Barriers and resources to learning and participation of inclusive students[1]

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Abstract: Access to general schools for people with disabilities is an advance in the history of education. However, barriers to learning and participation hinder the school routine of inclusive students, hence the need for resources – human, tangible, political etc. – from the schools and their communities. This study aimed at investigating the quality of inclusive service offered to a student with visual impairment enrolled in a mainstream class through the identification of barriers and resources to learning and participation. Results showed that in the school routine of the student subject matter of this study there are inclusion and exclusion situations. The lack of accessibility-oriented curriculum adjustments leads to the exclusion of content, which is briefly conveyed to the student. Therefore, the school can be considered as having a low level of inclusion. Although the student seems to socialize with others, her learning process is being partially neglected.

Keywords: inclusive education, learning, curriculum, visual impairment.

Introduction

Inclusion has been a focus of debate and research in education for around two decades. Themes such as political discourse, peer interaction, teachers' role, opinion and training, quality of learning, specialized educational care, among others, all of unquestionable importance, have often featured in studies on this new educational paradigm; however, theoretical disputes and lack of consensus concerning the results of its implementation still persist. The absence of agreement on some of these themes and the results obtained, in addition to expressing the contradictions of society itself, reveals the importance of new studies to jointly point out possible paths.

According to Prieto (2006), there are four different positions regarding inclusive education. There are authors who consider that it is already a reality, since they understand that actual enrollment in a general school suffices to characterize inclusion; there are those who refer to such an educational model as utopian, that is, impossible to achieve; there are those who argue that it is a gradual process that requires the joint participation of all actors involved; and, finally, there are those who propose an immediate break with the status quo in favor of a single education for all, with no need for transition.

We see examples of these different positions in Mantoan (2006) and Glat and Blanco (2009). Mantoan argues that "in order to bring about a process of change towards new possibilities for general and special education, there must be a break with the old school model. Because it is impossible to progress with a foot in each canoe" (pp. 28-29).

Glat and Blanco, in turn, suggest that radical change is not sustainable and adherence to the new model should happen cautiously. This research starts out from the premise that inclusive education is not utopian, but has not yet been achieved, and that, as a process, it is both a break with and a continuity of the previous model.

The inclusive education model is based on the concept of human rights, in which the principles of equal opportunity and appreciation of differences are combined so that all children, young people and adults may be included in the mainstream educational system, learning and participating without any type of discrimination. In order to assure quality education for all, free from all forms of prejudice and stereotype, the educational system needs to be rethought, and the historical discriminatory structure that excludes differences must be replaced with a new structure in which access to the general classroom is unrestricted and focus is on the school as a whole and on students' potential.

The educators of inclusive schools respect the pace of each individual and do not prepare content in advance before meeting students. In this new school paradigm, the school accommodates to the students, in contrast to the previous model of integration, in which students were only accepted on the condition of adapting to the pre-defined standard, according to which competition, efficiency and perfection defined the value of each individual.

There are two main criticisms of the integration model by the inclusion model (Prieto, 2006). The first is

that access to the general classroom is conditional, that is, only a few students may attend classes with the other students, according to their limitations. The second criticism is that schools preserve the former operating model. Students have to adapt to the school, rather than the school having to adapt to their needs.

Prieto (2006) points out that the integration model did not comply with its own proposals. Not all specialized care services were created as provided in the policies. Students were referred to special education, not out of need, but because they were rejected in the general classroom.

A close examination of the history of disability and its care reveals several contradictions (Mazzotta, 1996). Since the Christian era, the concept of disability has been ambivalent, sometimes deified, sometimes the object of scorn and violence. With regards to education, we have progressed from an absence of schooling to the creation of welfare institutions, without any actual offer. Welfarism was followed by proposals of integration and, eventually, of inclusion. However, it is important to point out that the transition from one period to the next merely followed trends. To this day, marginalization, welfarism, and integration practices coexist with the implementation of the inclusion model. Segregation has been present from the earliest days and persists in the 21st century, in and out of school.

Regarding lawmaking, since the first Brazilian Constitution in 1824, legislation has conferred rights that are neither implemented by the State nor demanded by society, which results in the State being released from complying with legislation of its own creation. A few scholars, in analyzing the political discourse, question the real intentions of school inclusion and interpret the political proposals as a means of placing knowledge at the service of political power, identifying the imposition of meanings behind official documents. Veiga Neto (2005) explains that policies for school inclusion do not aim to change the system in order to effectively offer quality education for all. According to him, the policy of inclusion and education for all removes exclusion from the streets and brings it into schools.

Educational institutions cannot be viewed as autonomous from social settings. Therefore, changes within them, isolated from changes in the structural issues of class society, are insufficient to introduce an education which is indeed inclusive. That does not mean that schools cannot change; its actors are essential in the daily work of social emancipation.

Thus, given the premise that change in society and educational models happens daily, and that it is necessary to break with old patterns while representing their continuity, the question is posed: what is the current panorama of inclusion in Brazil? How is the transition process being handled in schools? Do students suffer from prejudice? Are they being excluded, included, or both?

This research, which, alongside others, provides support to understanding this national context, aimed to investigate the quality of inclusive work offered to a visually impaired (VI) female student who attends a general classroom, by means of identifying the barriers to and resources for her learning and participation. Before the results are shown, it is necessary to understand what barriers and resources are involved in the learning and participation of special education students in an inclusion setting.

Barriers and resources in learning and participation

Many challenges faced by students in schools can be mitigated or eliminated when barriers to learning and participation are identified and minimized. For Booth and Ainscow (2002), facilities, cultures, policies, curriculum, teaching method, seating arrangements and form of interaction are some examples of barriers that may hinder the school life of any student, not only those with some kind of disability, global developmental delay, high abilities or giftedness. Minimizing such barriers, according to the authors, implies mobilizing resources – physical, human, political, etc. – in schools and communities. Schools often have more resources than they actually use. According to Booth and Ainscow (2002):

> Resources are not just about money. Like barriers they can be found in any aspect of a school; in students, parents/carers, communities, and teachers; in changes in cultures, policies and practices. The resources in students, in their capacity to direct their own learning and to support each other's learning, may be particularly underutilized, as may the potential for staff to support each other's development (p. 9).

Regarding visual impairment, there are numerous resources already available, but their use will depend on the students' needs, their personal choice, and the feasibility to use them. Laplane and Batista (2008) cite the case of a student with low vision who used a telescope to see the board. However, the student was forever standing up and could not concentrate on the activities with the use of that device. Therefore, the telescope was replaced with her coming closer to the board whenever she had to copy or see something.

For Laplane and Batista (2008), the lack of resources that allow visually impaired students to work jointly with peers with normal vision can result in social isolation of the former. Resources not only enable learning and participation, but also children's emotional and social development.

Today there are several support materials available to the visually impaired. There are materials for people with low vision and those with total loss. Some examples of resources for people with low vision are: special lighting, desk arrangement in the classroom, adapted desk with

slanted top, wide line spacing notebooks, 4B or 6B pencils, magnifying glasses, computer software for screen enlargement, enlarged texts, among others. Some resources available to people with total vision loss are: braille typewriters, printers and scanners, computers with voice programs, DOSVOX operating system for screen reading, writing rulers (slate and punch), talking calculators, voice recorders, soroban (calculation device), walking canes, braille books with embossed illustrations, models, high-relief glue, guide dogs, among others. Although many of these resources do not entail costs, others are restricted to people with better financial conditions, such as those resulting from technological advances.

Although the lack of financial resources may prevent the use of technological advances for visual impairment, there are innumerable resources for learning and participation that can be implemented at no cost. The DOSVOX operating system for screen reading, for example, is available free of charge on the internet. Schools that have computer classes for mainstream students can download this program at no cost. In addition, Instituto Benjamin Constant (IBC), located in Rio de Janeiro, distributes free of charge in the whole country, with funds from the Brazilian Ministry of Education, various specialized materials for Pre-School, Elementary, and Secondary Education. Some examples of materials available free of charge for Elementary and High School teachers are: Geometry Forms, Geometry Notebook, 1st Degree Function or Linear Functions, Trigonometry Notebook, Geographical Features, Wind Rose, Earth's Climate Zones, Maps, Treaty of Tordesillas, Virus Reproduction, Respiratory System, Cell Structure Diagram, Physical Changes Diagram, Pauling's Chart, Atom Model, Periodic Table, Electromagnetic Negativity Table, Electronic Distribution Notebook, etc. (Brazil, 2009). These materials are sent by mail upon simple request. There are, therefore, numerous free resources available to teachers that enable students with VI to have access to the same content as the other students in the class.

In addition to teachers' creativity to devise materials and previously developed specialized materials available on request, one of the most important resources at no cost for the participation of students with visual impairment in classroom activities is cooperative work proposed by teachers. Figueiredo (2010), reporting the case of a visually impaired student with almost full autonomy, cites an assignment done by this student together with two other classmates. In this work, the students built a herbarium with captions in verbal language and braille. This classroom teacher uses cooperative work as a resource for learning and participation and everyone benefits. In the same research, Figueiredo (2010) cites the case of another teacher who asked this visually impaired student to write texts on subjects that depended on vision. In those classes, the student was unmotivated

and, two years after that period, was still expressing his frustration with the subject in question, Portuguese.

Although there is consensus among inclusion theorists about the need of pedagogical reorganization to enable the inclusive model of education, there are different positions regarding the nature of this reorganization. For Mantoan (2006), for example, the activities proposed by general classroom teachers to introduce new content must be diversified, but presented to the class as a whole. During these activities, each student will learn the content according to his or her level of understanding and intellectual adaptation. For the author, the only possibility for individualized diversification is specialized educational care, as long as it is complementary to and not a substitute for mainstream education.

Glat and Blanco (2009), however, argue that appropriate curricular adaptations/accommodations to students' needs can be transient and enable general participation and learning in the classroom. We agree with those authors that curricular accommodations may be necessary for the participation and learning of some students, but if they are not designed to meet specific needs, they may end up legitimizing the exclusion of some students in the general classroom.

At this point, it is important to look at the issue of terminology in the field of inclusion. Firstly, it should be noted that, in 2013, Law 12,796 amended Law 9,394 (Law of Directives and Bases of Education – LDB) of 1996, and replaced the term *students with special needs* with *students with disabilities, global developmental delay, and high abilities or giftedness.* The terms *people with special educational needs* and *students/learners with special educational needs* comprised multiple cases requiring specialized educational care and started being used in Brazilian educational legislation and major reports of international organizations as of the 1990s, although they had been first used in the Warnock Report in 1978 (Lopes, 2014). In analyzing the use of such terminology, Lopes points out that it features in Brazilian legal documents linked to special education, implying that any educational need is synonymous with abnormality. Misleading interpretations led to the stigmatization of those who, in some way, needed this kind of teaching. According to Lopes (2014):

> The term *students with special educational needs*, by including a multiplicity of students and proposing to be neutral and abstract, contributed to mask the economic, political, social and cultural factors that act in characterizing abnormality (which is not something abstract, but a category historically constructed by society), disguising the real and precarious educational possibilities offered to the lower classes of our country, who continue to receive an arbitrary education, in homeopathic doses, but very convenient to the ruling classes (p. 737).

Thus, although the proposal of education for all supports the irrefutable need of education for all ethnic, linguistic and refugee minorities, among others, we will use the term students with disabilities, global developmental delay, and high abilities or giftedness to refer to the target public of inclusive proposals.

Another important debate regarding changes in terminology refers to curricular adaptations/accommodations. The National Curriculum Parameters (PCNs), published by the Department of Special Education of the Brazilian Ministry of Education – SEESP – in 1999, specifically in the document *Curricular Adaptations: strategies for the education of students with special needs,* use the term *curricular adaptations* for "effective student participation and **integration**, as well as learning" (Brazil, 1999, p. 42, authors' emphasis). A few years later, in 2003, SEESP itself published the document *Inclusion Knowledge and Practices: strategies for the education of students with special educational needs,* in which it replaced the term *curricular adaptations* with *curricular accommodations*, and *school integration* with *school inclusion.* Possibly because of the importance of the PCNs and the preservation of the term *adaptations* in their text, the terms *adaptations* and *accommodations* are now used interchangeably by many scholars and educators. Although in many situations, as in the actual PCNs, the adaptations are linked to integrating practices, the relationship is not always direct. We understand that sometimes unsuspecting theorists use the term adaptations when referring to practices of the inclusion model. While we see the possibility of merely semantic differences in the use of the terms, we also see the need for differentiated terminology to explicit what kind of practice the theorist refers to. Thus, we have chosen to use the term *curricular accommodations,* since we address inclusive practices, although relevant studies published after 2003 and used as reference in this paper use the term *curricular adaptations.* In citing the sources we will preserve the authors' term of choice, but use *accommodations* to discuss them.

According to SEESP (Brazil, 2003), there are *significant* (large scale) and *non-significant* (small scale) curricular accommodations, depending on the scope of the accommodation in the curriculum. While non-significant accommodations are small adjustments introduced by the teacher to increase overall participation and learning in the classroom, significant accommodations imply important modifications in planning and teaching, and require careful evaluation for their implementation. The more they differ from what the other children receive, the more significant are the accommodations.

Not all curricular accommodations involve only teachers and students. There are accommodations at pedagogical level (school curriculum), accommodations related to the class syllabus, and individualized accommodations (Brazil, 2003). Accommodations at pedagogical level refer to structural conditions and changes in the overall curriculum of the school, while accommodations related to the class syllabus concern the classroom routine and the teacher's direct action and planning.

Individualized curricular accommodations take on two forms: [1] accommodations in curriculum access and [2] accommodations in curriculum elements. Accommodations in *curriculum access* (accessibility) are "spatial, material or communication changes or resources that help students with special educational needs to follow the school curriculum" (Brazil, 2003, p. 43-44). That is, all action taken by the school to eliminate architectural, material or communication barriers. Although accessibility in schools is guaranteed by law, spaces are still built based on the reference point of a "normal" student. Barriers to learning and participation reveal more than just physical obstacles, since the physical dimension reveals social values and the priority of some to the detriment of others.

It is worth stressing that accessibility does not only concern architectural changes in schools. Seating arrangements, the teacher's voice level, the teacher's position to enable lip reading by students, the construction or acquisition of specific materials are also examples of accommodations in curriculum access, which may or may not require time and financial investment. The existence of barriers that can be readily eliminated reveals an anti-inclusion value which suggests a predisposition to prejudice of those who maintain them unnecessarily.

Accommodations in *curriculum elements*, in turn, "focus on teaching and assessment methods, as well as the content to be taught, considering temporality" (Brazil, 2003, p. 47). Although the teacher has legal support to implement curricular accommodations, the further he or she departs from the standard curriculum, the less the student receiving the accommodations will be included. On the other hand, as already pointed out by Glat and Blanco (2009), the existence of curricular accommodations can contribute to the academic success of students with disabilities, global developmental delay, and high abilities or giftedness, by enabling learning and participation. However, there are no pre-set rules as to the type and amount of accommodations required: there are no manuals.

According to Booth and Ainscow (2002), the development of inclusion is enhanced as schools create *inclusive cultures,* produce *inclusive policies* and develop *inclusive practices.* In addition, teachers should be trained to implement curricular accommodations, which, as known, is not part of teacher training curricula.

Regarding assessment, Oliveira and Machado (2009) affirm that "curricular accommodations in assessment are essential. They can occur by modifying current assessment techniques or tools, adapting them to students' different styles and possibilities of expression" (pp. 49-50). Traditional assessment practices, aimed at mere

grading, attribute a disciplinary function to results, predict the future of students according to their grades, and prioritize quantitative rather than qualitative aspects, affecting all students in the school, since they create a competitive environment, mask, enhance, or even create needs and difficulties that exclude, label, and stigmatize students. If the assessment process of learning needs to be rethought to ensure that different paces and styles are taken into account, there is an obvious need to modify teachers' workload and working conditions, since they are required to individually assess the students of all their different classes.

While the curriculum can be a barrier to learning and participation, curricular accommodations are great allies for teachers and learning and participation, not only of special education students in an inclusion setting, but of all learners in the school.

There is, however, a barrier to learning and participation that can influence the whole process, causing great social harm to special education students in an inclusion setting: prejudice. This phenomenon, which has social and psychodynamic roots, can influence the inclusive experience and prevent the social interaction and learning of students with disabilities, global developmental delay, and high abilities or giftedness from being fair and fruitful.

School inclusion: a discussion on practice

In order to investigate the quality of the inclusive work offered to a visually impaired student attending a general classroom, a case study was carried out at a mainstream private school in a medium-sized city in the state of São Paulo, in which a student with total visual impairment, who will herein be called Gabriela[2], was enrolled in an 8th grade classroom.

Seven different instruments were used for data collection, six of which were developed during the research "Prejudice Towards Students in Inclusive Education," carried out by the Laboratory of Studies on Prejudice (LaEP) of the Institute of Psychology of the University of São Paulo (IP-USP). They are: [1] School Characterization Form; [2] Questionnaire for Principals/ School Counselors; [3] Interview Script for Mainstream School Teachers; [4] Classroom Observation Script; [5] Recess Observation Chart; and [6] Student Proximity Scale (sociogram). An interview script for students with visual impairment was developed specifically for this study.

Given the breadth of the instruments used, they are not fully addressed in this article, but can be found together with the answers in Oliva (2011). Generally speaking, the "School Characterization Form" contains questions on the number of teachers, mainstream and

special education students per room, specific work practices (such as special classroom, resources room, extra tutoring, advanced learning classroom, psycho-pedagogical care, among others), obstacles to locomotion, types of buildings and furniture that facilitate access to and use of school spaces, and resources to overcome learning obstacles. The "Questionnaire for Principals/School Counselors" contains questions about the school record of special education students, the school's inclusive policy, restrictions to enrollment or number of special education students per room, quality of school community support, existence and nature of diversified practices for students' different needs, class formation criteria, cooperation among teaching staff, ways to solve disciplinary problems, among others.

The "Interview Script for Mainstream School Teachers" comprises teachers' training and work experience, their views on inclusive education, teaching methods and expectations of special education students compared to the other students in the class, necessary changes for the school to become more inclusive, and perception about special education students. The "Classroom Observation Script" includes observation topics such as whether teachers stimulate and monitor the activities of special education students in a similar way to that of other students, if there are support teachers and whom they support, how special education students participate in class, their behavior and interaction with peers, and whether there are situations of bullying and reprimand and/or praise, and to whom they are addressed. The "Recess Observation Chart" addresses points such what activities special education students engage in and with whom they interact, what groups are formed, and what the other students in the class do. The "Interview Script for Students with Visual Disabilities," developed specifically for this research, contains questions on the cause of the disability, entry in school, perception of the type of work done by teachers and interaction with peers in the general and special schools, how they feel in each school, whether they feel included and how, what it would take for the general school to become more inclusive, and what they think about inclusion.

The "Student Proximity Scale" was based on the sociometry model (Krech, Crutchfield & Ballachey, 1975). It is composed of six questions, three of preference and three of rejection, made to a specific classmate. The formula "$I = (P/3n-3) – (R/3n-3)$" enables calculation of students' degree of preference or rejection. In this formula:

I: proximity index
P: number of mentions in proximity questions
A: number of mentions in rejection questions
N: number of students.

The higher the value of "I" (from -1 to +1), the better the student's acceptance, and the lower value, the more he/she is rejected. The justifications for the questions were used as material for a qualitative analysis of the interaction between the special education student and her classmates.

The subjects of the research were the student with visual impairment, three mainstream school teachers (Portuguese, Science and Physical Education), a school counselor, and 23 students from an 8th grade class, among them the aforementioned VI student. That was the total number of students in this class. The form and questionnaire were answered by the school counselor in an interview. The classroom observation script was followed during 10 hours of observation (Portuguese, Science and Physical Education, 3h 20min of observation each), and four days of observation during recess, of 20 minutes each.

The observations were analyzed qualitatively, according to the topics of the observation scripts. The analysis of the interviews used content analysis technique tools: pre-analysis, analytical description and inferential interpretation (Triviños, 1987). Categories were developed from the interview scripts and new categories were created according to collected data. Interview excerpts of each one of the categories were identified. Each category was later subdivided into subcategories. Tables were also created to interpret this material, analyzed qualitatively according to the theoretical framework of the research.

Each instrument was individually analyzed and interpreted. Subsequently, the results were compared for a general analysis, seeking to separate the manifest content of the material to allow the assessment of its latent content. In other words, the analysis sought a qualitative understanding of the VI student's school routine, as well as of the prejudices and attitudes towards her in the school environment.

The quality of work offered by the institution was analyzed from the "School Characterization Form" and the "Questionnaire for Principals/School Counselors." Based on those instruments, on the qualitative analysis of the responses, and on the comparison of those results with the "Student Proximity Scale," interviews and observations, it was possible to verify whether situations of cooperation and institutional and social support provide better quality in interactions.

The data content analysis identified a few situations that suggest good inclusion and various situations that suggest exclusion within the school. The investigated school had no apparent inclusive culture or policy, which hinders the mobilization of resources for learning and participation and the minimization of barriers to them.

In this school, enrollment of special education students is subject to the nature of the student's limitation, and therefore human diversity is not valued as an element that enriches the education of all students. The school only accepts students who are capable of adapting to the pre-established model, which shows that focus is on the limitation, rather than the potential of students. There were no changes in the school following the entry of the VI student; it was up to her to adapt. The teachers were not instructed on how to work and there are no regular staff meetings for teachers to share, exchange experiences, grow personally and professionally, and work in teams.

No strategies were identified in the school to minimize exclusionary practices, nor any institutional support for the student's needs. There is a psychologist at school twice a week, but he was not called to help with the inclusion of the student with VI. It was up to the teachers to accommodate their classes however they could, and to the student to integrate in the class. The subjects in which the teachers found no ways to accommodate their classes are excluded from Gabriela's curriculum: she stays in the classroom, but does not receive any instruction and gets zero in her report card. This happens in Mathematics, Geometry and Drawing. Other subjects have their syllabus adjusted, rather than accommodated, according to the difference pointed out above. The adaptations occur in subjects that are more theoretical and less practical, such as Science, and derive from the inaccessibility to the syllabus, and not from a planning that addresses the needs of the student investigated in the research. There is no single support structure for Gabriela's and the teachers' needs. Each one deals individually with the difficulties encountered in their school routine. No effort by teachers and counselor was identified to foster the student's access to information and communication.

During classes, the activities are basically individual and geared towards sighted students. The gathered data contains no reports of activities aimed at inclusion and valuing the diversity existing among the various members of the school community, except for a few activities in Physical Education performed years before the research. The sighted students walked blindfolded to school to realize the challenges faced by the VI student and there were games to include her. Although the results of these activities were satisfactory, as reported by the teacher who proposed them, she no longer develops them. Currently, the VI student remains seated while the other students have Physical Education class or does activities with a rattle ball that seem more like recreation and infantilize the student. At the beginning of classes there are around 20 minutes of stretching, which is sometimes the only activity performed by Gabriela, while her colleagues have about three consecutive hours of sports.

The Portuguese teacher cares about Gabriela's learning and monitors herself to always speak loud and not assess Gabriela on content that has not been studied orally. This teacher reads almost everything she writes

on the board and asks students to read aloud the texts and questions to be studied in the classroom. Although such actions represent learning resources, this subject also has situations in which the lack of curricular accommodations for accessibility hinders content comprehension.

As noted in the data collection, students read the texts aloud. However, some of them do so with poor pronunciation, in a low tone of voice, too fast, and without interrupting the reading when there is some external noise, such as a truck or motorcycle passing by in the street. The sighted students, who follow the reading in their textbooks, can reread what they don't hear, but Gabriela's comprehension is restricted to what she hears. Also in Portuguese, the teacher reports having no material in braille, and admits that taking tests orally can affect the student's performance and learning.

Compared to other subjects, Portuguese does not require great curricular accommodations, since almost all of its content can be orally transmitted. Even so, by not having access to the texts and materials in braille, and taking her tests orally, the student is being deprived of part of the knowledge, which ends up being transmitted to her in a synthesized form.

In her interview, the VI student herself said that in the special school she attends after hours, there is a teacher who works individually with her. This teacher transcribes materials and makes recordings so Gabriela can study at home. If the mainstream and specialist teacher exchanged information, as advocated by Glat and Blanco (2009), the classroom content could be passed on to the specialist in advance for transcription into braille. That way, Gabriela could follow the texts and exercise sheets, like her colleagues. The VI student could even take part in classroom readings. The assessments could similarly be transcribed into braille so that Gabriela could do them on her own. The student herself could read her test after finishing it, and someone write down her answers for the teacher's evaluation.

These curricular accommodations for the student's accessibility require prior planning by the teacher, which can be used as a justification not to do them. Although lack of time is a daily challenge for many teachers, there are curricular accommodations for accessibility that do not require any planning, as already discussed, such as dictating content during class. According to Gabriela, "*at the general [school], sometimes the teacher dictates too fast, so I cannot take notes in class in braille. So I take photocopies of my classmates' notebooks.*"

The VI student takes photocopies of her friends' notebooks to study. Although this is a strategy she uses, the fact of not being able to take notes in class can interfere with her comprehension of the content. If this student could write down what the teacher says, she could resort to that material whenever she wanted. Photocopying from her classmates' notebooks does not happen every day. In addition, once she has her classmates' notes, she still needs someone to transcribe or read to her what her friends took down. There are also teachers who do not read what they write on the board, and those who ask her to do activities that require vision, like writing a description of an object or landscape she has never seen.

All these situations become barriers to learning. The lack of access to the entire content results in the marginalization of the special education student in the classroom, i.e., it prevents her full incorporation of the culture, despite her physical presence in class. Besides marginalization, inaccessibility also results in exposure. Several colleagues, for example, see Gabriela's test grades before she knows the result herself. Physical inaccessibility may also contribute to Gabriela always going to the bathroom accompanied by one of her friends. In both situations, the VI student might desire privacy, but is exposed.

The lack of curricular accommodations for accessibility also contributes to Gabriela's isolation in the school. During classes, as there are no cooperative activities and almost all of them are geared towards sighted students (not to mention the subjects she does not take, but whose classes she nevertheless attends), the VI student remains most of the time in silence, alone, and with her head down. It is possible that, provided with suitable materials, Gabriela would not be isolated in the classroom.

As pointed out by Laplane and Batista (2008), VI students need stimuli to participate actively in class. If they are not included in the activities, the lack of accessibility will result in non-participation and isolation. The Science teacher's statement reveals that he expects Gabriela to participate, while the process should be the opposite: he, as the teacher, should provide the necessary resources for the student's participation. According to him: "*I observe her participation. She sits quietly in the corner, waiting. If we do not take the initiative, she does nothing.*" No situation was observed in Science classes in which the teacher included the student, and therefore his attitude in class may significantly contribute to Gabriela's isolation.

We also see in the VI student's statement to what extent the teacher can interfere in the interaction between general students and special education students. Gabriela reports that no one wanted to pair up with her to take the computer test; she did not take the test, but received a grade anyway. It is normal for general students to be concerned about their own performance, but when no accessibility is offered to the VI student, she ends up being rejected. While she understands that her peers did not want to take the test with her, Gabriela does not question the fact that she attends the computer class and does not receive adequate materials from the school (DOSVOX and Braille keyboard) because they were ordered by the previous teacher and

the current teacher does not use them. Similarly, the student does not question the fact that she takes various subjects and does not receive the same content as her sighted classmates.

In her daily routine, Gabriela is subject to invisibility. According to her own account, few teachers accommodate their lessons so she can have access to the content. Facts like dictating too fast, writing on the board and not reading, requesting the description of an object or landscape the VI student does not know, assuming she has learnt content she was not taught, and ignoring the existence of suitable materials already purchased by the school are examples of negligent attitudes by teachers that reveal the existence of prejudice against the VI student. She is ignored in the classroom, as if she were not there.

Thus we see that the teachers' attitude in class is prejudiced and results in marginalization by preventing the full incorporation of the culture. In many situations, Gabriela is exposed, isolated, rejected and kept invisible in class. It is worth mentioning how conspicuously the teacher's attitude influences the interaction among students in class. While during recess Gabriela interacts well with her peers, during class she spends most of the time alone, and interaction is generally initiated by her.

The Science and Physical Education teachers are against inclusive education. The analysis of the interview of those teachers and the observations of their classes suggest prejudice against the student with visual impairment. In the observations, those were the teachers with the most exclusionary attitudes in the classroom. The Portuguese teacher, in turn, expresses a favorable opinion regarding this new educational model and has less prejudiced attitudes in class. The Portuguese teacher seems reflect on her own practice, but nonetheless does not attempt to introduce any curricular accommodations for the accessibility of the VI student other than reading aloud classroom texts and what is written on the board, and speaking in a high tone of voice for the student to hear what is said.

If, on the one hand, the subject's cultural education consists in developing autonomy and emancipation, on the other, it also consists in developing skills to adapt and integrate to society (Adorno, 1964). If the school is negligent regarding the education of the VI student, it is also up to her to strive for her own education – which is not a common practice of Gabriela's, according to the analysis of her interview. The student accepts her visual impairment, believes she has the same potential as her sighted colleagues and desires her emancipation. However, Gabriela does not question the education she receives. She adapts to what is offered and does not complain about what is not offered. This posture of Gabriela's suggests she accepts her difference as being inferior. The difference is accepted, but it does not have

the same worth as non-difference. This lack of questioning is seen in the following excerpt from her interview:

> *I think it's important for a person with total VI that if the teacher wants draw something on the board, it is important that she try to reproduce the drawing on paper, so the VI student can feel its relief, and so understand the explanation and do well in class. [Could that be done for you in the general school?] It could, but there's no material. There's no ruler, I don't know if they have any. There might be at Benjamin Constant or Laramara. Renato[3] said they were also unable to do it for him in drawing, geometry. With fractions it is possible, if the teacher is willing. You can divide chocolate. I studied fractions up to fourth grade. But poor Renato will not be able to do it because he didn't have it either. [Do you feel harmed in any way?] No, because I'm not going to study anything with drawing or geometry or such things. [What about the college entrance exam?] That is the problem. I think the use of the soroban has been allowed now. [Anything else?] No. (Gabriela).*

Gabriela knows there are adequate materials, but does not question the school as to why she has no access to them. Similarly, the student accepts naturally her disadvantage in the college entrance exam for not having access to subjects such as drawing and geometry. Prejudice is so ingrained in our society that the very victims show prejudiced attitudes towards themselves.

The challenges faced in learning academic content are not found in socializing with classmates. Although Gabriela remains alone in the classroom most of the time, she has friends with whom she spends time during recess and out of school. The analysis of the Student Proximity Scale (sociogram) and the recess observations suggest that Gabriela's socialization is preserved. Gabriela scored a proximity index (PI) of 0.06, which suggests subtle preference. Compared to her classmates, 55% had a lower PI than hers, 35% had a higher index, and 10% scored the same figure. Gabriela was cited five times in preference questions and once in rejection questions, while students with a lower PI had 28 rejection responses and one preference response (PI = -0.4). Gabriela was preferred for "giving advice," "helping when you need it," "being like a big sister" and "being delightful." The only rejection response was for the group work situation, which might be a genuine difficulty, since the tasks are not cooperative nor accommodated by teachers.

Her good interaction with peers may derive from the fact that they have studied together since childhood, that the parents of some of them are friends – which enables them

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3 Renato is a Math teacher at a special school who has total visual impairment.

to meet out of school in a non-competitive situation – and that the students identify with their VI classmate. Contact since childhood may have contributed to the identification and to reduce prejudice. Further research is necessary to analyze the roots of this good intera ction.

Inclusion and exclusion: final considerations

It is observed that there are situations of inclusion and exclusion in the school routine of the visually impaired student investigated in this research. The investigated school has no inclusive culture or policy, which hinders the introduction of inclusive practices. There are numerous barriers to learning and participation, pointing to a low level of inclusion. The school accepted the enrollment of a student with disability on the condition that she adapt to the school and perform at grade level. The data indicate that the school does not follow the principle of offering equal opportunities and valuing differences, which shows similarities with the integration model rather than the inclusion model. Thus, there is prejudice in the investigated school, demonstrated by the absence of accommodations for the accessibility of the VI student, both in the school's physical space and in access to content, resulting in her marginalization.

Gabriela is in favor of inclusion. For her, the future of a person, whether disabled or not, is related to their education. She wants to go to college and be independent. Despite accepting her disability, the analysis of the interview suggests that the student reproduces the concept of difference as inferior. Gabriela is accepted, but has less worth. She values herself compared to VI friends who do not study, but devalues herself against her sighted classmates. Despite recent achievements of people with disabilities, the standard of success is still associated with the model of perfection. The student is comfortable in both school environments she attends – general and special – but feels better in the special school, where she receives educational care appropriate to her needs and is accepted and valued for her differences.

Gabriela's enrollment in mainstream education is a major breakthrough in the history of visually impaired persons, as she now receives an education that was previously exclusive for sighted people. However, the student is neglected in her educational needs in the school environment, which shows that we are still far from a genuinely inclusive education.

The existence of prejudice and exclusionary attitudes in the school is not surprising, since society tends to express the same characteristics. If, according to Adorno (1964), cultural education consists in the constant tension between adaptation and emancipation, and the former is overvalued in our society, schools face an inherent contradiction to the newly implemented model. If current quality indicators assess students' performance statistically and compare them to all the other students in the country, how to introduce a model focused on the subject and value his performance, despite being often below average? How to value individual pace if the emphasis of the labor market is on production rate?

Access to mainstream education for people with disabilities, global developmental delay, and high abilities or giftedness is a gain in the history of education. Nevertheless, we must guarantee that those people – and all others – receive a quality education so we may increasingly come closer to being a truly inclusive society and violence – in any form of manifestation – is reduced. The contradictions remain. Clarifying them is the first step in discovering possibilities of change.

Barreiras e recursos à aprendizagem e à participação de alunos em situação de inclusão

Resumo: O acesso à escola regular para pessoas com deficiência é um ganho na história da educação. No entanto, barreiras à aprendizagem e à participação dificultam o cotidiano escolar dos alunos em situação de inclusão, sendo necessária a mobilização de recursos – humanos, físicos, políticos etc. – nas escolas e comunidades. Esta pesquisa teve como objetivo investigar a qualidade do trabalho inclusivo oferecido a uma aluna com deficiência visual que frequenta classe regular, por meio da identificação de barreiras e recursos à sua aprendizagem e participação. Os resultados apontaram que no cotidiano escolar da aluna foco da pesquisa há situações de inclusão e exclusão. A ausência de adequações curriculares para a acessibilidade resulta na exclusão do conteúdo, que é passado sinteticamente à aluna, de forma que a escola pode ser considerada como tendo baixo grau de inclusão. Embora a socialização da aluna pareça preservada, sua aprendizagem está sendo parcialmente negligenciada.

Palavras-chave: educação inclusiva, aprendizagem, currículo, deficiência visual.

Barrières et ressources concernant l'apprentissage et la participation d'élèves en situation de handicap

Résumé: L'accès des personnes handicapées à une scolarisation en milieu ordinaire est un gain dans l'histoire de l'éducation. Pourtant, des barrières à l'apprentissage et à la participation rendent le quotidien scolaire de ces élèves difficile, la mobilisation de ressources – humaines, physiques, politiques etc. – dans les écoles et les communautés se faisant nécessaire. La présente

recherche, s'appuyant sur l'identification des barrières et des ressources concernant l'apprentissage et la participation d'une élève déficiente visuelle, scolarisée dans une classe ordinaire, a eu pour but d'investiguer la qualité du travail d'inclusion qui lui a été offert, et ses résultats ont signalé l'existence de situations d'inclusion comme d'exclusion dans la vie scolaire de l'élève en question. L'absence d'ajustements curriculaires envisageant l'accessibilité mène à une exclusion de contenus, qui sont transmis synthétiquement à l'élève, de sorte que le travail d'inclusion fait par l'école peut être considéré faible. Quoique la socialisation de l'élève semble préservée, son apprentissage est partiellement négligé.

Mots-clés: éducation inclusive, apprentissage, programme d'études, déficience visuelle.

Barreras y recursos en el aprendizaje y en la participación de alumnos en situación de inclusión

Resumen: El acceso a la escuela regular para personas con discapacidad es una ganancia en la historia de la educación. Sin embargo, las barreras al aprendizaje y a la participación dificultan el cotidiano escolar de los alumnos en situación de inclusión, haciendo necesaria la movilización de recursos – humanos, físicos, políticos etc. – en las escuelas y comunidades. El objetivo de este trabajo fue investigar la calidad de la atención inclusiva ofrecida a una alumna con deficiencia visual que frecuenta aulas regulares, por medio de la identificación de las barreras y los recursos en su aprendizaje y participación. Los resultados mostraron que compaginan situaciones de inclusión y exclusión en el cotidiano escolar de la alumna foco de la investigación. La ausencia de ajustes curriculares para la accesibilidad resulta en exclusión del contenido, que se le da a la alumna sintéticamente, de tal manera que se puede considerar que la escuela tiene bajo grado de inclusión. Aunque la socialización de la alumna se vea preservada, su aprendizaje está parcialmente descuidado.

Palabras clave: educación inclusiva, aprendizaje, currículo, deficiencia visual.

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