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10 August 2009

TOURISMOS: AN INTERNATIONAL MULTIDISCIPLINARY JOURNAL OF TOURISM
Volume 5, Number 2, Autumn 2010, pp. 99-114
UDC: 338.48+640(050)

RECREATION IN THE AREA OF RIVER ARDAS: THE VIEWS OF ELEMENTARY SCHOOL PUPILS

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River Ardas in Greece is an area of outstanding natural beauty and used as a recreation area. Each year the area is visited by people of all ages. Children visit the place either with their school or with their parents. It is important to study their views about the river as a recreation area. The children asked were pupils of the elementary schools of the region. All of these children had visited the area before. The majority of the children declare satisfied from their visit in the area and assess the landscape positively. However, most of them have a less positive view about the provided recreation services. Through the use of hierarchical loglinear analysis it becomes clear that pupils who declare from totally to very satisfied regarding their visit in the recreation area of Ardas also find that the provided recreation services range from very good to good. The same pupils also believe that that the river constitutes from very small to fair danger to their safety and visit the place more than five times a year. In addition, the pupils who visit the area more than five times a year think that the river constitutes from very small to fair danger to their safety. Most of the pupils think that the diversity of plants ranges from big to very big while the diversity of animals ranges from small to very small. There is a need for improved infrastructure in the area, e.g. observatories, so that pupils can discover the wild animals that live there. The love of the children for animals becomes obvious from the fact that they do not wish the prohibition of pets in the place. Most of the pupils like the idea of camping in the area with their parents but the idea of doing so with their fellow pupils is even more popular. The children think that their parents would find it easier to grant permission to them to camp in the area if they themselves accompanied their children and not if their children did so together with their

fellow pupils. Through the test of independence it becomes obvious that the will of the children to camp in the area depends on the will of their parents.

Keywords: *river Ardas, recreation, elementary school pupils*

JEL Classification: *L83, M1, O1*

INTRODUCTION

River Ardas (290 km) is located in the Balkans in SE Europe. River Ardas is tributary to the River Evros. River Ardas springs from Bulgaria, from the Koula mountains, and runs through the northern section of the Prefecture of Evros, Greece, for 36 km in a W-E direction. River Ardas joins River Evros at the area of the Kastanies village in NE Evros and then enters Turkey. Its name in ancient times was Arpissos or Artiskos.

River Ardas is very important to the people who live in the nearby town of Orestiada but also the inhabitants of the surrounding area. The river is economically important for its water resources and many other services associated with it. One could mention the fact that the river irrigates an area of 200,000 ha in the Prefecture of Evros but also activities such as fishing, hunting, sport, recreation and generally everything that could be characterized as recreation.

River Ardas and its surrounding area is an area of outstanding natural beauty. Of particular beauty is the part of that area which has been developed by the Municipality of Vissa as a recreation area. Elementary or high school students visit the area through daily school excursions or with their parents in their free time. In the management of a recreation area the final goal is the enjoyment of those who use it (Douglass, 2000). The elimination of whatever problems exist in the area will have to be a priority for all those who are interested for the development of that area (Karanikola & Tampakis, 2006). The investigation, therefore, of the view of pupils for the recreation area of river Ardas on problems which, according to them, would need to be solved, is a prerequisite for the success of any effort by the responsible authorities for the development of the area.

In particular, we are interested in studying the frequency of visits of the children in the area either with their family or their school, how they evaluate the landscape (natural beauty of the area), the diversity of wild animals and plants of the area, the provided recreation services as well the extent to which they perceive the river as danger to their safety. In addition, the pupils were asked if they threw garbage outside the rubbish

bins and if they would like pets to be allowed in the area. Also, in order to investigate the extent to which the children feel close to nature, the children were asked if they would like to camp in the area (even for one night) either with their family or with their fellow pupils and if their parents would like to accompany them or allow them to camp in the area together with their fellow pupils.

RESEARCH METHOD

The research was carried out in November 2008 through the use of self-management questionnaires. In the research participated the total of the pupils of the 5th and 6th grade (11 and 12 years old) of primary education schools in the region of Northern Evros. Although the research was about the problems of the recreation area of river Ardas, nevertheless, the questionnaires were completed in the classrooms. The reason we chose to do so was the fact that it would have been difficult for the pupils to complete the questionnaire if this was done in the actual area around the river, during their excursion, but also the fact that their concentration would have been greater if they completed the questionnaire in their classrooms rather than in area of the river.

The total of the pupils asked were 444, all of whom were present in the classroom the day the questionnaire was distributed. From those 444 pupils, two declared that they had not visited the area and for this reason they were not included in the research. So, the population under research was 442 pupils, 50.9% of whom were enrolled in the 5th grade and 49.1% in the 6th grade. From those pupils 51.1% were boys and 48.9% were girls.

For the variables “degree of satisfaction” and “services provided”, “danger to safety” and “frequency of visit”, frequency analysis was carried out for more than two criteria. In particular, loglinear analysis was used.

Prior to carrying out loglinear analysis, it was decided to examine the expected frequencies in the contingency table (Siardos, 1999). A large number of expected frequencies (more than 20%) of less than 5 but not lower than 1, possibly leads to a loss in the effectiveness of the applied analysis (Tabachick & Fidell, 1989). This examination is carried out through control of bivariate contingency tables (Norusis, 1994; Frangos, 2004). Classes were grouped together in order to satisfy the above criteria.

Our data are classified in accordance with 4 criteria and expressed in terms of frequencies. The null hypothesis, H_o, is that the 4 criteria are fully independent from each other.

It is unlikely that this assumption will be accepted, but the analysis will give information on the strength of various interrelations and this will be included in a model that expresses the interrelations between the data (Frangos, 2004).

In order to estimate the degree of correspondence between the model and the data, statistical tests of optimum adjustment were used. Statistical significance shows that the model under examination does not reflect accurately the observed frequencies, while statistical non-significance means that the model under examination is adjusted to the observed frequencies. The statistical test used is the test X^2 (Howitt & Gramer, 2003).

Finally, in order to interpret the model of optimum adjustment, we present the data in the form of one or two – dimensional tables (Howitt & Gramer, 2003).

Also, in all the possible pairs of variables "camping with the family", "participation of parents in camping", "camping with fellow pupils" and "by the permission of parents" the test of independence was applied.

The assumption of independence refers to the independence of two features while the criterion used is X^2 (Mendenhall, 1979; Kiohos, 1993; Steel, Torrie & Dickey, 1997; Makrakis, 1997; Pagano & Gauvreau, 2000; Retiniotis, 2004). In the test of independence of features the null hypothesis which is tested is "H_o: there is no difference between the variables".

In order for the test of independence to be credible the expected frequencies should not be smaller than 1, while those which are smaller than 5 should not exceed 20% of the total (Koliva-Machaira & Mpora-Senta, 1995; Gnardellis, 2003; Siomkos & Vasilikopoulou, 2005).

The statistical test X^2 is based on the comparison between expected and observed frequencies and is carried out via the Crosstabs procedure of the statistical program SPSS (Apostolakis & Kastania, 1994; Howitt and Gramer, 2003; Frangos, 2004). The sampling distribution of the quantity X^2 (under the condition that the two variables are independent) is approached by the distribution X^2 with $\nu=(r-1)(k-1)$ degrees of freedom (Kiohos, 1993; Gnardellis, 2006).

However, neither the measurement of intensity nor the determination of the nature of the (probable) relation between the variables result from the statistical X^2 (its value depends on the size of the sample) (Tsantas, Moisiadis, Bagiatis & Chatzipantelis, 1999). In categorical variables

meaningful measures are only the intensity and measures which are based on the statistical X^2, and in particular the phi coefficient, Gramer's V coefficient and the correlation coefficient (Tsantas, Moisiadis, Bagiatis & Chatzipantelis, 1999; Retiniotis, 2004). The phi coefficient also examines the direction between the variables (Siomkos & Vasilikopoulou, 2005).

The SPSS statistical package was used to analyze the data.

RESULTS

River Ardas and its surrounding area is an area of outstanding natural beauty but most people like to visit a section of the river which has been shaped as a recreation area by the local authorities, i.e. the Municipality of Vissa. 51.1% of the pupils with their families visit the area from 1 to 5 times a year, 22.9% from 6 to 10 times, 14.5% from 11 to 20 times, 6.1% more than 20 times a year, while 5.4% say they have never visited the area with their family. In a similar question regarding visiting the area with the school, 83.9% say they visit the area once a year, 13.1% more than once, while 2.9% has never visited the area. This means that the schools of the area visit the place at least once a year. So, visits of the area by pupils are as follows: 45.5% of the pupils visit the area from 1 to 5 times a year, 25.6% from 6 to 10 times, 17.9% from 11 to 20 times while 11.1% more than 20 times a year.

The majority of the pupils are satisfied from their visits in the area. 28.1% declare that they are totally satisfied, 34.8% very satisfied and 27.6% satisfied. A little satisfied are 7.2% of the pupils, not at all satisfied 0.7% while 1.6% of the pupils did not answer the question. Therefore, river Ardas and its surrounding area, both at family and school level, is a popular destination.

Regarding evaluation of the landscape (the natural beauty of the area) the opinions of the pupils are the following: 59.3% think it is very good, 27.6% good, 11.5% fair, 0.2% bad and 0.7% very bad. 0.7% of the pupils did not answer the question.

The visitors in a recreation area require of that area to be well-organized and have the proper facilities. We see, therefore, that the provided recreation services in the area can be the subject for great improvement (Chatzistathis & Ispikoudis, 1995). Regarding the evaluation of the recreation services provided, 14.9% of the pupils think they are very good, 38.2% good, 30.8% fair, 13.6% bad and 1.8% very bad. 0.7% of the pupils did not answer the question. Generally, visitors hold similar opinions. In a similar research regarding visitors of Ardas, 3.4% think they are very good, 36.4% good, 42.7% fair, 14% bad, 3.2%

very bad while 0.3% of the visitors did not answer the question (Tampakis, Karanikola, Tsantopoulos & Tomadakis, 2005).

Regarding evaluation of the diversity of species in and around river Ardas, the pupils think that that of plants is large, whereas the diversity of wild animals, is quite restricted. In particular, regarding the diversity of plant species 18.8% of the pupils think is very large, 34.8% large, 30.5% fair, 9% small, and 5.4% very small while 1.4% of the pupils did not answer the question. Regarding the diversity of wild animal species 20.6% of the pupils think it is very small, 30.3% small, 39.1% fair, 5.9% big and 2.5% very big, while 1.6% of the pupils did not answer the question.

The love for animals is also evident from the fact that 59.5% of the pupils do not seem to be disturbed by the presence of animals, e.g. dogs, etc. while, at the same time, they think that animals should be allowed in the area. 29% of the pupils declare that animals should not be allowed in the area while 11.5% did not know how to answer the question. In a similar research project regarding the area of river Ardas, 48.4% of the visitors think that animals should be allowed in the area, 21.5% that animals should not be allowed while 30.1% did not know the answer (Tampakis, Karanikola, Tsantopoulos & Tomadakis, 2005). However, irrespective of the above views, in areas in which children play or in areas visited by children, for reasons of health, animals should not be allowed.

Although the river's water constitutes for this particular recreation area a comparative development advantage, a large percentage of pupils think that the water constitutes a danger both to their own safety and the safety of other children. In particular, 26.9% think this is a great danger, 25.1% fair, 17.6% very big, 16.1% small, and 14% very small, while 0.2% of the pupils did not answer the question.

Prior to the application of loglinear analysis, we examined the crossing table (Table 1) and observed that all expected frequencies are bigger than 5, and hence, there is no problem with low expected frequencies. We further observed that there is a disparity between the observed and the expected frequencies. This indicates that the assumption of the full independence of these four criteria is incorrect.

Applying hierarchical loglinear analysis, after the removal of the correlation term of fourth and third class, it was established that the most appropriate model was the one which includes the impact and the interaction of the variables divided by two. We have interaction per 4 and 3 criteria, because the X^2 for the Pearson test is 4.482 with probability (p)=0.723 and because the X^2 likelihood ratio is 4.608 with probability (p)=0.708. The above are confirmed by the "null" controls for the

interaction of k terms and terms of higher degree, as well as the "null" controls for the interaction of k terms (Norusis, 1994). As shown in table 2, there is no interaction per 4 criteria because the value of probability (p) = 0.3509. In addition, there is no interaction per 3 criteria because the value of probability (p) = 0.5704. However, there is interaction per 2 criteria because the probability (p) < 0.05. Indeed, in the four pairs of variables "degree of satisfaction" – "services provided", "degree of satisfaction" – "danger to safety", "degree of satisfaction" – "frequency of visit" and "danger to safety" – "frequency of visit", there is significant statistical interaction.

Table 1. Cross-tabulation of the four variables

Degree of satisfaction	Services provided	Danger to safety		Frequency of visit		Total
				1-5 times	> 5 times	
Totally satisfied - Very satisfied	Very good - Good	Very small - Fair	Count	31	76	107
			Expected Count	41.4	65.6	107.0
		Big - Very big	Count	34	27	61
			Expected Count	23.6	37.4	61.0
		Total	Count	65	103	168
			Expected Count	65.0	103.0	168.0
	Fair - Ver bad	Very small - Fair	Count	22	46	68
			Expected Count	26.1	41.9	68.0
		Big - Very big	Count	19	20	39
			Expected Count	14.9	24.1	39.0
		Total	Count	41	66	107
			Expected Count	41.0	66.0	107.0
Satisfied - Not at all satisfied	Very good - Good	Very small - Fair	Count	14	15	29
			Expected Count	15.0	14.0	29.0
		Big - Very big	Count	18	15	33
			Expected Count	17.0	16.0	33.0
		Total	Count	32	30	62
			Expected Count	32.0	30.0	62.0
	Fair - Ver bad	Very small - Fair	Count	19	17	36
			Expected Count	22.2	13.8	36.0
		Big - Very big	Count	39	19	58
			Expected Count	35.8	22.2	58.0
		Total	Count	58	36	94
			Expected Count	58.0	36.0	94.0

In order to interpret the interactions, we should first present all the data in the form of four tables (Crosstabs). From table 3 we see that the pupils who declare totally to very satisfied from their visit in the recreation area of Ardas find the provided recreation services from very

good to good. Those who declare satisfied to not at all satisfied evaluate the provided services from fair to very bad.

Table 2. Nullity controls.

k	df	L.R. X^2	Probability	Pearson X^2	Probability	Iteration
Tests that k-way and higher order effects are zero.						
4	1	0.869	0.3514	0.870	0.3509	3
3	5	3.813	0.5767	3.796	0.5792	4
2	11	71.830	0.0000	85.915	0.0000	2
1	15	116.186	0.0000	143.849	0.0000	0
Tests that k-way effects are zero						
1	4	44.356	0.0000	57.934	0.0000	0
2	6	68.017	0.0000	82.120	0.0000	0
3	4	2.944	0.5672	2.925	0.5704	0
4	1	0.869	0.3514	0.870	0.3509	0

k: the number of effects being zero; df:degrees of freedom.

Table 3. Cross-tabulation of the "degree of satisfaction" and "services provided" variables.

Degree of satisfaction		Services provided		Total
		Very good - Good	Fair - Ver bad	
Totally satisfied - Very satisfied	Count	168	108	276
	Expected Count	146.9	129.1	276.0
	Residual	21.1	-21.1	
Satisfied - Not at all satisfied	Count	62	94	156
	Expected Count	83.1	72.9	156.0
	Residual	-21.1	21.1	
Total	Count	230	202	432
	Expected Count	230.0	202.0	432.0

From table 4 we see that the pupils who declare totally to very satisfied from their visit to river Ardas believe that regarding their safety the river constitutes from a very small to moderate danger, while those who declare from satisfied to not all satisfied they think that danger in the river ranges from big to very big.

From table 5 we see that the pupils who declare from totally to very satisfied from their visit to Ardas they visit the river more than five times a year, while those who declare from satisfied to not at all satisfied visit the area a few times a year (from one to five).

Finally, from table 6 we see that the pupils who think that the river constitutes from very small to moderate danger to their safety visit the river more than five times a year, while those who think that the river constitutes from big to very big danger to their safety visit the area from one to five times a year.

When using the area 73.8% of the pupils declare that they do not throw garbage outside of the rubbish bins. However, 18.1% say that they do throw garbage outside the rubbish bins and 8.1% did not answer the question.

69.5% of the pupils see positively the idea of camping in the area with their parents even for one night. 24% of the pupils are against camping in the area while 6.6% say they do not know how to answer the question. Indeed, in a percentage of 45.5% say that their parents too would like to camp with them, while 28.5% declares the opposite. 26% of the pupils did not answer the question.

Table 4. Cross-tabulation of the "degree of satisfaction" and "danger to safety" variables

Degree of satisfaction		Danger to safety		Total
		Very small - Fair	Big - Very big	
Totally satisfied - Very satisfied	Count	177	100	277
	Expected Count	154.5	122.5	277.0
	Residual	22.5	-22.5	
Satisfied - Not at all satisfied	Count	65	92	157
	Expected Count	87.5	69.5	157.0
	Residual	-22.5	22.5	
Total	Count	242	192	434
	Expected Count	242.0	192.0	434.0

Table 5. Cross-tabulation of the "degree of satisfaction" and "frequency of visit" variables.

Degree of satisfaction		Frequency of visit		Total
		1-5 times	> 5 times	
Totally satisfied - Very satisfied	Count	107	171	278
	Expected Count	126.5	151.5	278.0
	Residual	-19.5	19.5	
Satisfied - Not at all satisfied	Count	91	66	157
	Expected Count	71.5	85.5	157.0
	Residual	19.5	-19.5	
Total	Count	198	237	435
	Expected Count	198.0	237.0	435.0

Table 6. Cross-tabulation of the "danger to safety" and "frequency of visit" variables.

Danger to safety		Frequency of visit		Total
		1-5 times	> 5 times	
Very small - Fair	Count	88	156	244
	Expected Count	111.2	132.8	244.0
	Residual	-23.2	23.2	
Big - Very big	Count	113	84	197
	Expected Count	89.8	107.2	197.0
	Residual	23.2	-23.2	
Total	Count	201	240	441
	Expected Count	201.0	240.0	441.0

In a similar question regarding camping in the area, even for one night, with their fellow-pupils, 88.9% says they would like to do so. 7.9% of the pupils answer the question negatively while 3.2% does not know the answer to that question. However, the pupils think that their parents would be more negative on that issue. In particular, 34.4% of the pupils believe that they will have the permission of their parents to do that, 37.1% believe they will not have the permission of their parents while 28.5% say that they do not know the reaction of their parents to that issue.

In the above variables the test of independence was applied. It is important to note that before we applied the test of independence we grouped the answers "No" and "I do not know". Through the test of independence we tested the null hypothesis: H_o: there is no difference between the variables.

In order to save time we cite only the results for the variables for which the null hypothesis is rejected. In particular, for the following variables:

a) "camping with family" – "parents would like to camp"
b) "camping with family" – "camping with fellow pupils"
c) "parents would like to camp" – "parents would permit camping"
d) "camping with fellow pupils" – "parents would permit camping"

For the above pairs of variables we have zero cells (0.0%) with expected frequency smaller than 5. So, the necessary hypothesis in order to use Pearson's X^2 is satisfied.

For the first pair of variables the value of Pearson's X^2 is 16.173 with 1 degree of freedom while the correlation is statistically significant with level of significance $a < 0.005$. This shows that there is a strong

correlation between the variables "camping with family" and "parents would like to camp".

Also, we would have reached the same conclusion if we had used Yates' continuity correction (in tables 2X2). The value X^2 with continuity correction is 15.350 with 1 degree of freedom while the correlation is statistically significant with level of significance a < 0.005. We are led to the same conclusion by the value X^2 of the likelihood ratio which is 16.523 with 1 degree of freedom while the correlation is statistically significant with level of significance a < 0.005. This test is sometimes used as an alternative to Pearson's X^2 while for larger samples it is approximately the same (Tsantas, Moisiadis, Bagiatis & Chatzipantelis, 1999).

In addition, referring to the direction of the results, we see that the pupils who declare that they desire to camp with their parents in the area of Ardas also think that their parents would like to camp with them, while the pupils who do not answer or answer negatively regarding the idea of camping believe that their parents will answer negatively or that they do not know their reaction.

Also, we are led to the same conclusion by the phi coefficient which equals 0.191 (positive) with the correlation between the variables being statistically significant (a < 0.005). Gramer's V coefficient is 0.191 while the correlation is statistically significant (a < 0.005). If one of the two dimensions of the table is 2, the V coefficient is identical with the phi coefficient (Retiniotis, 2004). The coefficient of contingency is 0.188 with the correlation between the variables being statistically significant (a < 0.005).

For the second pair of variables the value of Pearson's X^2 is 24.454 with 1 degree of freedom while the correlation is statistically significant with level of significance a < 0.005. This shows that there is a strong correlation between the variables "camping with parents" and "camping with fellow pupils". We are led to the same conclusion by the value X^2 with continuity correction which is 22.855 with 1 degree of freedom while the correlation is statistically significant with level of significance a < 0.005. We are also led to the same conclusion by the X^2 value of the likelihood ratio which is 22.354 with 1 degree of freedom while the correlation is statistically significant with level of significance being a < 0.005.

Also, referring to the direction of the results, we see that the pupils who declare that they want to camp with their parents in the area of Ardas also declare that they want to do the same with their fellow pupils, while the pupils who do not answer or answer negatively regarding camping

with their parents do not answer or answer negatively regarding camping with their fellow pupils.

We are also led to the above conclusion by the phi coefficient which equals 0.235 (positive) with the correlation between the variables being statistically significant ($a < 0.005$). Gramer's V coefficient also gets the same value while the coefficient of contingency is 0.229 and the correlation between the variables is statistically significant ($a < 0.005$).

For the third pair of variables the value of Pearson's X^2 is 12.925 with 1 degree of freedom while the correlation is statistically significant with level of significance $a < 0.005$. This shows that there is a strong correlation between the variables "parents would like to camp" and "parents would permit camping". Also, we are led to the same conclusion by 1) the value X^2 with continuity correction 12.212 with 1 degree of freedom and statistically significant correlation with level of significance $a < 0.005$ and 2) the value X^2 of the likelihood ratio which is 12.929 with 1 degree of freedom and statistically significant correlation with level of significance $a < 0.005$.

Although referring to the direction of results we see that the pupils who believe that their parents would like to camp with them in Ardas also believe that their parents would allow them to camp in the area of the river with their fellow pupils. This is in contradiction with the pupils where a negative or no answer in the first variable leads to a negative or no answer in the second variable.

Also, we are led to the same conclusion by the phi coefficient which is equal to 0.171 (positive) while the correlation between the variables is statistically significant ($a < 0.005$). In addition, the Gramer V coefficient gets the same value while the coefficient of contingency is 0.169 and the correlation between the variables is statistically significant ($a < 0.005$).

For the fourth pair of variables the value of Pearson's X^2 is 9.871 with 1 degree of freedom while the correlation is statistically significant with level of significance $a < 0.005$. This shows that there is a strong correlation between the variables "camping with fellow pupils" and "parents would allow camping with fellow students". Also, we are led to the same conclusion by 1) the value X^2 with continuity correction 8.895 with 1 degree of freedom and statistically significant correlation with level of significance $a < 0.005$ and 2) the value X^2 of the likelihood ratio which is 11.235 with 1 degree of freedom and statistically significant correlation with level of significance $a < 0.005$.

Also, referring to the direction of the results we see that the students who declare that that they wish to camp with their fellow pupils in the river Ardas also believe that their parents would allow them to do so,

while the pupils who do not answer or answer negatively regarding the idea of camping with their fellow pupils also believe that their parents would not allow them to do so or they do not know if their parents would give them such permission.

Also, we are led to the same conclusion by the phi coefficient which is equal to 0.149 (positive) while the correlation between the variables is statistically significant ($a < 0.005$). In addition, the Gramer V coefficient gets the same value while the coefficient of contingency is 0.148 and the correlation between the variables is statistically significant ($a < 0.005$).

DISCUSSION – CONCLUSIONS

The recreation area of Ardas is a popular destination for family and school excursions. The children can entertain themselves and get to know the natural environment in the area. Pupils from the fifth and sixth grade of the primary schools of the area, almost in their entirety, have visited the area, and to a great degree declare satisfied from their visit and evaluate the place positively. However, the pupils are not as positive about the recreation services provided which shows that these services need to be improved.

The majority of the pupils believe that the diversity of plants ranges from big to very big, while the diversity of wild animals ranges from small to very small. The opinion pupils have regarding the diversity of animals in the area may be improved either by teaching the children methods by which animals are approached and observed or by constructing the appropriate infrastructure, e.g. building an observatory for observing birds from a distance, creating the appropriate facilities for observing fish in the water, etc. Such facilities are important if the recreation area of the river Ardas is to be improved.

Children love animals. Indeed, the majority of pupils does not wish the prohibition of animals in the area, e.g. dogs, etc. Whatever improvements may occur in the area of river Ardas should take into account both the sensitivity of the children but also the rules for hygiene and safety which are dictated for areas which constitute a playground for children. One solution would be to divide the place in areas where animals would be allowed and where animals would not be allowed.

The existence of water is an important factor for the development of any recreation area. The river, therefore, is the reason parents and children visit the area. Most of the time the quantity of water in the river is quite limited which means that it does not really constitute a real danger to children. The truth is that as a result of their effort to protect their children

parents exaggerate in their behavior and pass the message that the river is dangerous to small children. Teachers during daily excursions also prohibit the children to get near to the river but such behavior can be excused because of the great responsibility they have towards children but also because of the large number of pupils under their supervision. Building a low wooden fence at the river bank would strengthen the sense of safety of the pupils as well as the image of the river as an organized recreation area.

Through the application of loglinear analysis we found that in four pairs of variables there is significant statistical interaction. We see that the pupils who declare from totally to very satisfied from their visit in the recreation area of Ardas find the provided recreation services from very good to good, believe that the river constitutes from very small to fair danger to their safety and visit the river more than five times per year. Indeed, the pupils who visit the area more than five times per year believe that the river constitutes from very small to fair danger to their safety. Therefore, by improving the provided recreation services and strengthening the sense of safety in the area the result will be increased satisfaction and more visits in the area.

A small percentage of pupils say that they throw garbage outside the rubbish bins provided. Such negative behavior by the pupils could be explained by the fact that during an excursion pupils are usually less disciplined but also by the fact that there is no sufficient number of rubbish bins. However, this behavior by the children does not seem to be related to the area but seems a daily habit. We should mention that at the end of a school excursion the teachers organize the cleaning of the place getting all pupils to clean the area. A better idea would be for teachers to care for the cleaning of the area at all times during the excursion and not only at the end of the excursion. One of the goals of such excursions is the training of pupils in appropriate behaviors.

Daily excursions offer pupils many stimuli but spending the night and camping in the area, either with their family or their school is a great experience which will never be forgotten. Most of the pupils (69.5%) see positively the idea of camping with their family in the area (even for one night) and believe that their parents would approve such an idea (45.5%). The idea of camping in the area with their fellow pupils is more popular among pupils (88.9%), but they think that it would be more difficult for their parents to approve such an idea as only 37.1% of the pupils believe that their parents would do so.

Camp is a great place for children to escape their everyday life and find adventure and excitement, all while enjoying the natural world

around them. A camp setting offers the opportunity to try new activities that might not otherwise be available, e.g. sing silly songs around a camp fire, hike beautiful foot trails, go on scavenger hunts, and create arts and crafts projects. Children often shine at camp, as they are enveloped in a non-competitive and creative atmosphere. This allows them to express themselves through collecting, digging and exploring, or whatever way they feel most comfortable. Camp is often regarded as an important source of self discovery and personal inspiration.

Through the test of independence it becomes obvious that there is a strong correlation among the four pairs of variables. In particular, we see that a) the pupils who declare that they wish to camp with their family in the area of Ardas also believe that their parents would like to camp with them, b) the pupils who declare that they wish to camp with their family in the area of Ardas also wish to camp there with their fellow pupils, c) the pupils who believe that their parents would like to camp with them in the area also believe that their parents would also allow them to camp in the area with their fellow pupils and d) the pupils who declare that they wish to camp in the area with their fellow pupils also believe that their parents would allow them to do so. From the above it becomes obvious that the will of the children to camp in the area of river Ardas depends on the will of their parents. Camping in nature is also a means for bringing children closer to it. Perhaps, we should encourage such efforts if we want to decrease the fears children have for nature as well as make them realize that they are part of nature.

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SUBMITTED: AUGUST 2009
REVISION SUBMITTED: NOVEMBER 2009
ACCEPTED: DECEMBER 2009
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