



Articles

School Inclusion of People With Physical Disabilities: The Role of Social Interactions

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Abstract

This study sought out to understand the process of school inclusion of a student with physical disabilities in a public school in the Federal District of Brazil (Distrito Federal), with an emphasis on social interactions. Under this perspective, it was retrospectively analyzed the student's social position relative to their peers in order to identify elements that could contribute to the process of school inclusion of a physically disabled student. The theoretical reference had as input the bioecological model of human development followed by fundamental concepts of disability, social and educational inclusion. The social position of the person with disability related to her classmates in the classroom context was identified by means of sociometric test. The main results showed unfavorable social position of the student related to her peers and the lack of cohesion of the group as hindering her process of inclusion in the school. It was concluded that attitudinal barriers made it impossible her full integration in school. The possible impact of the poor quality of social interactions of the student for the student's development was discussed.

Keywords: process of school inclusion, social interactions, sociometric test, physical disabilities

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The Bronfenbrenner Bioecological Model of Human Development contributes to the understanding of the phenomenon of social inclusion of a physically disabled person in the school context, since, it adds what is proper and common in regard to the evolving specificities of the person and also to its context and provide theoretical basis for understanding the interrelationships between these two elements (person-context) that result in human development (Bronfenbrenner, 2011). The bio-ecological perspective calls for interaction between people face to face as a pontencial to produce proximal process. This process establishes itself in a regular basis, lasting and bidirectional manner in direct environment where those involved understand their purpose and meaning and is the driving force to human development (Bronfenbrenner & Morris, 1998).

In the school context the proximal processes may occur via the interaction of students with various educational players, with the symbols and objects of learning and also among peers. Such that, interpersonal relations established in this context are significant for children and adolescents. The negatively established ties can cause academic results below expectations, physical and emotional alteration, but when the interpersonal relationships are positive, students achieve a good learning level, perfect social skills and are better able to cope with stressful situations (Neto, 2005).

To [Grigorowitschs \(2008\)](#), to socialize means transforming structures, processes and subjects through a dynamic that involves the subject and its peculiarities, interaction, communication and action in the context in which they live, as well as the different ways that social relations take place in a dimension not only objective, but also subjective. On a macro level, according to [Corsaro, Reis, and Nascimento \(2011\)](#), peer interaction can be understood as closeness between subjects through common interests and objectives, shared through daily face to face social interaction influencing on the building of values actively contributing to production and reproduction of culture. The face to face interaction between people can be understood by dyads (research base) that can be established when a subject observes another's behavior; during the execution of joint operations; and durable interactive relations ([Bronfenbrenner, 1979](#)). [Yunes and Juliano \(2010\)](#) state that "dyadic interactions can develop mutual feelings of affection or disaffection and lasting interactions (primary dyads) exist even in the physical absence of the participants" (p. 357).

According to [Martins and Szymanski \(2004\)](#), the formation of a single dyad already contributes to human development as well as it contributes to the composition of other larger interpersonal structures involving more than two people. Therefore, to have less chance to interact may also lead to fewer opportunities for the development of both social skills and emotional and cognitive aspects. Little interaction or negative interactions can affect the course of development leading to subsequent problems to handle more complex situations.

In addition, [Bronfenbrenner \(2011\)](#) states that the objective and subjective changes in individuals are accompanied by changes in the person's socialization process in several ways (ecological transition) pushing new developments. Thus, the social experiences of children and adolescents both in the family and school environment can have strong influence (positive or negative) in the way the person sees themselves, in cognitive processes, interpersonal relationships, academic performance and lifestyle ([Pereira, Cia, & Barham, 2008](#)). However, social interactions deliberated within the family, school, community, among others, when unfavorable can expose children and adolescents to situations of vulnerability. Thus, according to [Neto \(2005\)](#), it is considered that social interaction at the school gives opportunity to realize and exchange experience with the other and depending on the place that this other occupies, from a perception that is ruled by prejudice and indifference, can consolidate attitudinal barriers in the history and culture of a group.

Like any other stage of the life cycle, adolescence and bio-psychological and social changes that the teenager will go through will be experienced according to their individual characteristics and their sociocultural context ([Sifuentes, Dessen, & Oliveira, 2007](#)). The establishment of new social relations that usually occurs in early adolescence impacts the way in which the teenager will experience this phase. Therefore in adolescence, to be integrated into a group in an active way through exchange among peers, friends bonds, among other experiences is essential for developing of the identity of the subject ([Macowski, 1993](#)).

However, the physically disabled adolescents can suffer interference in the course of their development since, living in a culture where the definition of normal guides relations and sets the attributes of a person to a social organization according to their production capacity. The disabled body offends the established social order causing resistance in non-disabled people and interfering in both interpersonal relationships and in the person's relationship with the disabilities within their own body ([Scully, 2010](#)). Furthermore, the stigma, prejudice and misinformation that result from the socially established normal standard is a strong barrier to inclusion of diversity, influences the culture and promotes marginalization. In the school the stigmas become obstacles to the recognition

of the potential of people with disabilities because they are what obscure and limit their participation and learning and hinder their social integration (Silva, 2006).

Children with disabilities have shown less ability to initiate and maintain social relationships with their peers and that these difficulties can be attributed to the lack of autonomy in the cares of personal nature, to perform school assignments and to participate in plays and games, since they depend on an adult to do so (Richardson, 2002). According to the author, the non-understanding of social cues, ignorance of how to approach people and the presence of an adult are obstacles to social interaction of the physically disabled.

The lack of social participation can seriously affect subjects who have poor social skills, this group including people with physical disabilities and people with complex needs in the area of language (Thirumanickam, Raghavendra, & Olsson, 2011). Students with disabilities suffer a greater rejection from classmates and teachers and are less integrated into their groups (Batista & Enumo, 2004). Such statements underscore that attitudinal barriers installed in the interactive relations could strike in a harmful way the development of people with disabilities as well as their inclusion. However, the focus on peer interaction is the awareness that everyone has limitations (Mazzotta et al., 2007). This recognition may enable healthy interaction between the person with disability and their peers and ensure the full social inclusion.

Inclusion means the rights of all, without distinction, to the opportunity of choice, the construction of identity, both personal and social. From this perspective, education as well as access and the permanence of all the students at all levels of education regardless of their individual aspects must be ensured (Carneiro, 2011). However, several researchers point out that the current school model needs to be reconsidered so that the inclusion of people with disabilities occurs. To respect differences, to break with the definition of normal, to rebuild educational practices making them significant according to the individual peculiarities are important steps for inclusion (Carvalho, 2004; Mantoan & Prieto, 2006; Sasaki, 2010).

School inclusion extends from the physical space, to adequate training of professionals, and up to the social and cultural factors. To Richardson (2002) both structural barriers and the lack of training undermines the inclusion of the physically disabled into mainstream education classes. Mantoan and Prieto (2006) mainly considers social and cultural barriers to promote school inclusion and highlights the resistance to change of the specialized institutions; public policies that hinder the mobilization of schools to review their traditional and exclusionary practices; prejudice; and paternalism towards people with disabilities. Pagliuca, Aragão, and Almeida (2007) place more emphasis on structural obstacles and consider that a physically disabled person to exercise their rights as citizens in an autonomous and safe way they need unobstructed access to all spaces.

Considering the importance of social interactions for the healthy development and the barriers described in the literature to the socialization of children and adolescents with physical disabilities, this study sought to identify how social obstacles affect the advancement of persons with disabilities in the school context. This study aimed to describe the process of school inclusion of a student with disabilities in a public school in the Federal District with an emphasis on social interactions. For that it was done the analysis of student social position relative to its peers identified through Sociometric test (Moreno, 2008).

Method

This research was developed in the final years of a primary school of the public network of the Federal District, the survey was characterized as a predominantly qualitative case study. The study was approved by the Research Ethics Committee (CEP) of the Catholic University of Brasilia.

The school microsystem, selected by chance and convenience, is part of the public school system of the Brazilian Federal District. The school catered to about 1,420 students with the majority coming from low-income families. The school offered the second stage of basic education, contemplating the sixth to the ninth grade of basic education.

Participants

The research participants were students from a class of the sixth year of afternoon shift of the second stage of basic education, consisting of twenty-four students. In this class there was a student with a physical disability and a student with Attention Deficit Hyperactivity Disorder (ADHD) thus justifying the reduced number of students in the class. The physically disabled student was selected as a focal participant.

To answer the sociometric test, of the twenty four students invited only twelve were able to participate, because they had brought Informed Consent Term signed by their parents and / or guardians. However, during the test implementation some respondents reported the name of 10 colleagues absent at the moment of data collection and two students were not mentioned by their classmates. The name of each participant (present and absent) was replaced by unmatched initials to their names.

Of all girls in the class, nine were present and answered the questionnaire and only three (G, P and W) were not there at the moment of collect, but were elected by their peers. Of the nine attendees, one was the focal research participant, had physical disabilities and made use of wheelchairs. The female students were aged between 11 and 13 years. Among male students, ages between 11 and 12 years, five responded to the questionnaire, five did not because they were absent but were voted (M, O, Q, Y and Z) and two students were absent (YA and YU) and received no votes.

Instrument

The Sociometric Test was selected as the instrument for being a technique that identifies both the position and the category that a person occupies within a group and the bonds established in the group. This instrument assesses three variables of social interactions: preferences, rejections and perceptions (Moreno, 2008).

The questionnaire consists of four questions comprising the choices in descending order of rank (preferences and rejections) that the participant makes of group members, followed by justifications for each of their choices; and questions of perceptual choices - the participant answers, according also to a decreasing order of rank (preferences and rejections), how would be to be chosen by the other members of the group, also followed by a justification for each of their choices. The questionnaire provides an opportunity to make a general analysis of the psychosocial nature of a group (Farinha, 2004).

The four sociometric questionnaire questions are: [1] question one (positive elections), indicate in descending order of interest three colleagues as partners for school projects; [2] question two (negative elections), indicate in descending order of interest three colleagues who they would not choose as a partner for school projects; [3]

question three (positive perceptions), indicate in descending order of interest three colleagues that the respondent thinks would choose them as a partner for school projects; [4] question four (negative perceptions), indicate in descending order of interest three colleagues that the respondent thinks would not choose them as a partner for school projects.

Procedures

The application of the sociometric test took place in a single meeting, after the collecting of the Term of Informed Consent (IC) signed by the legal guardians of the students. To this end, the group was organized in a circle where the researcher asked each participant to introduce themselves stating name and age. Soon after, the steps to be performed were explained: a specific warm-up game and the questionnaire application (Moreno, 2008).

Soon after the completion of the warm-up game, the researcher distributed a sociometric questionnaire for each student. The test was answered individually. Later, the researcher attended the class to develop an experiential workshop with the aim of informing indirectly on the search results.

Data Analysis

Data analysis was directed to the focal participant. The data were analyzed separately by questions and sociometric matrices (frames with double entry) that generated sociograms and telic diagrams (Bastin, 1966; Bustos, 1979; Moreno, 2008).

As Moreno (2008), the structural analysis of sociograms was started by selection of insulated or non-selected individuals and individuals and that reject and are rejected.

Soon after, a comparison was made between the sociometric status of focal participant and colleagues and the analysis of the description of their behavior as respondents was done. Then, pairings and triangulations were chosen and compared to the sociometric status of the focal participant. Next, each matrix was remade with a minimum of cross-line and subgroups clearly arranged. Finally, each sociomatrix was turned into sociograms.

Regarding the perceptual evaluation, we calculated the number of elections made by the the focal participant in relation to classmates then the equivalence between the focal participant in the elections to the elections held by colleagues (perception index) divided by the total members of the group minus one. Soon after, we calculate the emission rate: The number of times the focal participant was perceived by members of the group divided by the total number of members minus one (Moreno, 2008).

The use of graphic depictions (sociograms and telic diagrams) in the Sociometric test serve to illustrate the social relations within a group context identifying who are the preferred and rejected people by their companions (Bastin, 1966).

In addition to the sociograms, the bar graphs related to positive and negative elections are obtained by allocating points according to the preference that the participant was quoted so that the quote in first place is awarded three points, the second two points and the third one point. Considering that the class had 24 participants, the maximum score is 72 points (100%), i.e., the probability of points that can be obtained by the 24 participants if they were chosen first.

The data collected through the sociometric questionnaire are organized as follows: Question 1 (positive elections) and Question 2 (negative elections) show who the preferred and non-preferred members in the group are. Regarding the Questions 3 (positive perceptions) and 4 (negative perceptions), they were designed to assess how the participants perceive and how are perceived by the group.

Results and Discussion

Question 1 sought out to identify the preferences (positive election) of each participant within the group where each respondent, present at the time of collection, named colleagues who they would like as a partner or working partner. To understand Graph 1 of positive election one must consider that of the 24 components of the group (100%), 12 (50%) voted because they were present at the time of collection; 10 (41%) were unable to vote because they were absent, but received votes; and 2 participants (8%) were absent, did not vote and were not voted.

Considering the attendees (50%), the focal participant (E) obtained equally to C, 6% of the vote. And when comparing the components B, H, J, K, L, T, W, Y, which had 3% of the vote, followed by 1% of Z and F, L, M, O, U YA, YU that received no votes, we evaluated that E occupies a favorable position in the group, since her acceptance rate exceeds 16 (66.7%) of their colleagues.

The sociogram of positive election illustrates the networks formed by preferences in the group with descending order of interest and bond. According to [Bustos \(1979\)](#), the choice can be unilateral or reciprocal between subjects where the first indicates strong bond, second moderate bond and third weak bond. Another important aspect is the position occupied by the individual within the sociogram, because according to [Moreno \(2008\)](#) the closer an individual is to the center of the circles, the highest the number of votes obtained and, if so, the better the socio-metric status of the subject.

The sociogram of positive election showed a group setting where E is not next to the concentric circle, but her position is not so bad compared to 12 of her colleagues. Another important point is that E, according to [Moreno \(2008\)](#) built a strong bond with T, as both are mutually elected in first place thus forming a pair within the group. E, just as T, justify their choice of first place because both talk and help each other. However, when B elects E third, B clarifies the choice because B doesn't have much conversation with E. However, E elects B second for considering the classmate not very friendly. According to [Bustos \(1979\)](#) that indicates a conflicted bond between B and E. The pair formed between T and E is evident, and does not unset by the presence of B. E goes to a safer position relative to T and B because it was chosen by both. On the other hand T and B were not chosen by anyone else of the group. This led to T and B having greater distance from the center of the circles compared to E. On the other hand the components: Q, R, A, D and C which were closer to the center of the circle, indicating strong attraction.

The following is the group configuration when respondents chose their non-preferred colleagues. Each participant designated names of colleagues who they would not want as a working partner.

Following the same way to score for positive choice, we managed that the focal participant E obtained equally to K, 10% of the vote of non-preference in the class, being preceded by U with 11% and B 13%. And she received a significant rejection rate within the group since she reached a percentage only lower than that B and U. So, E is rejected by more than 21 (87.5%) students in the class. The analysis of negative elections sociogram notes

which the non-preferred individuals in the class. In the case of negative election, the closer the center of attraction, the greater the degree of rejection from peers (Moreno, 2008).

Focal participant E was elected once as first place, three times at second place and once in third place. Some features of E were highlighted by colleagues justifying the reasons that led them to not choose her. C said that there's no affinity with E and E shows slowness to perform work; A and B think E talk too much; F seeks to be polite to E, but disregards F, and when F will complain to E, E resort to her mother; and D qualifies E as authoritarian, noting that E does not meet what was agreed on previously, to perform the work. Above we observe only B and and U with a higher degree of rejection. B and E showed conflicting bonding evidence, in the positive election, perhaps the attempted union between them may characterize an attempt of defense against the rejection of the class. U was not mentioned in the positive election and strongly cited in the negative, showing that she suffers great rejection of the class.

According to Bustos (1979), to apprehend the the bonds established in a group, it is necessary to check the number of mutual associations formed. Bustos (1979, p. 33) states that mutuality can be understood as "an encounter between two or more people who are elected with the same negative, positive or neutral sign." To do so, below the sociogram of mutuals by positive votes (Figure 1).

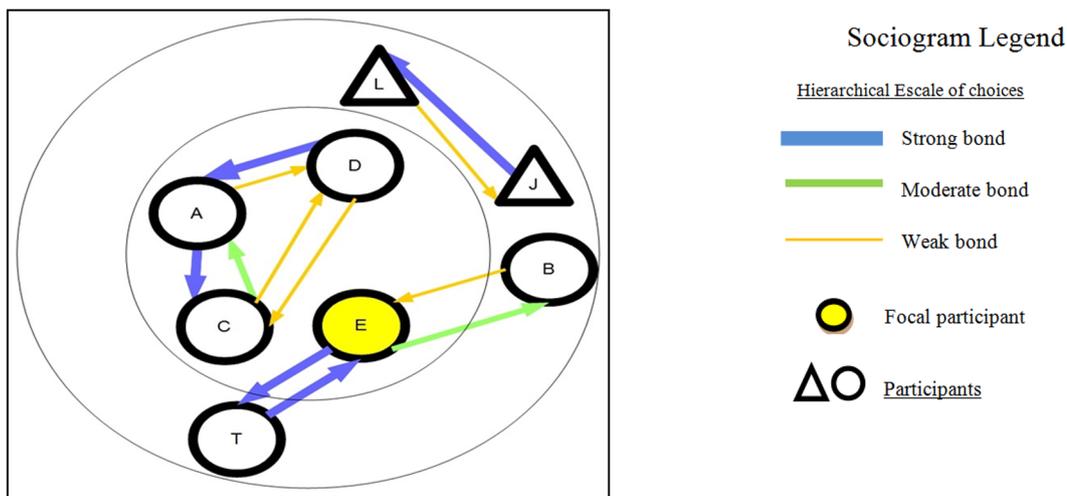


Figure 1. Sociogram of mutual associations by positive votes.

In the sociogram of positive mutual associations (Figure 1) we identified a chain configuration between T, E and B, but the bond established between E and B do not characterizes closeness, but the lack of affinity, distance therebetween. According to Bustos (1979), the more people linked into a larger chain there is a larger possibility to build ties of understanding which did not happen between T, E and B. Thus, the configuration into par between T and E consolidates. Bustos (1979) points out that forming isolated pairs within the group indicates defensive junction of individuals in relation to the other companions. In this case, L and J students form a pair with moderate bond. Another configuration identified is a triangle formation between A, C and D. Bustos (1979) states that the triangle can also be considered a type of defensive bond between three people who elect each other with the same sign. In the case of A, C and D, reciprocal elections took place with varying intensities indicating a triangle of moderate links between companions. There was no negative mutuality involving the focal participant.

Finally, the inconsistencies arising of positive and negative votes show that the link between the identified focal participant E and B is not confirmed, because at the same time that B have selected positively E in third place for not talking with that colleague, B chooses again E in third place, as a partner not preferred and explains that the choice was motivated because E talks too much. We can consider that there are disagreements between B and E.

From this moment, we will enter the perceptual evaluation performed by the results elapsed of the questions 3 and 4. Question 3, choose three colleagues in descending order of preference that the respondent thinks that would choose as a companion of work, made it possible to determine the index perception of the focal participant. [Bustos \(1979\)](#) understands the perception index as degree of the subject insight to understand how the other communicates with the subject. Question 4, choose three colleagues in descending order of preference that the respondent considers that would not choose them as a companion to work, estimated the emission rate which is how the individual is understood by their peers when expressed.

The perceptions of the focal participant in relation to classmates have a low level of assertiveness (33%), since only one colleague (T) confirms what E perceives. In this case, E and T have chosen each other in the first place for they consider themselves best friends. Second, E will choose B because SHE believes that B likes her. By choosing F third, E justifies her choice because sometimes she makes projects with F. Regarding the negative perceptions; it was found that the focal participant does not realize which colleagues who would not choose her as a partner of projects because did not obtain any perception index. E chose A first considering that A likes C; in second place D stating that D hate her; and finally, in third place K because K prefers B. However, none of these colleagues chose E. Who chooses E negatively indeed, is the student R and, in the first place justifying that E does not talk to him. Then F indicates E as third because E speaks only screaming and so causes disagreements when F responds to E.

The focal participant E is more favorably seen in the the group than she perceives it, suggesting that E may have behaviors and attitudes that do not appeal to colleagues ([Bustos, 1979](#)). This is evident when E raises the hypothesis that F would choose her as a partner of work, but when F dispute when she does not choose E positively and also mentions negative characteristics observed of the behavior and, the way E communicates. [Moreno \(2008\)](#) explains that the union between individuals in the group comes from a two-way communication where one complements the other. According to him, when a person is understood and also includes his companions at the time of communication it increases your level of attraction and ends up achieving a leading position in the group. However, the opposite it results in rejection. Furthermore, Moreno points out that the rejection of occurrence of dominance in the group originates discrepancies and distancing people. On the other hand, when chains, triangles, circles are formed by means of reciprocal affinity interactions it suggests establishment of connections, so there is bonding and group integration.

Results of the sociogram suggest that the focal participant E experiences social disadvantage when compared her social position to that of classmates. The participant E achieved a very high rejection rate of 87.5% being below only two colleagues. According to respondents, the focal participant E shows harsh and authoritarian behavior. In addition, respondents added that E does not meet commitments, talks a lot, it seems slow to perform work and appeals to her mother to resolve conflicts that occur in the classroom. Regarding the positive election, E was elected in fact once by T and, returned the vote also electing T first. However, T and E equally received no positive votes from other colleagues. That means T and E are disconnected from the social network established in the class. Then, T and E form a minimum configuration interaction called "pair" ([Moreno, 2008](#)) state that during

the heating game, when one stops next to the other without proximity of the colleagues. For [Bustos \(1979\)](#) when two individuals are connected to each other within a group and, do not bind to any other, it means that a defensive junction was established resulting in the isolation of these people.

The social role experienced by students with disabilities in inclusive school microsystem shows little acceptance of the group and a high level of rejection, which is shared by her friend T. As a form of defense against the group that rejects E and T are united, but remain isolated in relation to other colleagues. However, other students in the class have also been rejected or not cited demonstrating that the class is not united. The disunion of the group can generate conflicts among its members and lead to greater defensive connections. In spite of this being an inclusive classroom, its sociogram shows the presence of social exclusion, the forming of defensive groups and strong rejection of specific members, one being the physically disabled student. The Person dimension in bioecological model ([Bronfenbrenner, 2011](#)) is related to the uniqueness of the subject in development that can act on the process of person-environment interaction. Thus, it was possible to identify in the peers statements some personal attributes of E considered by them as inadequate and relevant to avoid the interaction with her. They are: hostile way to express herself; slowness to perform tasks; low attentional focus; lack of autonomy for conflict resolution; indifference; and the lack of commitment.

It is noteworthy that some of these negative attributes indicated by peers can be linked to difficulties arising from the impairment of E (slowness, low attentional focus and lack of autonomy for conflict resolution). Others, such as hostility, indifference, and lack of commitment may be related to the "stigma" that is relate to the disabled person as the one to have limitations must be always benevolent; or lack of social skills that can be a consequence of the low opportunity for social learning. On the other hand, it is also possible to infer that these characteristics may be less tolerated in E than they would in person without disabilities, making them more evident and generating an "excuse" to avoid contact or approach the disabled individual. In this case, social rejection, also involves the responsibility of the person with disabilities who is hostile, indifferent, has no commitment, is slow, does not pay attention, among others. Thus, the disabled person happens to be rejected because their personality characteristics and not because of their disability, which protects the group to be considered biased or intolerant to disability but keeps the person with deficiency isolated from the group.

The interaction of E with the various dimensions of the school environment should boost her academic and social development, but as the established proximal processes show low affective bonding with peers and social rejection, its development cannot be taking place according to her potential, this fact is evidenced by her low academic achievement, social isolation and hostile behavior towards colleagues. With regard to the process, [Bronfenbrenner and Morris \(1998\)](#) conceive it as a constant interplay between person and immediate context where its configuration (mode), power and essence are subjected to the particularities of the subject, the experienced only socio-historical time, the scenario (both direct as indirect), the effect on the development, and alteration of the person and the environment throughout life. As to how we identify unfavorable elements providing disadvantages to E in the process of social interaction, such as: way of speaking and acting of E the distancing of peers and her reactive behavior. With regard to adverse driving energy, the lack of reciprocity between the enthusiasm and the will of E to be inserted in the school context and attitudinal barriers found in the school environment were perceived.

Therefore, the unfavorable social position of E evidenced high rejection rate (87.5%), as well as the low assertiveness of the student (33%) suggesting behaviors and attitudes that displease peers confirms social expectations not matched by E. Nevertheless, E still managed to establish a positive interaction guaranteeing bond of friendship

with a colleague, which, according to [Martins and Szymanski \(2004\)](#) already has the potential to promote development and trigger other interactions, but in the case of E, the dyad formed characterizes itself by a defensive reaction to the rejection of E and isolation of T, which prevents the expansion of the positive social network interactions.

As discussed by [Neto \(2005\)](#), it can be inferred that the rejection evidenced in relation to E as a person with a disability has impacted negatively on her development in the school context, leading to social isolation and low academic performance. The poor performance was identified in informal conversation with the school coordination.

Conclusion

This investigation allowed us to understand that the process of school inclusion of physically disabled person was effected partly at school and pointed attitudinal obstructions to the realization of full inclusion in the school context. The study identified in the school setting social rejection by peers and low reciprocity in the proximal processes in school microsystem of the physically disabled student.

In depth analysis of the social inclusion process in the school context, found adversities for the construction of interpersonal relationships where the rejection by peers reflected contradictions in the macro system, especially the perception of normality, beliefs and prejudices. The daily social interaction contributes to the cultural production and reproduction ([Corsaro, Reis, & Nascimento, 2011](#)). The macro system indirectly influences the way of being and living of the people, but then also determines, through public policies to combat educational and social exclusion. The inconsistency between cultural aspects and public policy is transferred to other contexts (exo, meso and micro), preventing meaning and thus understanding of people of what will be the process of inclusion and how they should proceed to effect it.

Thus, it is emphasized that E followed a path marked by misinformation, stigma and prejudice that exists in culture and is disseminated through established relationships in immediate contexts where the unavailability of people and different contexts to provide interaction and full inclusion of the focal participant produced partial social exclusion, therefore, reduced the potential for her development.

In this sense, it is worth noting the importance of a greater focus of the school context in social relations in the classroom. Working the classes in order to develop strong group feeling and social acceptance of all students, valuing individual differences and peaceful conflict resolution will clear the unlimited inclusion. Thus, it is considered that is the school's role to seek ways to minimize the negative effects of the macro system and ensure the school context effective proximal processes for the healthy development of all.

Since this research has limitations it would be advisable that further research to behold in the method, all the elements proposed in the Bioecological Model (person, process, context and time), as well as broaden the analysis of contexts in order to understand the object of study with respect to its complexity. Moreover, it is noteworthy that the Bioecological Theory was appropriate for understanding social interactions among peers in the school context evidenced by the Sociometric Test and the school inclusion process, allowing inferences about the consequences of these aspects for the development of the physically disabled person. Finally, it is considered that this study revealed the presence of attitudinal barriers expressed in social interactions as an non-enabler aspect

of full inclusion process in school jeopardizing the academic and social development of the physically disabled student.

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Competing Interests

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Author Contributions

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