Abstract

Society demands autonomy, dynamism, and protagonist skills in the face of the most diverse challenges arising from globalization that permeates all social sectors. For young people, the school presents itself as a space in which these skills can be better developed since their students are in full cognitive, attitudinal, and socio-emotional training. This research is justified by the need to clarify how the school, especially the teacher, can contribute to the autonomous and dynamic formation of students who study in public schools and reveal themselves to be vulnerable to social challenges. The study aims to analyze the social interaction between teachers and students, focusing on applying pedagogical techniques capable of developing resilience, in a secondary school in a vulnerable community, based on the triangulation of theoretical frameworks of interaction, exclusion, and autonomy. The methodology is based on a qualitative approach of an exploratory nature with the case study method. Data are collected through document analysis, observation, and interviews with eight teachers and twenty students from a public school in the capital of Brazil. As the most relevant research results, it is observed that the teacher-student interaction within the teaching-learning process makes the educational process meaningful for students and pedagogical strategy enables the comprehensive training of students in the face of the challenges that emerge from reality current.

Keywords: Resilience, inclusion, interaction, vulnerability, pedagogical strategies, high school.

Resumen

La sociedad demanda habilidades de autonomía, dinamismo y protagonismo frente a los más diversos desafíos derivados de la globalización que permea todos los sectores sociales. Para los jóvenes, la escuela se presenta como un espacio en el que se pueden desarrollar mejor estas habilidades, ya que su alumnado está en plena formación cognitiva, actitudinal y socioemocional. Esta investigación se justifica por la necesidad de aclarar cómo la escuela, especialmente el profesor, puede contribuir a la formación autónoma y dinámica de alumnos y alumnas que estudian en escuelas públicas y se revelan vulnerables a los desafíos sociales. El estudio tiene como objetivo analizar la interacción social entre profesores y alumnado, centrándose en la aplicación de técnicas pedagógicas capaces de desarrollar la resiliencia, en una escuela secundaria de una comunidad vulnerable, a partir de la triangulación de los marcos teóricos de la interacción, la exclusión y la autonomía. La metodología se basa en un enfoque cualitativo de carácter exploratorio con el método de estudio de caso. Los datos se recogen mediante el análisis de documentos, la observación y las entrevistas con ocho profesores/profesoras y veinte alumnos/alumnas de una escuela pública de la capital de Brasil. Como resultados más relevantes de la investigación, se observa que la interacción profesor-alumno dentro del proceso de enseñanza-aprendizaje hace que el proceso educativo sea significativo para el alumnado y la estrategia pedagógica posibilite la formación integral de alumnos/alumna ante los retos que surgen de la realidad actual.

Descriptores: Resiliencia, inclusión, interacción, vulnerabilidad, estrategias pedagógicas, la escuela secundaria.
1. Introduction

Since its origin, Society has made distinctions among people, classifying them by their physical, psychological and social characteristics. Today, the discourse of respect regarding differences is intensified, with the focus on the pursuit of equality, and according to the Universal Declaration of Human Rights, “all human beings are born free and equal in dignity and rights” (ONU, 2018). In turn, the Brazilian Federal Constitution states in its 5th article that “all are equal before the law, without any distinction” (Brazil, 1988). However, there is a gap between what is said and what is done, and in Brazil, the lack of respect for the various forms of social differences has assumed a historical character, reaching the schools.

Considering the right to equality and dignity for education, which is the focus of this research, it is possible to identify students from a vulnerable community living under hardship, surrounded by family problems, violence, social/educational invisibility, and with difficulties in interacting with teachers. They deal with exclusion that can influence the entire social and educational life.

Despite this challenging context, some students are able to get rid of this situation and free themselves from these cycles. Those who fail to leave suffer directly from the effects of out-of-school discriminatory factors (violence, drugs, discrimination, and social problems), which end up increasing educational exclusion through indiscipline, low grades, failure, and dropout; all this understood as school failure.

To change this scenario, interaction arises as a possible difference between stagnation and overcoming, exclusion and interaction, and dialog to build the resilience needed to face obstacles.

In analyzing the concept of interaction, as far as education is concerned, it can be defined as the relationship of mutual influence in which the behavior of those involved becomes a stimulus for the other (Síveres, 2016; Caliman, 2008). Teacher-student interaction occurs between two key actors for educational action: teacher and student. This interaction presents these actors as complementary and structured among themselves. One conditions the existence of the other and their actions are mutually oriented.

In short, resilience can be understood as the ability to withstand an unfavorable condition. There is the possibility of developing resilience to different degrees throughout the life of the individual, and it can be developed/stimulated in any social group or institution (Assis et al., 2006).

Looking at Brazilian education, it is observed how it is at a disadvantage compared to other countries: problems such as dropping out of school, the knowledge gap and the social problems that affect the performance of students in school increase. These problems indicate what can be done to reverse this situation, as the world is increasingly globalized with new technologies and it requires new competences. In this rapidly developing world, individuals are required to develop their potential (Luckesi, 2016) to live with these new challenges and overcome them. Resilience (Laplane, 2000), as already mentioned, is a contributing factor to the change of negative paradigms. Resilience, developed and improved through education, can be an essential tool for changing the framework in which Brazilian education is presented. To this end, education is set up as the appropriate place for developing this potential.

Thus, the aim of this paper is to present how teacher-student interaction in a public school in a vulnerable community can change this panorama of failure through the development of resilience in the school environment.

2. Methodology

Research is qualitative and exploratory, using the case study method (Stake, 2016). The population investigated was a public school in Ceilândia, in the Federal District. The school suffers from a major vulnerability related to socio-economic issues, violence, family problems, teenage preg-
nancy, drug addiction and poverty. Students were enrolled in high school on a day shift. Eight teachers and twenty students were interviewed; sixteen classes of Portuguese Language and Mathematics were observed.

The choice of a public school in a vulnerable community is justified because article 206, paragraph VII, of the Federal Constitution (Brazil, 1988) provides for the guarantee of quality standards for education. However, there are differences between the guarantee of this right in relation to vulnerable and non-vulnerable communities. High School was the field of research because it is the last stage of Elementary education, in which students must present themselves as capable of exercising their citizenship and entering the labor market or university (Brazil, 1988).

In the generation of data, deductive and inductive reasoning, the approximation to reality and the bibliographic analysis of theorists addressing the subjects of teacher-pupil interaction, dialog and resilience were used. The research started with a documentary analysis, analyzing the school’s Political-Pedagogical Project (PPP), and the course plans of the teachers selected for the research. The objective of this analysis was to identify the possible pedagogical strategies during the teacher-student interaction that contributed to resilience and, consequently, to the inclusion of students from this school. Semi-structured interviews and participant observation were conducted. P will be used for teachers, followed by the number assigned to identify the teachers and students cited in the study. Students will be identified by the letter A followed by a number corresponding to the order of the interviews.

3. Analysis of data and results

The analysis of results was based on teacher-student interaction and how it was presented in the identified topics: the exclusion identified in the research, the pedagogical strategies used by teachers and the dialog constructed through the interaction observed between the teacher and the student.

In addressing the documentary analysis first, it was based on the Political Pedagogical Project of the Public School of Research-EPP and on the course plans of teachers. The observation was based on a format. However, the relevant information, which was noted throughout the collection, was also inserted in the description presented.

3.1. Circles of Exclusion

EPP students are mostly African-descendants with economic difficulties and major family problems. Therefore, several categories of excluded can be perceived, and they may experience various situations of exclusion (Durkeim, 1999; Weber, 2002). It is observed among the students of this school how they suffer because of poverty, racial belonging, violence and social conditions. In the analyzes, observations and interviews were observed, one composed of students who present some difficulty in learning and the other formed by students with disabilities.

3.1.1. Learning problems

The first circle to deal with is pedagogic. The EPP has unsatisfactory rates of approval in the 1st and 3rd year courses. Observations in the classroom and interviews with the students have shown demotivation toward the study, especially among the students of the 3rd year. This situation can be exemplified by the student A1, who is in the third year and has not decided which career wants to study, has not registered in the Enem, i.e., does not have any plans for the future, and says “... I just want to finish my studies, that’s it.”

In the course of the 1st year, what stood out most was the recurring complaint about the difference between the 9th Elementary II course and the 1st High school year. It was also critical that the transition from Elementary to High School is not worked with the students of the last
Elementary II courses, nor with the students who have just started 1st grade.

In the EPP Pedagogical Project, there are several references to the concern related to the attention of students with poor performance, with the lack of prior knowledge and necessary for some content, and with students disinterested and absent. EPP guides teachers about students who are absent or have learning difficulties so that differentiated work can be done with them. This inclusive attitude of the EPP allows these excluded students to be accommodated in the classrooms and who need to find feasibility to be included and visualized in the school and later in society.

As a proposal to deal with difficulties/disinterest, EPP suggests pedagogical projects and other activities that aim to contribute to the total development of the student and break this negative circle. Interdisciplinary projects are mentioned in the APP. Some activities encourage participation in tests, such as PAS, Enem, contests, access tests, which apply at the end of the high school, and other activities such as the Mathematics and Astronomy Olympiad.

In High School, which are extra classes distributed to complete the minimum credits required of each teacher, EPP proposes activities to overcome some of the difficulties of the students already identified in the evaluations and/or in the classroom observations. These classes suggest some projects that involve reading and writing workshops, mathematics for students with difficulties, activities in the computer room, and foreign language (Spanish) and mathematics classes.

In the observations made, the work of assisting students with learning difficulties was not as tangible as presented in the PPP. Follow-up classes were not conducted this year, as expected, due to lack of students because most teachers work out-of-school hours. Practices aimed at improving reading and interpretation, difficulties mentioned in the PPP, were observed in the classes of teachers P2 and P5, who work with transdisciplinary projects based on subjects of the daily lives of students.

Regarding learning problems in the area of mathematics, two more significant actions were observed: Follow-up by the Library teacher to assist students who request it; and the interventions that Professor P1 performs in the classroom focused on prerequisite activities, i.e., necessary and previous content focused on mathematical concepts with the aim of contributing to the progressive recovery of knowledge in this area.

In interviews with teachers, the perception of attention to the students' difficulties was quite different. Four of the interviewees point to the lack of interest of most students, discouraging pedagogical work. They feel the need and obligation to contribute to reducing the perceived difficulties in classes and assessments. For teachers, students show little interest in repairing prerequisites or for example working out difficulties in reading or interpreting. According to the four teachers, the greatest concern perceived among the students was to obtain the minimum grade required to pass. This attitude was more common in the 1st year. In the 3rd year, a more significant concern with the studies could be found because of the Enem and the university entrance exams. It is also noted that some students are exclusively interested in passing the exam with a minimum grade.

In their interviews, the students stated that participants in the reading and interpretation motivation projects performed better during the semester than students who did not participate and who became more interested in the classes and effectively participated in the proposed activities.

3.1.2. Special Students

In the school's PPP, the inclusion of students with disabilities is covered by goal 4 of the National Education Plan-PNE (Brazil, 2014). For students with disabilities, EPP offers special-
ized educational assistance-AEE. The Resource Classroom is responsible for ensuring student participation in the regular classroom, guiding and controlling the application of small or large curricular adaptations (Góes & Laplane, 2004), being implemented by teachers to provide better learning for these students.

In the regular classroom, a more significant interaction between teachers and these students was observed. There were also activities that tried to show, in different ways, the content so that they had better learning conditions. The interaction of teachers with their students is different, and these students are encouraged to participate in class. Students also participate in mixed group activities within the classroom where they are evaluated.

In interviews with the two teachers working with students with disabilities, they mentioned the concern to better meet the specific needs of this group. Teachers believe that much remains to be done to develop and include in these students. They confirm that there was an improvement among some students who can now participate more effectively in the pedagogical activities, present group work, take exams in standardized rooms and socialize during the breaks.

In the interview with the two students with disabilities, the enthusiasm they express for studying is noticed. They spend more time in the EPP than the rest of the students because they need to attend the Resource Room some days in the morning, in addition to every afternoon in the regular classroom.

Thus, the EPP serves both students with learning problems and exceptional students, representing the two exclusion circles identified in the investigation. However, through interviews and observations, it was seen that the circle of special students has more interaction by the whole EPP. It may be because they have the legislation that orders activities that meet their needs.

3.2. Pedagogical strategies

“Pedagogical strategies” are understood here as the procedures planned and implemented by educators to contribute to the learning of their students. They must be diversified and creative in order to meet the different contents and needs of the students attending the classroom (Antunes, 2015). In an overview, the pedagogical practices that most contribute to the training of students are similar to the concept of active methodologies (Revans, 2011). They conceive students as agents and protagonists of their learning, and some of the plans presented used active methodologies.

Thus, both in the PPP and in the guidelines for the development of the course plan, it is evident that the school considers that the way of teaching has to be innovative, effective and diverse. It makes it clear that strategies are needed to contribute to the cognitive and behavioral training of the student. In analyzing the course plans presented by EPP teachers, it is essential to note that, despite the many pedagogical strategies that can help them in the classroom, the most mentioned in the plans were the traditional ones (reading, debate and conference).

The first course plan analyzed was Mathematics. It has as strategies presentations and participative class, the formation of teams to solve exercises, extra-class research activities and the observation and participation of students in terms of attitude. Presentation and participatory class are strategies that can contribute to the development of resilience because, in addition to the interpretation and discussion of the contents presented in the class, the student can develop the capacity to dialog and create empathy. This strategy allows the student to develop the skills of dialoguing, reflecting and evaluating the context.

The second strategy aims to solve problems through operational games. They are aimed at promoting reflection, the search for solutions, dialog, collaborative participation and the
Professor P1 teaches the class with a presentation, with interaction and encouragement of student participation in general. To explain the content of the class, the teacher performs activities with meaningful examples based on the reality of the community and with concrete elements. The teacher emphasizes that these activities are necessary to facilitate understanding and learning; all exercises are solved with the participation and input of the students. They all stay near the teacher and pay attention to everything he/she says.

During the third year of Portuguese language, strategies and research are included in the four bimonthly areas and are targeted to research. Both pedagogical practices help the reflective, critical and autonomous development of students. In addition to these strategies, literary workshops promote the development of creativity. The 3rd year planning also includes a practice called feedback that helps develop critical thinking, acceptance, and respect. The rewriting of essays/texts helps the development of these competences. The planning of the first year of Portuguese Language includes activities such as field trips, which favor the development of group learning, observation, concentration and play, which develop creativity, reflection and understanding of the world (Koehler et al., 2010).

The observation of the first year in the classroom results from a divergence between what is planned and the practice. Professors P3 and P4 did not use the diversified pedagogical strategies included in the planning. The classes were only about presentations and without motivations for student participation, which contributed to their lack of concentration.

Some teachers work on reading and interpreting difficulties through transdisciplinary projects. In the first semester, the outstanding project was carried out by P2 and P5, teachers of the 3rd year. The activities were based on the Maria da Penha Law (Brazil, 2006) and were carried out through discussions, text production, interviews, seminars, essays and preparation of videos. All of these are pedagogical strategies, as Antunes (2013) said, which significantly help the student's learning. Student participation was visible, and activities were worked in the classroom, at home, and as evaluative activities. The videos made by students were recorded in the "Mostra de Curta de Brasilia", 2019, resulting in the first place, checking their improvement in the pedagogical field and in the promotion of citizenship. This satisfaction can be confirmed in the A2 student speech, who expresses the pride in the “...result of our work” and A6 who says how “great it was to work in class on topics common to our community and us.”

To work on social and emotional competencies, we look at the school teachers’ project P2 and P5, which addresses the multidimensional training of students. The project aims at citizen training and the development of empathy for students. The work brings results with the change of behavior, citizen awareness and participation in the student's reality inside and outside school, because it works respect, empathy and life in society.

Another excellent project for the integral training of students, also performed by teachers P2 and P5, focused on the value of women in the family. This is presented as relevant because the school PPP records that women (grandmothers and mothers) support most of the families in the community. The work generated respect, admiration and a change in student behavior toward the lives of these women. In addition to the practices aimed at dialog, through the development of the production of texts, debates and exhibitions at the school, it is observed that there was a development in the attitudes of students toward otherness in the family. The students mention that they like classes that have to do with their reality (Wallon, 1968), which are made possible through practical activities and not only unpractical content.

Regarding teachers, all agree to contribute with pedagogical strategies to the integral train-
ing of the student. However, four teachers believe that students are not committed as they should to the proposed activities. Would not a lack of commitment be a lack of relationship between the proposed activities and the reality experienced by the students?

3.3. Dialog

Dialog is the basis for communication, and the need for a dialogic relationship between student and teacher is unquestionable for the interaction. Therefore, the teacher can positively influence through the polysemic and ontological dialog because his/her proximity to the students allows to know and interact effectively with the pedagogical process.

Thus, dialog is seen as a relational process that influences personal, epistemic and ontological relationships. The human being is a social being who talks with himself, with the other, with culture and with nature. Therefore, in school, dialog must be intentional because, through it, there is the possibility of personal realization and social transformation, according to Freire’s pedagogy.

Freire (1992) and Siveres (2016), said it is possible to verify the effectiveness of the dialog between teachers and students, and it was witnessed at two different times in the EPP. In Professor P1’s class, the conversation is spontaneous and enjoyable, attentive to classroom feedback, and motivates students to participate in all activities. In Professor P2’s classes, the conversation starts in the halls of the school until it reaches the content proposed for the day. Each time a link appears to the life or reality of students (neighborhood violence, public policies, and social context), this link is inserted immediately into the classroom context so that everyone can also discuss it.

In the classroom observations, we note the difference between classes with motivating, inspirational, and dialogic pedagogical practices and classes of “chalk and chalkboard” with only “teacher’s monologue”.

The observations reveal that the practices in some classrooms contradict reality. While in some classes dialog is natural and spontaneous; in others, there is teacher’s monologue. Although the conversation is apparently constant in the classroom, the dialog is limited to students and groups formed in the classroom. Most teachers seem to only establish dialogic practices when they demand silence and attention or remind students that a specific activity deserves a grade.

Classes without interaction and dialog are disassociated from students, generating dispersion and apathy (Moreira, 2010). Students were present in the classroom, but without effective participation, and when the bell sounded to finish the class, they left rapidly. The teacher presented the content and repeated this behavior in the next class.

Three of the eight teachers interviewed began to assist the students in the EPP corridors and those who had already entered the classroom, having a receptive conversation about how the students are doing and the pedagogical work. Classes with pedagogical strategies were filled with dialog, discussions, debates and empathy. The participation of the students was significant, so that during the class the respect, conversation and the presentation of similar or opposite opinions were presented.

Fifteen of the twenty students interviewed also mentioned that the way the teacher speaks and interacts with them makes a great difference. This relationship, positive or negative, is seen in the level of student participation in activities and how motivated or not they are to present their ideas during the class or in the proposed activities (Assis et al., 2008).

This difference in teachers’ use of dialog is noted in interviews with students and is exemplified in student statements: A7 - “There are teachers who do not talk to us. Some teachers do not treat us in a polite way” - and A2 - “There are teachers who are our friends”.

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4. Discussion and conclusion

Interaction is the reciprocal relationship of encouragement and influence among people. Interaction is present in the teacher-student relationship in the school and is a necessary tool for the construction of the entire pedagogical process. In the research, the interaction was classified according to pedagogical strategies and dialog, and these two aspects were recurrent or absent. These two categories are essential for positive interaction to help students learn and develop fully, and for the dialog to occur in the classroom, which is an indispensable tool for the pedagogical and social process. Thus, the absence of strategies and dialog have a negative impact on the entire educational process; the opposite is also true, since strategies and dialog have a positive influence on that process.

It is necessary to build and prioritize the interactive process between teacher-student in the school. As Wallon (1968) points out, the school is a significant resource for the development, since, from the early years of school life, it becomes the center of the relationships that guide the cognitive, interactive and affective development of the student. In this way, the environments form the individual, and the school is one of those environments.

According to Tavares (2002), resilience is linked to individual skills and can be built through interaction with people and their context. Thus, as far as teachers and observations are concerned, it is possible to state that the development of resilience in some students was achieved through the attitude of some teachers who were concerned with developing strategies to favor the solution of practical exercises, pedagogical and advisory practices aimed at the continuity of studies. This behavior reinforces the role of the school and teachers because both are promoters of resilience and can positively influence individual self-reliance, self-control and character formation (Caliman, 2012).

Teachers also considered the interaction between teacher and student to be positive. However, some teachers remain distant from the students, entering the classroom only to teach contents and present their teacher-centered classes, paying little attention to relationships in the classroom.

A school that promotes dialog (Buber, 2003), which welcomes and creates confidence and autonomy, contributes to the construction or development of resilience in students (Assis et al., 2006). Building or developing resilience breaks the link with a pessimistic culture that tends to be consolidated within the educational process. This culture is based on the lack of interest of students, the lack of commitment of teachers, drug addiction increasingly present in schools and social and domestic violence, leading students from vulnerable communities to inevitable school and life failure.

All students need opportunities to promote meaningful and diverse learning, and those living in vulnerable communities even need more encouragement to learn, so that they can break the exclusion processes that harass them and configure new life prospects. Teixeira (2016) has four pillars of resilience, humor, creativity, optimism and motivation. These pillars can be seen in the projects carried out by the EPP to promote the development of creativity and optimism and to motivate students to change in the face of the reality they live.

The observations show how the student does not do what is proposed because he/she does not know how to do it, and this is also explained by the training gap (between the age of the student and the class he/she attends) that is accumulated, affecting the academic formation of students from Elementary School. When the student reaches High School, the idea is that everything depends on him/her, and he/she ends up being responsible for building his/her own knowledge. Many times, the attitude of the student with a formative gap may be seen as
disinterest and apathy, resulting in some cases in school drop-out and recurrent repetition.

If the formation of the high school student was based on what Marandino and Scarpa (2017) say, this educational stage should be the space for information and knowledge to be based on reflection, having the training of the student in its entirety. For this to happen, the student must be part of the entire pedagogical process, contributing with his/her ontological and epistemological perspective, developing the power to understand the world and, consequently, developing resilience to the challenges of school and society. Everything must be done between the school and the student, as Don Bosco (Hornich & Biscalchin, 2018) already stated in his work with the youth.

Developing a vision of comprehensive training is essential and is reaffirmed through the school’s success in building a resilient culture, where the development of competencies favors inclusion inside and outside the school. A culture formed from the performance of the educational institution, through its educators, aimed at influencing the life history of each student. In this way, it is possible to eliminate the negative stigma that the school promotes exclusion, as has been presented.

In this regard, teacher training should be based on other areas than cognitive. It must present positive pedagogical strategies and promote interaction in the classroom. Thus, the school can become an environment conducive to the integral formation of high school students, creating possibilities to change from the culture of failure to a culture of inclusion of resilience.

The path to making High school a period of concrete learning and integral training of the student must be gradual but constant. This change certainly requires educational policies that value education in general and require teacher participation. The teacher must be willing to change the educational paradigm that has been created and consolidated in recent centuries. The teacher should be encouraged to develop an awareness of his/her responsibility in promoting student learning. To do this, it is necessary to provide opportunities for continuing education (Imbernón, 2010). The teacher must have access to training to use new pedagogical strategies, such as active methodologies (Revans, 2011), to be valued as a citizen and professional, aware of the determining role in the performance of students.

Notes
1 Mandatory attendance guaranteed by Decree No. 6.571/08 and Ordinance No. 243 of 15 April 2016.
2 Physical space guaranteed by law [Resolution SE 68, of 12-12-2017].

References
Interaction, dialogue and pedagogical practices in high school


