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MAPPING OF INCLUSIVE STRATEGIES FOR STUDENTS WITH INTELLECTUAL DISABILITIES AND AUTISM [1]

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ABSTRACT. The understanding the way it has been the implementation of the rules on school inclusion of students with intellectual disabilities (ID) and autism spectrum disorder (ASD) can help to characterize successful strategies that can serve as models for other schools, educators and families. The goal of study was to map the school inclusion strategies used with 10 students (five with ID and five ASD), from the characterization of these participants, the reports of parents and systematic descriptions of the activities performed by each student during his presence at school. Tests were applied, semi-structured interviews and systematic observations. The results indicate the participation of special education teacher from the elementary school and the limited use of specialized educational services (SES). The discussion of the data was on intensification of this service and the need to enter the special educator in kindergarten, preparing the student for the demands of elementary school.

Keywords: Autism; intellectual disabilities; school inclusion.

MAPEAMENTO DAS ESTRATÉGIAS INCLUSIVAS PARA ESTUDANTES COM DEFICIÊNCIA INTELECTUAL E AUTISMO

RESUMO. Compreender a forma como tem ocorrido a implementação das normas sobre a inclusão escolar de estudantes com deficiência intelectual (DI) e transtorno do espectro autista (TEA) pode auxiliar na caracterização de estratégias bem sucedidas, que possam servir como modelos para outras escolas, educadores ou famílias. O objetivo do estudo foi mapear as estratégias de inclusão escolar, utilizadas com dez estudantes (05 com DI e 05 com TEA), a partir da caracterização desses participantes, dos relatos de seus pais e das descrições sistemáticas das atividades realizadas por cada estudante durante a sua presença no espaço escolar. Foram aplicados testes, entrevistas semiestruturadas e observações sistemáticas. Os resultados indicam a participação do professor de educação especial, a partir do ensino fundamental, e o uso limitado do atendimento educacional especializado (AEE). Discutem-se a intensificação desse atendimento e a necessidade de inserção do educador especial na educação infantil, preparando o estudante para as demandas do ensino fundamental.

Palavras-chave: Autismo; deficiência intelectual; inclusão escolar.

LEVANTAMIENTO DE HERRAMIENTAS INCLUSIVAS PARA ESTUDIANTES CON DISCAPACIDAD INTELECTUAL Y AUTISMO

RESUMEN. La comprensión de cómo ha sido la aplicación de las normas sobre la inclusión escolar de los alumnos con discapacidad intelectual (DI) y trastorno del espectro autista (TEA) puede ayudar a caracterizar las estrategias eficaces

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que pueden servir de modelo para otras escuelas, educadores y familias. El objetivo del estudio fue mapear las estrategias de inclusión utilizadas con 10 estudiantes (cinco con DI y de cinco TEA), a partir de la caracterización de estos participantes, los informes de los padres y las descripciones sistemáticas de las actividades realizadas por cada estudiante durante su presencia en la escuela. Se aplicaron pruebas, entrevistas semiestructuradas y observaciones sistemáticas. Los resultados indican la participación del maestro de educación especial desde la escuela primaria, y el uso limitado de los servicios educativos especializados. Los resultados discuten la intensificación de este servicio y la necesidad de inserción educador especial en la educación infantil, para preparar a los estudiantes para las exigencias de la escuela primaria.

Palabras-clave: Autismo; discapacidad intelectual; inclusión escolar.

Introduction

School inclusion process in Brazil occurs in a highly varied way, even with the enactment of normative documents that recommend strategies about the implementation of this process, such as the proposals for process evaluation, curricular adaptation and specialized educational service (SES). In general, this variation occurs in different states and municipalities that propose different educational measures for students with disabilities (Ministério da Educação [MEC], 2008; 2013; Tessaro, Waricoda, Bolonheis, & Rosa, 2005; Vilaronga & Caiado, 2013).

The school inclusion of a student in the regular school, public or private, presents two main concerns: a) offer the SES and, b) create conditions to guarantee the participation of the student during the classes, in the different activities that occur in the school space. The SES consists of a specialized service offered in after-school activities, preferably in the regular educacional network. According to the Decree No. 7,611 (Decreto nº 7.611, 2011), which deals with special education, the SES is understood as a set of strategies, activities and resources (of accessibility and pedagogical) offered in a way that complements or supplements the education of students in the regular education (Baptista, 2006; MEC, 2008; Decreto nº 7.611, 2011).

According to the National Policy on Special Education in the Inclusive Education (MEC, 2008) and with the latest update of the Law of Directives and Bases of National Education (MEC, 2013), the target population of special education refers to people with disabilities, with giftedness/high skills and with pervasive developmental disorders. The guarantee of the effective participation of the SES in the school activities carried out, mainly in the classroom, of students with cognitive impairments (such as intellectual disability - ID[3]) and/or deficits in communication, in social interactions and behavioral excesses (such as, the Autism Spectrum Disorder - ASD[4]), still presents itself as a great challenge to be overcome in Brazilian schools.

Students with ID and/or ASD experience difficulties with schooling, because they often do not have access to the necessary support in school environments; as well as teachers also experience difficulties in teaching school contents and assessing student learning (Araújo & Almeida, 2014; Anache & Resende, 2016). In general, students who have cognitive impairments may not follow the curricular contents foreseen for the classroom in which they are enrolled, because they have not learned the previous contents, which can serve as a basis for the later contents. This results in a practice of curricular flexibility, according to the abilities that each student initially presents; but not always systematically planned. Thus, the curricula are adapted, according to the abilities of the students, to those who still lack teaching, and to the learning pace of each one and, also, to ensure the

[3]Intellectual disability is understood as "inability characterized by significant limitations in both intellectual functioning and adaptive behavior expressed in conceptual, social and practical abilities. This inability originates before the age of 18 years" (Luckasson *et al*., 2002; Veltrone & Mendes, 2012).

[2]Autism spectrum disorder is understood as a Pervasive Developmental Disorder (APA, 2002). The defining characteristics may be: qualitative impairment in social interactions, in communication, in language, presence of stereotyped behaviors, in general, they demonstrate difficulty in understanding what they observe and in giving meaning to words (Gomes, Varella & de Souza, 2010; Gomes & Mendes, 2010).

accomplishment of the activities together with such students, it is necessary the presence of another professional, in addition to the classroom teacher.

The student with ID and/or ASD, when enrolled in the regular school, public or private, has the right to both the SES and a support professional to accompany him/her during the activities carried out in the school, regardless of the level, stage or modality of education in which he/she is enrolled (MEC, 2010; 2012; 2013). This professional can assist the classroom teacher in the process of curricular adaptation, according to the specificity presented by each student, in terms of functionality. When this professional is present in the classroom, the recommendation provided by the Technical Note of the Special Education Secretariat No. 19/2010 (MEC, 2010) is that he/she should act in an articulated manner with the teacher of the student, of the common classroom, of the multifunctional resource room, among other professionals in the context of the school. Even with the official guidelines, many schools lack trained professionals to develop inclusive projects, and most lack information about disabilities and the school inclusion process (Leonardo, 2008).

This recommendation (MEC, 2010b) meets the findings described in the collaborative teaching proposal (or the co-teaching term) between special education teachers (or, in this case, the support professional) and those of regular classroom. Although it cannot be considered as an official curriculum and a normative strategy, states and municipalities can opt to implement this proposal as a model of provision of special education service in the regular school (Mendes, Almeida, & Toyoda, 2011). In the national context, the implementation of this proposal occurs in particular and experimental cases (Vilaronga & Mendes, 2014).

Collaborative teaching emerged in Brazil as a proposal to support the schooling of students with disabilities in the regular classrooms; that is, instead of the student only participating in the SES or a special classroom, the special education teacher would be present together with the student in the regular classroom, in order to collaborate with the classroom teacher (Araújo & Almeida, 2014; Peterson, 2006; Vilaronga & Mendes, 2014).

From the collaborative teaching, it is possible to rethink the training of educators and managers to implement school inclusion in Brazilian schools. This proposal provides an approach between general and special educators, working collaboratively, in co-partnership to teach heterogeneous groups of students in the regular classroom. From this teaching, regular education teachers such as special education teachers would be instrumentalized to work together, sharing similar objectives, activities and evaluations for an heterogeneous group of students, which would allow a shared intervention among such educators (Almeida et al., 2011; Capellini, 2004; Peterson, 2006).

Although collaborative teaching has promising research data regarding school inclusion, few Brazilian municipalities and states implement this proposal (Vilaronga & Mendes, 2014). It wonders on how conditions have been created to include and ensure the stay of the student with ID and ASD in the regular school, in addition to what pedagogical activities these students perform in this space.

The study of Gomes and Mendes (2010) characterized the students with ASD enrolled in the municipal schools of Belo Horizonte and described how the schooling process of these students occurs, from the perspective of teachers. Thirty-three teachers from the municipal network, who worked directly with students with autism, participated in the study. Teachers answered a questionnaire and the CARS (*Childhood Autism Rating Scale* – Schopler, Reichler, & Renner, 1988). The strategies presented by teachers seemed to favor the permanence of the students, however, in spite of the academic activities; they needed better orientations for each individual case, besides providing conditions for better interactions between pairs.

As a way of understanding the work carried out by different professionals, the study of Agripino-Ramos and Salomão (2014) analyzed the conceptions of healthcare and education professionals who worked directly or not with students with ASD, from the application of semi-structured interviews. The results showed that the professionals recognized that the students can develop their potentialities, from a professional work, but the authors mentioned the importance of more qualification for such professionals, in order to contribute to the process of school and social inclusion of this target public, Since only 77% of the 75 professionals (equivalent to 100%) interviewed defended the insertion of students with ASD in regular schools, which means that 23% still present doubts about the benefits of school inclusion with this demand.

The variability in the pattern of learning of students with ASD enrolled in the regular school (Gomes & Mendes, 2010), as well as for the student with ID (Anache & Resende, 2016), may be an important variable that needs a better characterization and that influences directly in the choice of the inclusive strategy, due to the different types of services and interventions that such demands lack. Therefore, mapping under which conditions the process of school inclusion with these students occurs, from the availability of which service and which activities are performed in this context and how these activities are applied, are points that need detailed characterization, aiming at future interventions. In addition, a way of understanding such gaps in detail can be through the participation/opinion/view of parents and/or guardians for understanding the inclusive process, in addition to provide relevant clues to the planning of future interventions.

Thus, the present study aimed tat mapping the strategies of school inclusion with students with ID and ASD, based on: a) characterizations of 10 students enrolled in regular public schools (in terms of gender, age, diagnosis, medication, cognitive development and receptive vocabulary); b) reports of parents, through interviews, in relation to the educational path and the types of services in which the students were enrolled and the frequency in each service; and c) systematic descriptions of the activities carried out by each student during their presence in the school space.

Method

Participants

The 10 students were selected for the present study from the indication of the Municipal Department of Education of a small town in the countryside of the state of São Paulo. Participant students were enrolled in three different municipal schools, five of which were diagnosed with ID and the other five were diagnosed with ASD. The respective parents (nine mothers and one father) of the students also composed the sample.

The criteria for selecting the participants were: a) medical diagnosis of ASD and/or ID attributed to the student, presented by the school or by the parents/guardians themselves; b) permission of the school to conduct the observations; c) availability of parents to carry out the semi-structured interview.

Situation and materials

The parents of the students participated in a semi-structured interview with questions that allowed identifying the following data: (1) student data (gender, age, diagnosis and medication), (2) educational path of each student, (3) educational services in which the students were enrolled and attendance frequency in these services. The researchers used a paper protocol and pen to record the information.

In order to characterize the students, the WISC-III (Wechsler, 2002) was used to evaluate the cognitive repertoire and the PPVT-r (Dunn & Dunn, 1981) for the evaluation of the receptive vocabulary. For the detailed description of each activity performed by each student, paper protocols and pen were used to record the activities by the researcher.

Ethical Considerations

The present study was approved by the Committee on Ethics in Human Research of UFSCar (CAAE - 4918.0.000.135-10 - Opinion 081/2011).

Procedure

Initially, the project was approved by the Municipal Department of Education in the municipality for the implementation of the research in schools, in which students with ID and ASD were enrolled. After this approval, contact was made with each school and scheduled a meeting on the project with the school management. After approval from the school management, contact was made with those responsible for the students enrolled in the educational network to verify the interest and scheduling of the application of the assessments with each student in the school context, of the semi-structured

interview with the parents, in their respective residences and the accomplishment of the systematic observation in the school environment.

Therefore, the data collection procedure was applied in three stages, namely: a) application of the evaluations with each student for their respective characterization, b) conduction of the semi-structured interviews with the parents, and c) systematic observation of services and activities applied with each one of them.

Assessments were applied with students on different days in the school environment. The semi-structured interview took approximately 30 minutes and occurred in each residence. The systematic observation occurred during six days, for about two hours each, and counted on a detailed record of the activities performed with each of them while they were in the educational institution.

Results

The results are presented according to the following order: firstly, in relation to the data for characterization of each student, subsequently, the educational path of each of them, in agreement with the reports of the parents, the educational services that they participate, together with the respective attendances and the activities conducted throughout their permanence in the school environment.

Table 1 shows the performance of the students in the assessments: WISC-III (Wechsler, 2002) and PPVT-r (Dunn & Dunn, 1981) in terms of cognitive performance and chronological age for receptive vocabulary. In addition, the characterization data (gender, age, diagnosis and, drug treatment) collected in the semi-structured interview conducted with the parents are presented.

Table 1 *Student results, in relation to WISC-III and PPVT-r characterization and evaluations*

	Student	Age (years)	Gender	Diagnosis	Medication	WISC-III				PPVTr
						Verbal	*Execution*	*Total*	*Classification*	
Students with ID	W	9	Male	ID	×	62	83	69	Intellectually disabled	4y0m
	Kr	10	Female	ID	×	55	53	<50	Intellectually disabled	3y4m
	M	9	Female	ID	×	71	73	69	Intellectually disabled	3y9m
	G	10	Female	ID	×	47	53	<50	Intellectually disabled	3y7m
	E	9	Female	ID	×	56	66	57	Intellectually disabled	3y5m
Students with ASD	Bz	9	Male	ASD	Risperidone	50	69	56	Intellectually disabled	2y6m
	G	10	Male	ASD	Risperidone	51	49	<50	Intellectually disabled	2y9m
	Ku	9	Male	ASD	×	52	79	62	Intellectually disabled	3y8m
	L	11	Male	ASD	Risperidone	62	57	56	Intellectually disabled	5y5m
	Bh	8	Male	ASD	×	55	66	56	Intellectually disabled	3y10m

Note: WISC-III refers to the *Wechsler Intelligence Scale for Children* (Wechsler, 2002) and investigates the various cognitive abilities that contemplate the general intellectual capacity of the individual. PPVT-r refers to the *Peabody Picture Vocabulary Test*, which provides the age of the student equivalent to the receptive vocabulary.

Regarding the educational path of each student, Table 2 shows a summary relating to the students who attended kindergarten and primary school, in addition, those who participated in the activities in the regular and special school and also regarding the presence and absence of the Special education teacher (SET). It is essential to explain that the presence of SET refers to the collaborative work, in the classroom, together with the classroom teacher. When the data were collected, they all were attending school grades referring to the first stage of primary school. These data came from the application of the semi-structured interview with the parents, in their residences.

Table 2 *Synthesis of the educational path of each student*

	Student	Kindergarten		Primary Education	
		Regular school	Special school	Regular school	Special school
Students with ID	W	☑without SET	×	☑with SET	×
	Kr	☑without SET	×	☑with SET	☑Starts in the 4th grade
	M	☑without SET	×	☑with SET	☑Starts in the 4th grade
	Gl	☑without SET	×	☑with SET	×
	E	☑without SET	×	☑with SET	×
Students with ASD	Bz	☑without SET	☑	☑with SET	☑
	Gs	☑without SET	☑	☑with SET	☑
	Ku	☑without SET	×	☑with SET	×
	L	☑without SET	×	☑with SET	×
	Bh	☑without SET	☑	☑with SET	☑

Note: SET means special education teacher, □means participation and × refers to absence

With regard to students with ID, W, M, Gl and E present similar school histories, the four attend regular school since kindergarten, with full hours; in contrast, presented low academic performance in reading and writing, or rather, they were not literate. M and Kr attended special school, combined with the regular school. M was enrolled in 2012 in the special school APAE and thereby she attended the two schools throughout the whole period and days of the week. In the second half of 2012, the regular classroom teacher began to report signs of fatigue of the student in the classroom, such as sleeping during the classes, due to the double day study. The same behavior of drowsiness and fatigue of M was observed with Kr, when she started to have double shift studies, in the regular school and the special school, throughout the year of 2012, since the student attended the two schools daily. In the second half of 2012, the reduction of the workload in the regular school was requested, due to the non-approval of the reduction of the workload at the APAE. The reduction was requested due to the fatigue that the student was presenting, for sleeping in class. Kr attends regular school since kindergarten and was accompanied by the special education teacher only three times a week; on other days, she stayed in the classroom performing other activities provided by the regular classroom teacher, different from the activities performed by the students of her classroom.

In relation to students with ASD, Bz attended regular school since kindergarten, in conjunction with the specialized institution APAE. During kindergarten, there was no teacher to accompany him and to make the adaptation of the materials and, for that reason, the student did not have a specific pedagogical direction for the development of academic activities. However, with his admission in the primary school, he started being accompanied by a special education teacher and attending regular school three times a week in the after-school activities of the special school; while in the special school, the student attended the five days of the week. Gs and Bh present similar educational paths, regarding primary education they replicate the trajectory of Bz, that is, there was no accompaniment directed towards the pedagogical work of these students in the classroom and, with their admission in the primary school they began to be assisted by the special education teacher, attending the special school daily and the regular school three times a week, with workload of 1h30min. per day.

L attended regular school since kindergarten and did not study at any time in special school. The student has a history of physical aggression with the other classmates and, for this reason, he obtained

a reduction in the workload. Since the first half of 2012, he started attending regular school twice a week during the whole period; as for the second half of 2012 he had a reduction in the workload and began to attend only 1 hour and 30 minutes and, as complementation of workload, he began to be attended by the special education teacher at his residence. Ku also did not study in special school at any time during his educational path and attended regular school daily with full hours.

Another point discussed in the semi-structured interview with parents concerns the educational services that their children participated in and the frequency in each of them (Table 3).

Table 3 *Educational services and frequency in each of them*

Students		Primary education		SES	
		Regular school	Special school	Regular school	Special school
Students with ID	W	Daily	×	×	×
	Kr	Daily (reduction 2/2012)	Daily	×	☑
	M	Daily (reduction 2/2012)	Daily	×	☑
	Gl	Daily	×	☑	×
	E	Daily	×	☑	×
Students with ASD	Bz	3 days (1h30min, each)	Daily	×	☑
	Gs	3 dias (5h, in total)	Daily	×	☑
	Ku	Daily	×	×	×
	L	1 day (1h30min)*	×	×	×
	Bh	3 days (5h, in total)	Daily	×	☑

Note: * The student received home care from the special education teacher with an hourly load equivalent to 1h30min, once a week. □ means participation in activities and × means that the student did not participate in activities.

Although the SES is guaranteed by law, one student with ID (W) and two with ASD (Ku and L) did not participate in these activities. In addition, in none of the three schools participating in the project there was a multifunctional resource room. Among the three schools, W and Ku, M and Gl studied each pair in one school, and the others were all enrolled in the same school. In all three school, the special education teacher's room was shared with the coordination of the school.

With the systematic observations conducted in relation to the activities carried out with each student, Table 4 shows the type of each activity carried out by each of them. Literacy activities (reading and writing) were developed with nine students, with the exception of Bh, since he was already literate. W, Kr, Bz, L, Gs, and Ku carried out such activities in the classroom, library, and computer room, using electronic games; M and Gl carried out such activities in the classroom and in the coordination room, as the space that the special education teacher shared with the coordination and; they developed these activities, in the classroom, in the library and in the computer room, using electronic games.

Table 4 *Activities developed by the 10 students in the regular school*

Activities	Students with ID					Students with ASD				
	W	Kr	M	Gl	E	Bz	Gs	Ku	L	Bh
Literacy activities (reading and writing)	☑	☑	☑	☑	☑	☑	☑	☑	☑	
Basic mathematics activities	☑	☑			☑			☑		☑
Activities in the library	☑	☑	☑	☑	☑	☑		☑	☑	☑
Physical education activities with others	☑	☑	☑	☑	☑	☑	☑	☑		☑
Music activities with others		☑			☑					☑
Various activities in the classroom	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
Activities in the park						☑				
Activities in the computer room	☑	☑			☑	☑	☑	☑	☑	☑
Activities in the cafeteria	☑	☑	☑	☑	☑	☑		☑	☑	☑
Activities in the special education room			☑	☑						

Activities in the library involved reading and writing instruction between the special education teacher and the student, or the withdrawal of books. The activities of physical education and musicalization were developed without any need for adaptation and the students participated together with the others of the room in which they were enrolled.

In the classroom, all students carried out activities, often adapted by the special education teacher or even, elaborated by the teacher of the regular classroom. Only Bz participated in the activities in the park, during the moment of recreation. The activities in the computer room involved the use of games for recreational purposes as well as for teaching reading and writing. The activities in the cafeteria were carried out by nine students, with the exception of Gs, together with the other students from their respective rooms, during snack times. Finally, activities in the coordination room only occurred at the school where M and Gl were enrolled, where the special education teacher removed such students from their classrooms to develop additional activities with the use of memorization games, puzzles among others.

DISCUSSION

The study proposed to map the strategies of school inclusion used with students with ID and ASD, through the characterization of each student, the reports of the parents, referring to the educational path of their children and verification of the activities carried out in locus, in the school environment of each student.

One of the justifications underlying the present study refers to the plurality of inclusive practices existing at the national level and the different forms of operationalization of educational services, even with the implementation of the official documents (MEC, 2008; Decreto nº 7.611, 2011; Tessaro et al., 2005; Vilaronga & Caiado, 2013). This means that the academy can contribute with systematic analyses, such as this proposed in the present study, aimed at the concern about the schooling offered to students with ASD and ID, in order to identify the distance or the convergence between the government proposals and the school practices.

Regarding the teaching-learning process of students with ID, in historical terms, the first concerns with the schooling of this public in Brazil arose around the 19th century and were strengthened in the 20th century. The first educational proposals had as objective only the teaching of everyday life skills, rather than academic abilities (Januzzi, 1992). The first pedagogical practices aimed at teaching reading and writing and were considered reductionist, because they were isolated and decontextualized from the school routine, such as teaching the alphabet or the sound of isolated phonemes (Cárnio & Shimazaki, 2011).

With regard to students with ASD, the focus of the pedagogical practices is still directed to issues of daily life skills, with a focus on student autonomy, as well as the demands that involve student socialization. A common point of teaching-learning strategies for students with ID and ASD is the use of the functional curriculum (aiming at student development and autonomy) and activities of daily and practical life (such as bathroom use, brushing, cleaning, organizing materials and others), in both special and regular schools (Bolsanelo & Ross, 2005). According to the review of the literature proposed by Benitez and Domeniconi (2015), it is worrying the lack of studies aimed at teaching pedagogical skills directed to this target public of Special Education enrolled in the regular school.

The data of the present study show two categories of activities carried out by the students in the regular teaching space (Table 4). One category corroborates the aforementioned findings about the focus of concern about the socialization of students, related to activities for socialization (such as: physical education, music and activities in the school cafeteria), in which students participated in the interaction with other students; and another category that shows the concern of teachers about academic activities, especially the teaching of reading and writing skills. The concern with teaching such skills replicates the findings described by Sanches and Oliveira (2011) when mentioning the

importance of interventions that ensure the teaching of these skills for students with ID enrolled in the regular school.

The activities developed by each student showed a concern to ensure the stay of each of them, effectively in the regular school, but this still needs better adjustments in order to ensure the development of academic abilities, envisioning the school contents that were being taught in the classrooms in which they were enrolled, thus configuring a focus of concern for future interventions.

A relevant concern identified in the reports of parents on the educational path of their children refers to the double enrollment of Kr and M in the special and regular school, with the promulgation of the Decree No. 6,571 of September 17, 2008 and revoked in Decree No. 7,611 (2011). The worrying aspects in this case refer to the effects of fatigue produced by full-time regime in the special and regular school. These data need to be better investigated as to how much students benefit from this double enrollment, in particular, at the special school which should provide for a reduction in the workload, not just in regular school, as it did for both students. The worrying aspects in this case refer to the effects of fatigue produced by full-time in the special and regular school. These data need to be better investigated as to how much students benefit from this double enrollment, in particular, in the special school, which should provide for a reduction in the workload, not just in the regular school, as occurred for both students. The reduction in length of stay in the regular education has been a strategy commonly adopted by the schools participating in the study as a way of adapting the student to the regular school; however, there is no clear data on the benefits of this reduction in the learning of students. On the contrary, the reduction of the workload in the regular school can contribute in a negative way with the learning of the student, in terms of contents that are taught, in its absence. Further studies can investigate the positive and negative effects of reducing the workload of the student with ID and ASD in the regular school, regarding the learning of academic contents.

The minimum conditions for guaranteeing the participation of the student in the classroom and the offer of SES (Decreto nº 7.611, 2011) are two key concerns to ensure the quality of the inclusive process, especially for the target public of the study. Regarding the minimum conditions to ensure the student in the classroom, according to the regulatory guidelines (MEC, 2010; 2012), students enrolled at any level, stage or modality of education, have the right to a support professional for accompany them during all activities to be carried out in the school space. The guidelines provided by the Technical Note of the Department of Special Education (SEESP) No. 19/2010 (MEC, 2010) emphasize that the support professional should work in an articulate way with the teacher of the student, of the regular classroom, of the multifunctional resource room, among other professionals in the school context. The need of the support professional occurs, according to the specificity presented by each student, in terms of functionality.

The term functionality provides room for subjective and unsustainable analyses for the decision on whether or not the support professional should be present. In the case of the participants of the study, the professionals involved with the school inclusion are SET, instead of support professionals, which provides greater guarantee of concern for the learning of these students, because they present initial training for the work directed with special education , since the support professional does not need any specific training, despite having to fulfill all the duties described in the Technical Note cited (MEC, 2010). Although the SET, in this case, graduated in special education, presents specific training to special education, some criticisms can be woven regarding the centralization of the training directed exclusively to the SES (Michels, 2011).

In relation to the SES, specifically, the multifunctional resource room, where this service should be offered, in the regular school, Baptista (2011) points out that it is a room in school, composed of special materials and special equipment, in which a specialized teacher, based in the school, assists the individual needs of students with disabilities. Due to the absence of the resource room in the schools in question, certainly the seven mothers of the students who attended the SES were unaware of the nature and the work developed in the resource room. One of the justifications identified for the absence of the room was the lack of physical space and economic issues related to the expansion of classrooms in the school unit. Additionally, Baptista (2011) clarifies that the SET, responsible for the work in the resource room should provide direct assistance to the student and also indirect care, from the guidance

and assistance to teachers in the regular classroom, where students are inserted, as well as to their families.

From the characterization of the 10 students, shown in Table 1, it is possible to understand some important specificities about the behaviors present in the ID and ASD. Of the five students with ASD, all are boys and three of them are exposed to drug treatment with the use of risperidone. In contrast, students with ID are not exposed to any drug treatment. The total IQ data of all classify them as intellectually disabled, even in view of the variability of behaviors present in each diagnosis. With regard to the receptive vocabulary, according to the resources used in the research, the students with ASD ranged in ages from 2y6m until 5y5m and with ID from 3y4m to 4y0m.

This information can be considered as generalist, in the sense of not identifying basic skills, especially of pedagogical origin to direct the action of the teacher in curricular terms. For instance, a student with this overall IQ and age of vocabulary lower than the expected for his/her chronological age, in his/her learning history, may have learned to sit in a chair, keep eye contact, and follow an instruction gave by an adult. In contrast, another student with this same total IQ and low vocabulary age, may not have learned to sit in the chair, not to keep eye contact, or even to follow an instruction. In general, both will be classified in the same category, but with a wide diversity of behaviors. This variability of behaviors can justify the reasons that lead some students to present 100% correct answers in a certain academic activity, while others that, despite presenting the same diagnosis and the same result, in terms of total IQ, present zero performances. Due to this contrast, the search for information that describes in detail the repertoires of students with ID and ASD, allows to identify the skills of the student and those that still lack teaching (Benitez, Gomes, Scheline, & Domeniconi, 2015).

If the data of the present study were guided by this single analysis concerning the characterization of the students, it would not be possible to identify the potentialities of each of them, which would result in a superficial analysis on the respective performances. The strategies used in the study, such as a) characterization of students, b) interview with parents, and c) systematic observations conducted in the school space served as a package of investigative resources important for carrying out the proposed mapping on the inclusive strategies of students with ASD and ID.

The brief descriptions of the educational paths of the 10 students, according to the reports from parents (Table 2), show on the one hand the enrollment in the regular schools and on the other hand, an effective follow-up, by special education teachers, only in the initial years of primary school. This scope shows the difficulty of establishing pedagogical strategies in child education, due to the absence of SET in child education and the expressive presence of this teacher in primary school. The hypothesis is that the absence of such a teacher may be related to the constitutional amendment No. 59, carried out in 2010, referring to the compulsory basic education for students from four to 17 years of age, since the participants of the study attended child education in the period prior to the year 2010. It is believed that the involvement of educational agents (parents, classroom teacher, and special education teacher) since the beginning of the education of the student may be important for subsequent performance in the early years of primary school, since participation and the involvement of such agents may have an effect on the pedagogical process of these students (Glenn, 1988; Kubo & Botomé, 2001).

The presence of SET with all students with ID and ASD (Table 2) and the respective actions in the collaborative teaching proposal represent an initiative of the municipality to operationalize a way to ensure the effective participation of these students of the situation in the classroom (Mendes et al., 2011; Vilaronga & Mendes, 2014). Regarding participation in the SES, although this service is guaranteed by the current policies, in particular, by the Resolution 04/2009 of CNE-CEB (Brazil, 2009), as a support for the presence of the student in the regular schools, the data (Table 3) show that between the 10 students, seven participate in these activities.

The data discussed in the scope of the present study may serve as a basis for future researches, especially focusing on the demands related to the academic performance of students with ID and ASD; to the dual enrollment in the special and regular school and the effects on learning; the reduction of workload in the regular school, as an inclusive strategy for the adaptation of the student; to the monitoring of the SET in the classroom, concomitant with the classroom teacher; to the offer of SES and multifunctional resource rooms; to strategies that describe in detail the abilities of this target public

to program the teaching activities to be used both in the classroom and in the SES; to the researches in the field of child education.

Final considerations

The mapping of the inclusive strategies with students with ID and ASD, proposed in the present study, based on the behavioral characterization of students, analysis of the educational path, access to the types of educational services and respective frequency of participation in each service, as well as the detailed descriptions of the activities carried out by the students in the school space; generated data that allowed to discuss the inclusive strategies adopted in the current scenario of three public schools, as well as to reflect on future proposals of investigations with this target public.

The gathering of different methodological resources for data collection, such as characterization, semi-structured interview and systematic observations in locus, allowed mapping from different angles the inclusive strategies with students with ID and ASD. The characterization of the activities carried out by the 10 students seemed important to understand how the process of school inclusion has occurred in the school routine and how these families have accompanied this process, besides creating conditions for the parents to know the inclusion process, allowing a more active and more effective participation of the school activities of their respective children. It is suggested that future studies should be carried out with a larger number of participants, besides investigating the routine of the activities of students with ID and ASD enrolled in schools with multifunctional resource room and in private schools.

The data of the present study, thus, present an important role for the knowledge of the studied phenomenon, besides creating conditions for future planning of interventions that can favor the effectiveness of the process of school inclusion for students with ID and ASD in the regular school, from adequate services for their individual needs, as well as the involvement of the family in this process, together with classroom and special education teachers.

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