Evaluation of the Quality of Education Offered to Students with Special Needs in Public Schools in the City of Bauru, Brazil

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Abstract—A paradigm shift is a process. The process of implementing inclusive education, a system constructed to support all learners, requires planning, identification, experimentation, and evaluation. In this vein, the purpose of the present study was to evaluate the capacity of one Brazilian state school systems to provide special education students with a quality inclusive education. This study originated at the behest of concerned families of students with special needs who filed complaints with the Municipality of Bauru, São Paulo. These families claimed, 1) children with learning differences and educational needs had not been identified for services, and 2) those who had been identified had not received sufficient specialized educational assistance (SEA) in schools across the City of Bauru. Hence, the Office of Civil Rights for the state of São Paulo (Ministério Público de São Paulo) summoned the local higher education institution, UNESP, to design a research study to investigate these allegations. In this exploratory study, descriptive data were gathered from all elementary and middle schools including 58 state schools and 17 city schools, for a total of 75 schools overall. Data collection consisted of each school's annual strategic action plan, surveys and interviews with all school stakeholders to determine their perceptions of the inclusive education available to students with Special Education Needs (SEN). The data were collected as one of four stages in a larger study which also included field observations of a focal students' experience and a continuing education course for all teachers and administrators in both state and city schools. For the purposes of this study, the researchers were interested in understanding the perceptions of school staff, parents, and students across all schools. Therefore, documents and surveys from 75 schools were analyzed for adherence to federal legislation guaranteeing students with SEN the right to special education assistance within the regular school setting. Results shows that while some schools recognized the legal rights of SEN students to receive special education, the plans to actually deliver services were absent. In conclusion, the results of this study revealed both school staff and families have insufficient planning and accessibility resources, and the schools have inadequate infrastructure for full-time support to SEN students, i.e., structures and systems to support the identification of SEN and delivery of services within schools of Bauru, SP. Having identified the areas of need, the city is now prepared to take next steps in the process toward preparing all schools to be inclusive.

Keywords—inclusive education, special education, special needs.

I. INTRODUCTION

UNTIL recently, Brazilian schools operated parallel instructional systems for general education and special education students. However, with the National Policy for Special Education and Inclusive Education of 2008 (NPEEPIE of 2008), a path towards the inclusion of students with SEN was established. This law proposes system-wide changes across curriculum and instructional delivery to meet the diverse needs of all learners. NPEEPIE of 2008 provides for the implementation of SEA and accommodations for all students with exceptionalities, whether identified with a global developmental delay or giftedness [1].

The struggle to broaden access to quality education for students with SEN gained greater attention in the 1990s, when an inclusive education proposal ascended federal, state and local government legislative bodies [2], [3]. While this policy led to the schooling of students with SEN, it did not provide access to the regular education classroom.

With the NPEEPIE of 2008 [1], access to an inclusive education became recognized as a basic human right. Furthermore, this policy raised the need to confront discriminatory pedagogical practices and rise above historical patterns of social exclusion in schools.

Internationally, it is widely acknowledged that inclusive schooling goes beyond simply allowing students with SEN entrance to a public school. In Brazil, however, schools have yet to undergo the necessary systemic transformation to effectively provide a truly inclusive education [4], [5].

The Salamanca Declaration, for example, in 1994 compels national educational systems to establish decentralized and participatory mechanisms for the educational evaluation, planning, and monitoring of progress for children and adults with special needs [8].

The government and service organizations that formed the “Salamanca Declaration and Framework for Action on Special Education Needs” determined the need for: Actions that strengthen the collaboration of national entities and intensify involvement in planning, implementation, and evaluation of answers for inclusive education [8]. In contrast, Orrico [6] notes systemic change can only be achieved through building professional capacity within teacher training programs.
Inclusion not only implies children with SEN are matriculated into regular schools, but also provided access to educational professionals with the skills to meet their needs [9].

Adoption of inclusive schooling requires regular schools to adopt a new orientation. To adopt inclusive practices, a comprehensive reexamination of curriculum, pedagogy and instructional strategies embedded into a school's annual strategic action plan. Through reconsidering all educational procedures, schools can ensure the educational environment benefits all students’ individual needs [6].

Brazilian law number 13.146/2015, chapter IV, article 28, implemented a fiscal tax to ensure the creation, development, implementation and incentive for all schools to adopt this new inclusive orientation [7]. In this sense, studies [10]-[12] have documented the process of implementing inclusive practices within schools. The authors note that while there has been an increase in the prevalence of laws supporting inclusion, schools face many structural challenges. Of which, is the ongoing misunderstanding among educational professionals of what it truly means to provide SEA.

Brazilian law number 12.764/2012, article 2, in accordance with the NPEEPIE of 2008, highlights the importance of wrap-around services when implementing inclusive education. Vital to the provision services for students with SEN is consideration of the various service areas required to provide an inclusive education. From health to social assistance, legal aide, transportation and vocational training, formulation of a multi-disciplinary interface is key to effectively meeting the needs of all those with SEN [13]. Furthermore, it is important to establish community participation in the planning, monitoring and evaluating the effectiveness of new public policies. Only through community involvement can the execution of such complex systemic change be assured.

Recent literature reviews [14] note that, although inclusive education and educational policies are prevalent, the fiscal support for enrolment of students with SEN in schools is still a concern. These authors [14] describe the reality that schools continue to operate a parallel system for children and young adults with SEN. Despite the strong structure for public education, there is tenuous structure for this portion of the population. The authors note there has yet to be the political will to provide the governmental subsidies to support schools in providing the best quality education for all.

In 2013, the São Paulo Office of Civil Rights, in collaboration with non-governmental organizations, conducted a study to investigate effectiveness of services for supporting the autonomy of people with disabilities. “Project Wings” (2013), aimed to evaluate the quality of present services, above and beyond the newly adopted resources within schools offering an inclusive education.

Overall, the literature demonstrates a vision towards creating a broader system of support through the partnership of school teams, universities, community support, and families. However, studies have raised questions in regard to what it takes to implement quality inclusive education. In this study, researchers partnered with São Paulo Office of Civil Rights to investigate and analyze the quality of inclusive education provided within São Paulo state and city schools to children and young adults with SEN since the adoption of the NPEEPIE of 2008.

Evaluating the Quality of Inclusive Education

One of the main challenges of evaluating inclusive schools is the limited availability of quality instruments that can measure the full range of procedures and practices involved in implementing inclusion [2]. Scholars point to the importance of several factors such as: a) the participation of the school community in the construction of a strategic action plan, b) valuing and accessing existing resources, c) the particular features of the local context, and d) teacher buy-in [15].

In a study focusing on SEA, [16] identified the difficulties teachers face in understanding the concept of inclusion as an educational place that values differences and that requires pedagogical practices appreciative of each students’ unique individual needs.

The studies of [17], [18], and [2] highlight that the level of inclusion within a school is related to the extent to which changes are made across the school-wide system, from the school curriculum to pedagogical approaches. In addition, quality implementation is impacted by the level of active participation from all school stakeholders (e.g., the school administration, community, support networks and teacher preparation programs).

As a signatory member of the Salamanca Declaration [8] and the UN Convention on the Rights of Persons with Disabilities [19], Brazil has yet to take the appropriate actions toward widely adopting inclusive practices in schools. Instead, any steps towards change remain largely at the theoretical and conceptual level. However, for change to occur, Brazil still needs to revisit and develop inclusive values for tolerance, mutual respect, solidarity, and respect for diversity. Only through upholding these values can schools truly eliminate discriminatory practices and collaboratively design inclusive practices between families, communities and teachers [17], [20].

This research addresses both the social values and research-based evidence for improving the outcomes of all students through the implementation of inclusive education practices. In this study, the university is a key partner in fostering the application of evidence-based practice within actual school settings. Together, schools and universities can combine resources to meet the considerable challenge of preparing teachers and schools for inclusion.

With these philosophical underpinnings, the researchers aimed to evaluate the quality of the education provided to students with SEN across schools in one Brazilian municipality. Data collection included documentation of inclusive education, field observations of pedagogical practices and the impact of professional development courses for in-service teachers and administrators.

II. Procedure

This is an exploratory study [21], conducted with the financial support of the Sao Paulo Research Foundation.
overseen at the state level. This provides a contrast in funds, are governed by local governments, while state schools are
staff) for statistical analysis. The perceptions of stakeholder s
versions of the questionnaire were developed, one for each
inclusive practices and accessibility of the school. Four
vision, school structure, annual goals, pedagogical practices
annual school-wide strategic plan formulated by all school
were divided in two parts. First, researchers
results of Stages 2-4 are outside the scope of this article, bu t
were analyzed as a separate study within the larger study. The
majority of state schools serve grades 6th to 9th. City schools
researchers simultaneously. During this period 16 city schools
Stages occurred within the
the school director in regards to the resources and supports for
the field observation protocol in the regular
classrooms. A field observation protocol was used to note
instructional practices, school resources and architectural
accommodations provided to the student.
In addition, semi-structured interviews were conducted with
each of the student’s six teachers and caretaker. Field
observations and video-recordings were conducted two or
three times per week to document the students’ participation in
school routines, time in class, and time outside the regular
class. A content analysis was conducted of the interview
transcripts [21]. Field observations of instructional practices
and the architectural accessibility of classrooms were
summarized to provide a rich textual and visual description.
Data were grouped according to descriptive and textual
content. A pictorial representation of the architectural
accessibility within each classroom the student attended.

Stage 4: Planning, and Evaluation of Continuing
Education Course. A four-month continuing education
course was offered between March 18 and July 8, 2017
consisting of total 74 hours/credits (32 hours of face-to-face
and 42 hours of online learning). Of the 121 teachers who
began the course, 113 completed and eight dropped out
midway. The face-to-face learning part was held on the
university campus of UNESP/Bauru and the distance learning
was provided through Moodle-AVA.

Purpose of the Study:
Following the collection of each of the school’s annual
school-wide strategic action plans in Stage 1, the researchers
verified the extent to which inclusive education principles
were addressed. The tabulation revealed the majority, 64,
acknowledged the right of students with SEN to receive SEA.
However, these schools still lacked a specific plan for meeting
the needs of the students identified. In order to verify whether
this lack of vision in the documents was consistent with the experiences of stakeholders, a thorough analysis of the stakeholder’s questionnaire responses was conducted. The results of these analyses are reported below.

Data Analysis Procedure:

In order to compare the perceptions of stakeholders, respondents were grouped into three categories: type of interviewee (student, parent, teacher or non-instructional staff), school level (elementary or middle school) and type of school (state or city). School staff questionnaires were organized according to three dimensions of inclusion: a) creating inclusive cultures (A1)/ establishing inclusive values (A2), b) producing inclusive policies (B1)/ supports for diversity (B2), c) evolving inclusive practices: building a curriculum for all (C1) and organizing instruction for all (C2).

Since these categories resulted in different group sizes, the statistical analyses for comparing proportions were selected. When the cell count was equal to or greater than five and when the cells did not present exceedingly discordant results, the chi-square test was used. In the case when this did not occur, the Fisher’s exact test was used. Only the answer categories of AGREE, PARTIALLY AGREE and DISAGREE were included in the calculation of proportions. The analysis was made in R, version 3.5.1, where \( p < 0.05 \).

III. RESULTS

The first statistical analysis compared responses of all school staff by each of the three sections of the questionnaire. Without dividing the questionnaire by the three question types, 66.9% of the responses were AGREE, while PARTIALLY AGREE and DISAGREE appeared 28.5% and 4.6%, respectively. Table I shows the number of questions in which the response was statistically more likely. The asterisk indicates that some of the items were discarded from the group when the \( p \)-values fell below 0.05 significance. Therefore, DISAGREE responses for A1, only eight out of the nine items were significant enough to draw conclusions. The DISAGREE option the most likely to be selected by school directors for A1, A2, B1, B2 and C2 sections.

Table II shows the results of the comparison between administrative and instructional school staff among employees at all state and city schools. The results indicate that in most A1 questions (seven out of nine), school directors show greater proportions of AGREE and PARTIALLY AGREE responses than teachers. In contrast, teachers were more likely to AGREE or PARTIALLY AGREE to A2 and C2, where the agreement was statistically significant in seven out of eight questions and seven out of 10 questions, respectively. Teachers inconsistently responded to questions of supports for diversity (B2) and building a curriculum for all (C1) questions, half of the questions had inconsistent responses for each section. In contrast, school directors responded favorably to questions in these sections for eight out of nine and eight out of 10 questions, respectively. It should be noted that all employees provided similar answers for C1 and C2 sections.

Table I

<table>
<thead>
<tr>
<th>Sections</th>
<th>N of questions evaluated</th>
<th>Agreement</th>
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<tbody>
<tr>
<td>A1</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>A2</td>
<td>8</td>
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<tr>
<td>B1</td>
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<tr>
<td>C1</td>
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<td>2</td>
</tr>
<tr>
<td>C2</td>
<td>10</td>
<td>5</td>
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Table II

<table>
<thead>
<tr>
<th>Sections</th>
<th>N</th>
<th>Agreement</th>
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</thead>
<tbody>
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<td>A2</td>
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</tr>
<tr>
<td>C2</td>
<td>10</td>
<td>7</td>
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Considering this study originated due to the concern of parents, student and parent opinions were thoroughly examined. Parent and student questionnaires covered similar themes, but were not divided into the same sections as school employees. In addition, three versions were made to adapt to the experiences of parents, secondary students, and elementary students. As a result, only three questions specifically addressed the same theme using slightly different language as age appropriate. Below are the three questions from the parent, secondary student and primary student versions of the questionnaire.

Q1: Parents - Question 13 - "My child learns what it means to participate in a democracy by being in school".
Secondary students - Question 14 - "I have learned what participating in a democracy means by being in school".
Primary students - Question 20 - "Teachers are interested in hearing my ideas".

Q2: Parents - Question 17 - "When my child started this school, there was an effort to keep him/her in the regular classroom".
Secondary Students - Question 24 - "When I first came to school, they helped me feel comfortable".
Primary students - Question 9 - "When I came to school, teachers helped me and made me feel good".

Q3: Parents - Question 33 - "The school has a good support system in place for students when they have a problem".
Secondary Students - Question 43 - "If I have a problem in a class, the teacher or assistant teacher will help me".
Primary students - Question 15 - "If I have any problems, I can ask an adult for help".
Table III shows the observed proportions for each answer, disconsidering the division by categories. One can infer that given the p-value, the proportion between answers were not statistically equivalent to α = 5% level of significance. The analysis indicates that, statistically, when comparing the number of AGREE options it was greater than the PARTIALLY AGREE, which was greater than the number of DISAGREE answers. Hence, over 68% of the interviewees considered themselves satisfied in Q1, whilst 69.67% and 71.23%, respectively, agreed with Q2 and Q3. These results demonstrate that most of the respondents show agreement greater than 68% regarding these three questions.

<table>
<thead>
<tr>
<th>Table III</th>
<th>Answers Proportions General</th>
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<tbody>
<tr>
<td>Questions</td>
<td>Agree</td>
</tr>
<tr>
<td>Q1</td>
<td>68.63%</td>
</tr>
<tr>
<td>Q2</td>
<td>69.67%</td>
</tr>
<tr>
<td>Q3</td>
<td>71.23%</td>
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A comparison between proportions of each category was made in order to compare parent and student answers. Given the p-values the proportions’ null hypothesis was rejected at α = 5% level of significance for all questions. Next, a paired analysis of proportions was conducted with the intent of comparing parents to students by school type (primary: 1st to 2nd; Intermediate: 3rd to 5th; secondary: 6th to 9th).

Regarding Q1, among those who answered AGREE, there was no statistically significant difference between students in primary and their parents. Similarly, no statistical difference was observed between parents and students at the secondary level for the response, PARTIALLY AGREE. However, the proportion of students in intermediate who chose this answer was greater than secondary students and parents.

Regarding the DISAGREE option, the number of first and second grade students who chose it was less common than for the other respondents. There was no statistically significant difference between intermediate students (intermediate) and parents, or between secondary students (secondary) and their parents. The number of secondary (secondary) students who disagreed with Q1 was statistically greater than students in intermediate grades (third and fifth graders). These results may indicate that secondary students tend to be more sensitive to Q1. It can also be observed that overall answers given by parents and primary children were similar.

In regards to Q2, the proportion between first and second grade students who marked AGREE was statistically greater than all other groups of respondents. Still, intermediate students agreed at a greater rate than secondary students and parents. Secondary students selected PARTIALLY AGREE responses at the highest rate, followed by parents, intermediate students and subsequently primary children. There was no difference in the proportions selecting DISAGREE responses between older students and parents.

For Q3, the number of AGREE answers was the greatest among primary students, followed by intermediate students, parents and secondary students. There was no significant change in PARTIALLY AGREE answers amongst secondary students and parents. The least number responses in this answer category were from first and second grade students. The respondent category with the most DISAGREE answers was the secondary group, followed by parents, intermediate students and, lastly, primary students.

Once again, a greater trend toward DISAGREE was observed among secondary students across these three questions. Except for Q1, parents and primary students tended to respond disparately for Q2 and Q3.

The three questions were also analyzed by school type (state or city). The null hypothesis for the proportions marked with * were rejected at α = 5% level of significance. The results show that regarding Q1, with the exception of PS students, for all respondents there was a difference in the proportions for the AGREE option. For parents and students with SEN, agreement was greater in city schools, while TQ students in state schools showed stronger proportions of agreement.

In view of Q1, the amount of PS students who partially agreed was greater in the state schools than in the local ones, while for the parents, this response was more frequent within state schools. The DISAGREE option occurred with greater frequency among TQ students in city schools, while students with SEN had greater proportions of disagreement in the state schools. Overall, these results suggest that there is a greater sense of satisfaction regarding a sense of inclusion among primary students from state schools and secondary students and parents in city schools.

Regarding Q2, there was a difference of opinion between regular class students in both school types across all response categories. For students with SEN and their parents, the number of AGREE responses was greater in city schools. The proportion of TQ students in city schools who answered PARTIALLY AGREE was greater than in the case of students in state schools, while this answer was more often given by parents in the state schools.

Parents and the secondary students in state schools were more likely to opt for the DISAGREE response. These results show that the older students and parents from state schools presented themselves as more critical regarding this question. On the subject of Q3, there was no statistically significant difference between the replies given by students in either school type. As for the parents, however, the ones in state schools showed more disparity in their responses.

IV. CONCLUSION

The analysis of the questionnaires sent to parents and school staff shows that a proportion of interviewees who agreed or partially agreed with the questions were around 30%. A comparison between state and local schools also suggests that the perception of managers, staffs, parents and students about both sectors differs in some matters.

From the acquired data it is evident that schools recognize the legal rights of SEN students to receive special education, but lack proper strategies for providing the assistance. Therefore, the need to enhance school’s resources for inclusive practices is increasingly urgent - both in terms of
physical accessibility and educational materials - to meet the needs of students with SEN.

Overall, it is understood that this study was successful in analyzing the quality of the education provided and in identifying areas requiring intervention, so that the school is suitable to provide truly inclusive educational practices.

REFERENCES


