

E-LEARNING SUPPORT THE CONSTRUCTION OF A CITIZEN TRAFFIC.

Sao Paulo, January/2011

Josefina Giacomini Kiefer-Companhia de Engenharia de Tráfego (CET/SP)
josefina@cetsp.com.br

Sector: Education in General

Area of Research: Globalization of Education and Cultural Aspects Transfrontier

Nature: Description of ongoing project

Class: Innovative Experience

ABSTRACT

This article presents the experience of deployment e-learning methodology and to support the traffic education. The Companhia de Engenharia de Tráfego of São Paulo, Brazil, through the center for training and education traffic, offers shares in attendance, several education programs for transit: Training of Teachers, which allows the formation and subsequent performance of the teacher as a multiplier, Pilot Safe, practical and theoretical course for motorcyclists; Inclusion of Persons with Disabilities and Reduced Mobility, aimed at teachers, caregivers, and others. In 2010, the company began to implement these programs in distance education format intermediated by the internet, to reach the citizen who, for various reasons, do not have time to participate in classroom programs. The CET has sought, among various software, incorporating Flash animation and interaction between students and content, through games and discussion forums, thus contributing to building a dynamic and entertaining environment. The month of July, when there was the launch of the first program, in December, the platform ead stayed in their courses, 2,000 and 600 applications on hold, for service in 2011.

Keywords: e-learning; traffic; education

INTRODUCTION

The city of São Paulo is the largest city in Latin America, the second largest city in population and one of the five largest metropolitan areas in the world. Currently has a fleet of approximately six million automobiles in circulation and a population of more than 10 million peoples, 94% of the

population concentrated in urban areas and 6% in rural areas, all arranged in a geographical limit of 1,523 km².

As living environment for business, leisure and services, the ordinary citizen struggling to Sao Paulo who lives in a big city that can not stop. Among the difficulties some of them refer to mobility and traffic safety. Part of these difficulties with the number of vehicles in circulation at the rate of one vehicle for every two peoples in a physical-geographical limits of the municipality and passageways restricted and defined. Excessive use of private cars in circulation is among the factors that cause slow traffic and congestion. Other factors are the irresponsible use and possession of vehicles, when we report to the security of the citizens in circulation as a driver, passenger or pedestrian.

Mistakenly, the questioning someone about the meaning of traffic, we hear usually takes us answers to the problems arising from actions that harm the traffic. One example is the fact that the excess vehicles causing congestion element is therefore in traffic congestion and slow traffic are not synonymous. Traffic, while actions taken in urban circulation space, means movement is the coming and going of people and vehicles around the city. The essence of the word that turns traffic is Sao Paulo in a town of high economic potential, where thousands of trips are made by Sao Paulo to the achievement of business actions. Without traffic there is no economic life, for through traffic are established business relationships and networks that make the city and its people prosper.

The reality is that the sum of choices taken by each individual that makes up life in a city affects considerably the context for the rest of the population. That part of the city's population to migrate to the private automobile transport, contributes to some risk factors for themselves: increased air pollution, increase the number of vehicles on the road, causing delays and increased congestion and traffic accidents.

Measures are taken regarding the modernization and improvement of the city traffic, such as monitoring by cameras, for example. However, effective action must be taken consistently, and often these actions do not depend only on the managers of transit agencies and transportation, but of attitudes and

positions taken by citizens, residents and users of this city. Citizen participation, mobilizing to demand actions of bodies on issues of traffic, transport and environment, it is legitimate, but also to be understood as the fulfillment of measures and the acquisition of habits that contribute to the well being of all. Practicing citizenship to get around town is an emergency measure to improve traffic conditions in Sao Paulo.

1. The traffic education in Sao Paulo

Man differs from other animals, it has the ability to distinguish between self and non-self so that you and leave to protrude on the other, making it a being of relationships, not just contacts.

Captures a reality, transforming it into an object of knowledge. As your reality is better understood, creates new hypotheses, this reality challenges and new solutions can be sought. The man finally a world creates itself from the reality surrounding their culture. And culture, which is the creation of human relationships with the environment is the result of human rationality and the possibility of transforming it.

Education is not a process of adapting the individual to society, but a transformation engine in search of being more. The man is on time, scaling up and being aware of one yesterday and one tomorrow.

Education is based on the option to stimulate and affirm the human being as an element in human relations to be this way, must have reflective characteristics, consequential, temporal and transcendent.

Therefore, in proposing education as a transformation of the principles of behavior and attitudes, in order to improve the environment of social relations in the traffic of the city of São Paulo, is seeking an elusive goal, and not dreamy perspective, but action that seeks to bring men to realize what it does best and only with respect to other living things: think and reflect on their contexts, actions, search, and thus transform the way in which he lives for themselves and each other.

The São Paulo stock held by non-formal education developed by the Companhia de Engenharia de Tráfego - CET - education programs for transit, targeted to different audiences, with specific methodology characteristics of the

target audience exposed to the risks and interact in city traffic. In 30 years of existence, one million children, youth, seniors, bikers, professional drivers, among others, were met by these activities, thus contributing to the spread and incorporation of new attitudes in city traffic. These activities are conducted in a specific location for training, and schools of all school systems, businesses, and others.

However, these actions, despite the importance and effectiveness achieved, not meet the requirements regarding the care of a greater volume and population, which would favor the incorporation of new habits, or at least dialogue with a larger number of people.

The contexts indicate problems such as:

- physical-geographical distance
- Relationship large number of schools X headcount actions insufficient to face in all these units.
- Relationship large number of schools limited number of X units of care.
- Low compliance of schools to develop educational activities related to traffic, whereas other areas such as health, for example, the teacher seek to achieve the same purpose.
- Low adherence to program attendance by about the impossibility of reconciling schedules and schedule commitments of potential participants in these programs.

Therefore, the activities face fulfilling its role of disseminating knowledge, but require a complementary effort to make this knowledge to achieve a greater number of people without the restriction of range space-time.

2. Traffic education and e-learning

The use of media to educate people unable to face regular attendance at schools and institutions for educational purposes, made the methodology of e-learning was developed and gain membership of mainly adult subjects, who were torn between reconciling the family and professional affairs with the need for training and acquiring new knowledge.

In the absence of a classroom and a teacher saying the subject matter and talking face to face with the student in the distance, make use of media and information so that the educational content to come to the student, as well as necessary interference from teacher to student learning.

E-learning uses as a source of information and communication technology available at any given moment in history-social needs of each society. Therefore, in the eighteenth century, the first historical moment of this format was used as a resource to print and mail. Currently, available technology, agile and quick in scope as the question-answer process is using a computer with as a means of transmitting information, the Internet network.

The willingness of media like the Internet, allowed the creation of software for e-learning to provide resources that changed the context of presence, enabling real-time communication through voice features and classes online, via computer, with date and time marked.

Software available for management of distance learning courses, allow the creation of a virtual school system, where resources are available that add secretarial school activities such as student attendance records, registration of notes, registration of students, issuing press releases and information to the student, such as activities related to the role of teacher, course coordinator, and organizing grid of content, availability of activities and tasks for students, evaluation of content, among others.

In addition to this formal structure school I found in this software means that allow the creation of more dynamic and interactive courses, to include fun games, moving pictures, photos, videos, classes live and recorded for later redemption, among others.

A management tool for distance learning courses use this feature allows for different purposes: academic education through undergraduate and graduate, basic education, informal education through various courses, and corporate education, developed within the companies with the aim of easing access to knowledge so necessary to update the employee and professional company.

The use by traffic education, resources that allow the construction of courses e-learning, will allow the scope and flexibility, aiming at serving a population that can not participate in classroom activities by the most varied reasons, but finds barriers, especially regarding the reconciliation of schedules, dates and physical displacement.

3. Teacher Training in Education for Traffic

Between the months of March and April 2009, we conducted a survey of 300 teachers of educational institutions participating in education activities for the transit of the Traffic Engineering Company of St. Paul. The goal was to see those teachers access the Internet, and their interest in participation and availability of distance learning courses.

The results showed that:

- 97% of teachers had access to computers and Internet;
- 30% of teachers had participated in a distance learning course and participate in training courses in traffic education available in the form of distance learning course.

These data led us to believe that investment in the distance, beyond the support of the methodology regarding the national impact, since data ABED (Associação Brasileira de Educação a Distância) in 2009 indicate that over 2.5 million people in Brazil has made some distance course, you can throw us into the care of a considerable portion of the population. The data adds this information to the Internet Management Committee in Brazil that points in the year 2009, more than 30 million people accessing the World Wide Web. The Teacher Training Course in Traffic Education is provided in the form of distance learning through the adaptation of content to the language classroom learning via the Internet. To this end, investments were made in a multidisciplinary team composed of educators, web designer, systems analyst, and the acquisition of software for the construction of instructional resources such as animations, for example - In Design, Adobe Flash, among others. Access is mediated by specific software learning through the Internet, whose license allows access of up to 10,000 students / year.

The objectives are:

- Making education accessible to transit to that teacher who for various reasons, has no time for participation in courses and in using the resource to the Internet, can do it, since space and time are flexible, the availability of local resources and free time.
- To sensitize teachers to the problems of traffic in the city of São Paulo and the importance of school action for the positive transformation of this reality.
- Train teachers to develop educational projects for transit, considering the reality and the ways in which local students are entered.
- Encourage the development of projects that have as subject the transit across the school system of education in São Paulo.

The target audience is composed mostly by educators of basic education, and interested in the topic, audience estimated at 40,000 people. The school is an important site for the construction of actions ongoing and systematic education for transit. Children and young people spend most of their days in these institutions. Tapping into this pool every day is an important possibility for the construction of knowledge, beyond the regular school curriculum, add to this the traffic education. Therefore, it is important to equip the teacher to work with the traffic issue in the classroom, whose crosscutting and interdisciplinary allows II and in elementary school youth and adults, it is addressed in all disciplines.

It adds to the target educators, provide the course for those interested in the subject. Thus, we contribute to adding to the potential multipliers of traffic education, people who are not in school institutional routine, but actions that can build traffic education at other institutions, or even the community in which they live.

The learning is 20 hours and the classes are composed of 30 teachers. Each group is accompanied by a tutor, an education specialist for the transit, which tracks the performance of the group and is available to answer questions by phone, email or in an area defined by the distance learning platform.

The learning is distributed in four modules:

Zero Module – About Blackboard - Explanation of the Virtual Learning Environment and tips to study the distance.

Module One - The Traffic in Sao Paulo - the city's history and the consequences for the traffic we have today.

Module Two - Traffic Accidents - Statistics and analysis of the causation of traffic accidents.

Module Three - Human Behavior - The importance of the human factor in accidents and how education can help prevent these accidents.

Module Four - Transit: Theme Classroom - Tips for fun and educational activities for working traffic in the classroom.

Final Assessment - Delivery Project - Development of a project based on the content provided during the training, taking as reference the surroundings of the school.

At the end of each course the student answers a response evaluation. The result is very positive, with more than 90% satisfaction items in content, methodology, workload, teaching resources.

The initial challenge was to deploy until the month of July 2010, the training of teachers in education for transit, for educators of basic education in the format e-learning. By the end of 2010, considering the launch of the course in July, was estimated to train at least 1,000 teachers.

The results achieved were extremely positive. With the positive experience of deployment of the first course for teachers were deployed in November of 2010, courses for educators levels and , in December 2010, the course Inclusion of People with Disabilities and Mobility Reduced in the Traffic Education, which tackles the subject including people with disabilities in the context of urban mobility and school. Were made more than 2,000 applications for e-learning and 1,460 certified teachers.

Pilot Safe

In addition to training teachers, the Companhia de Engenharia de Tráfego of São Paulo implemented in November 2010 the course for motorcyclists Pilot Safe e-learning.

The evolution of the fleet of motorcycles in the city of São Paulo and the increasingly frequent use of this type of vehicle for transportation, as well as for the transport of products and services, called the quick delivery service, or delivery, was accompanied by a harsh reality: the increasing number of accidents and fatalities of this type of transport. A motorcycle is a very agile vehicle, but at the same time vulnerable, because it has a protective housing, such as in automobiles, which exposes the user with greater risk of injury in an accident. So it is important to train the rider to use this means of transport safely, contributing to incorporate techniques and practices of safe driving.

The course is 8 hours, includes the presentation of videos on techniques and braking maneuvers, demonstrating through simulated exercises, how to drive safely. The course is divided into:

Module 0 - Knowing the environment Blackboard

Module 1 - History of the motorcycle and safety equipment;

Module 2 - Riding safely;

Module 3 - Avoiding accidents;

Module 4 - Interaction of motorcyclists in traffic;

Module 5 - Practicing safe riding (movies).

Besides flash animations and video practice, the course has forums for interaction among participants and the tutor. Each class is scaled to the attendance of 30 students. The course, launched in late November 2010, enrollment reached 456 students and 213 certified until December 2010.

At the end of the course in December 2010, was referred to a survey evaluating students. The results were quite satisfactory:

- 100% approval of the methodology used in the course;
- over 90% of cases considered sufficient, content, hours and contact channels and cited as excellent and good teaching resources used.
- 77% of students answered the assessment said that "his attitude changed when driving to the course."

Conclusion

With an experience of over 30 years in the dissemination of content geared towards traffic safety and to build a more harmonious living space in the traffic of the city of São Paulo, the Companhia de Engenharia de Tráfego, CET, through the Training Center Education and Traffic, invested in 2010 in the implementation of courses in distance learning format, with the intention of empowering, especially multipliers in traffic education. The deployment of the first course was held in July 2010, followed by three more courses for teachers and, in December 2010, the Safe Pilot for motorcyclists.

Initial expectations with respect to the number of entries and course participants, exceeded initial forecasts. Were totaled over 3,000 entries, trained 1,460 teachers, 213 motorcycle drivers in the course of piloting Secure. Waiting for 2011, although the entries made in 2010, more than 600 people, including teachers, riders and the general public.

Are planned for 2011, the deployment of at least three more courses in the distance: "Safe Management and Quality of Life" (course for drivers), "Building Values and Behaviors in Transit Insurance" and "Sustainability and Traffic"