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Doctoral School of Education

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**URBAN HOME-CONSCIOUSNESS –  
ENVIRONMENTAL EDUCATION WITH WALKING  
PATHS**

Theses of the PhD-Dissertation

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**Eger**

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**[M1] megjegyzést írt:** Azért, kérdezd meg a fordítót. Az biztos, hogy a path (ösvény) többes száma paths...

# Theses

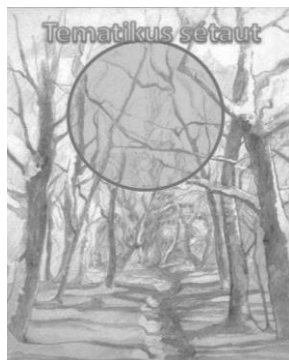
The first part of the dissertation discusses the theoretical questions of environmental studies, environmental awareness, environmental education focusing on the urban environment with a broad outlook on literature. The second part is an empiric activity based on theory, which also consists of two parts, an attitude test with a questionnaire and an urban walks sample project.

## 1. What was before the research

Learning about and from our environment is an evolutionary necessity, as old as man kind itself. However, environmental upbringing and education in a present day sense is not even half a century old. As its basic document academic literature quite uniformly refers to the Tbilisi Declaration created in 1977 by the UNESCO at the world's first Intergovernmental Conference on Environmental Education. As of today, the term sustainability is widely known, a decade ago several authors expanded the term environmental education and started talking about the pedagogy of sustainability. This notion has become a key competency for pedagogues by 2019. The history of environmental education, the broadening of the term and the milestones of the last fifty years are summarised in detail by Imre Kárász (2015), Judit Vásárhelyi (2012), Péter Havas (1996), Keith A. Wheeler and Anne Perraca Bijur (2001) and several other authors.

**Environmental studies is an interdisciplinary field**, an intersubject one in a school environment. The system of relations between environmental studies and related disciplines can be shown on an infographic (picture 1.) on which the related disciplines are represented as trees and only a few of their branches deal with environmental upbringing. All of these branches touch upon environmental education but the trees of related disciplines fall out of this scope. We might call the circled part environmental studies. Questions of environment and correspondingly environmental education are thus interdisciplinary fields but the notion of environment (or space/place) is also immensely complex. Consequently, it is advisable to choose didactic methods which themselves are interdisciplinary and step outside the traditional frame which can be dated back to Friedrich Herbart (1776-1841). A suggested example of this is the urban walks sample project.

Source: the internet, individual editing



**Earth is an urbanized celestial body**, since 2007 more than 50% of its population are city dwellers and this ratio is going to change to two thirds by the middle of the century because of the yearly population growth of 68 million. Half of the city dwellers (one third of the world's population) are going to live in cities of millions, way past the possibility of a relationship based on "personal encounters" between individual and natural environment. In our home country 3 million people live in the capital city and in the 185 small towns of the agglomeration, which is 6.6% of the complete area. According to the OKM (National Competency Measurement) database in 2015 23.6% of all the sixth grade students and 24.5% of all the eighth grade students lived in cities. Among these circumstances it is inevitable to theorise and practice urban environmental education.

"Since more and more people live in cities, often the city itself signals both the starting point and aim of the environmental question." – the National Environmental Educational Strategy declares. The city affects its environment and the environment affects the city (Péter Rózsa 2004), this can easily lead us to the assumption that the city can be interpreted as more than just a group of buildings and people, as an organic growth. . The Educating Cities movement, established in 1990 in Barcelona, came to the realisation that the city itself is the educational environment. "The city as an educator has its own personality" says their founding document. In the arts many people are trying to grasp the soul of the city, already being the topic of Thomas More's Utopia – proves Andrea Düll és Edit Lippai (2005), from a scientific perspective urban studies is examining the image of a city. The term *places of memory* originates from Pierre Nora and his team, meaning all of which contribute to the feeling of national unity. If we apply the same thought to the city instead of the nation, we can say that places of memory provide the image, the soul of a city. The places can have geographical importance and can also be places marked by a geographical point but independent of location in space, getting their significance from their inner life.

The stations of the sample project are such places, but we have to add that these are not only historically significant elements, some of them highlight everyday places and serve for the children to be present in the space, for them to feel at home in.

**The principle of sustainability is in effect** in the urban environmental education if the city dweller learns the values of the city. “As long as a person gets enriched with more experience, the external world is also going to become richer due to the person’s inner resources and the personality is going to gain a lot thanks to the outer world,” says the National Environmental Educational Strategy. “...children who have been infused with the feeling of unhappiness because of their urban dwelling tend to turn easier to substitutes.” (István Bábosik 2004). A good image is a city’s basic interest, the name of a city being a geographical brand, and this leads us to the question of city marketing which is a field of its own, outside of environmental education. Zoltán Cséfalvay (1994) provides a broad summary of city image research, Tibor László Buskó (2010) gives us a detailed insight into humanistic geography, the question of the city-brand is discussed by Gábor Michalkó, Alain Guery (2006) writes about the places of memory, and the work of Ashworth G.J., Voogd H. (1997) stands out in the topic of city marketing. Government decree XXX. of 2012 about the **Hungarian national values and hungaricums** and the connected statute 114/2013. (IV. 16.) identifies the environmental values and the overlap with the structure of the geographical environment is easily noticeable. The statute puts “intellectual products connected to the sustenance of the environment surrounding the individual” among the categories, thus, we can view as local value e.g. Gyula Krúdy in the 3rd district of our capital or Ernő Zórád, the painter of the Tabán park in the 1st district or the *palota strudel* in the 15th district of Budapest. All of these are resources for urban environmental education.

**The notion of environment or the perception of space/place** is a complex entity situated on the borderline of sciences. However, it is possible that these disciplines do not talk about the same notion when discussing environment. In the dissertation we primarily focus on the geographical, perceived and educational environment. The biological and virtual environment is only mentioned so that the structure of concepts does not lack any elements and as a background to the sample project.

(picture 3).

PICTURE 1. ASPECTS OF ENVIRONMENT



Source: individual editing

**The science of biology** makes a distinction between an internal and external environment of the cell (organism), the former meaning the physical-chemical-biological characteristics within the cell (organism), characterised by homeostasis, the later meaning the space outside of the cell (organism) which has varying characteristics in both space and time. The prefrontal lobe receives the amount of information that proved adaptive during the evolutionary development. Therefore the perceived environment cannot be separated from the condition of the internal (biological) environment. The sample project attempts to influence this filter mechanism, in more colloquial terms, wants the children not only to look at their surroundings but to see it. Academic literature often uses the phrase “whether the city is legible”, this is its biochemical basis.

**Geography** researches the external environment surrounding the individual in space. The author uses the term geographical environment in a general sense and sticks to the natural-constructed-social troika. The boundaries are rather blurred, researchers make distinctions between these. The city is part of the geographical environment (with many people calling it urban landscape) and if there is an urban environment, it logically follows that we are right to speak of an urban environmental education. The academic literature of geographical configuration is summarised by Pál Szabó (2008).

**The connection between individual and his or her surroundings is an interactive psychological one.** The individual’s physical and psychological environment is surrounded by the external, natural-social-constructed environment, but this is only indirectly perceived by the individual, “standing between them” is the subjects perceived surroundings. The real geographical and the perceived surroundings created in the prefrontal lobe are far from identical. As a result of the stimulus threshold of our sensory organs, the filter that is our thalamus, the modifying effect of masses of synapses (internal environment) a modified image of our environment appears in our consciousness. This projection becomes part of the already existing cognitive space (constructivism) which is also a distorting effect. The physical-psychological connections of the internal environment influence the perceived environment. The relationship between internal and external environment is a coherent system which is worth raising awareness to during environmental education even if school education breaks things down into subjects and thus can only deal with partial fields at a time.

There is little place for the direct altering of objective reality (a place), but we can endeavour to form the perceived cognitive map when helping a child internalise the natural-constructed-social values of the urban environment. – This is the attitude-forming mission of environmental education formulated in a thesis statement.

**The science of environmental psychology** researches the relationship between the individual and his or her environment. As part of this Andrea Dúll and Róbert Urbán (1997) and Viola Sallay (2014) searched for the nature of home and home consciousness. A flat becomes a home by the feeling of ownership which develops with its regular use, familiar and safe places provide us with a feeling of competence and autonomy and become parts

of our identity. This is a beacon for the dissertation because the author attempts to grasp the settlement as home, a level above the flat/house.

**Differentiating it from the house/flat as home, integrating the term of environmental awareness, the author uses the term urban home consciousness.**

Thus, urban home consciousness is nothing more than an attitude. The sample project attempts nothing more but to strengthen this attachment to one's home on the level of the city. Although the subjective perception of the environment (perceived environment) is typically based on cartographic elements, meaning that it happens by the perception of places, directions, distances, there is also other cognitive and emotive content attached to the elements of objective environment. The image of our environment constructed in our consciousness is the cognitive map, the visual representation of this is the mental map. How does all of this connect to the sample project? The function of the walks is to expand and differentiate the child's cognitive map, to put on it the city-home's natural, constructed and social environmental elements. The academic literature of cognitive and mental maps is presented to us by László Letenyi (2005), Veronika Garda (2009), Zoltán Cséfalvay (1990). Typically mentioned in it is the work of Kevin Lynch (1960).

All of the above point towards **constructivist pedagogy** (educational environment), the essence of which is that the newly acquired knowledge or attitude connects into the students cognitive construct like a new element into a lego building. If it does not fit, it drops out, if it does and the already existing construct accepts it, it sticks without difficulty, what is more, in the future new experiences, new lego blocks stick to it. In this sense we are not only talking about the acquisition of current knowledge and attitudes but also about the ability to adopt further ones. This theory is presented by István Nahalka (2002). To develop environmentally aware behaviour it is necessary for (urban) children to get to know their surroundings (the city), but this is not enough, it is also necessary for them to consider it their own, to learn its set of values. To put it differently: with this construct the city becomes the child's home.

Pedagogical activity cannot exist without methodology (educational environment and virtual environment). The sample project uses the methodology of outdoor education, experiential education, M-learning, gamification and that of walks, expanding it by making room for learning by doing, project pedagogy, children's drawings and the barely-researched pedagogy of collecting.

## 2. Goals

**objective a.** - I attempt to formulate an interdisciplinary thesis statement, a definition and its structure of concepts in the colorful world of notions referring to environment, environmental awareness and environmental education.

**objective b.** – With the help of questionnaire examination I analyse the single element of the structure of concepts that I interpret as environmental attitude, *urban home consciousness*.

**objective c.** – With activity in practice, meaning the urban walks sample project, I attempt to improve the urban home consciousness attitude introduced in point a. and follow the effectiveness of the walks with the help of the attitude questionnaire introduced in point b.

## 3. Thesis statement and structure of notions

If the individual and his or her environment are in harmony, the individual looks after their environment and the environment looks after the individual. If this is broken in any way possible, the environment becomes degraded and the individual gets threatened by physical and mental illness. The harmony between the individual and their environment is the key to sustainability on Earth and personal physical and mental well-being. According to the present dissertation environmental consciousness is the quality of this harmony and the ability to live it, strengthening of this harmony is the mission of environmental education. However, the term harmony is not specific enough, or, to put it differently, it is too metaphysical to be the basis of positivistic interpretation. But if we accept harmony as an attitude, we end up with a term supported by a vast array of literature.

Our quintessential thesis statement is that environmental education is the influencing and improvement of the attitude of the individual and his or her surroundings. A good definition is straight to the point and each expression used in it must have “weight”, meaning that each word is a category of its own. I prove by deduction that if we unravel these categories, we get the mind map of environmental education. (picture 2.).

PICTURE 2. THE THESIS STATEMENT AS A MIND MAP



created with [www.bubbl.us](http://www.bubbl.us)

Source: individual editing

**The structure of notions unfolding under the thesis statement is a network**, the linear presentation rooted in the genre of written language makes it difficult to expand on the spatial structure.

#### 4. The hypotheses of the research

At the beginning of my research I formulated my hypotheses according to the following:

1. The city home consciousness of 7-8. grade children is a definitively positive one.
2. The positive feature shows in the cognitive, emotive and conative opinions given about the city as well.
3. The city home consciousness differs from city type to city type.
4. The city home consciousness differs among partial populations as well.
5. The home attitude of the children living in the control group municipalities showed significant difference in cognitive features, lesser difference in emotive and conative features from those of urban children.

#### 5. The process and methods of research

**The first part of empirical activity is an attitude questionnaire.** 620 people, 13-14 year old Hungarian children filled it out from different cities of Hungary and Romania (3 schools). As a control group we asked children in 6 municipal schools, so the complete sample is 680 people, 91% of which are city dwellers and with 9% studying municipalities. We can conclude that the sample is quite differentiated both vertically and horizontally and, although it cannot be called representative, we can state that in the practice of pedagogical research this sampling is widespread.

One part of the attitude questionnaire was a Likert scale. The children had to grade the city in which their school is located on a scale of one to six from either a cognitive, emotive or conative point of view. Given the nature of the methodology we can set up a part-hypothesis to every question, that is every cell in the matrix of the dependent and independent variables. Based on the resultant of these we can tell whether the hypothesis has been confirmed or not.



The other question featured in the questionnaire was a free word association test: “what are the four words that come to your mind when hearing the city’s name?” The infographies created with the software TagCrowd and taking into account the methodology of word cloud making confirmed the hypothesis.

**The second part of the empirical activity** was the sample project, an urban walk. In groups of 3-5, with geolocational applications (Eclipse Crossword) on their phones the students explored a part of the city for 40-50 minutes in a gamified environment.

The detailed presentation of the walk has happened in the dissertation, but there also exists film footage of the újpest01 walk which can be viewed here: <http://bit.do/varosi-kep>. Before and after the walks the children have filled out the attitude questionnaire, Apart from this, observation and controlled conversations have taken place. We could assess two walks that took place in the capital city, one in an agglomeration and one in a rural town. In two of the schools one class would go for the walk and the other, parallel class would serve as control group. In the other two schools we observed only the attitude of the class taking part in the walk. A fifth walk took place in the township of Szob but had to be shortened due to the heat alert (this in itself carries a pedagogical lesson) therefore we did not get an assessable result.

The sample project had been preceded by a research of six years. Six pilot walks were designed gradually increasing in standard. Printed and digital route-sheets, the use of smartphones, gamification and other methodology were put to test.

## 6. The results of the attitude analysis

Hypothesis 1. and 3. has manifested flawlessly. The positive attitude of urban children has shown itself in all details of the questionnaire, the word cloud and clearly appeared on the Likert scale.

Hypothesis 2. got verified in part. The cognitive opinion is indeed more realistic and the emotive more optimistic but the answers to the conative questions were not coherent with what had come before. The children from transborder areas gave more pessimistic answers in the first two group of questions compared to those living in Hungary. First their urban home consciousness seemed the lowest but in conative questions they were much more positive. The answers provided by the children living in the agglomeration showed a picture of dual nature, they are the most jovial but their attitude of activity is the lowest among the city dwellers. The difference between rural cities and Budapest prove to be as expected.

Hypothesis 4. got the greatest verification. The partial populations show definitive difference based on academic results and the time spent in the location, smaller difference based on gender, while there was no significant difference based on age. An unexpected result is that no connection could be found between the competency results of the school and attitude.

The answers about their image of future given by urban children deserve mentioning. To the questions implying whether they wanted to stay or move as an adult, the children gave an average of 3.15 on a scale of 11.

Children from the transborder territories were once again the most positive, the children of suburbia expressed the greatest longing to leave. Many of them quite openly, some more impliedly expressed the intension to move abroad, in some cases more harshly to move away from Hungary. The students of comprehensive schools expressed this opinion the most, which is indeed food for thought.

The question “would you like to take part in a playful excursion in the neighbourhood of your school?” had to be answered on a scale of one to five, using stars (□□□□□) because of their more common use in the cyber world. The respondents gave a grading of 3.99 on a national sample. Here the answers are divided the following way: from a geographical aspect the schools in the agglomeration are last and the first place is occupied by the schools in the transborder territories. Part of the urban home consciousness is that the child happily takes part in a game of local knowledge (active environmental awareness).

Hypothesis 5. caused an unexpected and unfortunate surprise. The municipal children of the control group were in all aspects more depressed and rejective than the urban children. The words of the word cloud are negative and they showed a worse-than-mediocre urban home consciousness on the Likert scale as well.

The results of the free association can be seen in picture 4.

Word cloud, complete sample first 20%



The partial results of the Likert scale show the following.

**In the chapter titled Global analysis** I compare the answers received on the complete sample. The answers given by the city-dwelling children show an optimistic world view. On the six scale Likert scale, considering the averages, 7 out of 14 answers fall outside of the average and all of them are positive notions. All four of the emotive variables cross the limit value. The average of the answers given to the “I know it well” questions is beyond 70% and the “I like it” also comes close to this number. The average of averages is 3.97, in the case of emotive variables it is 4.34 on a scale of six. The spread was indeed the smallest in case of the “I like it” and the “I am interested in it” variables ( $s=1.19$ ). Nevertheless, the modus and median of “I am interested in it” is a 4, with “I like it” it both values are a 5. On a scale of six this can barely be exceeded, almost one fifth of the children gave a maximum scoring.

The results of the municipal control group differ greatly from those of the city dwellers. Here also six variables out of fourteen fall outside of the average, but five of them are negative notions. Children find the municipality to be a boring, old, monotonous place, the only question where they gave a better rating than mediocre (4.36) was "I know it" which is hardly a surprise in the case of municipalities. The average of averages is 3.12, exactly the same to the second place of decimal is the "I like it" question, and this result is worse than mediocre. The spread is smaller than in cities, which is understandable, since on the other side of the scale there is the small town, the capital city and the agglomeration and the transborder respondents in one group. Considering the difference between the individual dependent variables, the difference between the urban and the control group municipal answers is a quite strong one. Although the dissertation is about urban children, it definitely shows that municipal children would be in even greater need of the strengthening of their dwelling-home consciousness. This difference between city and village would be worthy of further research.

**In the chapter titled Vertical analysis** I analyse the numbers of the dependent variables according to settlement types and partial populations. First, I introduce from a geographical aspect whether there is an obvious difference in positive attitude between the settlement types. I do this by viewing the capital's number as 100% and showing the additively calculated ratio of the other three settlement accumulations (agglomeration, rural city, transborder city) on a bar chart. Secondly, I arrange the partial populations according to demographic and other features, based on how much they agree with the statements featured on the Likert scale.

The question concerning **the size and "density" of the settlement** is quite straightforward.

It is not surprising from a geographical aspect that both the inhabitants of the capital and the transborder cities find their settlements big, while those living in rural towns find theirs small. Those living in the agglomeration view it as medium-sized. If we view "density" as a characteristic of big cities, we can call the average numbers received in rural and transborder cities logical. However, the agglomeration is felt to be almost as dense by the students living there as Budapest is by the capital students.

From the partial populations the groups defined by demographic and other features are in the intermediate space, the averages negate each other. We might carefully mention that the good and above average students consider their settlement bigger than the mediocre or lesser students but based on a one- one and a half tenthpoint difference it would be a mistake to overrate this.

The expression **'close to nature'** caused surprises.

From a geographical viewpoint we might call it obvious that those living in Budapest find their settlement less close to nature, but surprisingly the rural city dwellers felt their settlement distanced from nature. The settlements of the Budapest suburbs ranked this feature the highest. In my view here we can see the question of relativity. If we compare the settlement of the agglomeration to Budapest, the classic suburbanisational feeling shows itself, while on the contrary, the rural city appears as an urbanised space in the children's

cognitive space. Across the border the relevant stereotype, the “Ceausescu heritage” seems to get verification. Further examining this question would lead us too far, we can already draw the conclusion that the children of the transborder area find their surroundings quite distanced from nature.

Concerning the partial populations, the commuters, the students of comprehensive schools, mediocre or lesser students were the most pessimistic. It is interesting to note that boys and girls represent two different poles.

**In questions of orderliness** from a geographical aspect there was no significant difference between the rural cities and the capital. Here, once again, the agglomeration is the most optimistic, the transborder students – in accord with the other variables – are pessimistic.

The answers of the partial populations extinguish each other once more but the worst students, those attending school for shorter time, the commuters and the students of comprehensive schools are in the more critical one third.

**Concerning local knowledge** the children are very confident.

From a geographical aspect the children from the capital are exceeded by three other settlement accumulations but still we cannot find a connection to the size of the settlement. We can rather say that the farther we go from Budapest the more this becomes true. In the case of the transborder students the difference comes close to +20%-points.

The ranking of the partial populations speaks for itself, so to say. The commuters, the capital city dwellers, the comprehensive school students are in the last quarter, while in the first quartile we can find the counterpoint, the local residents who have been studying here for a long time. In the composition based on academic results, age and sex there is no difference worth mentioning.

We examined the **boring vs. interesting** question together. “The place is comfortable if the space is clear-cut but not boring.”

From a geographical point of view the capital city is the most exciting and this is what they find the least boring. The agglomeration and the rural city find their settlement less exciting, the former with 6%-points, the later with 5%-points. But while the members of the first group were not more bored than the capital city children (the contradiction might arise from the possibility of “travelling in” in the capital), the children of the rural cities are bored 12%-points more by the place. They show the “sleepy little town” cliché. The transborder students find their settlement grey and boring, there is not much life and excitement

The partial populations show a quite direct difference according to academic results and sex. The male students from comprehensive schools with an above average academic result are among the prime places in ranking, according to them the city is “booming”.

**In the chapter titled Horizontal analysis** I examined the individual partial populations in the light of dependent variables. Mutual comparison (e.g. boy-girl, elementary school student-comprehensive school student) might lead to significant result.

There is no great difference in the answers of the **13 years old or younger and the 14 years old or older children**. Generally it is true that the younger ones are more optimistic but the difference is scarce, it does not reach the 10%-point limit value anywhere. In the comparative calculation the older ones found the settlement smaller, denser, yet closer to nature, they think they know the place better.

**When talking about differences in sex**, the boys were not more optimistic than girls, not in a single variable. They think their city is less close to nature, it is smaller, denser and they find it more boring.

**Comparing the students of elementary schools and comprehensive schools** we cannot say that one partial population has a better or worse opinion of their city. A difference greater than 0.5%-points shows in one question: the elementary school students think they know the place better. We can find the greatest spread in the local knowledge of the comprehensive school students ( $s=1.54$ ), but the elementary school students are divided on the “full of life” and the “boring” question ( $s=1.43$ ;  $s=1.41$ ).

Concerning **the study averages**, I have established three categories, which differentiate between the outstanding, good, mediocre or lesser students. Better students have a higher level of urban home consciousness because they have more experiences of success, their attitude towards their environment (towards life) is more complete and the result proved this to the utmost degree. Compared to each other it is true without exception that the good or outstanding students have a more positive attitude concerning every question than the mediocre or lesser students. The borderline between good and outstanding is not a sharp one, the difference do not reach 5%-points anywhere.

**Those who have been attending school for a longer time** have a stronger settlement home consciousness. With time and with experiences the geographical space becomes personal. In almost every aspect they are more positive, they know their city better and love it more, feel less bored by it, but at the same time they find it a less youthful place.

Concerning **the local residents and commuters**, the commuters are more pessimistic in every aspect. They have evaluated the perceived characteristics of the settlement almost identically, the difference is below the limit value, in case of the emotive features, on the other hand, the difference was quite definite. The commuters find the city to be less varied, which is an unexpected opinion, since the urban environment is what is really varied. In the emotive questions a 9 percent or bigger difference surfaced in three out of four places: I do not know it, I do not like it, I am not interested in it. The commuters cannot really imagine themselves finding their place here on the long run. This might seem obvious at first glance, but if we consider that they want to move away from home, then it would be logical for the known city to be the destination of moving. Data show that the children’s opinion is “away from home, but not here.”

The number of **transborder respondents** is 10% (69 people). This sampling cannot be apt, not even as an indicator, to make statements on the urban home consciousness of transborder children. However, it can indicate whether we can find a significant difference between the Hungarian and transborder children. This field is so unknown to us that I have

not even attempted to formulate a hypothesis, fearing that I would fall into the trap of stereotypes. The result is quite surprising. The transborder children are much more critical concerning their city. We can only formulate it as a question: could it be that the children feel that Targu Mures, Cluj-Napoca and Targu Secuiesc are lesser places to live in than cities in Hungary? Yet, I repeat, they like it more and are more interested in it. Also, in the conative questions of staying and local activity they are more positive than students living in Hungary. The feeling of „I want to move”, „I do not imagine my future here” is lower than in the case of Hungarian numbers. Among the oral reasonings only once did the desire to travel abroad appear.

## 7. The results of the urban walk sample project

**In the urban walks sample project** the resulting changes of attitude are positive in all schools but there is great difference in the degree of changes. The research confirmed that walks in themselves help strengthening urban home consciousness but for the sake of effectiveness a constellation of a number of background variables is required.

The walks were superintended by 10-12 different people assessing the activity based on specific observational criteria, their oral reports are completely uniform. To quote their own words: “the excited students, ready to drop off of their chairs were extremely enthusiastic”, “a lot of them forgot they were involved in a school activity”, “enthusiastically running forward they were looking for the stations”, “Béla T.’s mother inquired on Monday what the class did on Friday. Because the boys would talk about it the whole weekend through”, “there were some who were bored but they are the same people who are unable to find joy in anything in school as well”. It is true without exception that the fellow pedagogues who helped my research thanked me after the activity for arranging such a programme for their students. I also have to mention the child who went for the walk once again during the weekend.

The walk done by the Elementary School of the Reformed Church in Sárospatak met our expectations the most. This was confirmed by the superintendent pedagogue and nicely verified by the numbers as well. The opinion of the children became more unified – formulated in questions – could the decrease of the spread be the result of the cooperation of team members? (Meaning that they worked together during the game, not the test writing.) The children were motivated, but this is not only due to the game but also thanks to the pedagogue leading the activity. The previous downloading of the software, the group forming is already part of the motivation (or demotivation). The urban home consciousness of the children of Kálvin Square Elementary School of the Reformed Church in Veresegyház increased the least all in all. The superintendent pedagogues reported positively.

PICTURE 4. THE CUMULATE EFFECT ANALYSIS OF THE SAMPLE PROJECT (AVERAGE OF AVERAGES)

*Source: Individual editing  
(in the later two groups there was no control class)*

Looking at the decrease of the spread as improvement because the opinion of the children became more coherent, the biggest improvement happened in the two schools in Budapest, and the smallest one in Sárospatak. However, this only signifies the degree of change because essentially the opinion of the children was the most uniform in Sárospatak, the spread was the smallest here ( $s=1.19$ ) so the others “caught up”. The most intense decrease of spread was in the two institutions in Budapest; before setting off the spread was practically identical ( $s=1.30$ ,  $s=1.31$ ) and this decreased with 23% with one of the schools and with 32% with the other. The difference in opinions was the highest at the Veresegyház school when setting off ( $s=1.36$ ) and the degree of improvement was also mediocre so it stayed in fourth place but a 15% improvement means that it reached the others’ and the control classes’ pre-walk state.

Picture 5. *THE CUMULATE EFFECT ANALYSIS OF THE SAMPLE PROJECT*

*Source: individual editing  
(in the later two groups there was no control class)*

**KPM (competency measurement) as a background variable.** Here I also checked whether there is a connection between competency numbers of the school and the urban home consciousness. We cannot deduce such a conclusion based on the aforementioned data of four schools and background variables also unknown to me, but the data indicate that the connection is not out of question. Where the school competency indicator was the smallest, the increase was also the smallest and vice versa, where the competency number was bigger there the effect was also greater. But I have to repeat that the result is influenced by countless other factors as well.

The people concerned with making education more playful (gamification) do not give an answer to the contradiction that while one of the attributes of games is its voluntary nature, school work is not voluntary (not even in the case of outdoor activities). A negative observation of mine is that in a class that in an unmotivated class even the sentence “Let’s just fill in something” was uttered and in the conclusive conversation the scorching sun was mentioned as the characteristic of the walk. In such a case there is no construct, there is no essential difference compared to a classroom activity. The “engine” of a successful walk was always an ensign who lead the way, a pedagogue devoted to the tools of modern pedagogy, who internalized and organized it and was ready to face confrontation e.g. because of swapping lessons for the given day. It is impolite to say but a fact that amidst the current pedagogical reality arranging such a walk takes a lot of effort.

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The scientific (theory) and everyday (practice) duality (often opposition) of pedagogy is discussed by a great number of notable authors in literature. I have been dealing with

walks for six years, before that I had done research in the field of urban studies, more closely in the field of city image and, besides the above, have twenty years of teaching experience. This constellation is the evident base of the action research.

The theoretical overview attempted to present a coherent system of environmental awareness, the empiric research tried to make a humble contribution to our knowledge and the functional activity tried to show a form of methodology which can be useful in practice.



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