



INTERNATIONAL ASSOCIATION CIVITAS GEORGICA

EFFECT OF ATTENDING ALTERNATIVE PRESCHOOL CENTERS ON SCHOOL READINESS

English Summary

**of the survey conducted within the framework of the UNICEF funded
project " EARLY LEARNING FOR SOCIAL COHESION AND SCHOOL
READINESS OF DISADVANTAGED CHILDREN IN GEORGIA "**

2013

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Introduction

“We know that it [development] means hard work rather than foreign aid...We know that its foundations are education and competence rather than capital investment. It is not a sure thing but risky, it cannot be provided it must be achieved”.

P.F. Drucker. The New Realities

High value of preschool education in determining a person’s personal, social and professional success has been tested and proven many times. Children enrolled in some form of organized preschool activities are bound to be performing better at school, have higher high school completion rates and university enrollment rates. Early interventions have proven to have a very high impact on one’s cognitive, socio-emotional and physical development.

In Georgia preschool enrollment rates have been declining since the breakup of the Soviet Union and currently they are slightly over 40%. Among the reasons identified as crucial for the low enrollment are: lack of physical access to preschool education services and facilities; lack of financial resources (where parents have to pay for their children attending preschools); lack of accessibility for children with special educational needs; lack of awareness on the part of parents on the importance of preschool education; poor infrastructure of existing preschool institutions. Among these, lack of access to services is particularly acute in rural areas, where preschools in their traditional form (full-time care with full meal package) do not exist.

The project carried out by Civitas Georgica aimed at increasing access to preschool education services of disadvantaged children in 10 municipalities in Georgia by establishing 40 alternative preschool centers and thus improving readiness for school for children of 3-5 years. Civitas Georgica is a Georgian NGO with many years of experience working on local self-government, community mobilization, education etc. The organization, with UNICEF’s support is implementing a project aimed at increasing access to preschool education services of disadvantaged children and thus improving their readiness for school. Specifically it addresses the problem of children living in the areas where there are no preschool facilities available. 40 alternative preschool education centers are being established in Samtskhe-Javakheti, Shida Kartli and Kvemo Kartli regions of Georgia.

Alternative preschool centers operate half-day and are aimed at developing social, cognitive, learning, motor skills of a child as well as enhancing their safety and personal hygiene habits. Compared to traditional full-day preschools, alternative centers are easier and less costly to establish and maintain. They do not provide children with food and the costs on infrastructure and personnel are minimal.

Alternative preschool education centers are organized as follows:

- The space is allocated in an existing building (village library, school, administrative building, club etc.)

- The group is composed from children of different age (3-6 years);
- The maximum number of children in the group is 16-18;
- The children spend in the group 4-5 hours a day;
- The group is equipped with all the necessary materials: books, toys, other educational material as well as outdoor playgrounds;
- A teacher and a caregiver work with children. The duty of caregivers performed in turns by parents.
- Teachers are recruited from local community and are offered comprehensive training programme in early learning and care.

Such alternative centers have been already established in many regions of Georgia and the evidence suggests that they have a positive effect upon school readiness of children as well as their overall development.

For the evaluation of project success it is very important to have a valid measure of how exactly enrollment in alternative preschool setting helps to increase school readiness of preschool-age children. For this reason the study was carried out. The current report presents the basic results and findings of the survey.

The current report consists of two parts - part1 describes the results of the observation of children at the beginning and end of the project; Part 2 - results of in-depth interviews with LG representatives and parents on attitude towards alternative pre-school services.

Goals and methodology of the study

Goal

In order to evidence effectiveness of alternative preschool education centers, an impact evaluation study has been designed. The goal of the research is to identify the impact of alternative preschool education centers on various domains of child development and school readiness. Having substantial evidence to prove effectiveness and efficiency of such alternative preschool service will help advocate their further scale-up.

Study Design

The study has tested school readiness among three groups of children - randomly selected treatment group and two control groups – one consisting of children with no exposure to preschool education and the other enrolled in traditional organized kindergartens. All three groups were tested prior and after the intervention and the difference in results were compared. The first stage of study was conducted during 7 weeks January-march 2012. Total

180 children were interviewed in three groups in municipalities of Gori, Kareli, Kaspi and Akhaltsikhe¹. The same group was interviewed on last stage of survey in May-June 2013.

In addition, In December 2012 the in-depth interviews were conducted with three groups of stakeholders: parents, teachers and local government representatives. Initial plan was to conduct mid-term observations and interviews to collect data and compare the progress of children in the treatment group and control groups. But after fruitful discussions of project team the initial plan was slightly changed. It was decided to conduct in-depth interviews with stakeholders instead of observations. The main reason of the decision was the fact that alternative preschool centers have started operation at different times and some children have covered more topics than others. This made them less comparable. The aim of the in-depth interviews was to identify the attitude of community members towards alternative models of preschool education

Study Instruments

Two instruments were used in each round of the study – child observation instrument and a parent questionnaire. Child observation instrument was used for comprehensive direct observation of child's behavior in various circumstances and his/her ability to complete certain tasks that are considered age appropriate by the experts of the field. Parent questionnaire was used for face-to-face interview with primary caregivers of the children.

The instruments used were adapted from based on the instrument of Early Learning and Development Standard (ELDS²) age validation procedure. The instrument is entirely based on ELDS and the domains covered by it are aligned with the domains of ELDS. These domains are: physical development, social and emotional development, cognitive development, attitudes to learning, speech. Most of the items included in the instruments are categorical variables examining whether a child can complete certain task or how well he/she can complete it.

In addition to the items related to the domains of development, parent questionnaire includes a set of comprehensive questions on the demographic, socio-economic and cultural background of a child, as well as about child-rearing practices and patterns used by parents (both instruments are enclosed in Annex 1).

Although the instrument was validated and used in the field during the age validation process of ELDS, prior to the fieldwork the instruments were piloted with 5 children and parents. Following the pilot, instruments were amended and adjusted³.

¹ Akhaltsikhe was interviewed in Autumn 2012, after alternative centers were opened there.

² Early learning and development standards, also known as "early learning guidelines," is document that outline expectations for what preschool-age children should know or be able to do. In Georgia was developed by Ministry of Education with UNICEF support in 2008.

³ The analysis has shown that certain items on Physical Development part of the instrument were too easy – completed by the around 90% of the observed children and hence there was too little variation in outcomes. Later, these was changed.

The three groups have been assessed before the start of the project and at the end. There are 60 children randomly selected in each group.

Study limitations

There are three major limitations to this study:

- Moderate sample size – due to budget constraints, the number of children per group is limited to 60 which might not be ideal;
- Limitation of the study to Georgian-speaking communities – again due to budget constraints it was not possible to involve non-Georgian communities in the study firstly because it would increase sample size (as socio-economic structure of ethnic minority groups is different from the groups under study now) and secondly, the study would need to be conducted in Armenian and/or Azeri languages;
- More broadly, the study results will be limited to the specific subset of population living in rural areas in small villages and with low socio-economic profile;

Methods of data analysis used

Joint database for all three groups and two data collection instruments has been created. Data was analyzed using data analysis software R. Major techniques of analysis used were chi-square tests, t-tests, binary logit regression, ordered logit regression and linear regression.

At this stage the goal of data analysis was twofold:

- Find general trends in the whole sample (all three groups)
- Find any significant differences between the treatment and control groups

Accordingly findings will be presented following this pattern – first general findings and then analyzing any differences between the groups.

The final stage of the research was observations and interviews with children. The aim of this stage was to collect data for comparing pre-treatment results to post-treatment results and therefore determine the impact of alternative preschool centers. Children were tested using the instrument that was used in pre-treatment tests. The method of analysis used is binary logistic regression and ordered logistic regression.

Part 1 - observations, summary of the results

The results of the analysis revealed that in most cases children from both alternative preschool and municipal preschool groups have higher probabilities of successfully completing the tasks related to all 5 domains of early development compared to their counterparts who do not have

access to preschool services. However there are few cases, when there is no significant difference between no-preschool and alternative preschool groups, but children from the municipal preschool group are doing better. The difference can be associated to the fact that at the moment of observations average duration of enrolment in alternative centers was 11 months, while the same indicator for municipal kindergarten groups was 18 months. This means that children from municipal groups had somewhat more time to acquire knowledge and skills compared to alternative preschool groups. Table below shows results in much detailed way⁴.

Table #1

ITEM	Alternative preschool group	Municipal preschool group
Can jump on one foot	0.225**	0.208*
Can tell what he/she has painted	0.194*	0.229**
Can draw a rectangle	0.341*	0.387*
Can make a rectangle shape out of clay	0.073	0.238*
Can assemble a puzzle	0.143*	0.288**
Can name his/her town/village	0.026	0.117*
Can name his/her family members	0.099*	0.102*
Can tell difference between drawings	0.161	0.287*
Can paint circle red (two tasks)	0.158	0.235*
Can paint triangle green (two tasks)	0.235*	0.292*
Can count 4 pencils	0.165*	0.183**
Can count 7 pencils	0.411***	0.401***
Can group similar flowers	0.102*	0.077*
Can guess when a word starts with specified consonant	0.208*	0.256**

* p<0.05, ** p<0.01, *** p<0.001

Thus for example in the very first case the results reported are 0.225 and 0.208 respectively. This means that compared to the no preschool group the alternative preschool group has 23% higher chance of completing the task right, while again compared to no preschool group municipal preschool group has 21% higher chance.

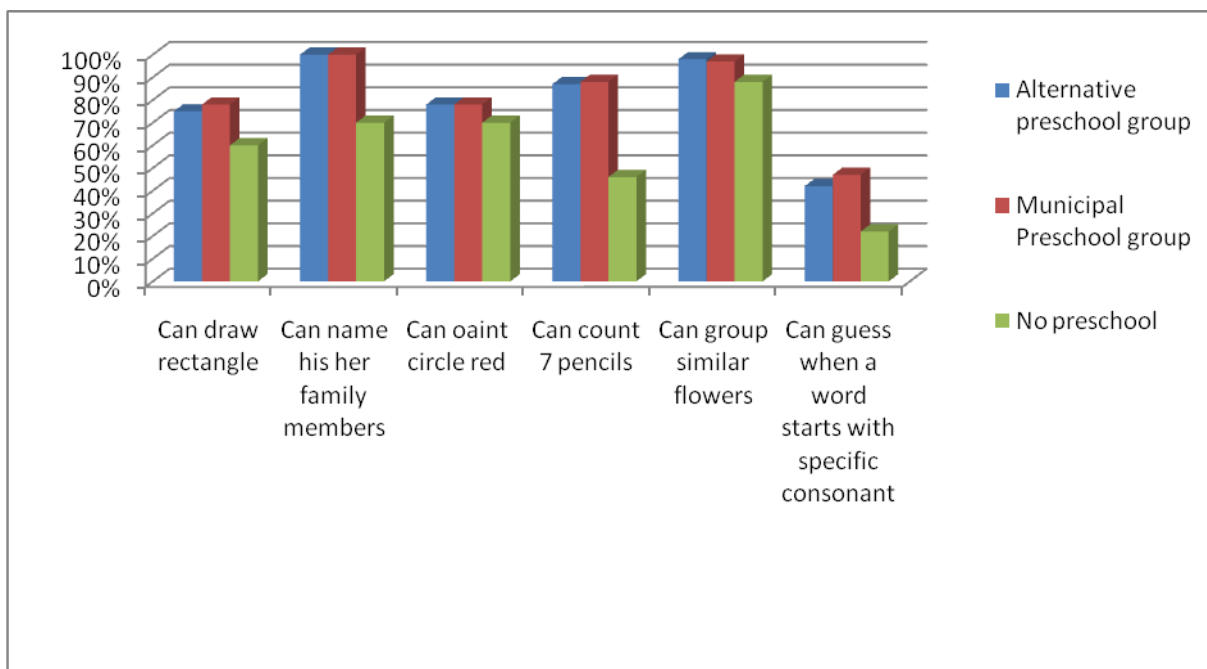
If we compare these findings to the ones before the intervention we can see that the differences in the pre-test were observed mainly between the children of municipal preschool and all the others. Thus we can safely conclude that going to alternative preschools has made progress compared to the pre-test as well as compared to the 'no preschool' group. Although

⁴ It is important to mention that all coefficients reported in the table #1 are derived from the models, which include parental education, employment status (employed or unemployed) and income as control variables and reference category in all cases is 'no preschool; group

on many instrument items there is little variation and particularly due to small sample sizes it hinders making more daring conclusions.

The chart #2 shows some results of children from different groups. We can clearly see that children who do not have access to preschool services (green bar) perform much poorer than their counterparts enrolled in alternative (blue bar) or municipal (red bar) preschool groups. When comparing the results of children from alternative and municipal preschool groups we see that there is no big difference in their performance.

Chart #2



Data analyzes

As noted, the sample consisted of 180 children equally distributed in one treatment and two control groups. Sex and age distribution across the three groups is comparable. Chi-square and t-tests performed for each pair of groups has demonstrated no significant difference between any pair of these groups ($p > 0.05$).

Table 1. Sex and age distribution, children

Variable	Total	Treatment	Control 1	Control 2
Male (N)	101	36	36	29
Female (N)	79	24	24	31
Age, mean (months)	59	60	59	58
Age, median	59	60	59	58
Age, SD	6.9	6.6	7.3	6.6
Age, min	44	45	47	44
Age, max	74	71	74	71

Findings – general trends

Gender. In most of the items no significant difference between performance of boys and girls has been noticed. However statistically significant differences have been observed on eight items from child observation process (Tables 3 and 4).

Table 3. Differences between boys and girls, binary variables

Variable	Boys	Girls	X ²	P-value
Can recognize whether a boy on the picture is angry	73%	90%	6.8	0.01
Can name the reason why the boy on the picture is angry	61%	78%	5.2	0.02
Can paint the circle red	49%	67%	5.9	0.05
Can either recognize shape or color	34%	24%		
Can paint rectangle blue	30%	46%	5.4	0.07
Can either recognize shape or color	40%	35%		
Can count up to (mean)	9.28	13.69	2.3	0.02
Can tell whether a word starts on letter M	10%	24%	5.6	0.02

As seen, most of the items where difference is observed is from Attitudes towards Learning domain. The other two domains are Social and Emotional Development and Cognitive Development. The difference remains the same when controlled for age. On all these items girls perform better than the boys. Table 3 demonstrates differences between the performance of boys and girls on binary response items and Table 4 – on other categorical variables.

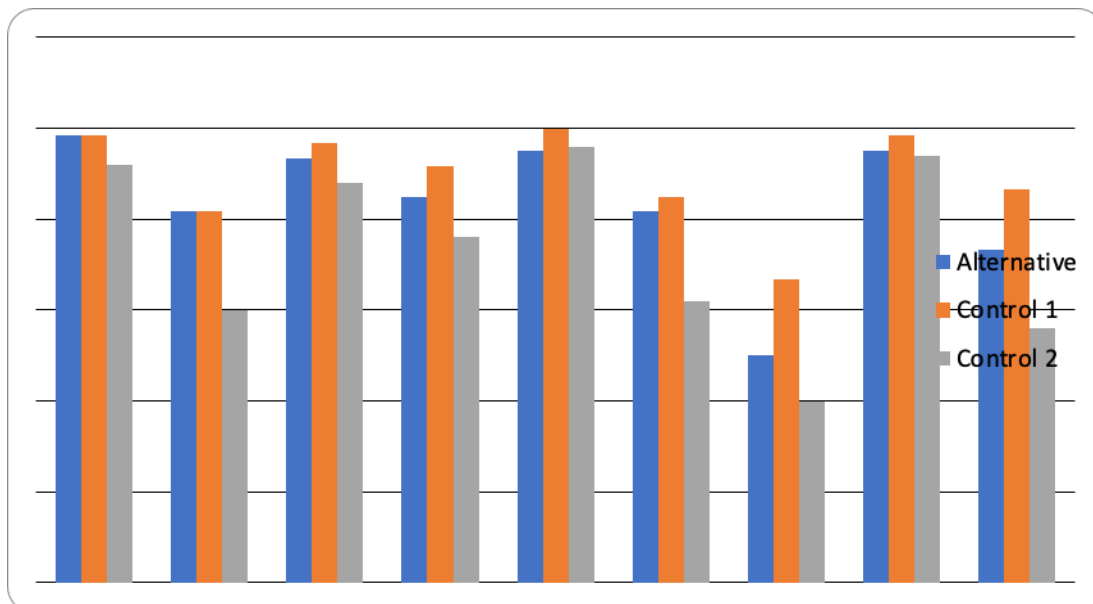
Table 4. Differences between boys and girls, multiple ordered variables

Options	Boys	Girls	X ²	P-value
PH6.5 Can a child draw a rectangle?				
Can draw a rectangle at the first attempt	44%	59%	4.53	0.1
Can draw a rectangle at the second or third attempt	13%	6%		
Cannot draw a rectangle	43%	35%		
Color a circle red				
Recognizes both shape and color right	50%	67%	5.9	0.05
Recognizes either shape or color	34%	24%		
Cannot recognize any of them	16%	9%		
Color a rectangle blue				
Recognizes both shape and color right	30%	45%	5.39	0.07
Recognizes either shape or color	40%	35%		
Cannot recognize any of them	30%	18%		

Age. By the time of participation in the study the children were aged around 4 to 5 years. Detailed description of age characteristics of participants according to different groups is presented above in table 1. It should be added that average ages of boys and girls in the entire group is comparable (girls – 59.5 and boys – 58.2). As expected, older children perform better than younger children in every domain and every item of observation. The differences were equally distributed across domains

Findings – comparison of groups

This section presents findings on the comparison of the three study groups – Treatment, Control1 and Control2. Chi-square test was used to look for any differences between the three groups as well as between pairs of groups. Of special interest was comparison of the children from Control 1 to the children from other two groups (as children from Control 1 are enrolled in traditional preschools and better performance is expected to be better). Also, comparing treatment group progress at the beginning and end of the project.



Part 2 - Attitude of community members towards alternative models of preschool education

In November-December 2012 in-depth interviews with parents, educators and municipal authorities were conducted. The interviews revealed that alternative centers increased the community mobilization and participation of community members in early learning processes. Village councilors expressed their interest in operation of the newly established centers. Therefore they frequently visited the centers, were asking for parents' attitude and collected some information on attendance of children. Local authorities observe increased interest and demand among parents as well. After opening alternatives centers parent frequently ask for more opportunities for their children. All these evidence persuades municipal authorities that community was lacking very important service that is preschool education and therefore the future operation of preschool centers are not in question. Furthermore in some locations with high demand half-day alternative centers were transferred to full-day services where meal and sleep is provided for free.

Parents also evaluated positively newly established facilities. Mainly this attitude is related to the fact that they have noticed important changes in children's development in all domains. This development illustrated very clearly how important is preschool education for child's growth. Through volunteering practice parent learned a lot about early learning activities and can apply their knowledge in other settings as well.

Bellow in more detailed description of survey results.

Survey of village trustees

Village trustees were interviewed in four villages: Akhaltsikhe municipality-village KLde, Kareli-village Zemo Khvedureti, kaspi-village Metekhi, Gori-village khurvaleti (settled by refugees). The main topics of the interviews with village councilors were: opening of kindergartens; LG involvement in the process, the share they made in functioning of kindergartens, evaluation of village inhabitants attitude toward the pre-school center.

Village trustees say that since there is a big number of pre-school aged children in the villages the will and demand of having pre-school centers have always been high. However, the initiative came from Municipal Council and NGO.

Metekhi village trustee: „ I do love working with NGOs very much, I frequently cooperate with them in order to help my village develop.”

Klde village trustee: „In Akaltsikhe municipal council we were told that kindergartens were going to be opened in several villages, everybody expressed their will to have such preschool centers opened in their villages ,NGOs explored the needs and the situation in these villages and we were lucky that they choose ours to open kindergarten.”

After opening kindergartens village councilors expressed their interest in functioning the new preschool groups, they frequently visited the centers. Village trustees were also interested in children's attendance level and generally the environment in preschool centers.

Zemo Khvedureti village councilor: „My working place is next to the kindergarten, I visit them almost every day, I ask for their needs and help them as I'm able to help.

According to village trustees, after opening of new preschool centers the interest of the parents has increased. For example, parents in village Klde become aware of having new kindergarten in their village they didn't hesitate to move their children from kindergarten located in Akhaltsike to the new local preschool center.

Metekhi village trustee was frequently asked by parents if there were free places in the local kindergarten so that they could take their kids to the preschool center. In zemo Kvedureti there weren't any preschool centers, though the number of preschool age kids was really great, So there are many local families which still have to take their children in kindergartens located in kareli municipality which is far away from their homes.

The village councilors expressed their full readiness in regard to supporting kindergartens. When cooperation with Civitas has finished⁵, the duty of supervision of kindergartens was passed to Local municipalities. These preschool centers are now supervised and supported by local Governments.

Survey of Parents

Eight parents were interviewed in four villages. Two parents from each kindergarten. The topics of the poll were: assessment of children and assessment of alternative preschool centers. The most of the parents take their children to alternative preschool centers from the beginning of their establishment. By the time of interview, some kids were in kindergarten for four months, others for 8 months.

Parents say that they have noticed an important changes in their kids personality. They say that children learn poems, alphabet, games and are able to differentiate the colors. Parents confess that their children have an obvious progress in communication with people. Before going to the kindergartens some children were non communicative and capricious but today they have overcome these problems. Children have become friendly, they have learnt to compromise, they are more extraverts and free to communicate with people. Kids have become more polite and calm.

Parents expressed happiness with the fact that their children had psychological and medical examination. They consider medical examination is very important as kids tend to have health

⁵ Minimum 6 month prior the end of the project

problems. They say that medical control over children have helped many kids as they were cured in early stages. Some of them had allergic rash, some had flu and others just needed the general medical checkup and advices from doctor.

Parents consider children's psychological examination as essential, find it really helpful to get recommendations and consultations from psychologist. Shyness and difficulties in communication are the most common problems for children of preschool age, they say.

In the frameworks of the research parents were asked to express their opinion on the importance of kindergartens. They say that kindergartens play vital role in children's development. Children gain valuable education and skills in kindergartens which they can hardly get by staying at homes. They are taught by qualified teachers, they learn and communicate with other kids which is an additional motivation for them.

The idea of the alternative kindergartens include parents involvement in learning process, for example to help the teacher, each day one-two parent is on duty. Parents Point-duty principal is maintained in some kindergartens but some preschool center parents decided to pay additional money for hiring the nurse. Parents who used to be on duty in kindergartens shared their experience:

„It was very interesting for me to take care not only for my child but for other kids with different characteristics, communication with them gained me a really valuable experience.” –Elene a mother.

This kind of involvement helped parents to get to know their children better.

Parents who didn't have to be on duty in kindergartens, share another kind of experience, which includes their social activities, discussions on kindergarten needs. Parents claim that though they don't have point duty principal in kindergarten they still freely communicate with the teacher. Every single parent says that she/he meets teacher every day and has a conversation on her children. Parents say that they attend the lessons and observing the teaching process. Some parents say that their children repeat the things learnt in kindergartens at home. Here are the examples:

„ Mariam used to tell fairy tales after returning the home from kindergarten, but she couldn't remember the tale till the end, she was asking me to help finishing the fairy tale, so I understood that she learnt this story in the kindergarten because I never taught her that fairy-tale.” Lela a mother
„I notice that my child does things we never taught him, for example he cuts out different figures from colored papers” –Nana a mother.

Pros and cons of the alternative kindergarten - parent opinion

For them the alternative kindergarten model is associated with better education and better development of their children. Children themselves like that there are many toys and amusing things for them in kindergarten. Kids love kind, energetic and motivated teachers. The alternative preschool education centers are free form charge which makes it available for families with low income.

When it comes to the disadvantages of alternative kindergartens, parents reckon that infrastructural and hygienic conditions need to be improved farther. They would like their kids to have larger and more comfortable playing and learning rooms. They are willing to have water system, bathroom and electricity at the kindergartens. One of the priorities for parents is the time that children spend in kindergartens, parents consider it better if children stay in kindergartens till 6:00 PM . They find it essential because of several reasons:

- It's not enough for kids to spent only 4-5 hours in kindergarten. They don't want to leave preschool centers as they love to be there.
- For parents living long distance away from kindergartens it is difficult to take kids to the kindergarten and then go back to take them out of the preschool center in such a short period of time.
- Some Parent say that knowing the fact that their children are in the kindergartens in the safe environment they feel themselves calm and free from responsibility for some period of time.

In spite of common opinion that kindergartens should work till 6:00 PM, Some parents say that if they had to choose they would take their kids to alternative preschool centers

At the end of the parents survey, they were asked to evaluate alternative preschool centers on 5 point scale (5 highest):

Sanitary-Hygienic conditions	3.9
Teacher (motivation, qualification)	5
Toys (amount and quality)	4.6
Learning program (children improvement)	4.9
Infrastructure (room size, heating, water etc)	3.8