Emotionality in the post-pandemic primary physical education classroom

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Abstract. The pandemic has caused different consequences in the education and health of schoolchildren, psychological effects being one of the most worrying. The school and especially Physical Education teachers are called on to play an important role in the emotional support of schoolchildren. The aim of this study is to analyze the perceptions of elementary school Physical Education teachers regarding the emotional environment during the return to face-to-face classes. The convenience sample consisted of 12 physical education teachers who worked in elementary schools and were active during the virtual and post-pandemic years. Semi-structured interviews were used to collect data regarding gender equality and years of experience. The stories emerge categories associated with emotionality in the classroom, the learning gap, the importance of teacher-student interaction, specialized emotional support, effective communication and emotional regulation. Teachers enhance the commitment in the containment and evaluation of the socio-emotional and psychological state of the students, in addition to ensuring the incorporation of methodologies that consider emotional work. Inside the classroom, teachers recognize the importance of affectivity and motivation in their didactic deployment, promoting learning through a healthy class climate.

Keywords: Learning, teacher, school, sports, pandemic, emotions

Introduction

The coronavirus pandemic revealed the existing vulnerabilities in society in different dimensions (Ryan, 2020). In this area, social, cultural and political aspects are intertwined in demands that arose with more intensity from the effects of the pandemic, highlighting social problems that already existed previously (Moura et al., 2021; Nelson, 2021; Tsiotas & Tselios, 2022). The pandemic demonstrated the fragility of human beings in the face of change and uncertainty, creating great difficulties in maintaining people’s daily lives. In this panorama of such drastic and frantic changes, states adopted the measure of minimizing the spread of the disease through social distancing, forcing schools to close their doors and education to adopt new class dynamics (Crawford et al., 2021; Garbe et al., 2020; Reuge et al., 2021; Schaefer et al., 2020).

During the pandemic, traditional paradigms were put in check in the dynamics of interpersonal relationships due to the fact that the walls of the school were literally broken, causing the territories to mix geographically to the point of entering into an identity crisis (Azhari & Fajri, 2022). In other words, the home became a school, parents become teachers or co-mediators in the learning of their sons and daughters, and teachers entered into a professional crisis due to the impact of information and communication technologies (ICT) in their personal and professional environment. Teachers had to adapt full-time with new apps and remote classes (Pokhrel & Chhetri, 2021; Purwanto et al., 2020; Rasmitadila et al., 2020).

In this context, classes began to be taught remotely and a series of novelties that were not part of the pedagogical actions began to be installed in the usual practice of teachers (web conferences, digital platforms, social networks, online presentations, and tools for the production of photos and videos) (Assunção & Gago, 2020; Assunção & Swennen, 2020; Pressley & Ha, 2021). The need for new didactics again relieved the teacher as a key piece in the school education process, generating a very different experience in the search for learning. The school, as an organism in constant change and transformation, had to quickly reinvent itself and adapt a scenario of uncertainty and vulnerability (Cárdenas et al., 2022; Eirdosh & Hanisch, 2021; Khanal et al., 2021).

In the field of Physical Education, this abrupt transition was not easy to implement. In this line, the Physical Education teachers had to face various challenges that were similar to all fields of study (Almonacid-Fierro et al., 2021; Filiz & Konukman, 2020; González-Calvo et al., 2021). However, due to the nature of the pedagogical discipline, it was more...
complex, such as learning to use new digital tools, implementing new teaching strategies, and developing work and emotional skills. Precisely, the Physical Education teachers had to resort to the screens of their computers and mobile phones, to transmit from their homes the class that used to take place in the patios, gyms and sports fields (Centeio et al., 2021). However, most teachers did not have specific training that would qualify them for this new model of distance education, increasing the pedagogical difficulties for teaching the discipline (Centeio et al., 2021; Daum et al., 2021; Kim et al., 2021).

On the other hand, the evidence shows that the psychological consequences caused by the pandemic have had a negative impact on the mental health of children and young people at school, causing stress, anguish, episodes of depression, among other symptoms (Ravens-Sieberer et al., 2021; Sifat et al., 2022). Fear of acquiring the disease, frustration, boredom, reduced social interaction, loss of habitual routine, and feeling of isolation from the rest of the world, among other situations, were present throughout the entire time (O’Sullivan et al., 2021). Several authors emphasize the importance of Physical Education teachers addressing students’ emotions in the school environment, as it plays a fundamental role in the development of body culture, sports, games, and recreation (Bailey et al., 2009; Felis-Anaya et al., 2018).

Emotions are a permanent and essential part of human experiences. In modern life, emotions are indispensable for our survival and equilibrium (Elgin, 2016). Emotions underpin our development as human beings and our ability to build social relationships, making them particularly relevant in all environments involving socialization (Dolev & Leshem, 2017; Quinlan, 2016). People who can better manage their emotions are more successful in their relationships, taking advantage of the different social environments in which they live. The literature reports that strong emotional management helps positive emotions stand out more than negative ones (Bakhtiar et al., 2018).

When teachers acquire greater emotional mastery through emotional knowledge and reflection, they can develop pedagogical strategies that enhance interpersonal relationships at school and make them more stable and harmonious (Denham, 2019; Jones et al., 2017). In day-to-day school life, it is essential to find positive strategies to improve emotional management between teachers and their students, as the school environment is rich in social relationships. Affectivity should be valued at school, and conflicts that arise should be resolved firmly (Frenzel et al., 2018; Hagenaier et al., 2015). Teachers should enhance the more positive emotions and address the negative ones to quickly find the balance and stability that should be present in a healthy educational environment (Schonert-Reichl, 2017).

It can be noted that the Physical Education classroom has been characterized by a strong emotional component, since sports, games, recreation, expressiveness, dances, and ultimately most of the body practices movements imply the emotional development of the subject. Satisfaction, enthusiasm, joy, companionship, and enjoyment emerge in the various activities that take place in the Physical Education classroom (Gil-Madrona & Martínez-López, 2015). The different tools applied show that, in the Physical Education class, students experience a high emotional intensity, in this case, of a positive or pleasant nature.

Therefore, it is essential that, within the Physical Education class, competition is not imposed only in the activities to be carried out, but that recreational games, and sports games are also carried out. This is where teamwork, respect, and values in general come into play, since creating a good environment within the Physical Education class has a better reception by the students, since sporting games have been shown to trigger positive emotions (Duran et al., 2015). Consequently, it is relevant to develop the concept of emotional regulation within this area, since it focuses on working on the expression of emotions in an adequate and positive way for the well-being of the person, in situations that generate frustration, fear or sadness (Ekberg, 2016; Herold & Waring, 2017; Kirk, 2013; Martínez-Santos et al., 2020).

Virtual education had a tangible effect on the progressive return to school activities starting in the second semester of 2021 (Clark et al., 2021; Dorn et al., 2021). After the gradual return of schools to face-to-face, one of the greatest difficulties for Physical Education teachers is not working on the content of their discipline, but rather, those problems that are related to emotional regulation, self-control of behavior and conflict resolution (Cefai et al., 2018; Lee, 2017; Lubans et al., 2016). This is the product of a social reunion that has generated tensions and provoked various conflicts; overcoming those issues is related to the professional knowledge of the teacher (Behzadnia et al., 2018; Gil-Espinosa, 2021; Wagner & Ruch, 2015).

Given this background, the following question arises: What is the perception of elementary school Physical Education teachers regarding the emotional domain during the return to face-to-face classes? Therefore, the objective of this study is to analyze the perception of elementary school Physical Education teachers regarding the emotional environment during the return to face-to-face classes, identifying the most significant themes expressed in their accounts.

Methods

Design

This study is based on the interpretative phenomenological paradigm and employs a qualitative methodology (Given, 2008). This approach allows for a deep exploration of the meaning of phenomena and a flexible, iterative perspective on the object of study. It also emphasizes the importance of the participants’ accounts and their personal and contextual experiences (Flick, 2018).

Participants

The study included 12 Physical Education teachers...
selected through snowball sampling. The participants were not acquainted with each other and were recommended by other professionals to ensure diversity in work contexts and years of experience. The inclusion criteria required the teachers to have been teaching face-to-face classes since 2019, to have taught during the pandemic, to teach at the primary level, and to have a minimum of five years of professional experience. Secondary school teachers and novice teachers were excluded from the study.

Data Collection
Data were collected through semi-structured interviews conducted in May and June 2022. The interviews focused on the teachers’ experiences regarding the emotional aspects of students in the context of the return to face-to-face classes. An interview script with five initial questions was used, and additional questions emerged during the interviews to deepen the exploration of relevant aspects.

Prior to data collection, written informed consent was obtained from the teachers, ensuring confidentiality and privacy, and emphasizing the voluntary nature of their participation. The researchers also informed the teachers about the research purposes and obtained authorization to record the interviews, following the ethical guidelines of the Helsinki Treaty.

Data Analysis
The data analysis involved three stages. First, the narratives were transcribed verbatim. Second, a content analysis of each transcript was performed using NVivo 11, involving coding, grouping codes into units of analysis, and categorization. The analysis was conducted by two authors to mitigate interpretative bias. Table 1 below presents the systematization matrix that emerged from the data analysis.

<table>
<thead>
<tr>
<th>Category</th>
<th>Previous Category</th>
<th>Descriptor</th>
<th>Primary Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Aspects</td>
<td>Learning</td>
<td>Category that refers to the learning perspective of post-pandemic students.</td>
<td>Emotional Aspects in the classroom</td>
</tr>
<tr>
<td>Learning</td>
<td></td>
<td>Category that addresses the emotional aspects of post-pandemic students, from the perspective of PE teachers.</td>
<td>Learning gap</td>
</tr>
<tr>
<td>Emotionality in the classroom: experiences of the return to post-pandemic face-to-face.</td>
<td></td>
<td>Teacher-student interaction</td>
<td>Specialized Emotional Support</td>
</tr>
<tr>
<td>Didactic Proposal</td>
<td>Affective Communication</td>
<td>Emotional Regulation</td>
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Results and Discussion
The main results are presented below, categorized by primary category. Excerpts from the participants’ accounts are presented and discussed in relation to the existing scientific literature. To protect the anonymity and confidentiality of the data, the following nomenclature will be used: E (interview); N° (number of the interviewee from 1 to 12) and pp. (page number).

Learning: "Emotionality in the classroom"
According to the report of the teachers participating in the study, various emotions affect student learning, which emerge in the different activities of the class, as presented in the following reports:
"Children have always associated our discipline as more entertaining, and it was what they needed, with the end of the quarantine they needed to play, laugh, share, run, and shout." (Interview 3, page 9, paragraph 6)
"I have seen a lot of joy, friendship, empathy, for example, if a classmate feels bad, they ask him what is wrong, they do not leave him alone, they accompany him, they call the teacher, in short, there is concern on the part of the children" (Interview 1, page 4, paragraph 7)
"Also, sometimes anger, due to the low tolerance for frustration, because they spent two years in a pandemic, almost locked up, without relating to their colleagues" (Interview 3, page 10, paragraph 9)

The literature reports that the Physical Education teacher must promote and privilege spaces that allow the emotional display of their students; it is well-understood that positive emotions will generate greater learning, in this case from corporeality (Lee, 2017; Lovoll et al., 2019; Simonton et al., 2017). However, in the Physical Education classroom, teachers observe difficulties in the emotional area of some students, constituting a challenge for teachers in this area. Consequently, according to the report of the interviewed teachers, different types of emotions are displayed in the Physical Education classroom, which depending on the student and the context can be positive or negative. The teacher, avoiding an individualistic perspective that inhibits the social well-being of students, must address these emotions from a pedagogical point of view (Barker et al., 2020). Upon returning to the classroom, the Physical Education teacher had to reinvent himself both in terms of affective relationships and in terms of his pedagogical work, rethinking teaching strategies to promote the emotional development of boys and girls in the return to face-to-face teaching post-pandemic (Goh, 2021; Vaughn et al., 2022).

Learning: “Learning gap”
The educational process in general and learning in particular were the most affected by the pandemic. The vast majority of students present a knowledge gap because of quarantines and online classes, an issue that is consistent with the following reports:
"Learning decreased completely... for example, there are students in first grade who do not know how to add or students in third grade, who passed first and second grade virtually and did not learn what was necessary... Since the requirement could not be the same
since many had connectivity problems, in short, the learning upon returning to face-to-face classes was totally decreased.” (Interview 8, page 29, paragraph 12)

“I think that in all subjects there has been a decrease in learning, it is very difficult for a student from home or in virtual mode to ask questions, or that in particular in the Physical Education discipline perform the exercises, individually, without spaces, without materials, without the possibility of feedback.” (Interview 3, page 9, paragraph 1).

Based on the interviewed teachers, it is necessary to reflect on the need for the adaptation of students and their families to this new moment, and the impacts that such changes can cause in the teachers’ strategies, on a learning context at home (Clark et al., 2021; Crawford et al., 2021; Rasmitadila et al., 2020). The investigative results show that, in the context of confusion and uncertainty, and given the necessary inclusion of the new modality in virtual environments, some teachers tried to replicate the face-to-face class in a virtual environment, and others adapted teaching to the available digital technological media, creating a gap in student learning (Dorn et al., 2021; Pokhrel & Chhetri, 2021).

One of the main reasons that triggered this decline in learning was the ineffectiveness of the online classes, since they failed to generate real interest in the students. This caused low participation in the learning sessions, even more so in Physical Education, characterized by bodily practices associated with sports, physical activity, games, and dances, among others (Centio et al., 2021; Filiz & Konukman, 2020; González-Calvo et al., 2021). According to the report of the teachers interviewed and in accordance with what is reported in the literature, there would be a decrease in the learning of students in primary school, a product of the almost two years of confinement associated with the pandemic.

**Learning: "Teacher-student interaction"**

The role of the Physical Education teacher is essential for the development of students’ emotions, which is reflected in the following comments:

"The need to show empathy, respect and understanding to the students by the Physical Education teacher is crucial for the achievement of an affectional climate, where both parts of the communication process alternate their roles as sender and receiver of messages in order to conduct the acts of communication towards the common end.” (Interview 5, page 8, paragraph 2).

"Many of the students found it difficult to express themselves; it was difficult for them to convey their emotions. On the other hand, with the presence and the bond they have with the teachers, and their classmates and schoolmates, these emotions have been reflected more, what they feel during the day, especially in physical education classes, because as a teacher you are more in contact with them.” (Interview 3, page 8, paragraph 6).

Although communication between teacher-student has always been an important factor for the teaching-learning process, this link becomes much more essential in the return to face-to-face, since the virtual classes caused by Covid-19 caused many students to experience highly complex emotions during lockdown, as reported by (Barker et al., 2020; Filiz & Konukman, 2020; O’Sullivan et al., 2021; Ravens-Sieberer et al., 2021). The pandemic would have caused an unwanted, dysfunctional or non-adaptive impact, interfering with the normal development of students, thus giving negative thought responses such as anxiety, fear, irritability, detachment, depression, avoidance behaviors, sleep problems, concentration difficulties, abandonment of usual activities and hopelessness (Sens et al., 2022; Sifat et al., 2022; Vaughn et al., 2022).

According to the accounts of interviewed Physical Education teachers, this behavior is evident in face-to-face classes, and it is extremely important to provide emotional support to students, through communication and empathy. Understanding that emotional awareness and understanding are essential for the construction of positive emotional climates in the classroom, since it allows paying attention to the different links that occur permanently in the teacher-student relationship, in addition to being a factor that affects the well-being of students and teachers, decisively contributing to learning.

**Learning: "Didactic proposal"**

Regarding the primary category of the didactic proposal, the interviewed teachers report that, upon returning to face-to-face teaching, they had to implement new pedagogical strategies to promote learning, as expressed in the following reports:

“We have implemented classes with games and recreation, especially in Physical Education. They begin to interact with their classmates, and learning is more entertaining, with the subject of quarantine, they needed to play, laugh, run, and shout, in short, we try to propose activities that stimulate students and that through this display their emotions, improving their well-being.” (Interview 3, page 9, paragraph 5).

“In this post-quarantine time, I have observed that students are not attracted to basketball or volleyball and their fundamentals. Boys are more interested in other types of activities such as cooperative games or sports. Therefore, I have implemented new methodologies such as circus activities, acrosport and urban dances, which clearly make them happier.” (Interview 3, page 9, paragraph 7).

The teachers participating in the study, regarding the proposed didactic category and its relationship with emotional development, sought to deploy innovative didactic strategies, in such a way as to include students in collaborative work, which would allow the development of positive emotions such as empathy, respect, and solidarity (Barker et al., 2020). In line with the above, and through activities such as alternative sports, dance, and games, the aim was for students to achieve greater well-being, in addition to making the body and emotions visible in the classroom (Martinez-Santos et al., 2020; Simonot et al., 2017).

Since the return to face-to-face activities, Physical Education teachers have developed learning on the social level. They had to learn to become more aware of themselves and others, to broaden their gaze on the subject of emotions, to
pay more attention to feeling the body, to understand and live the effects of empathic listening that allows them to achieve greater well-being for themselves and the students (Lu et al., 2022; Tán, 2022). In post-pandemic education, the relevance of emotional work emerges as a key aspect to strengthen the classroom climate, becoming aware that the types of bonds that are built in the Physical Education class affect learning and the well-being of students.

**Emotional aspects: "Specialized emotional support"**

An important point to mention and related to the emotionality of the students is the professional support that the various establishments have, a situation that the teachers commented through the different interviews, being reflected in the following reports:

"Now that we have returned from the quarantines, at the school we have the school coexistence team that works with a psychologist and attends to the children who need her help, and who have felt sad or depressed." (Interview 3, page 9, paragraph 13)

"For example, I refer a student who has emotional problems; the school psychologist interviews him once, twice or three times and refers him to a health center depending on where the student lives. That is how we have addressed at school the problems that have arisen when returning to face-to-face activities, but I feel that it is not enough." (Interview 4, page 13, paragraph 7)

Going back to school has always been synonymous with mixed emotions, for both students and their families. Today, with the current post-pandemic situation, feelings of uncertainty and fear prevail, related to exposure to the virus (Seens et al., 2022). Children and young people, as well as parents and teachers, are concerned, above all, about the greater exposure to risk derived from being in closed spaces in close proximity to other students, and the difficulty of controlling and ensuring that everyone adopts the behaviors of protection necessary to avoid becoming infected (Ferreira et al., 2022; Harumi & Pambudi, 2022).

According to the accounts of the teachers interviewed, in educational establishments there is permanent emotional support to address the problems that arise when returning to the classroom after returning to face-to-face classes (Davis et al., 2022). However, on some occasions, this help is not provided quickly enough, due to ignorance of the roles that teachers and other professionals such as psychologists must assume. In addition, the school coexistence teams are permanently responding to contingent situations, which hardly allow them to prevent and promote well-being (Cortez et al., 2019). In this area, the role of psychologists in the educational establishment is essential (Fallon et al., 2010; Woods et al., 2011).

**Emotional aspects: "Affective communication"**

Upon returning to face-to-face, the school has had to reconfigure its structure and its relationships, consequently, today the affectivity and relevance of emotions have become a significant aspect to consider, as exposed by the interviewed teachers.

"Approaching the student, knowing his story, listening to him, not always staying in the teachers' room, but going out to the schoolyard and sharing with them during recess, or during Physical Education class in games, to learn how they feel." (Interview 3, page 10, paragraph 7)

"I think the main thing is to maintain a good relationship with the children, try to talk to them, ask them how they have been doing, how they are at home with their families, listen to their concerns and their problems in order to guide them. Because with us they Physical Education teachers feel they have more confidence." (Interview 2, page 7, paragraph 4)

"What works for me in Physical Education classes is listening to the student put me in her place and knowing that she will express different emotions with the situations that occur at home or with her classmates." (Interview 4, page 16, paragraph 8)

Due to the reports made by teachers regarding the importance of affective communication with students, it can be determined that Physical Education teachers are currently closer to students and that when they return to face-to-face classes they have been concerned about identifying and considering the emotionality of their students, as a key aspect to promote learning (Tamminen & Bennett, 2017). In this regard, the literature reports the relevance of emotional development in the academic performance of students, since the proper management of emotions is essential for the achievement of deep and significant learning in the school context (Maccann et al., 2020; Pekrun et al., 2017).

Before the pandemic, affective communication was barely considered, until it was discovered that emotions play an extremely important role in the teaching-learning process (Gläser-Zikuda et al., 2013; Richards, 2022; Robina-Ramírez et al., 2020). This is why currently; many teachers consider affective communication when interacting with their students. This is demonstrated through the teachers' reports, respecting the importance of this communication, since emotional processes are born from the family environment, and are shared at school, which contributes not only to learning, but also to human and personal development.

**Emotional aspects: "Emotional regulation"**

One of the great problems that the pandemic exposed is the difficulties that students have to regulate their emotions, which, because of social isolation, caused greater sensitivity when facing different situations experienced in the classroom, as reported by the teachers interviewed:

"In Physical Education, we carry out activities that are not so complex, a lot of games, alternative sports, everything so that the student does not get frustrated, after the pandemic and when they return to school, students have little tolerance for frustration, so that is why we have to help them regulate themselves." (Interview 3, page 9, paragraph 11)

"Personally, I believe that there should be training for Physical Education teachers on how to address the emotional aspect in students, how to work or teach self-regulation, for example, because when returning to face-to-face there have been many situations of
stress, anger, even fights and arguments between children.” (Interview 4, page 15, paragraph 5)

According to the report of the interviewed teachers, emotional education is an aspect that must be worked on at school in such a way that the Physical Education teacher has the necessary skills to act against the diverse emotional expressions of their students (Curran & Standage, 2017; Simonton et al., 2017). Within the framework of the return to face-to-face, certain levels of aggressiveness have been observed, since children have not yet learned to regulate their emotions, and teachers do not feel trained in this area. In post-pandemic times, the literature reports that those students who present high negative emotionality, and do not have the necessary regulatory skills to modulate them, are more likely to express high levels of aggressiveness, damaging their social relationships (Fray et al., 2022; Robinson et al., 2022). The way in which students regulate their emotions affects their well-being and their relationship with classmates.

Conclusion

The aim of this study is to analyze the perceptions of elementary school Physical Education teachers regarding the emotional environment during the return to face-to-face classes. The study seeks to identify the most significant themes expressed in their accounts. This is relevant because in Chile, at the beginning of March 2020, the government suspended face-to-face classes, disrupting the routines of students and teachers, who had to abruptly change their teaching methods. Despite the fact that some schools adopted strategies to maintain the teaching and learning process, significant psychological impacts were observed in the field of mental health driven by the prolonged duration of social isolation, fear of contagion, frustration and low physical activity, and lack of personal contact with peers and teachers.

The announcement of the return to face-to-face classes at all levels of Chilean education in March 2022 alleviated hopelessness and frustration due to prolonged social isolation. However, even with the return to face-to-face classes, the fear and anxiety of contracting the new virus on school grounds continue to sow insecurity among students and teachers, despite the preventive measures adopted by the health authority and the teachers themselves. Regarding fear, anxiety, and other risk factors for the mental health of schoolchildren, the Physical Education teachers suggest that the implementation of psychological support services in schools is timely and necessary. From the perspective of these professionals, school psychological support services guarantee a healthy and quality environment at school. Students and teachers have the ability to seek help by submitting their concerns and concerns.

Therefore, at the time of the return to face-to-face, it is necessary, to make a relationship between the educational practices carried out with the affectivity and the commitment of the Physical Education teacher. According to the study findings, it is in the classroom, the gym, and the patio where an affective-cognitive development is provided with its students, through games, alternative sports, dances, and circus activities. In fact, affection is a common feeling in human relationships, a feeling that motivates from the everyday activities to the most complex ones. In this way, for students and teachers to return to classes in a harmonious way and learning to take place, it is necessary to take their emotions into account, an issue that is supported by the interviewed Physical Education teachers. Therefore, it is necessary to evaluate the emotional and psychological state of students and teachers, so that this return to face-to-face in 2022 is not so stressful for both.

On the other hand, the diversity of students’ educational, social, and economic realities must be considered, since it becomes a challenge even in periods that are not emergencies. However, the pandemic brought an even more challenging scenario that needs to be understood in a deeper way, allowing new knowledge to be proposed and possibilities for action for the present, and for the future. Consequently, the most interesting and productive thing will be to invest in solutions that can satisfy the collective, a return to school in a healthy, safe, and affectionate way. Teachers and students need to feel prepared and emotionally safe to face this new challenge, related to the mental health of the school community.

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References


Regulation and socio-emotional interactions in a positive and a negative group climate. *Metacognition and Learning*, 13(1), 57–90. https://doi.org/10.1007/s14109-017-9178-x


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