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FACULTY OF HUMAN KINETICS (FMH)

The Faculty of Human Kinetics-FMH, Technical University of Lisbon is the oldest Faculty of Sports Science in Portugal (1940). It historical route is well illustrated by the outcome in the areas of PE teacher education and Sport Pedagogy. FMH is nowadays open to a wide range of study areas of interest to various sectors of society, with its 5 Undergraduate Courses, 15 Master’s Courses & 2 Doctoral degrees (Human Movement & Education). FMH has several partnerships with universities, public and private entities, developing relationships in the scientific and pedagogical fields. The Interdisciplinary Centre for the Study of Human Performance (CIPER) is a Research Unit of FMH, sponsored by the Foundation of Science and Technology. It aims to establish a common conceptual framework between different disciplines, applying multidimensional models in order to analyse problems posed by human functioning and performance. CIPER centres its studies on the interaction between human abilities and activity performances focused in body movement and composition and non intrusive intervention methods, including those required to support independent living of elderly and people with disabilities. It considers lifespan and different performance levels, in order to: enhance human functioning and performance in different contexts; promote health and well-being; develop experimental methodologies, including design, modulation, simulation and validation of tools for the study of human function and performance as for intervention methods improvement.

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Executive summary

The Portuguese Children’s Independent Mobility Study presented in this report was carried out in six different areas of Portugal considered to be representative of the five territorial typologies requested by the international partners, namely: inner city (center of Lisbon), urban (Matosinhos and Linda-a-Velha), suburban (Brandoa), small town (Silves) and rural (Redondo). Sixteen schools and 1099 child-parent dyads participated in the survey, which represents a response rate of 65.4%. The Portuguese versions of the international Child Independent Mobility questionnaires (for parents and children) were translated from the English version provided by the Policy Studies Institute and were applied to children from the 3rd to the 10th grade, aged between 8 and 15 years old.

Our main findings indicate a significant influence of the variables age and territory typologies in the levels of children’s independent mobility.

Children from secondary schools enjoy a greater degree of independent mobility than children from primary schools. There were significant differences in all the independent mobility licenses according to the age of the children, revealing an increase in the number of licenses granted as children grow older. Concerning the influence of territory typologies in children’s independent mobility, our findings indicate that more suburban children are allowed to cross main roads and to go home from school alone; more inner city children are allowed to use buses on their own; more rural and small town children are allowed to cycle on main roads; and more rural children are allowed to go out after dark. In terms of weekend leisure activities, children from small town and rural areas reported a greater number of activities than children from the other geographical areas.

Gender does not seem to be an influential factor on children’s independent mobility in Portugal, since it only influenced the license to go on their own to other places than school, which is granted to more boys than girls in Portugal.

Most children feel fairly safe in their neighborhood but concerns about safety are more frequent in primary school children. The major concern of children when they are outside on their own or with friends is strangers. Primary school children also worry about getting lost and bullying. Most parents are very worried about the risk of the child being injured in a traffic accident.

Most children in Portugal go to school by car and accompanied by their parents. Primary school children would rather go to school cycling but for the secondary school students the car is the favorite transport mode. The use of car to escort children to school reveals a generational shift from walking to driving in the last 30 years since the great majority of the parents refer that when they were 8 or 9 years-old they would walk to school. Parent’s mean age to get about on their own was about 9 years of age. On the contrary, in our sample the mean age that parents mention to let children get about on their own is about 12 years of age (based on the mean ages to cross main roads, travel home-school alone, cycle on main roads, and using public transportation).
Introduction
The present study aims to explore the degree to which children of different ages have the freedom to make trips to school, and to leisure places on their own or with other children. This study is integrated in the “Independent mobility as a critical aspect of children development and quality of life- a longitudinal comparison over four decades in England, a cultural comparison over two decades with Germany, and an international extension to other countries” which is being conducted by PSI.

The study of children’s independent mobility in Portugal has not been done nationwide before. Hence it is important to understand how freely children interact with their environment and the possibility of comparing the results from the Portuguese with the results from other countries is of great significance to understand how Portugal stands in the matter of children’s independent mobility. This is also important for the design of future interventions envisioning improvement of children’s well-being and the combat to some of the modern society problems, such as sedentarism and child obesity.

Methodology

Procedures
The Faculty of Human Kinetics was responsible for the translation of the questionnaires and for the process of data collection nationwide.

The English versions of the child independent mobility questionnaires for children and parents were translated to Portuguese and first applied in a small subsample in the municipality of Oeiras. After minor modifications, authorization to apply the questionnaires was requested to a department of the Ministry of Education in Portugal, the Direcção-Geral de Inovação e de Desenvolvimento Curricular (DGIDC) and to the different schools. Finally the final versions of the questionnaires were applied (see Annexes 1 for child questionnaire and 2 for parent’s questionnaire) following the international guidelines.

The children took home a brief explanation of the study, the request for participation and the parent’s questionnaire. The children who were allowed to participate filled their questionnaire during a class activity supervised by their teachers. The child and parent questionnaires were coded and paired in all areas. The data collection occurred during 2011 in all areas except in the inner city area, which was done in 2012.

Sample
The main sample of this study consists of 1099 children, aged between 8 and 15 years old, from the third to the tenth grade and of 1099 parents. Table 1 presents the description of the subsamples used in the Portuguese survey.
Table 1. Sub-samples of the Portuguese survey.

<table>
<thead>
<tr>
<th>Area</th>
<th>Name of schools and school year</th>
<th>Number of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inner city: Lisbon</td>
<td>EB São Joao de Brito (3rd and 4th grades); EB2,3 Gago Coutinho (5th and 6th grades); ES Rainha D. Leonor (7th to 10th grades)</td>
<td>223 children, 223 parents</td>
</tr>
<tr>
<td>Urban: Matosinhos</td>
<td>EB1 Florbela Espanca (3rd and 4th grades); EB23 de Matosinhos (5th to 9th grades); ES João Gonçalves Zarco (10th grade)</td>
<td>220 children, 220 parents</td>
</tr>
<tr>
<td>Suburban: Brandoa</td>
<td>EB1/JI da Brandoa (3rd and 4th grades); EB2,3 Sophia de Mello Breyner Andresen (5th and 6th grades); ES Fernando Namora (7th to 10th grades)</td>
<td>255 children, 255 parents</td>
</tr>
<tr>
<td>Small town: Silves</td>
<td>EB nº1 de Silves (3rd and 4th grades); EB2,3 Dr. Garcia Domingues (5th to 9th grades); ES de Silves (10th grade)</td>
<td>192 children, 192 parents</td>
</tr>
<tr>
<td>Rural: Redondo</td>
<td>EB1 do Redondo (3rd and 4th grades); EB2,3 e Secundária Dr Hernani Cidade (5th to 10th grades)</td>
<td>137 children, 137 parents</td>
</tr>
<tr>
<td>Urban: Linda-a-Velha</td>
<td>EB1 D. Pedro V (3rd grade); EB1 Armando Guerreiro (4th grade)</td>
<td>72 children, 72 parents</td>
</tr>
</tbody>
</table>

The areas surveyed

Procedures to choose and locate the surveyed areas

The areas selected for the study were chosen to be representative of five different areas requested by the international partners (i.e., inner city, urban, suburban, small town and rural).

Firstly, consulting the Ministry of Education web site, more specifically, the school rotary (Roteiro das Escolas), it was possible to identify the schools according their location in terms of district, county and parish.

Secondly, consulting the web site of the Statistics Portugal (INE), more precisely the application “territorial divisions” it was possible, by choosing the option “statistical divisions” and “tipology of urban areas” together with the proximity application, to determine the areas of counties and respective parishes which are “predominantly urban”, “medium urban” and “predominantly rural”. By crossing this information with the location of the possible candidate schools taking part in the study, it became possible to identify them according their “urban typologies”.

In order to characterize the areas where the selected schools are located, we used several sources of demographic and socioeconomic information available in the official web sites of the local councils and/or parishes, which the schools belong to, together with the relevant information presented in the Statistics Portugal web site (INE).
Inner City area of survey: general socio-demographic description of Lisbon City
The three inner city schools where the surveys were applied are located in the Parish of São João de Brito, in the northern part of the City of Lisbon. This Parish has an area of 2,28 km² with 11727 inhabitants (INE, 2011) and a population density of 5143,4 people per km². São João de Brito is a typical consolidated inner urban area with moderate dense housing mixed with services’ delivery facilities (such as shops, companies and public institutions) and nearby cultural areas. The buildings are generally between four and seven floors high. The housing is mainly constituted of flats but in some wealthier areas there are single family detached houses. The Parish area is flat composed of wide streets that give access to inner-Parish traffic and to main and busy roads linking to other city areas. Alongside its main avenues and secondary roads there are large pavements and green sparse patches. The denser inbuilt green spaces are located in the northeastern and northwestern parts of the Parish. In the former, there is a 21ha park (Alvalade Park) which has a well-developed woody and shrubby structure and a clearing in the valley zone. It’s a recreational and leisure area due to the existence of picnic spaces, maintenance circuit, play equipment and walking and cycling trails. In the latter, there is a moderate dense green area among residential and public educational and health facilities.

In terms of travelling modes, this Parish is well served with public transportation including buses and underground, however, car travelling is frequently adopted. Non-motorised transport modes like walking and cycling are less frequent, though, the former is fairly used by local residents and by people who use public transportation on their work trajectories.

The children from these schools come from heterogeneous backgrounds, oscillating from socioeconomically deprived contexts to more privileged ones.

Thus, this subsample provides a valid representation of the type of population and urban areal characteristics of an inner-city area, which can be widespread to other inner-city areas of Lisbon.

The Metropolitan Area of Lisbon (AML) is a region composed of 18 municipalities from the Greater Lisbon, on the north of the Tagus River and the Peninsula of Setubal on the south. The area of the AML is about 2962 km² and it has around two million inhabitants representing approximately 20% of the Portuguese population (INE, 2011). Lisbon municipality is located in the Greater Lisbon area and it has an area of 84,6km² where over half a million people reside with an average family of 2,22 (INE,2011). The area of the city corresponds to the area of the Lisbon municipality.

Urban Area of survey: general socio-demographic description of Matosinhos Municipality
The Matosinhos municipality integrates the Metropolitan Area of Porto. This municipality is a wide urban and concentrated aggregate which is characterized by a strong economic dependency on the
tertiary sector, with daily working suburban to urban movements, from home to work or from home to school and with an intense inter-relationship of urban functions.

The municipality of Matosinhos is constituted by 10 well populated parishes within an area of 62.30 km² and a total of 175 478 inhabitants (Census, 2011). The parish of Matosinhos covers a total area of 5.31 km² with a population of 30984 inhabitants (Census, 2011) presenting educational levels similar to the media of the county and one of the highest employment rates in the delivery of services. Since 2003, the county of Matosinhos integrates the project of the national network of cities and town with mobility for all.

Urban area of survey: general socio-demographic description of the Parish of Linda-a-Velha (Oeiras Municipality)

According to the publication from the Statistics Portugal (INE) “Socioeconomic Typology of the metropolitan area of Lisbon 2001” (Tipologia socioeconómica da área metropolitan de Lisboa 2001), the Parish of Linda-a-Velha (Municipality of Oeiras) is categorized as part of the qualified (sub)urban territory, belonging to the suburban Oeiras-Cascais axis, which has been targeted of a process of urban expansion continuity associated with better levels of housing comfort.

The municipality of Oeiras presents one of the highest employment proportions in foreign majority companies and in activities of Communication and Information Technologies. There are also several organisms and entities related with research and science activities, which provide economic and social development. In the municipality of Oeiras, public space is generally qualified, clean, accessible and enriched with a diversity of gardens and parks.

The municipality of Oeiras is spread over an area of 45.72Km² with a total of 172120 inhabitants. The parish of Linda-a-Velha is located in the interior of this municipality, occupying an area of 2.32km².

This parish admits in its geographical structure a conjugation of different spaces, namely the urban and the one that can become urban, with one Historic Formation Nucleus. According to the data of Census 2011, the population of this parish counts with 19999 inhabitants. Due to the socioeconomic characteristics of Linda-a-Velha, this area was considered urban in our survey.

Suburban area of survey: general socio-demographic description of the Parish of Brandoa (Amadora Municipality)

According to the publication from the Statistics Portugal (INE) “Socioeconomic Typology of the metropolitan area of Lisbon 2001” (Tipologia socioeconómica da área metropolitan de Lisboa 2001), the Parish of Brandoa (Municipality of Amadora) is categorized as part of the disqualified (sub)urban territory, characterized by a housing infrastructure of feeble characteristics, with predominance of council housing and unprivileged population affected by social exclusion.
Based on the studies of characterization of the Municipality of Amadora, “Amadora XXI”, the Parish of Brandoa covers an area of 220 ha; has 17805 inhabitants (Census, 2011). In the Municipality of Amadora there are a total of 175136 inhabitants (Census, 2011). According to Census (2001), and the category “number of individuals in the classical families per place of residence”, there are a total of 174653 individuals, in which 148276 are from Portuguese nationality and 18595 inhabitants are from foreign provenance. A vast majority of these individuals comes from the African Continent, followed by the ones coming from North America, Brazil, European countries and Asia. According to the study “Amadora XXI-Territory and Economy”, it’s possible to present some elements related with the variables employment and unemployment, such as: there are only 15 people working in the Primary Sector; 2369 persons included in activities within the Secondary Sector; 5462 individuals working in the Tertiary Sector; there’s a total of 7846 persons who are employed against a number of 7062 persons which have a status of unemployed; the activity rate is of 54.9% and the unemployment rate is of 8.6%.

Regarding the educational levels, the population of Brandoa is generally characterized as having a low academic achievement. Due to the socioeconomic characteristics of Brandoa, this area was considered suburban in our survey.

**Rural Area of survey: General socio-demographic description of Municipality of Redondo**

The Municipality of Redondo is located in Central Alentejo and extends through an area of 371 Km², corresponding to 5.1% of the total area of Central Alentejo with a total of 7031 inhabitants (Census, 2011). Redondo is a rural municipality which main economic activity is related with the agricultural industries. However, other activities, such as pottery and tourism are also economically important. This municipality is strongly rural due to its historic roots and to its socioeconomic framing.

According to the “Social Diagnosis of Redondo” (2005), it’s possible to present some demographic and social data. In terms of demography, there is a weak demographic dynamic, either natural or migratory; there’s an inversion of the vitality indicator; ¼ of the residential population benefits from pension or retirement income. Regarding the education levels, a significant proportion of the population hasn’t got any kind of educational qualifications. In what concerns the distribution of the active population through the economic sectors of activity, half of the active employed population of the municipality works in tertiary sector; whilst the primary sector is responsible for less than a quarter of the active population employed in the county.

**Small Town area of survey: general socio-demographic description of Silves Municipality**

The Municipality of Silves is located in the center of the District of Faro, covering a total area of 679km² and it’s the second larger of the Algarve. This municipality is composed by eight parishes and
a total of 37126 residents (Census, 2011). The City of Silves is the head office of the Silves municipality. This city is located in the parish of Silves which counts with 11014 inhabitants (Census, 2011). According the “Social Diagnosis of Silves 2011”, the municipality of Silves has been losing demographic tissue, due to the diminishing of the youngest population and potentially active, consequence of the relevant migratory flux. Based on the “Inventory of the Region of Algarve”, elaborated by Portugal Statistics (INE) in 2008, 8.2% of the population dedicates to agriculture, 23% dedicates to industry and 68.3% to commerce and service delivery, this sector intimately connected to tourism. In terms of unemployment, in May 2010, there were a total of 2060 unemployed individuals. Regarding the levels of education, generally the population of this county has poor educational qualifications. The housing infrastructures are relatively recent and present habitable and comfortable conditions.
Findings

1. Findings grouped by primary and secondary school children

   i. The six licences of independent mobility

   Figure 1 presents the percentage of children who are granted the different independent mobility licenses according to children’s responses and to parental responses. All the licenses are significantly more frequent among secondary school children than among primary school children.

   ![Figure 1](chart.png)

   **Figure 1. Licence-holding among primary and secondary school children**

   **License to cross main roads on their own**
   The percent of children allowed to cross main roads was analyzed based on the children’s and the parents’ questionnaires (cq7a and aq3). There are more secondary school children than primary school children allowed to cross main roads. The results were significant for children’s responses ($\chi^2(1) = 429.48, p < .001$) and for parents’ responses ($\chi^2(1) = 362.99, p < .001$).

   **License to go to places other than school on their own**
   The percent of children allowed to go on their own to places other than school was analyzed based on the parents’ questionnaires (aq2a). The answer categories usually goes alone and varies were merged because we considered that parents whose answer was “usually goes alone or varies” had
granted the license to go on their own to places other than school to their children. This license was significantly more frequent in secondary school children ($\chi^2(1) = 302.75, p < .001$).

**License to come home from school on their own**
The percent of children allowed to come home from school alone was analyzed based on the parents’ questionnaires (aq1a). This license was significantly more frequent in secondary school children ($\chi^2(1) = 292.50, p < .001$).

**License to go out after dark on their own**
The percent of children allowed to go out after dark was analyzed based on the parents’ questionnaires (aq4a). This license was significantly more frequent in secondary school children ($\chi^2(1) = 147.48, p < .001$).

**License to use buses on their own**
The percent of children allowed to use buses on their own was analyzed based on the children’s and the parents’ questionnaires (cq9 and aq6). This license was significantly more frequent in secondary school children. The results were significant for children’s responses ($\chi^2(1) = 416.20, p < .001$) and for parents’ responses ($\chi^2(1) = 414.81, p < .001$).

**License to cycle on main roads on their own**
The percent of cycle owners allowed to cycle on main roads was analyzed based on the children’s and the parents’ questionnaires (cq8b and aq5). This license was significantly more frequent in secondary school children. The results were significant for children’s responses ($\chi^2(1) = 120.68, p < .001$) and for parents’ responses ($\chi^2(1) = 180.09, p < .001$).

**License to cycle to places on their own**
The percent of cycle owners allowed to cycle to places on their own was analyzed based on the children’s questionnaires (cq8c). This license was significantly more frequent in secondary school children ($\chi^2(1) = 205.34, p < .001$).

ii. The journey to and from school

**Mode of transport**
The modes of transport to and from school were analyzed based on the children’s questionnaires (cq1 and cq4). The results grouped by primary and secondary school children are presented in Figures 2 and 3.
Most children (52.1% of the primary school children and 43.8% of the secondary school children) go to school by car. Walking is the second most frequent mode of transportation (35.4% of the primary school children and 37.9% of the secondary school students walk to school). The third most frequent transportation mode to school is the local bus, train or underground (used by 7.1% of primary school children and 16.5% of secondary school children). The differences in the transportation modes to school by primary and secondary school children are statistically significant ($\chi^2(5) = 30.83$, $p<.001$).

Most primary school children (48.2%) say that they will go home by car, whereas walking is the most frequent mode that secondary school children use to get home (46.3%). The second most frequent mode used by primary school children to get home is walking (37.4%) and for secondary school children it is the car (28.3%). The third most frequent transportation mode to get home is public transportation (local bus, train or underground) (8.2% for primary school children and 22.6% for secondary school children). The differences in the transportation modes to go home by primary and secondary school children are statistically significant ($\chi^2(5) = 79.50$, $p<.001$).

Household access to cars
The household access to cars was analyzed based on the parents’ questionnaires (aq11a). The results grouped by primary and secondary school children and by area are presented in Figure 4.
Most households (48.4%) have regular use of one car. 28.6% of primary school children and 22.8% of secondary school children live in households with no access to cars. The differences in household access to cars are not significant between primary and secondary school children ($\chi^2(2) = 4.50$, $p = .106$). In the suburban area there are more households with no access to cars (41.4%) than in the other areas. In the small town area 34.6% of the households have access to 2 or more cars and only 19.7% of the households have no access to car. The differences in household access to cars are significant between the different areas ($\chi^2(8) = 48.28$, $p<.001$).

**Preferred mode to school**

The preferred mode to go to school was analyzed based on the children’s questionnaires (cq6). The results grouped by primary and secondary school children are presented in Figure 5.
For primary school children, cycling is the preferred mode to travel to and from school (40.3% chose this transport mode), followed by car (24.8%) and by walking (21.5%). For secondary school children, car is the preferred mode to travel to and from school (47.3% chose this transport mode), followed by walking (27.9%) and by local bus, train or underground (11.2%). The preferred modes to go to school are significantly different between primary and secondary school children ($\chi^2(6) = 145.75$, $p < .001$).

Accompaniment to school
The accompaniment to school was analyzed based on the children’s questionnaires (cq2). The results grouped by primary and secondary school children are presented in Figure 6.

There are significant differences in the accompaniment to school between primary and secondary school children. Most children travel to school accompanied by one parent (61.6% primary school children and 41.5% secondary school children) ($\chi^2(1) = 42.73$, $p < .001$). 14.1% of primary school children and 32.6% of secondary school children go to school on their own ($\chi^2(1) = 53.03$, $p < .001$). The company of other adult was also more frequent in primary school children (18.4% vs. 6.8%) ($\chi^2(1) = 29.62$, $p < .001$). Secondary school children travel to school more often accompanied by other children ($\chi^2(1) = 50.13$, $p < .001$).

Length of journey to school and distance to school
The length of the journey to school was analyzed based on the children’s questionnaires (cq3). The results grouped by primary and secondary school children are presented in Figure 7.
Figure 7. Travel time to school

Most primary (55.8%) and secondary (62.5%) school children take between 5 and 15 minutes to travel to school. There are more primary school children that take less than 5 minutes to get to school (28.0%) than secondary school children (19.5%). Overall differences in time that primary and secondary school children take to get to school are significant ($\chi^2(4) = 20.44, p<.001$).

The distance from home to school was analyzed based on the parents’ questionnaires (aq1h). The results grouped by primary and secondary school children are presented in Figure 8.

Figure 8. Distance to school

Most primary and secondary school children live more than 2 Kms away from the school. The distance to school is similar for primary and secondary school children ($\chi^2(3) = 4.02, p=.259$).
Children attending the nearest school

The percentage of children attending the nearest school was analyzed based on the parents’ questionnaires (aq1e). The results grouped by primary and secondary school children are presented in Figure 9.

![Figure 9](image)

**Figure 9. Children attending the nearest school**

More than half of the primary (69.0%) and of the secondary (68.4%) school children attend to the nearest school. The difference between the number of primary and secondary school children attending the nearest school is not significant ($\chi^2(1) = .05, p=.831$).

Reasons given for not attending nearest school

The reasons given by the parents for their children not to attend the nearest school were analyzed based on the parents’ questionnaires (aq1f). The results grouped by primary and secondary school children are presented in Figure 10.

![Figure 10](image)

**Figure 10. Main reason for not attending the nearest school: no places available**

Most parents of primary and secondary school children who do not attend the nearest school refer other reasons like the proximity of school to parents’ workplace. All the reasons were referred with similar frequency between primary school children’s parents and secondary school children’s parents. The only reason which was more prevalent among secondary than among primary school children was the preference of attending a school elsewhere ($\chi^2(1) =10.45, p=.001$).
Non school travel and activities

The weekend activities reported by children (cq10) are presented according to: the company for those activities (Figure 11); the differences between primary and secondary school children in autonomous activities (Figure 12); and the differences between primary and secondary school children in activities accompanied by adults (Figure 13).

**Figure 1. Weekend activities done by children**

During the weekend, most activities were done with a parent or another adult. The most frequent ones were going to the shops (mentioned by 55.2% of the children) and visiting relatives or grown-ups (mentioned by 64.5% of the children). Concerning the activities done autonomously by the children the most prevalent were: visiting a friend’s home (28.1%), going for a walk or cycling around (26.8%). Playing sports and going to the playground were also frequent activities (mentioned by 23.2% and 20.8% of the children respectively).
Secondary school children participate in more activities autonomously during the weekend and in these terms they seem to be more physically active than primary school children. The main differences between primary and secondary school children concern visiting a friend’s home (more frequent among secondary school children – 34.6% vs. 23.8%) and going to the cinema (more frequent among secondary school children – 17.5% vs. 5.6%). Only 2 activities were more frequent among primary school children: going to a library (17.4% vs. 11.6%) and going to church (9.2% vs. 7.5%).

The mean number of activities performed by primary school children on their own or with another child or youth was 1.84 (SD=2.23), whereas the mean number for secondary school children was 2.39 (SD=2.32). This differences are statistically significant ($t(1097)=-3.92, p<.001$).
Primary school children participate in more activities with their parents during the weekend. The differences in all categories are quite expressive indicating that during the weekend primary school children are greatly dependent on their parents.

The mean number of activities performed by primary school children with their parents was 4.14 (SD=3.22), whereas the mean number for secondary school children was 1.84 (SD=1.75). This differences are statistically significant ($t(1060)=15.28, p<.001$).

### iii. Perception of safety and local area

**Children's perspective**

The following results on the perception of safety and local environment are brought from the children’s perspectives on the subject. The analyzed questions were 11a and 11b from the children’s questionnaires. This data is displayed next on figures 14 and 15.
Nearly half of the children find their neighborhoods a fairly safe place (44.1%). Only 25.1% find them very safe. The other 30.9% of children see their neighborhood as a place with lack of safety. There are more secondary school children who find their neighborhood a fairly safe place when compared with primary school children (55.0% vs 34.6%) ($\chi^2(3) = 57.16$, $p < .001$). In terms of research areas, the suburban children are the ones whose neighborhood safety perception is higher (33.3%), followed by the inner city children (29.1%). Children from small town area are the group with the lowest neighborhood safety perception (20.8%), followed by the rural children (10.3%). The neighborhoods are considered fairly safe by 55.3% of inner city children, followed by 47.6% of urban and suburban children, respectively. Rural and small town children display values of 36.8% and 31.2%, respectively, on the former category of safety perception. Differences in the perception of safety in between research areas are significant ($\chi^2(12) = 103.74$, $p < .001$).

**Figure 14.** Children’s perception of safety when they’re on their own in local neighborhood.
In the whole research sample, as well as in all the other subsamples considered, fear of strangers is the concern most mentioned by children when they’re out by themselves. The presented percentages on this concern are above the 50% level of expressiveness. The highest one being on the primary school children sample (75.3%) and the lowest one on the inner city sample (58.4%). Bullying is the second major concern for children in all of the analyzed samples, except for the small town and rural cases. The highest percentage for bullying is expressed on the primary sample of children (61.7%) and the lowest value on the rural subsample (48.7%). On the small town and rural areas, traffic comes as the second major concern for children (56.1% and 62.4%, respectively).

**Parents’ concern about traffic**
Parents’ concern about traffic as a risk of their children being injured in a traffic accident when crossing a road was analyzed based on the parents’ questionnaires (aq8). These results are presented in Figure 16.
Parents’ worry about the risk of their children being injured in a traffic accident when crossing a road

Traffic is a major concern for parents as a risk of their children being injured in a traffic accident when crossing a road. The results show that 58.4% of parents are very concerned and 32.8% are quite concerned with this matter. On primary school children parents’, 65.2% of them are very worried with traffic as a threat for their children’s safety. This value among parents of secondary children decreases to 48.0%, which is significant ($\chi^2(3) = 60.90, p < .001$). In all of the research areas (inner city, urban, suburban, small town and rural) most parents are very concerned about traffic issues (51.0%, 62.8%, 58.1%, 60.3% and 58.2%, respectively) but overall there are significant differences ($\chi^2(12) = 25.63, p = .012$).

Other parental concerns

Other parental concerns were analyzed based on the level of agreement or disagreement of the parents with two statements posed in the questionnaires (aq10a and aq10b) regarding the presence of adults and youths in the children’s neighborhood. The levels of parental agreement are presented in Figure 17 and 18.
Figure 17. Parental agreement on “Most adults who live in the neighborhood look out for other people’s children in the area”

In the whole sample of parents only 17.1% disagreed and 10.2% said that the adults living in the neighborhood didn’t look out for other people’s children. However, 38.4% of parents neither agree nor disagree on this. The levels of parents’ agreement on the primary and secondary groups of children are similar to each other ($\chi^2(4) = 6.59, p = .159$). More than half of the rural parents (51.5%) feel that most adults who live in the neighborhood look out for other people’s children in the area. The difference between areas is significant ($\chi^2(16) = 35.89, p = .003$).
Parents of primary school children are more concerned about the presence of other young people and adults in the area than secondary school children parents ($\chi^2(4) = 15.81, p=.003$). Suburban parents also show greater levels of concern, since more than half of them agree or agree strongly that some young people and adults in the area make them afraid to let their children play outdoors. Rural parents seem to be the least concerned about this issue ($\chi^2(16) = 64.62, p<.001$).

2. The influence of different factors on independent mobility

i. The impact of age

The impact of age on the different independent mobility licenses is presented according to parental reports (aq1a, aq2a, aq3, aq4a, aq5, aq6) in Figure 19, according to children’s reports (cq7a, cq8b, cq8c, cq9) in Figure 20, and according to parental and children’s crossed perspectives in Figure 21.
Figure 19. Licenses of independent mobility reported by parents

The number of children who are granted the different independent mobility licenses increases with age.

License to cross main roads on their own
Only 13.8% of 8-year-old children are allowed to cross main roads, this percentage increases steadily till the age of 13, when 98.6% of children are granted this license, remaining stable afterwards. Differences in age are significant ($\chi^2(7) = 499.57$, $p < .001$).

License to go to places other than school on their own
Only 9.3% of 8-year-old children are allowed to go on their own to places other than school, this percentage slowly increases till the age of 10 (23.9% of children allowed) and continues to grow till the age of 15, when 87% of children are granted this license. Differences in age are significant ($\chi^2(7) = 377.57$, $p < .001$).
License to come home from school on their own
Only a residual percentage of children under the age of 10 are granted this license (6.1% of 8-year-olds and 30.2% of 10-year-olds). After 12 years of age most children are allowed to come home from school alone. When children are 15-years-old, 85% of them are granted this license. Differences in age are significant ($\chi^2(7) = 436.61, p<.001$).

License to go out after dark on their own
Most children under 15 years-old are not allowed to go out after dark. Only 0.8% of 8-year-old children and 41.8% of 15-year-old children are granted this license. Differences in age are significant ($\chi^2(7) = 201.06, p<.001$).

License to use buses on their own
Only a residual percentage of children under the age of 12 are granted this license (0.8% of 8-year-olds and 36.1% of 12-year-olds). From this age onwards this value becomes more expressive, reaching the percentage of 88.8% at 15 years of age. Differences in age are significant ($\chi^2(7) = 495.81, p<.001$).

License to cycle on main roads on their own
Only 4% of 8-year-old children are allowed to cycle on main roads. At 13 years of age about half of the children were granted this license (52.2%), this tendency keeps increasing reaching the 76.8% value at the age of 15. Differences in age are significant ($\chi^2(7) = 230.40, p<.001$).
Children’s report of independent mobility licenses indicates that until the age of 10 there are restrictions on their mobility, namely in what concerns crossing main roads, cycle on main roads and cycle to places on their own (values of 27.2%, 8.9% and 27.9% at 10 years of age). These 3 licenses reach their peak at the age of 15 (96.6%, 72.8% and 92.2% respectively). The license to use buses is not very expressive till the age of 11 (17.3%), from this point beyond it gradually increases from 42.6% at 12 years of age till 91.7% at the age of 15.

**Figure 20.** Licenses of independent mobility reported by children
Figure 21. Licenses of independent mobility reported by parents and children

There are a few differences between parental and children’s reports mainly in younger children and when the questions might have been somewhat dubious, for instance the questions that involve the perception of what is a “main road” have more discrepant answers between parents and children. We feel that the understanding of the “main road” concept might be different for children and parents.

Figure 22 was based in children’s reports (cq10) and presents the mean number of weekend activities done with adults and without adults according to age.
The number of weekend activities without adults increases along with age from an average of 1.5 activities at 8 years of age to an average of 2.71 activities at 15 years of age. On the contrary, the number of weekend activities with adults decreases with age from an average of 4.38 activities to 1.44 activities between the ages of 8 and 15.

**ii. The impact of gender**

The impact of gender on the different independent mobility licenses is presented according to parental reports in Figure 23.
Gender does not influence the licenses of independent mobility granted to children in Portugal (aq1a, aq2a, aq3, aq4a, aq5, aq6) except for the license to go on their own to other places than school, which is granted to more boys (51%) than girls (43.5%) ($\chi^2(1) = 6.02, p = .014$).

Next, we present the impact of gender on weekend activities reported by children (cq10) on activities done by their own or with another child or youth (Figure 24) or accompanied by adults (Figure 25).

**Figure 24.** Weekend activities done by children on their own or with another child or youth according to gender

In terms of weekend autonomously done activities, there are more boys taking part in some activities than girls, such as: spending time with friends after dark, going to a playground, park or playing field, playing sports and going for walks or cycling around. Boys seem to be physically more active than girls during the weekend.
In terms of weekend activities accompanied by adults, there are no great differences according to gender. However, more girls than boys went shopping with their parents during the weekend. Parents seem to privilege activities related with family and with consumption of goods. On the other hand, physical activities seem to be less expressive.

### iii. The impact of independent mobility

In order to analyze the impact of independent mobility on the accompaniment in the school-home journeys, we analyzed our data and created 2 groups of children. These were based on the number of independent mobility licenses that they were granted: children with less independent mobility licenses (0 to 3 licenses granted); and children with more independent mobility licenses (more than 3 licenses). Children with more independent mobility licenses travel home from school on their own more than children with less independent mobility licenses (74.2% vs 20.3%) (see Table 2). Within the less independent mobility group, 79.7% of children travel home from school with adults, whereas this percentage is significantly smaller (25.8%) in the more independent mobility group ($\chi^2(1) = 208.48, p<.001$).

![Figure 25. Weekend activities done by children with a parent or other adult according to gender](image_url)
**Table 2.** Percentage of children that travel home from school with and without adults according to the 2 groups of independent mobility.

<table>
<thead>
<tr>
<th></th>
<th>0-3 Licenses (less independent mobility)</th>
<th>4 – 6 licenses (more independent mobility)</th>
</tr>
</thead>
<tbody>
<tr>
<td>School travel with adults</td>
<td>79.7%</td>
<td>25.8%</td>
</tr>
<tr>
<td>School travel without adults</td>
<td>20.3%</td>
<td>74.2%</td>
</tr>
</tbody>
</table>

We also analyzed the accompanied and non accompanied activities performed during the weekend according to the independent mobility groups. Considering our data we divided the Portuguese sample in two groups according to the number of accompanied activities that the children reported to have done during the weekend: children that participated in less activities (i.e., 0 to 2 accompanied activities during the weekend); and children that participated in more activities (i.e., 3 or more accompanied activities during the weekend). Children in the less independent mobility group participated in more activities during the weekend accompanied by their parents than those children in the more independent mobility group (see Table 3) ($\chi^2(1) = 78.72, p < .001$).

**Table 3.** Percentage of children that participate in less (0-2) or more (3 or more) activities accompanied by adults during the weekend according to the 2 groups of independent mobility.

<table>
<thead>
<tr>
<th></th>
<th>0-3 Licenses (less independent mobility)</th>
<th>4 – 6 licenses (more independent mobility)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2 activities accompanied</td>
<td>37.6%</td>
<td>71.8%</td>
</tr>
<tr>
<td>3 or more activities accompanied</td>
<td>62.4%</td>
<td>28.2%</td>
</tr>
</tbody>
</table>

In what concerns non accompanied activities, according to our data we also created two groups: children that participated in less activities (i.e., 0 to 1 non accompanied activity during the weekend); and children that participated in more activities (i.e., 2 or more non accompanied activities during the weekend). Children with more independent mobility participated in more activities without their parents during the weekend than children with less independent mobility (see Table 4) ($\chi^2(1) = 51.32, p < .001$).

**Table 4.** Percentage of children that participate in less (0-1) or more (2 or more) activities non accompanied by adults during the weekend according to the 2 groups of independent mobility.

<table>
<thead>
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<th></th>
<th>0-3 Licenses (less independent mobility)</th>
<th>4 – 6 licenses (more independent mobility)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1 activities non accompanied</td>
<td>61.8%</td>
<td>34.3%</td>
</tr>
<tr>
<td>2 or more activities non accompanied</td>
<td>38.2%</td>
<td>65.7%</td>
</tr>
</tbody>
</table>
iv. The impact of car availability

In order to analyze the impact of household car ownership in the range of activities, the mean number of non accompanied activities and of accompanied activities (cq10) was compared between households with no cars, with 1 car or with two or more cars (aq11a) (Figure 26).

Car ownership did not explain the number of activities without adults ($F(2,1064)=.869, p=.420$).

The number of activities done with adults according to the household access to cars was analyzed by the Kruskal-Wallis test since our sample failed to fulfill the homocedasticity assumption. According to our data, car ownership explained the number of activities done with adults ($p<.008$).

Children with more car access carried out more accompanied activities during the weekend with adults.
The impact of social class

Although we did not have a real indicator of the social class of the children, the influence of the parent’s employment situation (aq17a) on the mobility licenses granted to the children (aq1a, aq2a, aq3, aq4a, aq5, aq6) was analyzed (Figure 27).

The parent’s employment situation did not affect the independent mobility licenses except for the license to go out after dark. Parents who work part time grant this license less than the other parents ($\chi^2(2) = 9.07, p=.011$).

We also analyzed the influence of the parent’s level of education (aq17e) on the mobility licenses granted to the children (aq1a, aq2a, aq3, aq4a, aq5, aq6) (Figure 28).
vi. The impact of areal characteristics

The licenses of independent mobility were analyzed according to the different school areas in our study. For the analysis we merged the data of the two urban areas (Linda-a-Velha, in which we only
had a small subsample of 3rd and 4th graders) and Matosinhos (full subsample from 3rd to 10th grade). In Figure 29, we present the results of the mobility licenses according to area within the perspective of parents (aq1a, aq2a, aq3, aq4a, aq5, aq6) and within the perspective of children (cq7a, cq8b, cq8c, cq9).

Since parental and children’s responses are not much different and parents were asked about more licenses than children, we will analyze the data based on parental responses.

**License to cross main roads on their own**
The geographical area influences significantly the number of parents that allow their children to cross main roads ($\chi^2(4) = 20.90, p < .001$). The greatest percentage of parents that allow children to cross main roads is from the suburban area (69.0%) and the smallest percentage is from the urban...
area (52.4%). This percentage in the urban area should be analyzed with caution because we have a larger subsample of primary school children in this area, which may decrease slightly the number of children who are granted the different licenses.

License to go to places other than school on their own
The geographical area influences significantly the way children go to places other than school ($\chi^2(4)=17.89$, $p=.001$). In the urban area 37.7% of the children are usually allowed to go to places other than school and in the rural area that percentage is 54.0%.

License to travel home from school on their own
The geographical area influences significantly the license to travel home from school alone ($\chi^2(4)=49.56$, $p<.001$). Most parents of the suburban area (65.1%) say that their children will go home from school alone, whereas this is true for only 35.4% of the parents of children from the urban area.

License to go out after dark on their own
The license to go outside after dark is influenced by the geographical area ($\chi^2(4)=17.72$, $p=.001$). Only 8.9% of the children from the urban area are allowed to go out after dark, whereas 22.6% of the children from the rural area are allowed to do it.

License to use buses on their own
The percent of parents who allow their children to use local buses varies according to geographical area ($\chi^2(4)=29.00$, $p<.001$). The greatest percentage is for inner city parents (49.5%) and the smallest for rural parents (26.3%).

License to cycle on main roads on their own
The percent of parents who allow their children to cycle on main roads varies according to geographical area ($\chi^2(4)=27.08$, $p<.001$). The greatest percentage is for rural parents (50.0%) and the smallest for inner city parents (24.8%).

Next, we present these results according to primary (Figure 30) and secondary (Figure 31) school children.
License to cross main roads on their own in primary school children
The geographical area influences significantly the number of parents that allow their primary school children to cross main roads ($\chi^2(4)=18.76$, $p=.001$). The greatest percentage of parents that allow children to cross main roads is from the rural area (50.0%) and the smallest percentage is from the urban area (30.2%).

License to go to places other than school on their own in primary school children
The geographical area influences significantly the way primary school children go to places other than school ($\chi^2(4)=19.75$, $p=.001$). In the inner city area, 14.8% of the children are usually allowed to go to places other than school and in the small town area that percentage is 33.9%.
License to travel home from school on their own in primary school children
The geographical area influences significantly the license to travel home from school alone ($\chi^2(4)=57.07, p<.001$). Most parents of the suburban area (48.3%) say that their primary school children will go home from school alone, whereas this is true for only 14.8% of the parents of children from the urban area.

License to go out after dark on their own in primary school children
The license for primary school children to go outside after dark is not influenced by the geographical area ($\chi^2(4)=2.00, p=.735$). Only a residual percentage of primary school children are granted this license.

License to use buses on their own in primary school children
The percent of parents who allow their primary school children to go on local buses does not vary according to geographical area ($\chi^2(4)=5.29, p=.259$). Most primary school children are not granted this license.

License to cycle on main roads on their own in primary school children
The percent of parents who allow their primary school children to cycle on main roads varies according to geographical area ($\chi^2(4)=18.84, p=.001$). The greatest percentage is for rural parents (28.4%) and the smallest for urban parents (7.8%).
License to cross main roads on their own in secondary school children
The geographical area does not influence the number of parents that allow their secondary school children to cross main roads ($\chi^2(4)=9.42, p=.051$).

License to go to places other than school on their own in secondary school children
The geographical area influences significantly the way secondary school children go to places other than school ($\chi^2(4)=11.00, p=.027$). In the urban area 72.5% of the children are usually allowed to go to places other than school and in the rural area that percentage is 92.7%.
License to travel home from school on their own in secondary school children
The geographical area influences significantly the license to travel home from school alone ($\chi^2(4)=13.26, p=.010$). Most parents of the rural area (88.7%) say that their secondary school children will go home from school alone, whereas this is true for 71.8% of the parents of children from the urban area.

License to go out after dark on their own in secondary school children
The license for secondary school children to go outside after dark is influenced by the geographical area ($\chi^2(4)=24.85, p<.001$). Only 19.4% of the children from the urban area are allowed to go out after dark, whereas 52.7% of the children from the rural area are allowed to do it.

License to use buses on their own in secondary school children
The percent of parents who allow their secondary school children to use local buses varies according to geographical area ($\chi^2(4)=30.64, p<.001$). The greatest percentage is for inner city parents (88.2%) and the smallest for rural parents (50.0%).

License to cycle on main roads on their own in secondary school children
The percent of parents who allow their secondary school children to cycle on main roads varies according to geographical area ($\chi^2(4)=28.45, p<.001$). The greatest percentage is for rural parents (93.2%) and the smallest for suburban parents (66.7%).

The influence of areal characteristics in weekend activities (cq10) was also analyzed. Next, we present the mean number of weekend activities done by children on their own or with another child or youth (Figure 31) or with a parent or other adult (Figure 33), according to area.
Figure 32. Weekend activities done by children on their own or with another child or youth according to area

Small town and rural children reported to have participated on their own or with another child during the weekend in more activities, such as: visiting a friend’s home; going to the library, spending time outside with friends after dark, playing sports and going for a walk or cycle around.
Small town children reported to have participated in more activities during the weekend, with a parent or other adult, such as going to shops, library, cinema, playgrounds and concerts or nightclubs, as well as playing sports and walking or cycling around.

**Figure 3.** Weekend activities done by children with a parent or other adult according to area
The influence of areal characteristics in the home-school journey is presented in Figures 34 (home-school – cq1) and 35 (school-home – cq4).

**Figure 34.** Home-school travel mode according to area

There are significant differences in the way children travel to school in the different areas ($\chi^2(20)=149.64$, $p<.001$). More suburban children walk to school than children from the other areas. The school bus is used mainly by small town children, but this percentage is residual. Car is the first mode of transport to school in all areas, except in the suburban area, where the access to car is more limited.
There are significant differences in the way children travel home from school in the different areas ($\chi^2(20)=128.89$, $p<.001$). Car is not the first mode of transport in the way back home, except for the inner city children. Most suburban children walk when going home and urban children use public transportation. Small town children have two more frequent ways of returning home: walking and by car.

Next, we present the frequency of bicycle ownership (Figure 36 – cq8a) and of cycling (Figure 37 – cq8d) according to area.
Most of the children in our sample own a bicycle (76.9%). Suburban children have more limited access to bicycles than the other children ($\chi^2(4)=47.18$, $p<.001$).

Considering the children that have bicycles, most of them (59.7%) only use them once a week or less. Rural and small town children use their bicycles more frequently than the others ($\chi^2(8)=41.09$, $p<.001$).
3. How parents travelled as children

In order to analyze the way that parents walked to school when they were 8 or 9 years-old and to compare it with the way their children travel to school, we selected the parent-child dyads in our sample in which the child was 8 or 9 years-old and we analyzed the answers to cq1 and aq9a. The results are presented in Figure 38.

We used the McNemar test to analyze:

- The differences between the percentage of 8 and 9 year-old children that walk to school vs. the percentage of their parents that used to walk to school at the same age ($\chi^2(1)=77.28$, $p<.001$).
- The differences between the percentage of 8 and 9 year-old children that go by car to school vs. the percentage of their parents that used to go by car to school at the same age ($\chi^2(1)=137.92$, $p<.001$).

There was a generational shift from walking to school to the use of car in this journey. 85.5% of parents used to walk to school when they were 8 or 9 years-old, whereas only 34.9% of their 8 or 9 year-old children walk to school today. On the other hand, 56.3% of 8 and 9 year-olds go to school by car, whereas this percentage was of 8.9% in their parents’ generation.

The distance that parents travelled to primary school compared to the distance that their child has to travel to primary school was based on aq9b and is presented in Figure 39.
Figure 39. Distance to parents' primary school compared with distance to children's primary school

Overall the distance to parents' primary school compared with distance to children's primary school is about the same.

In figure 40 we present the mean age indicated by parents for different mobility licenses to be granted to their children. We analyzed the answers to questions: aq3 (age yes or age no); aq1a (age yes or age no); aq5 (age yes or age no); and aq6 (age yes or age no).

Figure 40. Mean age for different mobility licenses to be granted. Error bars represent standard deviations

The first license to be granted to Portuguese children is usually the license to cross roads alone ($M=10.83$, $SD=1.93$), followed by the license to travel home from school alone ($M=11.53$, $SD=2.13$), the license to cycle alone on main roads ($M=12.62$, $SD=2.56$) and finally the license to use public transportation alone ($M=12.84$, $SD=2.11$).
In order to compare the parents age to get about on their own (aq9c) with their children’s age to get about on their own we computed the children’s age based on the mean age of the 4 previously reported licenses: cross main roads; travel home-school alone; cycle on main roads; using public transportation. The results are presented in figure 41.

Parents age to get about on their own ($M=9.14$, $SD=2.64$) was about 3 years earlier than children’s age to get about on their own ($M=11.82$, $SD=1.67$). This difference is statistically significant ($t(1015)=31.83$, $p<.001$).

**Discussion and conclusions**

In the Portuguese survey of children’s independent mobility most of our main findings confirmed the results of previous studies that indicate a reduction in the children’s independent mobility and an increase in car use in modern society (Fyhri, Hjorthol, Mackett, Fotel, & Kyttä, 2011; Hillman, 1993; Hillman, Adams, & Whitelegg, 1990; Kytta, 2004).

Findings of the primary and secondary school children’s analysis revealed that secondary school children have more independent mobility than primary school children. There were significant differences for the six licenses of independent mobility between primary and secondary school children. Independent mobility has been operationalized as a license to move around independently in the environment (Kytta, 2004) and several studies (Hillman, 1993; Hillman, et al., 1990) have investigated the degree of mobility licenses as sets of rules defined by parents concerning for example the licenses presented in this report (license to cross main roads on their own, license to go to places other than school, license to travel home from school alone, license to go outside after...
dark, license to go on buses on their own and license to cycle on main roads alone). In Portugal, we verified that age is a major influence on children's level of independent mobility. As children grow older the number of licenses granted by their parents increase. In our sample, the mean age that parents mention to let children go home from school alone is about 11.5 years of age. The ages mentioned for the other licenses vary between 10.8 years of age (cross main roads alone) and 12.8 years of age (use public transportation alone). These ages have increased in the last years, since parents’ mean age to get about on their own was about 9.1 years old and the mean age for children to get about on their own based in the 4 reported licenses (cross main roads, travel home-school alone, cycle on main roads, and using public transportation) is about 11.8 years of age.

Gender was not an influential factor on children’s independent mobility. There were no differences in most of the parental reports of the six independent mobility licenses according to gender, which contradicts the results from previous studies (Brown, Mackett, Gong, Kitazawa, & Paskins, 2008; Hillman, 1993; Hillman, et al., 1990). Gender only influenced the license to go on their own to other places than school, which is granted to more boys than girls in Portugal.

Most of the children in our sample travel to school by car and accompanied by their parents (61.6% primary school children and 41.5% secondary school children go to school accompanied by one parent). Most primary school children travel home by car, whereas walking is the most frequent mode for secondary school children in the school-home journey. The analysis of the journey from home to school, the transport mode used and the accompaniment of the children in that journey are good indicators to assess the degree of independent mobility (Malho & Neto, 2004). The fact that children travel mostly by car indicates a reduction of the interaction between children and their environment, which will undermine children’s spatial and social development (Neto, 2001). The concern is even greater when we analyze the results of secondary school children’s preferred transport modes. Although primary school children chose cycling as their favorite mode of transport to go to school, secondary school children chose the car as their favorite transport mode. Our results confirm the tendency reported by (Fyhri, et al., 2011) indicating an increase in car use and decrease in bicycling and walking in Denmark, Finland, Great Britain and Norway. The reasons pointed to this trend are the distance to school, parental convenience, increase of organized leisure activities, time pressure and increase in household access to cars. In fact, there were major changes in society in the last years, which are also reflected in our study, namely, in the differences between children’s and parents’ modes of transport to school: 85.5% of parents used to walk to school when they were 8 or 9 years-old, whereas only 34.9% of their 8 or 9 year-old children walk to school today. On the other hand, 56.3% of 8 and 9 year-olds go to school by car, whereas this percentage was of 8.9% in their parents’ generation. As Mackett, Lucas, Paskins, and Turbin (2005) mention there is a shift from walking to car use, in modern societies. Most households in our sample have access to cars. The non-car-ownership has been suggested by previous studies (Hillman, 1993; Hillman, et al., 1990) as an indicator of a lower social class level. Car availability did not influence the number of activities that children report to have done during the weekend without adults. However, car ownership explained the number of activities done with adults. Children with more car access carried out more accompanied activities during the weekend with adults.

In what concerns the activities done by the children during the weekend, the most frequent activities were going to shops and visiting relatives or grown-ups, which can be considered “adult’s activities”. These activities were done with their parents or other adults. Visiting a friend’s home,
going for a walk, playing sports and going to the playground were also frequent activities. These were done autonomously or with other children, which might indicate that these activities promote a better independence of mobility, because children tend to walk on their own or with other children to attend to play structured and unstructured activities. In addition, when children go for walks on their own, they have better possibilities of exploring the environment and socializing, both of which are important aspects of children’s development (Mackett, Brown, Gong, Kitazawa, & Paskins, 2007).

Most children feel fairly safe in their neighborhood but concerns about safety are more frequent in primary school children. The major concern of children when they are outside on their own or with friends is strangers. Primary school children also worry about getting lost and bullying. Most parents are very worried about the risk of the child being injured in a traffic accident, which confirms the results from previous studies (Fyhri, et al., 2011; Hillman, 1993; Hillman, et al., 1990).

In this survey, no obvious patterns could be determined for examining social class differences since none of the questions posed to the parents addressed directly their income levels. We found that the parent’s education level was related to the license to come home from school alone. The greater the education level of the parent the fewer children are granted this license. It was also related with the license to cycle on main roads. Parents with the primary school education level grant this license more to their children than the other parents.

Areal characteristics influenced significantly all the independent mobility licenses in our study and the number of activities that the children report to have done during the weekend. Overall, more suburban children are allowed to cross main roads and to go home from school alone; more inner city children are allowed to use buses on their own (probably due to a greater availability of public transportation); more rural and small town children are allowed to cycle on main roads and more rural children are allowed to go out after dark. The small town and rural area children reported to have done more activities during the weekend than children from the other geographical areas. The influence of areal characteristics has been reported in previous studies (e.g., Hillman, et al., 1990; Lopes et al., 2011) and is correlated with economical, social and cultural differences between the families of those areas (Rissotto & Tonucci, 2002).

Although the methodology used in this survey enabled us to characterize the levels of children’s independent mobility in Portugal, we believe that complementary qualitative research would strengthen the conclusions drawn from this study and would clarify some aspects regarding the different interpretations that adults and children might have for the same questions. At the same time, when studying childhood just by adopting quantitative research procedures, like questionnaires, children are not considered “active participants”. Qualitative participatory research recognizes children as social actors of their own right and active participants in the construction and determination of their experiences, of other people’s lives and of the societies where they live (O’Kane, 2005). For instance, the use of visual means in social investigation and when working with children is becoming more popular and is currently a recognized way of relationship with children (Christensen & James, 2005; Mikkelsen & Christensen, 2009). It has also been found that children communicate in a very effective way, when using non verbal means like games, activities, songs, stories, drawings and photographs. We believe that complementary quantitative and qualitative research is the best way to investigate children’s levels of independent mobility. However, for a
large scale analysis, such as national and international surveys, the use of questionnaires is the best option.

The implications of this work for policy makers are related with the concept of allowing children to be more autonomous and interact more freely in their environment. For this to happen, we believe that, in the future, research and intervention projects should be integrated in nationwide political agendas of the local counties and communities. This would enable parents, child care givers and teachers to become more aware and more sensitive towards the importance of children’s independent mobility in the development and well being of children and childhood.
References


Annexes

1. Portuguese version of the child’s questionnaire
2. Portuguese version of the parent’s questionnaire
3. Model letter to school
4. Brief guidelines for the teachers
5. Model letter to parents and request for participation in the survey
COMO TE DESLOCAS
Questionário para crianças e jovens dos 7 aos 15 anos

- Por favor, responde às perguntas que se seguem - não há respostas certas ou erradas.
- Não vamos saber quem preencheu este questionário.
- Se tiveres dúvidas, pede ajuda.

CAMINHO DE CASA PARA A ESCOLA E DA ESCOLA PARA CASA

1) Como vieste para a escola esta manhã?
   (Escolhe apenas uma opção)
   □ A pé, a maior parte do caminho ou o caminho todo
   □ De bicicleta
   □ Na carrinha
   □ De autocarro, camioneta, comboio, eléctrico ou metro
   □ De carro
   □ Outro, qual? : ........................................................................................................

2) Com quem vieste para a escola esta manhã?
   (Escolhe as opções que achares necessárias)
   □ Sozinho
   □ Pai ou mãe
   □ Outro adulto
   □ Uma criança mais velha
   □ Uma criança da mesma idade ou mais nova

3) Quanto tempo demoraste a chegar à escola esta manhã?
   (Escolhe apenas uma opção)
   □ Menos de 5 minutos
   □ 5 a 15 minutos
   □ 16 a 30 minutos
   □ 31 a 45 minutos
   □ 46 minutos ou mais
4) Como vais para casa hoje? (Escolhe apenas uma opção)

□ A pé, a maior parte do caminho ou o caminho todo
□ De bicicleta
□ Na carrinha
□ De autocarro, camioneta, comboio, eléctrico ou metro
□ De carro
□ Outro, qual?: .................................................................

5) Com quem vais para casa hoje? (Escolhe as opções que achares necessárias)

□ Sozinho
□ Pai ou mãe
□ Outro adulto
□ Uma criança mais velha
□ Uma criança da mesma idade ou mais nova

6) Como gostarias de fazer o caminho de casa para a escola e da escola para casa? (Escolhe apenas uma opção)

□ A pé, a maior parte do caminho ou o caminho todo
□ De bicicleta
□ Na carrinha
□ De autocarro, camioneta, comboio, eléctrico ou metro
□ De carro
□ Outro, qual?: .................................................................

ANDAR A PÉ

7a) Estás autorizado a atravessar estradas com muitos carros sozinho?

□ SIM (Por favor passa para a Pergunta 7c)
□ NÃO
7b) Se não estás autorizado a atravessar estradas com muitos carros sozinho, gostavas de estar autorizado?

☐ SIM
☐ NÃO

7c) Que idade tinhas quando comeceste a atravessar estradas com muitos carros sozinho?

(Indica uma idade aproximada mesmo que não tenhas a certeza)

☐ Idade
☐ Não estou autorizado a atravessar estradas com muitos carros sozinho

---

**ANDAR DE BICICLETA**

8a) Tens uma bicicleta?

☐ SIM
☐ NÃO (Por favor passa para a ▶ Pergunta 9)

8b) Estás autorizado pelos teus pais a andar de bicicleta em estradas principais?

☐ SIM Com que idade foste autorizado?

☐ Idade

☐ NÃO

8c) Se tens uma bicicleta estás autorizado a ir a sítios como o parque ou a casa de amigos sem o acompanhamento de adultos?

☐ SIM
☐ NÃO

☐ Não tenho uma bicicleta

8d) Numa semana normal, incluindo o fim-de-semana, quantas vezes andas de bicicleta (com ou sem os teus pais)?

☐ Uma vez por semana ou menos

☐ Um ou dois dias por semana

☐ Três ou mais dias por semana

☐ Não tenho uma bicicleta
TRANSPORTES PÚBLICOS

9) Estás autorizado a andar de transportes públicos (autocarro, comboio, eléctrico e metro) sozinho?

☐ SIM

☐ NÃO

FIM-DE-SEMANA

10) Qual destas actividades fizeste durante o fim-de-semana (sábado ou domingo):

(assinala a primeira coluna se fizeste estas coisas sozinho ou com outra criança ou jovem)
(assinala a segunda coluna se fizeste estas coisas com um dos teus pais ou com outro adulto)

<table>
<thead>
<tr>
<th>Sozinho ou com outra criança ou jovem</th>
<th>Com o pai ou mãe ou outro adulto</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fui a casa de um amigo</td>
<td></td>
</tr>
<tr>
<td>Fui a casa de familiares ou adultos</td>
<td></td>
</tr>
<tr>
<td>Fui a um clube de jovens (escuteiros, catequese, etc.)</td>
<td></td>
</tr>
<tr>
<td>Fui às compras</td>
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<td>Fui à biblioteca</td>
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<tr>
<td>Fui ao cinema</td>
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<tr>
<td>Fiquei com amigos na rua depois de escurecer</td>
<td></td>
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<tr>
<td>Fui a um parque, jardim, ou campo de jogos</td>
<td></td>
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<tr>
<td>Fiz desporto ou fui nadar (desportos individuais ou colectivos)</td>
<td></td>
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<tr>
<td>Fui andar a pé ou de bicicleta</td>
<td></td>
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<tr>
<td>Fui a um concerto ou a uma discoteca</td>
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<tr>
<td>Fui à igreja</td>
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<td>Outro (escreve):</td>
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<td>Outro (escreve):</td>
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<tr>
<td>Outro (escreve):</td>
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</table>
ONDE VIVES

11a) Sentes-te seguro se estiveres sozinho no teu bairro?
    (Escolhe apenas uma opção)
    □ Não estou autorizado a andar sozinho
    □ Muito seguro
    □ Seguro
    □ Pouco seguro
    □ Nada seguro

11b) Quando estás na rua sozinho ou com amigos é uma preocupação:
    (Escolhe as opções que achares necessárias)

<table>
<thead>
<tr>
<th></th>
<th>Sim</th>
<th>Não</th>
<th>Não sei</th>
</tr>
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<tbody>
<tr>
<td>Trânsito</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>Perder-me</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Agressão/abuso por outras crianças</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>Estranhos</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Não ter idade suficiente para andar sozinho</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>Não saber o que fazer se alguém falar comigo</td>
<td>□</td>
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11c) Existe mais alguma coisa com a qual te preocupas quando estás na rua sozinho ou com amigos?
    Escreve: ........................................................................................................................................
    .......................................................................................................................................................
COMO SE DESLOCA A SUA CRIANÇA
Questionário para pais, mães ou cuidadores de crianças dos 7 aos 15 anos

AS PERGUNTAS QUE SE SEGUEM SÃO SOBRE O SEU FILHO
• Este questionário deve demorar cerca de 10 minutos a preencher.
• Por favor responda apenas em relação à criança que lhe entregou este questionário – não responda em relação a qualquer outra criança do seu agregado familiar.
• Por favor responda a todas as questões da melhor forma possível.
• As suas respostas serão mantidas anónimas.

Regresso da escola para casa

1a) A sua criança vai da escola para casa sozinha?
   □ SIM – A partir de que idade permitiu à sua criança vir da escola para casa sozinha?
   □ NÃO - Com que idade pensa deixar a sua criança vir da escola para casa sozinha?

1b) Quantos dias por semana a sua criança vem da escola para casa acompanhada por um adulto?
   (Por favor insira um número)
   □ Vezes por semana

1c) Quais são as razões principais que o levam a ir buscar a sua criança à escola (mesmo que já não o faça)?
   (Por favor não assinale mais que três opções)

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<tbody>
<tr>
<td>□</td>
<td>1. Oportunidade para passar tempo com a criança</td>
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<tr>
<td>□</td>
<td>2. Oportunidade para fazer exercício ou para sair de casa</td>
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<td>□</td>
<td>3. Preocupação com os perigos do trânsito</td>
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<tr>
<td>□</td>
<td>4. Criança imatura ou muito nova</td>
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<td>□</td>
<td>5. Medo de agressão ou abuso por um adulto</td>
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<tr>
<td>□</td>
<td>6. Medo de bullying/agressão por parte de outras crianças</td>
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<td>□</td>
<td>7. Oportunidade para conhecer pessoas (professores, outros pais, etc.)</td>
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<td>□</td>
<td>8. Ir a caminho para uma actividade sua ou da criança (compras, visitar família, desporto, etc)</td>
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<td>□</td>
<td>9. Escola muito longe</td>
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<td>□</td>
<td>10. Outra razão, por favor escreva:</td>
</tr>
</tbody>
</table>
1d) **Quanto tempo leva normalmente a chegar à escola do seu filho?**

* (escreva o tempo, ou assinale ‘Não sei / Não aplicável’)*

<table>
<thead>
<tr>
<th>Transporte</th>
<th>minutos</th>
<th>ou</th>
<th>Não sei / Não aplicável</th>
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</thead>
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<tr>
<td>A pé</td>
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<tr>
<td>Carro</td>
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<tr>
<td>Transporte Público</td>
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1e) **A escola da sua criança é a mais próxima de casa que ela poderia frequentar?**

- [ ] SIM (*Por favor passe para a **Pergunta 1g***)
- [ ] NÃO

1f) **Se NÃO, qual a principal razão para a sua criança frequentar esta escola?**

* (Escolha as opções que achar relevantes)*

- [ ] 1. Não havia vaga na escola mais próxima
- [ ] 2. Preferência por frequentar uma escola noutro local
- [ ] 3. Opção por uma escola de um tipo específico (religiosa, artística, etc)
- [ ] 4. Mudança de casa depois da criança já ter entrado para a escola
- [ ] 5. Deslocações mais fáceis
- [ ] 6. Outra razão, por favor escreva:

1g) **A sua criança tem alguma deficiência ou doença prolongada?**

- [ ] SIM – *Por favor explique resumidamente (opcional)*)
- [ ] NÃO

1h) **Qual a distância da sua casa à escola da sua criança?**

- [ ] Até 500 m
- [ ] De 500 m a 1 Km
- [ ] De 1 a 2 Km
- [ ] Mais de 2 Km

**Outras deslocações**

2a) **Nas deslocações para outros locais, que não a escola, que estejam a curta distância, a sua criança é acompanhada ou pode ir sozinha?**

- [ ] Geralmente vai sozinha (*Por favor passe para a **Pergunta 3***)
- [ ] Geralmente acompanhada
- [ ] Varia
2b) **Excluindo a deslocação para a escola**, qual o número aproximado de percurso (ir e vir) que faz por semana para acompanhar a sua criança?  
(Por exemplo, levar a criança à natação e voltar para casa corresponde a 1 percurso)

□ Percursos por semana

2c) Qual a forma de deslocamento mais frequentemente utilizada nesses percurso?  
(Escolha as opções que achar relevantes)

□  A pé, a maior parte do caminho ou o caminho todo

□  De bicicleta

□  De autocarro, camioneta, comboio, eléctrico ou metro

□  De carro

□  Outro, qual?: ........................................................................................................

---

**Atravessar estradas**

3) A sua criança está autorizada a atravessar estradas principais sozinha?  
**Nota:** esta questão é feita aos pais de crianças dos 7 aos 15 anos. Por favor responda mesmo que a resposta lhe pareça óbvia.

□  SIM  Com que idade foi permitido à sua criança fazê-lo?

□  NÃO  Com que idade pensa que a sua criança o poderá fazer?

---

**Sair depois do anoitecer**

4a) A sua criança está autorizada a sair sozinha depois do anoitecer?  

□  SIM  *(Por favor passe para a → Pergunta 5)*

□  NÃO

4b) Se NÃO, qual a principal razão pela qual a sua criança não está autorizada a sair sozinha depois do anoitecer?  
*Por favor escreva...* 
.................................................................................................................................
.................................................................................................................................
Andar de bicicleta
5) A sua criança está autorizada a andar de bicicleta sozinha em ruas principais?
□ Não tem bicicleta
□ SIM - Com que idade foi permitido à sua criança fazê-lo?
[ ] Idade
□ NÃO - Com que idade pensa que a sua criança o poderá fazer?
[ ] Idade

Transportes públicos
6) A sua criança está autorizada a andar de transportes públicos sozinha?
□ SIM
□ NÃO
Com que idade foi permitido à sua criança fazê-lo?
[ ]Idade
Com que idade pensa que a sua criança o poderá fazer?
[ ]Idade

Telemóveis
7a) A sua criança tem telemóvel?
□ SIM
□ NÃO (Por favor passe para a Pergunta 8)

7b) Se SIM, isto faz com que se sinta mais confiante em relação a deixar a sua criança sair sozinha?
□ SIM
□ NÃO
□ A criança não sai sozinha

Trânsito
8) Qual o nível de preocupação que sente com o facto da sua criança poder ser atropelada ao atravessar a rua?
□ Muita preocupação
□ Bastante preocupação
□ Não muita preocupação
□ Nenhuma preocupação
□ Não sei / não tenho a certeza
As perguntas seguintes são acerca de si

9a) Quando era uma criança de 8 ou 9 anos, como costumava deslocar-se para a escola? (Assinale apenas uma opção)

- [ ] A pé, a maior parte do caminho ou o caminho todo
- [ ] De bicicleta
- [ ] Na carrinha
- [ ] De autocarro, camioneta, comboio, eléctrico ou metro
- [ ] De carro
- [ ] Outro, qual? :

9b) Como relaciona a distância que tinha de percorrer até à escola primária com a distância que a sua criança tem de percorrer até à primária?

<table>
<thead>
<tr>
<th>Muito menor</th>
<th>Menor</th>
<th>Aproximadamente a mesma</th>
<th>Maior</th>
<th>Muito maior</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
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</tbody>
</table>

9c) Aproximadamente com que idade foi autorizado a deslocar-se sozinho?

- [ ] Idade

10) Qual o seu nível de concordância com as afirmações seguintes? Assinale uma cruz numa das seguintes opções.

<table>
<thead>
<tr>
<th></th>
<th>Concordo plenamente</th>
<th>Concordo</th>
<th>Não concordo nem discordo</th>
<th>Discordo</th>
<th>Discordo plenamente</th>
</tr>
</thead>
<tbody>
<tr>
<td>10a) A maior parte dos adultos do meu bairro tomam atenção às crianças dos outros.</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>10b) Alguns jovens e adultos do meu bairro fazem com que eu tenha medo de deixar as crianças brincar na rua</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

O seu agregado familiar

11a) O seu agregado familiar usa regularmente carro (incluindo carro partilhado com amigos, colegas, etc)?

- [ ] Não
- [ ] Sim, 1 carro
- [ ] Sim, 2 ou mais carros
11b) Quantas pessoas no seu agregado familiar, incluindo você mesmo, têm carta de condução?

Número

12) Quantas pessoas vivem na sua casa, incluindo você mesmo?

- Criança(s) com 10 anos ou menos
- Criança(s) de 11 a 15 anos
- Todos os outros com 16 ou mais anos

TOTAL

13) A casa onde mora pretende-lhe ou é alugada?

□ Casa própria (com ou sem empréstimo)
□ Habitação social
□ Casa alugada
□ Vive em casa de familiares
□ Acomodação temporária
□ Outra …………………….

14) Tem acesso a espaço(s) exterior(es) onde as suas crianças possam brincar?
(Escolha as opções que achar relevantes)

□ 1. Jardim
□ 2. Parque a que se chega sem atravessar uma estrada principal
□ 3. Parque a que se chega atravessando uma estrada principal
□ 4. Rua residencial calma
□ 6. Espaço comum partilhado
□ 7. Outro por favor escreva
□ 8. Não existe espaço exterior apropriado

15) Por favor escreva o seu código postal

□ □ □ □ □

16a) Quantos anos tem?

Por favor assinale a opção para si e (se aplicável) para o seu parceiro/cônjuge ou parceiro (a) (se aplicável)

□ Menos de 30
□ 30 a 44
□ 45 ou mais
16b) Qual é o seu sexo?
Por favor assinale a opção para si e (se aplicável) para o seu parceiro

Você  cônjuge ou parceiro (a) (se aplicável)
Masculino □ □
Feminino □ □

17a) Tem um trabalho remunerado?

Você  cônjuge ou parceiro(a) (se aplicável)
Sim, a tempo inteiro □ □
Sim, em part-time □ □
Não □ □

17b) Se tem um trabalho remunerado, trabalha em casa ou noutro local?

Você  cônjuge ou parceiro (a) (se aplicável)
Casa □ □
Outro local □ □

17c) Qual a sua profissão actual ou a mais recente?

Você .................................................................
O cônjuge ou parceiro (a)...........................................

17d) Se está empregado, o que é feito ou produzido no seu local de trabalho?

Você .................................................................
O cônjuge ou parceiro (a)...........................................

17e) Quais as suas habilitações?

Você  cônjuge ou parceiro(a) (se aplicável)
Escola primária □ □
9º Ano (antigo 5º ano do liceu) □ □
10º a 12º ano (antigo 7º ano do liceu) □ □
Ensino Profissional □ □
Ensino Superior □ □

Muito obrigado pela sua participação 😊
Exma Sra. Directora da Escola Secundária Fernando Namora

Venho, por este meio, apresentar o projecto de investigação “MOBILIDADE INDEPENDENTE COMO UM ASPECTO CRÍTICO DO DESENVOLVIMENTO DAS CRIANÇAS E DA QUALIDADE DE VIDA” liderado pelo Policy Studies Institute, em Inglaterra, com a colaboração da Universidade Técnica de Lisboa, através da Faculdade de Motricidade Humana, do Instituto Superior Técnico e da Associação Lavoisier e solicitar a participação da Escola Secundária Fernando Namora.

O relatório One False Move: A Study of Children’s Independent Mobility, redigido pelo Policy Studies Institute, baseado em estudos semelhantes de mobilidade de crianças e jovens no Reino Unido, descreve uma perda dramática da mobilidade autónoma das crianças entre 1971 e 1990. De facto, em 1971, 80 por cento das crianças inglesas com sete e oito anos de idade iam para a escola autonomamente, enquanto que em 1990, esta proporção decresceu para os 9 por cento. Existe uma expectativa de que a situação Portuguesa seja semelhante mas a sua confirmação exige estudos metódicos.

O projecto em desenvolvimento pretende, assim, reconhecer, analisar e comparar os padrões de mobilidade de crianças entre os 7 e os 15 anos de idade em vários Países Europeus, incluindo Portugal, e requer a recolha de dados, durante os meses de Janeiro e Fevereiro de 2011, através da aplicação de dois questionários:

- aos encarregados de educação de crianças de duas turmas do 7º, 8º, 9º e 10º anos lectivos, que deverá ser preenchido em casa e devolvido através das crianças;
- às crianças das respectivas turmas, que deverá ser preenchido na sala de aula. Estima-se que as crianças demorem cerca de 20 minutos a responder às questões.

A autorização para a aplicação do inquérito sobre mobilidade independente já foi solicitada e concedida pela DGIDC (código 0183300001).

A Escola Secundária Fernando Namora foi identificada, pela equipa de investigação Portuguesa, como sendo potencialmente representativa da mobilidade numa zona suburbana, pelo que seria um parceiro muito importante neste projecto. Assim, solicitamos a autorização para a aplicação dos questionários descritos a alunos desta escola.

Gratos, desde já, pela atenção dispensada; estamos certos de que a participação da Escola Secundária Fernando Namora, neste projecto, contribuirá para a sua viabilização, aprofundando o conhecimento científico da realidade social infanto-juvenil portuguesa e permitindo a sua comparação internacional.

Melhores cumprimentos,

Rita Cordovil
Protocolo de aplicação dos questionários

Os questionários serão aplicados em diferentes escolas do país com vista a avaliar a mobilidade independente das crianças e jovens. O questionário aplicado às crianças será preenchido na sala de aula e o questionário aplicado aos pais será levado para casa pelas crianças e trazido de volta para a escola, de preferência no prazo máximo de uma semana.

As escolas onde os questionários serão aplicados deverão ser escolhidas de forma a representarem as cinco tipologias previstas no projecto internacional: escolas no centro da cidade, escolas urbanas, escolas suburbanas, escolas de pequena cidade e escolas rurais. Os questionários deverão ser aplicados a crianças do 3º ao 10º ano (7 a 15 anos de idade). No total esperamos aplicar cerca de 1200 questionários, sendo a taxa de resposta esperada de cerca de 80%.

Após o contacto inicial feito com a escola e com o professor da turma, cada criança levará para casa o pedido de consentimento informado com a explicação dos objectivos do estudo e o questionário para ser preenchido pelos pais, sendo pedido que os devolvam no prazo de uma semana. A participação é voluntária e os pais terão o direito de desistir do estudo a qualquer momento, não assinando o consentimento informado ou informando a escola da intenção de desistir. O questionário das crianças deverá ser respondido durante um dia de escola normal, estando o professor presente na sala. O investigador explicará brevemente quais os objectivos do estudo reforçando a importância das respostas das crianças serem verdadeiras e salientando o facto que os questionários são confidenciais e anónimos. Não será recolhida qualquer tipo de informação pessoal que possa levar à identificação dos questionários. As crianças serão informadas que podem desistir do estudo, ou podem não responder a questões com as quais não se sintam confortáveis. As crianças que não tiveram autorização parental para responderem ao questionário deverão estar a fazer uma outra tarefa durante a sua aplicação de forma a não se sentirem excluídas. Os questionários serão recolhidos após terem sido preenchidos, devendo o código de identificação do questionário da criança ser idêntico ao código de identificação do questionário do respectivo pai.

Os questionários serão levados pelo investigador para a Faculdade de Motricidade Humana de modo a ser possível prosseguir com a fase de inserção de dados no programa de tratamento estatístico SPSS.
Autorização do Encarregado de Educação

Exmº/ª Senhor (a) Encarregado de Educação

No âmbito do projecto de investigação “INDEPENDÊNCIA DE MOBILIDADE COMO UM ASPECTO CRÍTICO DO DESENVOLVIMENTO DAS CRIANÇAS E QUALIDADE DE VIDA” realizado pelo Policy Studies Institute de Inglaterra, com a colaboração da Universidade Técnica de Lisboa- Faculdade de Motricidade Humana e Instituto Superior Técnico, e da Associação Lavoisier, estamos a participar na recolha de dados sobre a independência de mobilidade de crianças entre os 7 e os 15 anos de idade.

Para realizar este trabalho necessitamos da sua autorização no sentido de aplicar dois questionários:

- Um questionário encontrado em anexo e deverá ser respondido por si.
- Outro questionário, de formato semelhante mas mais curto, deverá ser preenchido pelo seu educando e será aplicado na sala de aula do estabelecimento de ensino por ele frequentado.

Os nomes dos participantes no estudo serão mantidos em absoluto sigilo. Assegura-se, também, o direito de desistência em qualquer fase do processo de recolha de dados.

Se aceitar participar e concordar com a participação do seu educando, por favor assine e devolva este pedido de autorização.

Agradecendo a sua atenção, deixamos os contactos abaixo para possíveis esclarecimentos:

Telefone: Email:

O Investigador

________________________________________________________________________

AUTORIZAÇÃO

Sim, eu ________________________________ autorizo o meu educando ________________________________ a participar na pesquisa “Independência de mobilidade como um aspecto crítico do desenvolvimento das crianças e qualidade de vida”.

Data de nascimento da criança: ___ / ___/ ___

Ano/Turma: ______

________________________________________________________________________

(Assinatura do pai/mãe ou responsável)