it, we put some dance-moves, and we saw the dance-moves of those videos, and we put the dance-moves ourselves on those birds that we liked the most. You (referred to the teacher LA) gave us some music, and you told us that one was an older bird, the other was just a baby. I was the scared one, so I liked it. But also, that of the spider and also all the animals.” All students mentioned the animal and the novelty of seen new creatures on video. However, E (6 years old) also noted, “the music we listened too. I do not remember them very well. I remember that I liked them. Because I did not know them, among all the music I know a lot, I hear billions of them, but I have never heard those”.

To the third question, “what did you really dislike about the course you just completed?” three students out of five replied with “nothing” instead two students responded S (9 years old) “that lasts a little too long”, and N (8 years old) “so I did not like it when we did the lemurs and the spiders because the moves did not convince me so much...because I do not like things up high so much, it is not that I do not like standing things. But some I do not like”.

To the fourth question, “did you learned something new?” the students produced all different answers. E (6 years old) said, “these new animals, these new dances and this new music. And yes, the video we saw. They were different dance steps from the ones I studied when I was dancing. Yeah, very, very different”. G (8 years old) “the new moves, new things, new friends, lots of things”. L (10 years old) “how the animals moved, the sea, the lava river and the avalanches”. N (8 years old) “I learned that by doing these lessons, I also enjoyed new things. For example, I learned some movements I did not know, and now I can do them. While before I did not even know they existed... when I enjoyed it, if I enjoyed it. It was when I learned new things because if you like something, maybe one remembers it as well. Then you learn it”. S (9 years old) “I learned that when you take the difficult steps, and the music goes forward, you either invent the steps or use steps that you remember the most. So, it is like a choreography, but you invented it”.

To the fifth question, “would you rather do the same course again from your computer or in your presence?” 4 students all agreed that next time it would be better to do the modules in presence S (9 years old) explained, “if we are connected, sometimes I am there, but I do not hear so well, you (the teacher) go ahead I am behind instead when we are in presence, for real, then it is better I follow you anyway. You (the teacher) help me more because it is. As if we were all together. Instead, here (in distanced learning), we are all detached one after the other instead of all of them. It is another thing...”. Only one student replied, “here I feel great, I have my room, and I have a lot a lot of space”.

To the sixth question, “what sport would you like to do next time?” all students reply that they would like to do a similar activity that involves dancing.

To the seventh question, “did you already know the other students? With how many are you still in contact?” they replied to been friend with at least one other student but did not remain in touch with the others.

To the eighth and final questions, “if I ask you to tell me about the course, what are the first 3 words that come to your mind?” the students replayed E (6 years old) “Computer because we have always studied here. Dance, and then My Room because I am always here”. G (8 years old) “Movement, Fun...I don’t know the third”. L (10 years old) “Beautiful, Full of Activities and Interesting”. N (8 years old) “Birds, Dance, Spider”, S (9 years old) “Happiness, Movement, Friendship”.

9. Teachers’ interviews

The interviews were carried out by a researcher (FIA), blinded to the bodytasking modules and completely unaware of students responses. The interviewers are presented as Performer (L) and a Dance-Teacher (G). To the first question, “can you describe to me the course you just completed?” both L and G responded with a brief explanation of the course that replicates

what described in Materials and Methods. However, G also motioned, “the first fundamental characteristic is imagination. Because the imagination is a very powerful tool that is sometimes underestimated in terms of reality and corporeality, we have tried to articulate it in the modules (...) we have articulated these modules and let’s say what underlies all these modules as well as obviously the movement and the body is the imaginative factor or imagination, especially concerning animals and perhaps even more so for the natural phenomena”.

To the second question, “was it the first time for you to engage with Distanced Learning?”. L was already familiar with dance practice in distanced learning, “I had already used it for a dance school for which I worked”. Whilst G replied, “it was the first time I used distanced learning because I have never been in such a situation, so I have never experienced the necessity of doing something with this technology”.

To the third question, “what were the main difficulties in using the distanced learning?” L replied, “the management of the lesson times. The moment someone falls behind. With no connection, maybe they miss delivering a task. If you waste time following up with that person, you risk losing the rhythmic of the entire classroom, so one of the difficulties was not managing the connection but concentrating on the classroom. To keep the class in hand, taking into account that the rhythms are completely out of phase and different than the rhythms in presence, this is certainly a critical issue. Another criticality (...) is when you see from the other side of the room, you see, you feel the need to make a more technical type of correction, more detailed and more focused. In perhaps presence, you would have done either by touching your body or by having your body touched. This is clearly something that becomes difficult to accomplish, and even putting it into words does not produce a great result. Because the response of those who are listening to you is in any case linked to the experience one has of one’s own body”. For G the difficulties were others, “so let’s start from the limit of the instrument, which is the connection. In short, it isn’t easy with regard to the video camera. As for the observation, it is difficult to perceive what happens (...) when I look at a person moving in 3 dimensions, I follow all the motion. On the other hand, if I look at it on a screen, I must have a very high-quality instrument to have a perception that is as similar as possible to reality (...) I do not think there have been many problems. Other than connection problems that make you waste a lot of time”.

To the fourth question, “What were the main advantages in using the distanced learning?”. To which L replied, “during face-to-face becomes a little more complicated to deliver a video, an image, because the mentality of the class is to carry out physical activities, and that’s it. So, the distance learning experience creates the calm in which the students accept more with more serenity to see a video or to listen to what I am saying or to discuss a topic”. Then L also mentioned another advantage of distanced learning “in this specific case, with little girls, there is usually always a greater shyness and closure toward the activities. On the other hand, on this occasion, I had the feeling that carrying out the modules in a remote setting has given a chance to even the shiniest girls”. Whilst G replied, “I enjoyed thinking differently about dance like a kind of guide within a vision (...) it was less physical and more intellectual”.

To the fifth question, “what outcomes did you achieved with distanced learning?”. On this occasion, L replied, “we have certainly raised awareness. There has been a good action to raise awareness on certain issues. So the fact of watching the videos of the animals and trying to reproduce the sequences of the animals made us recognise a part of the environment, of nature, of the world that for these children seemed a reality quite distant from them. Therefore, I felt that this experience brought them closer to other presences on the planet different from them. Ditto, as for natural phenomena (...). Also, there was an action to raise awareness in the Street dance module, in my opinion, because you show to the kids videos where people got out of the street for doing this type of dance activities. Whilst G replied, “I found the experience very satisfied; I think that the intent is to awaken a bit of a critical spirit also with the observation of what surrounds us not to think about things categorically. (...) Children have a much stronger ability to play, which is then lost with age because it is a bit inevitable. But in my opinion, playing with the imagination is one of the fundamental characteristics (...) I am quite satisfied because they

proved very determined in performing, they really wanted to do and learn”.

To the sixth question, “do you believe you could achieve different outcomes with standard learning instead of distanced learning?”. L replied, “yes, absolutely yes. In terms of motor responses, it would have been interesting to be able to correct certain movements, to be able to work on their movements”. Similarly, G answered, “it is clear that within a distanced learning project, we have never imparted certain movements. Because we need to look and correct”.

To the seventh question, “can you provide us with 3 positive adjectives concerning this experience with distanced learning?”. L said “Interactive. Participatory. Integrative”, explaining “Integrative because it gives the possibility of having something more than the normal presence activity. Participatory (...) they (the students) were called to have their say in doing actions that would also be applied by the others. Interactive to the extent that there were several simultaneous interactions. If two (students) were working on a musical track, they interacted with each other within the chat while the teacher was managing a little girl who maybe was a little further back, so there was also a sort of multi-action”. Whilst the G said “Creative. Socially balanced. Connective” and explained “Creative, because the work is both creative in the act of structuring the project and it was also creative as one of our tools was creativity.” Socially balance and Connective because “the girls seemed to me to be very close even if they were in a virtual context, each of them was in their own room, it was like they were ... they were in a little dimension to encounter with each other”

To the eighth and final question, “can you provide us with 3 negative adjectives concerning this experience with Distanced learning?”. Where L said, “Distance. Impossibility of contact. Internet connection” L further explained, “Distance because it did not allow you to dare from a body activities point of view by going deeper. Impossibility of contact because many of the activities carried out could have been done in the presence, where you also have physical contacts (...). It would have been interesting with contact improvisation to understand how these modules would have come together. Internet connection because being tied to internet connectivity did not allow you to have a connection that was always stable. The number of unforeseen events in distance learning is greater and much larger and therefore you must have a different readiness for action”. To the same question G replied, “Passive. Internet connection. Limited” and explained, “Passive because distanced learning is not a substitution, it cannot be a substitution of reality (...). Internet connection is a huge problem. All participants had connection problems (...). Even from a timing point of view it becomes too long and complicated (...). Limited in the instrumentation but precisely for the characteristics of the instruments that are adopted. I mean we do not have the 4K video which gives you an almost real feeling. Also, the space where people move, which is someone’s home, is often limiting”

10. Discussion

The research aims to evaluate a dance intervention experience, named bodytasking, carried out in distanced learning with young participants. To our knowledge, this is the first research to ever report the structure and composition of bodytasking modules, with a full description of how a bodytasking session is carried out.

11. Students’ interviews

The self-managed questionnaire showed that the students followed the modules efficiently. Additionally, the data showed the importance of imagination in learning dance movements (MacIntyre & Gregersen, 2012). Indeed, the students expressed the feeling of “swimming” and to “be crushed on rocks like a wave”, which indicated their imagination abilities and playfulness with the motor tasks (Lieberman, 2014; Vygotsky, 2004).

Concerning the second no structured questionnaire, the students briefly described the course with particular emphasis on the animals, and natural phenomena saw on videos. These seem to help to engage with the students in learning new dance moves and at the same time to produce motivation and curiosity that boost their imagination (Griffiths, 2014).

One student also expressed curiosity and appreciation for the music used. This aspect is considered important as the use of music and videos can help enhance the quality and increase the focus on specific dance motions (Hargreaves et al., 2012), as also described in other sports as basketball (Gaggioli et al., 2014). Concerning the disadvantage and dislike of distanced learning from the student perspective, one student reported that the session lasted too long, showing a potential boredom effect, already reported during distanced learning (Ares et al., 2021; Nambiar, 2020).

When students were asked to report what they learned of new, they all mentioned the word “movement” or its synonymous. The aspect of motion that was common to all students showed the effectiveness of the intervention and the importance of associated cognitive stimuli (such as music and videos) with actual motor-tasks (such as street dancing or dance to replicate the movement of an animal). By associating motor-tasks with cognitive stimuli, it is possible to activate cognitive processes that enhance the learning experience, as explained in the embodied cognition theories (Wilson, 2002; Wilson & Foglia, 2011).

The learning experience’s effectiveness is also reported when all students expressed interest in carrying on with the same modules both in presence or in distanced learning. On the contrary to what we have previously reported in adolescent (Ferraro, Ambra, Aruta, et al., 2020; Ferraro, Ambra, & Iavarone, 2020) the students during the course did not increase their relationship skills. They did not keep in contact with each other, probably because of their young age and lack of device (such as smartphones) and social media (e.g., Facebook) that would have facilitated the process. In the past and final question, the researcher asked about three words to describe the experience the word movement or dance were the more used, which underlined the effectiveness of the embodied cognition theories used to enhance and facilitate the distanced learning activities.

12. Teachers’ interviews

Both teachers reported different experiences with distanced learning. Both expressed some difficulties in managing the time due to a lack of instrumentation and internet speed. They both also reported that it was impossible to teach new complex movements to young students in distanced learning. They needed to correct students’ posture and make sure that the students’ safety was maintained. There have been some suggestions on how to increase the experience by using online live-remote session of dancing with the additional use of video and choreography taped that the students can review and learn from (You, 2020). However, these techniques seem not appropriate at such a young age. Teachers should focus on increasing imagination and playfulness skills (Huizinga, 2020), and complex motor skills should be only taught to adolescents and professional dancer.

When asked about the advanced of distanced learning, both teachers enjoyed the challenge of re-thinking at bodytasking in a completely different setting. In particular, one of the teachers also mentioned that compare to standard face-to-face session, the students were more inclined to listen and discuss rather than just practice. This can be an aspect to consider when it would be possible to carry on with standard training regime. A combination of synchronous and asynchronous teaching skills can enhance the students’ experience and facilitate the learning process (Nieuwoudt, 2020). The question concerning the achievement after distanced learning goes in the same direction. The increment in students’ awareness and will to learn was achieved using both dance practice and reflection upon learning material (i.e., documentary videos).

The relationship between students reported with distanced learning and the increment in relationships’ skills (Ferraro, Ambra, Aruta, et al., 2020; Ferraro, Ambra, & Iavarone, 2020) is also evident in the three benefits reported by the two teachers. The most common word was interactive, participatory integrative, socially balanced and connective. All adjectives that involve inclusion and relationship. These are all aspects that have been facilitated by using a self-managed student centred approach (Brandes & Ginnis, 1996) and should be fostered for further education in both young and adolescent students.

In the final question, where the teachers were asked to mention three negative aspects of distanced learning, they mentioned internet connection and the impossibility of interacting physically with the students. Both those aspects have been reported previously in other contexts and seem to generate a high level of stress and difficulties from both students and teachers perspective (Ambra et al., 2020; Ferraro, Ambra, Aruta, et al., 2020; Save The Children, 2020).

Conclusion

The research aims to evaluate the experience of a dance intervention, named bodytasking, carried out in distanced learning, with young participant. To our knowledge this is the first research to report the structure and composition of each dance modules, with full description on how a bodytasking dance session is carried out. The research also showed the perception of a physical activity completed in distanced learning from the students and the teachers perspective. Our qualitative results showed the benefit and the deficit of carry out a sports practice in distanced learning. We have reported the importance from both the students and the teachers perspective in using Information and Communications Technology tools such as videos and music tracks to challenge and stimulate the students. Our research showed how the students enjoyed and appreciated to carry out physical activities in distanced learning even if with occasional lack of internet connection and impossibility to learn complex movement. It is therefore important for trainers, coaches and teachers to re-think and their training methods and considering and integration of both synchronous (in presence) and asynchronous (remote) work. In particular further studies should focus on the combination of different teaching strategies with mixed methods (qualitative and quantitative analysis) that can produce additional information upon the post-COVID educational Era toward which we are entering.

Limitations

The pilot qualitative research presents several limitations. Firstly, the students were not stratified by gender or age, leaving with a very small sample size of all girls. Secondly, the questionnaires only follow-ups with the training regime. It would have been interesting to add a baseline questionnaire and report any previous experience with Information and Communications Technology tools. Nevertheless, the research intends to open dialogue upon educational strategies to adopt in sports practice in and after imposed distanced learning.

Acknowledgment

The authors would like to thank all the students and the dance tutor who took part in the research. Research would not be possible without participants.

References

- Ambra, F. I., Ferraro, F. V., Aruta, L., & Iavarone, M. L. (2020). Distanced learning between educational and technological barriers A survey in the Campania region (Italy) with secondary school students. *Attualità Pedagogiche*, 2(1), 5-26. <https://doi.org/http://www.attualitapedagogiche.it/ojs/index.php/AP/issue/view/3/3>
- Ares, G., Bove, I., Vidal, L., Brunet, G., Fuletti, D., Arroyo, Á., & Blanc, M. V. (2021). The experience of social distancing for families with children and adolescents during the coronavirus (COVID-19) pandemic in Uruguay: Difficulties and opportunities. *Children and Youth Services Review*, 121, 105906.
- Aruta, L., & Ambra, F. I. (2020). Coreo-grafie di corpi vissuti. Danza narrativa di un'esperienza educativo-terapeutica. *FORMAZIONE & INSEGNAMENTO. Rivista internazionale di Scienze dell'educazione e della formazione*, 18(2), 144-153.
- Bazeley, P., & Jackson, K. (2013). Qualitative data analysis with NVivo.
- Brandes, D., & Ginnis, P. (1996). *A guide to student-centred learning*. Nelson Thornes.
- Emmen, H., Wesseling, L., Bootsma, R., Whiting, H., & Van Wieringen, P. (1985). The effect

- of video modelling and video feedback on the learning of the tennis service by novices. *Journal of sports sciences*, 3(2), 127-138.
- Ferrari, P. F., & Coudé, G. (2018). Mirror neurons, embodied emotions, and empathy. In *Neuronal correlates of empathy* (pp. 67-77). Elsevier.
- Ferraro, F. V., Ambra, F. I., Aruta, L., & Iavarone, M. L. (2020). Distance Learning in the COVID-19 Era: Perceptions in Southern Italy. *Education Sciences*, 10(12), 355.
- Ferraro, F. V., Ambra, F. I., & Iavarone, M. L. (2020). Evaluation of Health-Habits with the S.M.A.R.T. Questionnaire: An Observational Study. *Education Sciences*, 10(10), 285. <https://doi.org/10.3390/educsci10100285>
- Forsman, A. K., Nordmyr, J., Matosevic, T., Park, A.-L., Wahlbeck, K., & McDaid, D. (2018). Promoting mental wellbeing among older people: technology-based interventions. *Health promotion international*, 33(6), 1042-1054.
- Gaggioli, A., Morganti, L., & Antonietti, A. (2014). Il training immaginativo-musicale per il potenziamento della prestazione motoria nello sport. *Il training immaginativo-musicale per il potenziamento della prestazione motoria nello sport*, 127-145.
- Gallese, V. (2005). Embodied simulation: From neurons to phenomenal experience. *Phenomenology and the cognitive sciences*, 4(1), 23-48.
- González González, C. S., & Navarro Adelantado, V. (2017). Gamification and Active Games for Physical Exercise: A review of literature.
- Griffiths, M. (2014). Encouraging imagination and creativity in the teaching profession. *European Educational Research Journal*, 13(1), 117-129.
- Hammami, A., Harrabi, B., Mohr, M., & Krustup, P. (2020). Physical activity and coronavirus disease 2019 (COVID-19): specific recommendations for home-based physical training. *Managing Sport and Leisure*, 1-6.
- Hargreaves, D. J., Hargreaves, J. J., & North, A. C. (2012). Imagination and creativity in music listening. *Musical imaginations*, 156-172.
- Huizinga, J. (2020). *Homo ludens*. Editora Perspectiva SA.
- Iachini, T., Iavarone, M. L., & Ruotolo, F. (2013). Toward a teaching embodied-centered: perspectives of research and intervention". *REM-Research on Education and Media*, 5(1), 57-68.
- Iavarone, M. L., & Iavarone, T. (2004). Pedagogia del benessere. *Per una professionalità educativa in ambito psico-socio-sanitario*.
- Iavarone, M. L., Tedesco, R., & Cattaneo, M. T. (2010). *Abitare la corporeità: dimensioni teoriche e buone pratiche di educazione motoria*. F. Angeli.
- Jakobsson, J., Malm, C., Furberg, M., Ekelund, U., & Svensson, M. (2020). Physical activity during the coronavirus (COVID-19) pandemic: Prevention of a decline in metabolic and immunological functions. *Frontiers in Sports and Active Living*, 2, 57.
- Lieberman, J. N. (2014). *Playfulness: Its relationship to imagination and creativity*. Academic Press.
- MacIntyre, P., & Gregersen, T. (2012). Emotions that facilitate language learning: The positive-broadening power of the imagination.
- Maloney, A. E., Bethea, T. C., Kelsey, K. S., Marks, J. T., Paez, S., Rosenberg, A. M., Catellier, D. J., Hamer, R. M., & Sikich, L. (2008). A pilot of a video game (DDR) to promote physical activity and decrease sedentary screen time. *Obesity*, 16(9), 2074-2080.
- Minghelli, V., & Palumbo, C. (2020). Psychomotor awareness and Health Emergency. In search of the body in kindergarten, during COVID-19. *Giornale italiano di educazione alla salute, sport e didattica inclusiva*, 4(4).
- Nambiar, D. (2020). The impact of online learning during COVID-19: students' and teachers' perspective. *The International Journal of Indian Psychology*, 8(2), 783-793.
- Nieuwoudt, J. E. (2020). Investigating synchronous and asynchronous class attendance as predictors of academic success in online education. *Australasian Journal of Educational Technology*, 36(3), 15-25.

- Save The Children. (2020). Riscriviamo il futuro. *Rapporto sui primi sei mesi di attività*.
- Schenk, M., & Miltenberger, R. (2019). A review of behavioral interventions to enhance sports performance. *Behavioral Interventions, 34*(2), 248-279.
- Shultz, J. M., Perlin, A., Saltzman, R. G., Espinel, Z., & Galea, S. (2020). Pandemic march: 2019 coronavirus disease's first wave circumnavigates the globe. *Disaster medicine and public health preparedness, 14*(5), e28-e32.
- Vygotsky, L. S. (2004). Imagination and creativity in childhood. *Journal of Russian & East European Psychology, 42*(1), 7-97.
- WHO. (2020). WHO guidelines on physical activity and sedentary behaviour: at a glance.
- Wilson, M. (2002). Six views of embodied cognition. *Psychonomic bulletin & review, 9*(4), 625-636.
- Wilson, R. A., & Foglia, L. (2011). Embodied cognition.
- Xu, W., Liang, H.-N., Baghaei, N., Wu Berberich, B., & Yue, Y. (2020). Health benefits of digital videogames for the aging population: a systematic review. *Games for Health Journal, 9*(6), 389-404.
- You, Y. (2020). Online technologies in dance education (China and worldwide experience). *Research in Dance Education, 1-17*.