PHD THESIS ABSTRACT

Doctoral School of Earth Science

INFLUENCING FACTORS OF HUMAN RESOURCE DEVELOPMENT IN THE MICRO-REGION OF SELLYE

CSILLA ILDIKÓ FILÓ

University of Pécs, Faculty of Sciences
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Title of the Doctoral School: Doctoral School of Earth Sciences

School Leader: Prof Dr József Tóth DSc
Rector Emeritus

Title of the Doctoral Program: Regional and settlement development

Program Leader: Prof Dr József Tóth DSc Rector Emeritus

Discipline: social geography

Supervisor: Dr Zoltán Wilhelm PhD Senior Lecturer
1. INTRODUCTION

1.1. Theory and objectives

In countries which can be characterised by market economy there is a naturally concomitant rate of minor or major presence of unemployment. In Hungary basically at the same time with the political transformation the open unemployment. Inside the country the socio-economic processes of the transformation were not going on equally in space and time so the appearance, culmination and fluctuation of unemployment shows significant differences. A gradual decrease could be observed in the country's Western regions after the nationwide peak point of unemployment in 1993. Despite in the Ormánság and the micro-region of Sellye within - examined by myself - the rate of unemployment by the first years of the XXI. century remained over 30%, moreover more people get out from the labour market and become inactive in the area, which takes part in the marginalisation of the areas.

I have started my research in 2002 on the one hand with the objective that I should assess the features of the area's human potential and to define the inactivity indicators from this. That is typical for the population. On the other hand, defining these indicators may offer the decision-makers help in the labour-market reintegration of inactive human resources.

My hypothesis of research is the following:

In the cognitive society of the XXI. century the lack of human capital (that is made up of knowledge capital on one hand and on the other hand of symbolic capital.) and the inadequate method of developing human resources leads to an increasingly bigger break down in the development and dynamism of micro-regions. Since the development of the human resources receives a very considerable role in the competitiveness of the areas in the framework of the sustainable development. If the human potential and the knowledge base of the area are not adequate, it cannot latch on to the processes of knowledge society.

The capital aims of the dissertation can be summarized in the next dots:

1. The overview of inland and international literature related to the topic
2. The characterisation of the area's socio-economic peculiarities, including the state of the human resources in it
3. The analysis of the development of unemployment in the micro-region according to sex, age, educational level, time span and economic sector
2. MATERIALS AND METHODS

At first I give an overview of databases applied during the research. I made use of the 2001 yearbook of the Hungarian Central Statistical Office’s census database for the characterisation of the human resources furthermore from among the „Regional Atlas 2002 – 2004”, and the „Interactive thematic maps 2002 – 2004” the database of the statistical micro-regions I derived the socio-economic indicators from the data of the Settlement Statistics database system and the one in APEH SZTADI treatment prepared from a tax database. The unique sequential database of registered unemployed people forwarded and gathered from the Regional National Employment Office of the Hungarian Public Employment Service that is coordinated by the Public Employment Service stands in the focus point of this essay.

After processing of the data I prepared two questionnaire surveys on the area. In the first questionnaire I assessed the population's opinion formed about the area, then after the analysis of this I made the second research on a representative sample where I examined the individual circumstances and their affect on each other.

Finally I present the multiple variable statistical methods with the help of own processing.

3. RESEARCH BACKGROUND

During the over viewing of the literature of the last decade in our information society - primarily with the workforce market and speciality dealing with a development of the human resources it lightened up, that the human potential- and particularly the unemployment and the establishment of inactivity is influenced by the individual and social economic factors collectively. In my analysis I present the adaptability of an essential method based on the literature. My analysis can fundamentally be divided into two parts. In the first part I test the adaptability of different indicators in the area. In the second part I represent some basically important application of a multivariate method occurring in different frequency in literature from the society of the micro-region from his collected database.

- As a first step I looked for an answer, which social and economic indicators affect the inactivity.
- With a head component analysis I did a possible typification of the micro-region’s micro-society manufacturing three factors from 26 variables.
- This factor group was in service as the access variables of a cluster analysis that is suitable for alignment of micro-society of the micro-region for which I distinguished 4
groups of type with the cluster procedure, which are typical of different features with each other.

3.1. Introducing Sellye micro-region based on an applied database

3.1.1 Settlement structure and demographic indicators

I started my examination with the exploration of demographic features and settlement structure. The micro-region is characterized by frittered settlement construction, where the number of the inhabitants of villages is very low. In Baranya county beside Szigetvár micro-region is the area, where the proportion of the small villages exceeds 90%. 87% of the area's settlements counts less resident than 1000 persons. (The average number of inhabitants of the settlements does not attain the 500 persons yet on the area of Ormánság!). The rate of urban - rural population is characterized by the dominance of the rural population. The population density of the micro-region is 22 person/km², that is exceptionally low to the national average (93 person/km²), but at the same time the settlement density is the threefold of the national average.

3.1.2 Economy - social indicators

First, I manufactured a micro-region level data file with basic data and micro-region average values with aggregating the unique serial database according to different segments. Examining the development differences of the micro-regions the Hungarian Central Statistical Office rated the micro-region into the worst category, stranded micro-regions by the beginning of the 1990’s.

![Figure: State of development of micro-regions 2003](source)

The backwardness of the economy as well as the disadvantageous settlement construction impresses its stamp onto the employment. In the micro-region the unemployment rate is constantly 30%. The most of the unemployed have low educational
level, the main part of them finished only elementary school (or even less) which makes the positioning of the inhabitants here are much harder.

2. Figure: The rate of people not having either elementary education in 2002

Sellye micro-region belongs to those areas of the country, in where the largest employers are services working characteristically from budgetary sources, that are the public administration, the education and the public health. In this manner in Baranya county this area is in the most critical state, the rate of unemployment in 2002 was averagely 31%, that was decaying in the next year by 3.2% and in 2004 and in 2005 it was 33%.

3. Figure: Rate of unemployment in Sellye micro-region 2002

As we talk about the problems of the area and chiefly about the situation of social and human potential, we have to concern the Romany ethnic group’s role played in the area and the chances of the reducible of the conflicts turning up currently. The proportion of Romany ethnic group on the pointed area can be generally 25-30% of the total population (accurate
and reliable data from any kind of source are not available), but there are settlements where their share attains it the 30-100%. The Baranya average moves around 6 - 10% by the beginning of the XXI century, the dominant part of this is constituted by the number of people living here. Because of this that question is not incidental that what kind of role is played on the area's labour market. Generally that typical picture meets our eyes, that the Romany ethnic group’s quasi 70-80% was driven permanently out from the legal labour market, and has few chances to let them get back there. They fill the permanently unemployed workers quasi 70%, and based on the estimates, they are in majority inside the latent unemployed workers.

In the area from the beginning of the 1990’s the industrial and in an agricultural section the general crisis of the large scale firm farming can be experienced. The first decade after the transformation of regime reflects faithfully the earlier and in one the governmental intentions in connection with the transformation of the agriculture. In the area much worse circumstances evolved than the national average. The qualities of the tillage does not attain the 10 AK/ľf average. The agrarian large scale firms went onto a trunk disregarding some exceptions. There was not any serious investment over the last period in all over the area, which would have eased the area’s employment troubles. The area’s disadvantageous settlement construction caused difficulties in terms of the commercial supply. Before the political transformation providing the primary care for this area's small settlements was solvable with a normative state support only. The area’s infrastructural provision expresses its underdevelopment. The development of the cable gas got underway only in 2002 in the micro-region of Sellye from among Baranya county's 10 micro-regions, the proportion of the flats heated with the gas (6%), since a late additional development followed the first section of the implementation. The public utility water line network is much or less built up in the area, (in our days it is typical on more settlements, that the service provider terminates the service of the cable water in the deficiency of the payment of the public utility accounts, so the residents obtain the necessary water quantity from tank trucks or from old-drilled yard fountains). The configuration of the public utility sewage system lags behind the former one. In the micro-region of Sellye simply the 10,6 %- of flats were connected with the network. The backwardness of the traffic infrastructure constitutes the serious obstacle of the development of the economy. The length of the area’s public road network is practically constant for a time, its consistence is decaying continuously beside the most necessary renovations.

3.2. The questionnaire examination of Sellye micro-region

3.2.1 Lifestyle research
The first phase of the research was a questionnaire lifestyle examination whose aim was to estimate, how an „Ormánság man” is thinking about himself, his living space and the micro-region, where he lives.

The questions covered three topics. The first topic was the region image, in which we asked them about the values of the micro-region, the Ormánság man’s mentality, culture, notion, and attachment to the area. The second topic concerned as living space, the micro-region social, economic development. The third topic bought under magnifier the work of the area’s developer association, its reputation, and the residents' political affinity.

After the processing the questionnaire the answers showed that the micro-region as living space and entity defines people’s self-evaluation fundamentally. Based on the questionnaire awarding the expansions and the eruption opportunities people unambiguously see a way out from their present situation in the creation of the job opportunities.

3.2.2 Representative human resources examination

I shaped the second phase of the research based on the lifestyle examination presented above, that was a complex data collecting process. This consisted of a newer questionnaire examination primarily.

After the selection of the micro-region settlements came the compilation of a questionnaire that is able to assess on a complex manner concerning the settlement’s demographic, socio-economic, employment, infrastructural, environmental, tourism, its educational relations, situation, state.

The research task and the complex character of the chosen method counted with it from the beginning, that beside the questionnaires other sources, data and results of methods will infiltrate the analyses.

It was necessary to take more methodological viewpoints into consideration simultaneously in the course of creating the questionnaire. Because of this, it was necessary to restrict the usage of open questions in the interest of the processable on the one hand, on the other hand a claim of the acquisition of modern informations and of information associations came up, for example for the individuals’ living space, for their financial situation and the possible exploration of the area’s entrepreneurial activity, that till now in contexts like this and with this complexity had not been examined yet in the given area. So a part of the questions could be only be formulated and assumed in open questions.

From 440 population questionnaires given to the interrogators 368 got to a filling in the area. After the data loading 322 implied information that can be examined complexly.

Following the data loading as a first step, I examined the respondents sex then age separately of women’s and men’s. Asked ones consisted of 52% woman and 48% man. This
represents the Hungarian Central Statistic Office’s 2001 census data that measured 54% from the women's proportion in Selleye micro-region.

The presented diagram (4. figure) considering educational and vocational qualification shows the under education presented above well.

![Educational Levels Distribution](image)

4. Figure: The distribution of the educational levels of asked people

The 5. figure presents the respondents' profession structure, on which, we may see that this is anachronistic. The dominant professions are on the area of agriculture-, machine industry- and commerce, 58% obtained qualification on the area of agriculture and machine industry on which they cannot thrive already.

![Profession Structure Distribution](image)

5. Figure: The distribution of the respondents' profession structure

The reason for this is that in Selleye, as the area's singular institution with comparative degree, an agricultural training is going on (training which is connected to the treatment of agricultural machines primarily) and many people - for those who has no other opportunity after the accomplishment of primary school - can obtained a qualification here.

The 6. figure exemplifies the economic activity of the asked people. It is visible, that the respondents' biggest part is pensioner (73 people) or registered unemployed (60 people).
6. Figure: The economic activity of asked people

The record height of unemployment rate experienced in the district of Sellye can be due to on the one hand the unemployed workers' high number, on the other hand the decrease of people with higher educational level living in the area. The area's settlements are growing old since the young entrants move from the micro-region in the hope of the better living. It is characteristic, that from among the entrants the trained ones' proportion was not growing in the latter years. In this manner the chances for employment of people quitting onto the labour market decrease continuously. Those who have skill or higher educational level are not looking for work in the area, but rather they chose commuting, or migration as a solution.

3.3. The area's human resources analysis with multiple variable statistical methods

The obvious first step of the analysis with multiple variable statistical methods is a variable reduction procedure, whose aim is to help revealing the characteristic types of the area's human resources. I classified the types assigned during the procedure into four groups because through the utilization of the benefits of the applied multiple variable methods give a more thorough analysis about the peculiarities of Sellye micro-region’s micro-society.

3.3.1. Factor analysis, multidimensional scaling

I examined several of the peculiarities of the area's human resources during the usage of the factor analysis (main component analysis) and multidimensional scaling. I analysed for example the data concerning the individuals' educational level, age, sex and economic activity.
We may see dot clouds on the next figures, which represent the respondents' characteristics, and how the single variables affect the individual's group situation then I examine how these variables affect each other.

After the processing of the data area's population managed to be organized into 4 groups based on the representative sample.

I used the next factor groups' data in the course of the typification:

1. Individual circumstances (sex, age, educational level, skill, marital status, language knowledge, informatics knowledge, spare time spending, civil activities, health conditions)

2. Economic circumstances (monthly incomes, occupation, (economic activity), retraining, black labour, the ancestry of domestic incomes, commuting, area which is suitable for farming)

3. Living conditions (marital status, people living in common household, dependents, car, commercial vehicle, size of immovable, comfort level, state)

7. Figure: The characteristics of the individuals examined in the survey
The axes present those capital tendencies (8. figure), according to which the individuals are divided in the set. I established two capital tendencies after the accomplishment of the calculations, along which the asked ones get organized. From this the horizontal arrow shows the qualification of the individuals forming the group, that is the people settling down in the left edge of the dot cloud are not possessing educational qualification (on the figure some dots like this indicated with a circle), the individuals who possess a higher qualification are settled on the right side of the cloud (on the figure some dots with blue framing). The group delimited with the green line in the dot cloud presents the ones who possess secondary qualification. The vertical axis shows the increase of the size of territory (living space: immovable floor-space, the number of rooms). These two capital features in his group of asked people along which we may define these individuals taking a part in a sample. I tried to compare the income relations to the educational qualification, but in the group it is uncharacteristic, that who has higher educational level has higher monthly income. This brought up a very interesting problem in the course of the analysis. This is not typical for the area’s population, that the more knowledge they have, the better opportunities they get, so there will not be a motivational factor in the micro-society, there will not be examples to follow, and that will help to start the development processes.
We were able to develop four capital groups among asked people in the course of the analysis, (9. figure) by which the society can be characterized. In the followings I reveal the features of these groups and I verify my hypothesis, that in the 1990’s development processes of human resources in this area were not adequate, since the majority of the society of the micro-region did not get into a situation that they should be able to prevail on the labour market in the possession of their competences, join into the area’s economic and into social processes. Indeed the processes which are conflicting with this gain space, on the beginning of engaging in the knowledge-based society increasingly more people adjust from their micro- and macro-society and are in need of other’s, and chiefly of the state provision system's help, with making unviable their own their micro-region’s situation.

The group that is in the best situation from groups formed during the analysis is „Groupe I”. The most typical characteristics of the members of this group:

- Young people,
- cohabitation in more generation,
- they possess a big territory,
- they do agricultural production,
- conversely they possess industrial skill,
- they are family entrepreneurs.
The persons who move Sellye micro-region’s economic processes actually belong to this group. They play a role in the agricultural production mainly. It is interesting, that the majority possesses a certificate of industrial skilled, but it turned out examining the text assessment of the questionnaires, that they obtained a certificate on agricultural engineer's academic specialisation at the local agricultural training school.

The capital target group of development processes of human resources may be this circle, since their relative economic successes may be the motivations for the area's development processes.

In the course of the analysis the next group evolved „Groupe II" owing these feature:

- trained (having high-school graduation) young people,
- living from wage and salary (72000 - 110000),
- relatively little living space (2-3 room flat),
- typical of this group, that undertakes work apart from his residence.

Differently from the first group this group’s members' family income per person is 13000-15000Ft, from which these families can cover their monthly expenses only, the area's local governments' employees form the group mainly.

Features of „Groupe III” are the following:

- aged, single (widow),
- home living person (mothers),
- inactive individuals
- 8 primary schools their highest educational level, (37% does not have a primary school qualification)
- having health problems,
- the big real estate is typical as their living space.

On the figure this is visible, that this group makes the asked people’s biggest proportion. Looking up from the analysis from the 322 asked people 164 people were allowed to assign into this group because of their similar features.

My hypothesis at the beginning of my paper was that in the 1990’s the change of a paradigm increasing the human potential in Sellye micro-region in the past decade only has changed in a slight measure. Unfortunately after the identification of these groups it is about to prove the assumption, that the population's majority is elderly, undereducated, does not take a part in the labour-market processes. This has to be considerable information in the
development of the later development programs, since can be probable, that they possessing these qualifications will not get into the processes aimed in immediate future, and because their problem is less soluble on a short distance, mutually their old age deduces in that direction, that their social situation will probably not change.

„Groupe IV” is the group of the totally inactive ones.

- With a qualification under 8 primary schools,
- unemployed workers (lasting, unregistered)
- living on social and unemployment benefit,
- joint families
- worn out flats (there is not a bath, not toilet etc.).

This group forms the Ormánság population’s lower layer, those people who got to the social periphery, who lost their safe incomes after the political transformation after the ceasing of bigger employing ones, mainly the Romany population belongs to this group. Their most capital common feature is the lack of education (62%), the flats without comfort and living miserably on the social assistances. Their labour-market rehabilitation is almost impossible, since their majority is unregistered unemployed worker. The employment organisms' informations do not get to them, their learning intention is slight and based on some question asked in addition to some questionnaires they do not think about their future, that they should undertake work.

After the exploration of typical characteristics I examined, how different variables affect each other in individuals and in society’s relation.

We may have seen it already on the previous figure what kind of groups took shape among the asked people, I look for the answers for in the followings, that why these groups evolved, what the capital factors are that shape the micro-region’s micro-society. Which ones will be the capital points, on which it is necessary to lay an emphasis in their developments.

The examination viewpoints: the differences between men’s and women's situation, age, qualification, skill, marital status, number of people living in common household, number of dependent, economic activity, income types, living space, workplace, the comfort level of flats.
10. Figure: Qualifications in education

The 10. figure shows the educational levels which are typical of the groups. Unfortunately the 2. dimension do not represent well the qualification which is definably the most typical of the groups, but slewing it in space it was well seen during preparing the analysis, that the members of the first group Groupe I possess characteristically skill certificate, in the second group the high-school degree is determining and with the higher qualification people are found apart from groups, that is uncharacteristic and a group is not formed. This can have more reasons. Subsequently taking action examining the questionnaires people with higher qualification (28 pieces 7% of the asked ones, that represents the area average a little bit above, which is 5%), a big part of did not get into a group, because they have so much unique peculiarities, that based on these they do not fit into it (for example: they go working apart from the micro-region, their monthly incomes exceeds far the average, or they are inactive pensioner etc.). The greatest danger shows up in this that people with higher qualification demarcating not only according to the statistics, but it is not possible to make them move in practice in the development processes, dared with it, having different features they do not take part in community processes.

It may be apparent to us examining the positions of qualifications on the figure, that the X axis will mostly be affected by this factor, so the individuals' skills qualification is a determinative factor in the groups' development and in the organization of the Ormánság society.
We may see the age, qualifications and social economical activities on the 11. figure that are typical of the groups, which mark the economic activities as well. Again it is proved, that the third and fourth group does not have a positive intervention into the area’s economic processes.
We may see, (12. figure) that the groups in better situation live in better conditions. The size of the living space will be the factor that defines Y axis, so the bigger the asked one’s living space, the higher it is settled. The question mutually comes up here why the ones in the 3. group is so high-located. I got an answer for this based on the personal interviews. The pensioners’ majority lives on the inherited family possession that has been built by the first part of the last century at that time when the economics of the Ormánság was determined by agriculture and their territory gave them secure subsistence, so their financial state was represented by the size of their houses. Well their descendants are „vegetating” in these houses of which the upkeep causes problems for them.

3.4. Scientific results

The rural area’s formation and demarkability is defined by some kind of coacting force, cohesion, from among which the frequents ones: geographical relations (bounded areas, identical natural forms), the ethnic (ancestry, national, lingual), occupational (producer district), religious (ideological, ethic) identity or similarity, and the living standard (poverty or the politics being based on it).

This area’s troubles are complex: related with human resource, hygienic, informatics, environmental, production and traffic problems. Onto the analysis of the difficulties, the treatment of the troubles the above mentioned approach is the most suitable, since it is necessary to find those population groups first, that can be involved first into the development actions and they may serve as a sample to the population’s majority. To the lasting solution of the problems, the sustainable development, a global approach is needed in the majority of the cases. Other two factors give reasons for this. On the one hand the increase of the
qualification can not be imagined without institution developments and the population’s positive attitude, on the other hand with in terms of our gentility (Romany) politics applying positive discriminations it is necessary to create an opportunity for the numerous Gipsy populations living here to get at the trainings. The population’s involvement is indispensable to the forming of the economic development concepts, which will be able to decide upon their own fate simply by possessing knowledge and acquaintance. It is necessary to keep clear of decision mechanics in Sellye micro-region at the beginning of the XXI. century, that only leaders and experts interfere in the development and decision processes, since this area’s population has been delivered to this process continuous for half a century already. Because of this the first and most important moment is that the area’s actors let the contacts be established, let for be created for those groups who into the local developments firstly can be involved, in a present case the population belonging to group 1. and 2, If it does not occur the micro-region cannot break out from its situation, the – that can be mentioned as the periphery of the periphery – it will become the isolated, secessionist living space of undereducated groups lacking knowledge.
4. RESULTS

1. I assessed factors defining Sellye micro-region’s economy and society. I collected the area’s human potential’s typical indicators, from which I prepared time series indicators and I presented the processes of the past decade on the basis of especially human resources. After this I managed to get to the statement that the developments of human resources are not happening according to the challenges of the knowledge-based society and the sustainable development.

2. I analysed the components of the area's labour-market based on statistical data and the time series data of the Regional Employment Office of Sellye. I established that the low-qualified population is the hindering factor of the area's labour-market processes on the one part, on the other hand in the micro-region exceptional low the undertaking activity, the employment side does not work well in the micro-region.

3. To the grounding of my empirical research first I made a lifestyle examination that I drew the conclusions first about the area existence, the relation of Ormánság man to the area, and I prepared a questionnaire measuring human potential of the area. I established from the analysis of the lifestyle questionnaire that the population of the micro-region sees their future being exceptional dead-end, the reason for this is that they do not have knowledge about processes and principles defining the beginning of the XXI. century, like partnership, active citizenship, subsidiary.

4. I defined those four groups that the most characterize the area's society with the help of factor analysis and multidimensional scaling. The 1. group's peculiarities are: young persons, living together with more generations, having a big territory, on which agricultural production is continued. The 2. group's peculiarities are: trained (young people having high-school graduation, living from wage and salary in relatively little flats and undertaking work apart from their residence. The 3. group’s peculiarities are: an aged, single widow, inactive individuals, who’s the highest educational level is the 8 primary school, having health problems in big family houses, of which the maintenance causes problems for them. The 4. group’s peculiarities are: not having 8 primary school classes, unemployed workers, they live on aid in big families in flats without comfort. From this I showed that the most considerable type creator factor is educational level and the living space. In addition I wrote those groups down, in terms
of a development as individual, as area, that they may be the potential subjects of coming processes featured like this.

5. I sustain bringing different databases accumulated onto a uniform basis about the micro-region is a new research result and that I applied multiple variable procedures on a manner complementing each other on this uniform basis (factor analysis – multidimensional scaling). And I examined it in a scientific way based on these procedures and I analysed and categorised (grouped) individuals forming an area from the viewpoint of development and improvability.

5. CONCLUSION

1. It is necessary to draw up indicators that are suitable for measuring certain areas’ social, demographic peculiarity.

2. The opportunities of the application of the multiple variable methods in the representation of socio-economic processes and of the state features of the area should be outlined comprehensively. In many cases the analyses finish with the execution of the factor analysis. The developed application of the different methods makes more complex analyses possible.

3. The expedient method for groups characterisation, defining the types, is the head component analysis.

4. It is necessary to make the analyses regular that are the new indicators and for which multiple variable methods happen to use, collaborating with the scientific workshops.

5. I do not regard my analysis closed or finished. The series of the methods presented here attached to each other hides a number of additional analysis opportunities.
REFERENCES

a) Published literature related to PhD topic


b) Conference presentations related to PhD topic


**FILÓ Cs.(2003): Esély az egyenlőségre In: Konferenciakötet Az európai tanulási tér és a magyar neveléstudomány; III. Országos Neveléstudományi Konferencia. MTA Bp.**


**Filó Cs. (2001):** Stratégie d' analyse/observation des ressources humanies In: Observatoire Interrégional de Diagnostic et d' Action Territoriale. Seminaire européen "Outils d' Intelligence Territoriale" (4-5 octobre 2001.) – Charleroi (Belgium) pp 17-19

**Filó Cs. – Ács P. (2003):** State of the art of multidisciplinary approaches to spatial analysis - Interactive Local Space In: European network of territorial intelligence – Besancon, 2003. szeptember 4-6. (Franciaország)

**Filó Cs. (2004):** Territorial analysis in Hungary In: Territorial intelligence seminar – Huelva 2004. szeptember 14 (Spanyolország)

**Filó Cs. (2005):** Le rôle de la culture dans le développement rural / In : Territoire, bien – etre et inclusion sociale, Colloque international – Liege (Belgium) 2005. pp. 34-39

**Filó Cs. (2006):** Territories competitiveness indicators In: REGION, IDENTITY AND SUSTAINABLE DEVELOPMENT, Alba Iulia 2006. szeptember 20-23 (Románia) pp 19

c) Other publications, presentations


**Participations in research issues**

1997 Adult educations maps of Hungary, IIZ/DVV – PTE FEEFI, research leader: Heribert Hinzen

1999 Cultural situation of Baranya County, PTE FEEFI research leader: Dr Koltai Dénes

2000 Human potential of South Trans Danubian Region, PTE FEEFI research leader: Dr. Koltai Dénes

2002 Socio-cultural situation of Ormanag, EUgenia project, project leader Xavier Delmon

2002 Development index of micro-regions of Baranya County PTE TTK FEEFI research leader: Filó Csilla

2004 Human potential of Oramasag and South Trans Danubian Region NFI, research leader: Dr. Benke Magdolna

2004 Participations in adult education , NFI, research leader: Dr. Halmos Csaba

2006 CAENTI Coordination Action European Network Territorial Intelligence – EU6 – project leader. Jean – Jacques Girardot