



## **Educa Program: The experience of a pilot project traffic education in primary education**

### **Programa Educa: A experiência de um projeto piloto de educação para o trânsito no ensino fundamental**

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**Keywords:** Transit education, Traffic safety, Educa Program.

#### **1 INTRODUCTION**

The school is a place of socialization, sharing of ideas and a cooperative, reflective, privileged environment of mediation between the child and society where learning and transmission of new knowledge, skills, models of behavior, moral values occur (BOCK, FURTADO & TEIXEIRA, 1999; ROZESTRATEN, 2004). Children can also play an active role in the transit system, either as pedestrians or cyclists, but do not have the same skills as adults (TORQUATO & BIANCHI, 2013). Everyone needs to learn how to transit, move around, and the school environment is conducive to working Education Programs.

The World Health Organization (WHO) recommends the implementation of measures for traffic safety, due to the high numbers of children and young people who die every year from hit-and-run accidents in Brazil. In 2021, 907 children between 0 and 14 years of age died, in 2020 there were 936, this being the main cause of death in this age group. Brazil ranked seventh among the 101 countries that kill the most young people aged 15 to 29 in traffic (WAISELFISZ, 2014), among several actions, the "Agenda 2030" for sustainable development included adolescents among the priorities. These programs are an effective way to stimulate risk prevention among children and adolescents, since they are mostly pedestrians and cyclists. In this perspective, it is necessary to evaluate the implementation of traffic education programs in elementary school in the perceptions of



the actors involved "however, there are indications that it is not being implemented in schools either by lack of qualification of teachers or by difficulty in understanding how to do it" (MAOSKI, 2009, p.15).

In this line, the National Road Safety Observatory (ONSV) developed the EDUCA Program with didactic material for students and teacher training for the implementation of Transit Education in a transversal way in Elementary School, according to the current legislation.

This research sought to monitor and evaluate a pilot project for the implementation of this program. Analyzing the difficulties and challenges and their possibilities of overcoming.

## **2 OBJECTIVE**

To study the implementation of a transversal traffic education program in elementary schools in different Brazilian cities.

## **3 METHODOLOGY**

This is an action research project to identify possibilities, adequacy and strategies for the implementation of a traffic education program in schools. With the application of this methodology "researchers intend to play an active role in the reality of the observed facts" (THIOLLENT, 2009, p. 17).

Partnerships were formed between the ONSV and several public primary education networks. ONSV provided the teaching material, training and guidance and the schools undertook the commitment to carry out the activities and report to the coordination team.

The problems and difficulties observed were discussed in the various instances of the program and proposals were created for their solution, which were subsequently evaluated.

## **4 DEVELOPMENT**

There are already legislations that cover the theme Education for transit aligned with the National Curricular Parameters (PCNs) that were the basis for ideas and discussions, representing a first effort of official implementation of the Transversal Themes in the curriculum of Basic Education (BNCC, 2018, p.7) published by Denatran, through ordinance 147/2009 with the National Guidelines of Education for Transit, whose



text establishes that transit should be worked in a transversal way in Preschool and Elementary School (SILVA, 2007).

In the National Common Curricular Base (BNCC), in its contemporary transversal themes in Citizenship and Civics are Education for traffic. There are also the Sustainable Development Goals (SDGs), of the National Plan for the Reduction of Deaths and Injuries in Traffic 2021 (PNATRANS), where Traffic Education is included in Pillar 4, associated with the Law of Guidelines and Bases of National Education (LDB), nº 9.394, of December 20, 1996, the Federal Constitution of 1988, the Brazilian Traffic Code (CTB) in articles 74 to 76 (BRASIL, 1998), as well as the Statute of the Child and Adolescent (ECA) that highlight content related to human rights included in school curricula and the prevention of all forms of violence against children and adolescents ... (BRASIL, 1996).

#### 4.1 INITIAL PROPOSAL OF THE EDUCA PROGRAM

Textbooks were developed for students in each year of elementary school, addressing issues related to traffic and mobility, in a transversal way, aligned with the LDB, the PCN and the BNCC. This material was accompanied by books "for teachers" for each year and a book with the legal and pedagogical basis of the program.

In line with this, an e-learning course was also created with 16 hours of videos, as well as other texts and complementary materials with the aim of training educators (teachers, coordinators, principals, etc.) to use the teaching material and adapt it to the reality of each school community.

#### 4.2 EDUCA Pilot Project History

Given the difficulty of financing the program by the students themselves, schools or municipalities, about 300,000 textbooks for students were produced through a technical partnership between the National Road Safety Observatory, the Ministry of Infrastructure, through the National Traffic Secretariat (SENATRAN), the Ministry of Education, the Federation of Industries of the State of São Paulo (FIESP) and the Army Housing Foundation (FHE).

In possession of this material, ONSV sought partnership with public education networks that were willing to participate in this pilot project.

In 2021, 12 municipalities, in addition to the network of Tiradentes colleges in Minas Gerais, were part of EDUCA. In 2022, several of these municipalities continued in the project and new municipalities became part of the program. The program was



developed in 45 municipalities in 08 Brazilian states. Reaching a total audience in these 2 years of implementation of the Program of 279,373 students and 261,423 physical books distributed and approximately 5,000 educators working directly in the education of students.

Figure 1 - Municipalities participating in the EDUCA Program in 2022



#### 4.3 BOOK DISTRIBUTION LOGISTICS

Distributing the physical EDUCA books was a big challenge. There were cities in many states, with great distances and sometimes outside the main transportation routes.

In some cases it was possible to partner with transportation companies, such as VTLOG that transported the books from the Northeast to Feira de Santana where a Certified Observer was able to receive and store the books until they were picked up by each municipality.

In others, it was an investment by the municipalities that received EDUCA, paying for transportation from the FIESP warehouse in Barueri/SP to the selected municipality.

It should be noted that even with the commitment of the municipality, the process of contracting by the public administration of transport companies that involves several steps and prerequisites, caused a delay in the distribution of books.

Some municipalities gave up participating in the project due to the difficulty in getting the books.



Figure 2: Books being sorted for dispatch to municipalities



#### 4.4 EDUCATOR TRAINING

During 2021 most schools did not carry out face-to-face activities, due to the Covid19 pandemic. This allowed teachers time to participate in the e-learning course that had been developed previously and was offered free of charge and asynchronously.

In the first year, 1,819 educators were trained through this course.

To overcome the problems of access to the platform of the distance learning course, it was necessary to incorporate another work team, the Remote Support Service, which worked by e-mail guiding and solving the difficulties of educators in the realization of the distance learning course.

In 2022, schools returned to face-to-face activities, with teachers in the classroom most of the time and with the need to develop materials to compensate for the losses in the teaching-learning process that occurred with the suspension of classes and/or face-to-face activities for almost 2 years. Adherence to the distance learning course, which required at least 20 hours of exclusive dedication, fell sharply. It was necessary to develop another form of training that would take less time away from educators.

The strategy was the creation of the EDUCA Training Itinerary, a synchronous training in three online meetings, through the ONSV channel on YouTube, with the aim of sharing the EDUCA methodology with practical examples and providing greater interaction between educators and the National Coordination. The training was structured as follows:

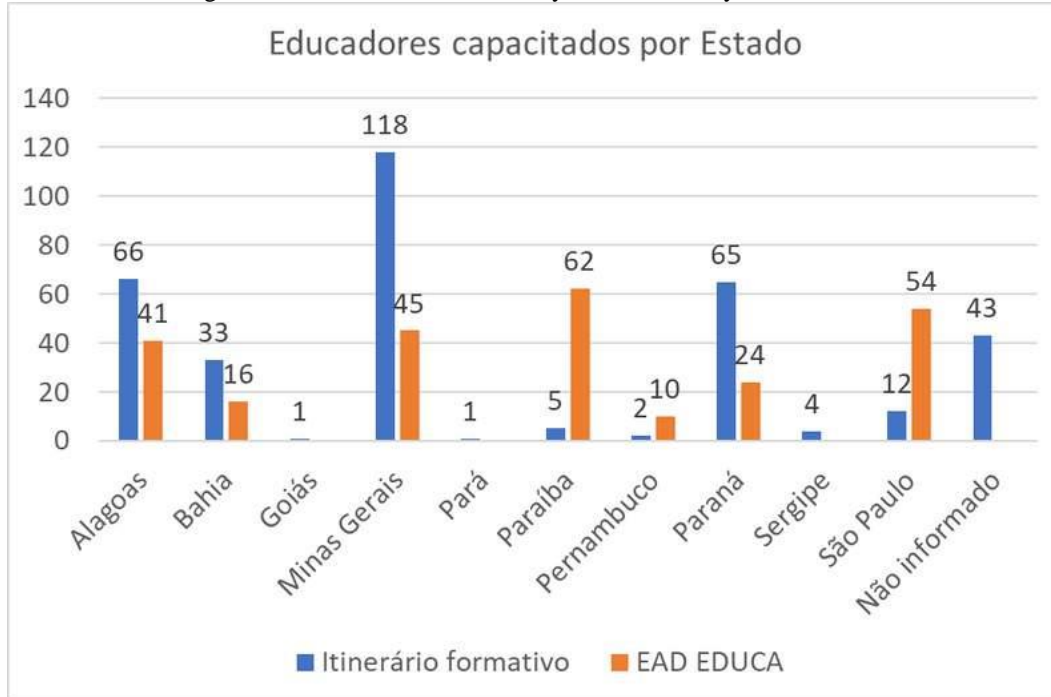
- **1st meeting:** presentation of the program; "Cities as the main learning resource" and "Why work on traffic education at school";
- **2nd Meeting:** the structure of the contents of each book and its relationship with the BNCC, as well as how to apply and adapt the proposed activities to the local reality;



- **3rd Meeting:** the importance and ways to plan traffic education within the annual planning of each subject and school.

Both forms of training were well evaluated by the respective participants.

Figure 3: Total educators trained by each course, by state, in 2022



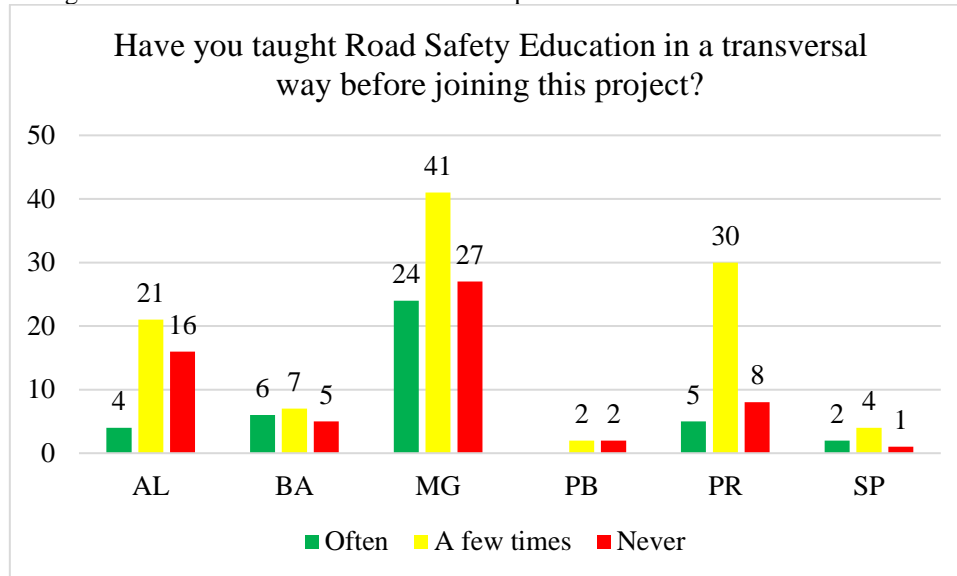
It is observed that the proportion of adherence to synchronous and asynchronous training varied greatly from one state to another. This indicates that both should be offered and each teacher or school should choose the one that is most convenient for them.

In addition to the training offered to educators, some municipalities held face-to-face meetings, coordinated by local Observers and with the participation of the National Coordination. Among them are: Arapiraca, Campina Grande, Campo Largo, Ruy Barbosa, Poços de Caldas

#### 4.5 EXPERIENCE WITH TRAFFIC EDUCATION

A survey of 205 participants in the Itinerário Formativo indicated that only 20% had taught traffic and transversal form many times before the experience in this project. This reinforces the need to implement actions like this.

Figure 4: Total number of educators with experience in transversal traffic education



In this research was also asked about: What are the biggest difficulties or challenges for you to work Traffic Education with your students?

Among 240 educators interviewed, the most frequent responses were: lack of other pedagogical materials, lack of time in the classroom, lack of textbooks (which was being solved by sending EDUCA books) and absence of this content in their training (now minimized by the training offered).

Figure 5 - Major difficulties or challenges in working on traffic education

What are the biggest difficulties or challenges for you to work Traffic education with your students?		Total
1	Lack of other teaching materials	111
2	Lack of time in the classroom	81
3	Lack of textbooks	77
4	I did not have this content in my training	67
5	Lack of community interest	65
6	Lack of time for planning	51
7	It is not a priority in the school's Political Pedagogical Plan (PPP).	43
8	Lack of interest from pupils	36
9	No encouragement from colleagues, coordination and education department	9
10	Not provided for in the legislation	7

#### 4.6 Communication

As the vast majority of educators had never been involved in a similar program, there were a large number of doubts and it was necessary to create channels for constant communication between the coordination, the education secretariats, the schools and the teachers. This happened through the following communication strategies:



- a) Bi-weekly meetings via videoconference;
- b) Creation of the EDUCA National Network on WhatsApp and Facebook;
- c) Direct contact with each municipality carried out by the OBSERVATORY's administrative advisory;
- d) Face-to-face contacts carried out by local Certified Observers, i.e. from the region or municipality itself;
- e) Meetings with educators held with the support or participation of the National Coordination team;
- f) Remote support service by e-mail;
- g) Communication with the Coordination via e-mail.

Part of this work was possible only with the commitment of the existing coordination team or the ONSV administrative team and the equipment (computer, notebook, cell phone) already used, in addition to communication applications (email, WhatsApp, Youtube, Google Meet...).

#### 4.7 MOBI EDUCA

To learn about the work carried out in the municipalities and to value the work of students and educators, the National Coordination held the II National Exhibition for Conscious Mobility - MOBI EDUCA.

MOBI EDUCA aimed to:

- Bring together various productions on the subject of traffic built by schools participating in the OBSERVATÓRIO EDUCA program in 2022;
- Recognize the work done by the municipalities participating in EDUCA;
- Share with the country the work of the educators who are making the pilot project possible.

Due to the pandemic and differences in the start dates of the school year in schools, we did not receive productions from all municipalities, but there were 165 entries.

To organize the work of MOBI, a temporary committee was formed, which together with the National Coordination organized all the valid productions for evaluation:

Works were received from 8 categories, 6 for students (drawing; poetry; photography; video production; parody; and dissertative-argumentative essay.) and 2 for





educators (project or presentation of class that contemplates the theme of traffic in a transversal way; and video production with the theme: My experience with the EDUCA project).

By applying the following criteria:

- For students: appropriateness to the theme; creativity; values, attitudes and attitudes of citizenship in traffic; and overall quality of the work.
- For educators: Application of the content in a transversal and interdisciplinary way; Creativity; Clarity in the development of ideas; and Technical quality of the content presented.

The contents of the productions worked on several themes, highlighting the theme of inclusion in traffic and the presentation of work contextualized to the reality of each municipality. Factors that show the efficiency of the approach proposed by EDUCA contents that allow the educator to provide reflections to students appropriate to each region / reality of the country.

#### 4.8 EVALUATION

In the evaluation of the implementation of the Program were also considered "interest, commitment, participation, empathy, potential for criticism and self-criticism. This information can be considered as criteria for the effectiveness of these training objectives" (FARIA & BRAGA, 2005, p. 1007).

The evaluation also counted factors such as: "time required, possibility of realization and skills of students, in addition to establishing a cordial and participatory atmosphere. And that, fundamentally, the teacher is trained to perform interventions in groups" (HOFFMAN & LUZ FILHO, 2011, p. 88).

#### 4.9 APPRENTICESHIPS

The absence of teaching materials was compensated by the development of textbooks.

The lack of teacher training was minimized initially by offering an e-learning course and then a three-night remote access training itinerary for educators.

The difficulty of financing the material by pupils, schools and municipalities was overcome in this pilot by a sponsor for the production of the books.



Educators' access to the "for teachers" books was partially met by the ODL course platform, where it was possible to view the content of these books.

Despite the training, there were educators who did not understand and apply the proposed pedagogical line and carried out activities treating children as mini-drivers.

MOBI EDUCA served to stimulate the involvement of some schools and educators and to give greater visibility to the actions registered.

Needs for program expansion:

- Identify sustainable ways to finance the production of books, including books for teachers;
- Maintaining a coordination and support team for educators;
- Development of an application or system that allows online access to program content and activities, allowing for updating of material and reducing the need for printouts;
- Create strategies for the involvement of transit management bodies in this program;

Positive points:

- The proposed content fully complied with existing legislation;
- Schools in different states were able to adapt the material to address local realities in large, medium and small municipalities;
- The use of the material in the classroom has led to the realization of several extra-class activities, both inside the school and in extra-mural spaces;
- Many educators applied the proposed cross-curricular teaching appropriately, even creating new activities;

## **5 FINAL CONSIDERATIONS**

This pilot project achieved its objective of experimenting with the implementation of a transversal traffic education program in elementary schools in different realities of Brazilian society.

The implementation of the proposal proved to be not only feasible, but a project that was well received and desired by the school communities.

The coordination team of this action research was able to develop several strategies to solve or compensate for most of the problems identified.



This was possible thanks to the commitment of the more than 45 Certified Observers who dedicated themselves to participating in the various activities required, as well as the teams from the education departments, schools and sponsors.

In view of the pilot experience, it is possible to identify some challenges to be overcome and lessons learned from this practice, among them it is possible to mention:

It is necessary that the dialogue between SENATRAM and the OBSERVATORY with the Ministry of Education and the Municipal and State Education Departments be expanded in order to include traffic as a higher priority on the education agenda.

It is noteworthy that the insertion of the traffic theme in the National Common Curriculum Base (BNCC) was a great advance and in the practice of EDUCA, it was found that educators are interested in working on the traffic theme, but they need to know and have tools to apply transversality, as well as the support of managers for the program to happen in the municipality.

The physical books especially for places where the availability of connections is still limited, coupled with the pedagogical accompaniment offered by the Certified Observers, have constituted points of success of the program.

However, it becomes necessary to look for sponsors to make EDUCA digital. In this way, there would be both possibilities for teachers and students.

It is suggested that further studies be conducted to assess whether there has been a reduction in traffic accidents with the school communities involved, the impact of these actions on the traffic behavior of students, parents and teachers; the effectiveness of different pedagogical techniques and other related issues.



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