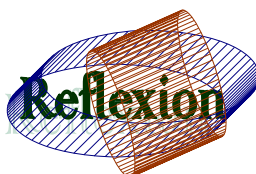# EU Project: visuaLearning

Explorative Research:

Relevance of visual learning
for specific target groups

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Bonn, January 2008

Content

1.   Preface and context

Within the scope of the project "visuaLearning" we have dealt with the relevance of visual learning in learning processes. From our experiences in basic skills we know that especially people with low literacy skills depend on processing information by means of pictures. This is regarded as a compensation strategy for managing daily life. At the same time it is a special strength or competence that has not yet been acknowledged or recognised enough, the reasons being that this is an informally acquired competence.

With this project we build up on current findings from both basic skills and acquisition of informal competences in order to find out how the so called "visual learning" eases the process of learning. In order to find some evidence for our assumptions we interviewed learners with reading and writing difficulties and so called "third age learners". We focused on their learning biography and on the role that symbols, pictograms and pictures play during a lifetime.

The results of the group discussion are now part of a qualification concept for tutors. We developed, provided and evaluated a workshop for trainers which qualifies trainers for "visual learning". The workshop sensitises the trainers about the role of "visual learning" in learning processes and among other things also qualifies them in elements und principles of image design for visualisation and visual methods in class and how to apply them in teaching. This competence is known as visual facilitating.

Numerous experiences and references made by the tutors as well as evaluations of the visual methods presented in the workshop flow into the „Qualification Concept for Trainers" and offer a practical instruction for professionalising in the field of „visual learning". Additionally a gallery with many application examples referring to visual methods will be published on the project website and on a CD-ROM.

2.   Questions and methodological procedure

In the context of the EU-Project „visuaLearning" altogether 12 group discussions have been conducted with the help of an "Outline for interviews with learners"in the participating countries. The individual and total evaluation of this discussion round forms the basis of this explorative research.

In choosing the suitable method of collecting data it had to be taken into consideration that image perception and image processing often takes place unconsciously. Furthermore it was assumed that especially human beings with reading and writing difficulties may also face difficulties with the spoken word.

With the concept of the group discussion it was important to discuss the background experience of the learners as this was to be investigated. This was achieved by the use of simple language and image examples. Synergetic effects of the method came into effect in this way allowing a highest possible variation of experience to be researched.

Furthermore it had to be taken into consideration that pictures, images, diagrams and symbols are "open" to different interpretations. For example in the learners active analysis of a picture or a described experience referring to visual learning, different meanings can be revealed and in fact this happened in the group discussion. Afterwards, these differences have been discussed by the participants and have given information of the respective learning- and life worlds of the target groups.

Leading questions in particular were:

Which role does "visual learning" play in a learning process? What impact do symbols, pictograms and pictures have in a learning process? In addition, the main emphasis was on the analysis of learning biographies and stories which offer answers and evidence for these key questions.

These leading questions have been operationalised with the help of seven question complexes. The introductory guide subsequently developed for the interviewers of the group discussion was subject to a pre-test. Furthermore, data of the respective course and its educational goals as well as details of age, gender and educational level of the participants have been acquired.

The sessions were recorded and then transcribed. The data from these focus groups have been analysed with the method of qualitative content analysis by each partner. For this an introductory manual has been developed to guarantee the comparability of the individual analyses. The findings have been integrated into the course qualification concept for trainers.

3.   General information concerning the participating courses and participants

Germany									
1st Discussion Group (Germany)[1]									
Course / target group	**Literacy course** for functional German speaking illiterates (measures according to § 16 par. 2 SGB II)								
Place of meeting	Volkshochschule der Stadt Eschweiler, Kaiserstraße 4a, 52249 Eschweiler								
Information about the course	This literacy course takes place over a period of 8 months and comprises of 600 lessons. Goals that are to be reached through the measures entail gaining and improving reading and writing skills, reduction of disadvantages in competition and improvement of employment provisions on the primary and secondary labour market. Contents of the course are communication and consolidation of linguistic competences in reading and writing, basics of grammar/orthography, basic skills in calculating as well as general stabilization regarding personality.								
Number of participants	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	
Age	30	44	56	57	29	50	38	49	
Sex	♂	♀	♂	♂	♂	♂	♂	♀	
Information about the participants	All participants of the group discussion are persons receiving income support who do not have a certificate of basic secondary schooling. Some of them attended schools for pupils with special needs which they have left prematurely after sixth, seventh or eighth class. One participant did not attend school at all. Some of the participants have a number of children (4 to 8 children).								
2nd Discussion Group (Germany)[2]									
Course / target group	**German literacy course**								
Place of meeting	beramí berufliche Integration e.V., Burgstraße 106, D-60389 Frankfurt								
Information about the course	This course is directed at migrants, who want to learn reading and writing. It is a course for beginners which is the first basis for all further steps of qualification.								
Number of participant	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Age	42	28	44	21	45	36	51	34	42	30
Sex	♀	♂	♀	♀	♀	♂	♀	♀	♀	♀
Residing in Germany (in years)	12	?	17	9	27	7	21	13	4	15
Information about the participants	All participants are unemployed and are receiving unemployment benefits or supplementary benefits. All of them have an immigrant background. Unemployment is one prerequisite for participation in the course. Courses are attended in part by Academics. However, these represent a minority. The majority of the participants have little or no education. Some of the participants were not able to attend school at all									

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[1] Results drawn from the "Evaluation of the 1st group discussion in Germany" and "Final report of group discussions in Germany" (internal papers).

[2] Results drawn from the "Evaluation of the 2nd group discussion in Germany" and "Final report of group discussions in Germany" (internal papers).

in their countries. The ethnic composition of the course is very mixed (Afghanistan, Algeria, Irak, Sri Lanka, Tunisia, Namibia, Eritrea, Macedonia and Thailand).

3rd Discussion Group (Germany)[3]

Course / target group	German course of integration (Step 4)						
Place of meeting	Tberamí berufliche Integration e.V., Burgstraße 106, D-60389 Frankfurt						
Information about the course	TThis course is planned for migrants with a valid residence permit (new immigrants as of the year 2005 onwards). It comprises of 600 lessons of German in 6 steps. At the end of step 6 it is possible[4] to take a qualified exam of the German language and to attend an orientation course which comprises of 30 hours						
Number of participants	1	2	3	4	5	6	7
Age	35	36	36	36	28	29	27
Sex	♂	♀	♀	♀	♀	♀	♂
Residing in Germany (amount of years)	6	19	2	7	1	4	1
Information about the participants	Compared to the literacy courses 50% of the participants in the integration courses are generally in work. As a rule the participants have more previous experience regarding reading and writing competence. The education level of the participants varies. The course is partly attended by graduates, who have completed their studies in the respective native country. The profile and the ethnic variety in these courses are very heterogeneous.						

Ireland

1st Discussion Group (Ireland)[5]

Course / target group	Adult literacy and computers						
Place of meeting	Dublin Adult Learning Centre (DALC), 3 Mountjoy Square, Dublin 1, Ireland						
Information about the course	This course is designed for adults with literacy difficulties who want to learn reading, writing, numeric and basic computer skills. The duration of the course is 9 hours per week, lasting over 30 weeks and it is divided into 3 hours for literacy, 3 hours for numeracy and 3 hours of computer basics.						
Number of participants	1	2	3	4	5	6	7
Age	40s	50s	50s	30s	30s	50s	50s
Sex	♀	♀	♀	♀	♀	♂	♂
Information about the participants	The seven students of the course all left school at or before the age of 12 or 13 and did not attend any secondary school.						

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[3] Results drawn from the "Evaluation of the 3rd group discussion in Germany" and "Final report of group discussions in Germany" (internal papers).

[5] Results drawn from the "Evaluation of the 1st group discussion Sri Ireland" (internal paper).

2nd Discussion Group (Ireland)[6]						
Course / target group	**Adult literacy and computers**					
Place of meeting	Ringsend Adult Literacy Centre, Cambridge Road, Ringsend, Dublin 4					
Information about the course	This course is aimed at adults who left school after their primary education. That means they all left school at or before the age of 14. The focus of the course is to teach basic literacy, numeracy and computers to a group of adults with low basic literacy skills. The duration of the course is 30 weeks with 4 hours tuition per week. The 4 hours is broken down into 2 hours literacy and numeracy and 2 hours for computer. Another aim of the course is to work on building the students' self-confidence and personal development.					
Number of participants	**1**	**2**	**3**	**4**	**5**	
Age	40s	40s	40s	50s	30s	
Sex	♀	♀	♀	♀	♀	
Information about the participants	The course participants are all planning to submit portfolios for accreditation to the Further Education Training Awards Council (FETAC): Computer Literacy Level 3.					

Poland						
1st Discussion Group (Poland)[7]						
Course / target group	**English course (third age)**					
Place of meeting	University of The Third Age (Uniwersytet Trzeciego Wieku), Resursa, Radom, 16 Malczewskiego Street, 26 - 600 Radom					
Information about the course	Aim and content of the course is to learn adult people to communicate and cope with everyday life challenges in English language.					
Number of participants	**1**	**2**	**3**	**4**	**5**	**6**
Age	above 55	above 55	above 55	above 55	above 55	above 55
Sex	♀	♀	♀	♀	♂	♀
Level of education	Secondary	high	high	Secondary	Secondary	Secondary
Information about the participants	-					

2nd Discussion Group (Poland)[8]	
Course / target group	**German course**
Place of meeting	Teacher Training Centre in Radom, 10 Plac Stare Miasto Street, 26 - 600 Radom
Information about the course	Aim and content of the course is to prepare students to be teachers of foreign language in the future (theoretical and practical contents).

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[6] Results drawn from the "Evaluation of the 2nd group discussion in Ireland" (internal paper).

[7] Results drawn from the "Evaluation of the 1st group discussion in Poland" and "Final report of group discussions in Poland" (internal papers).
[8] Results drawn from the "Evaluation of the 2nd group discussion in Poland" and "Final report of group discussions in Poland" (internal paper).

Number of participants	1 – 18	19				
Age	20 – 25	20 – 25				
Sex	♀	♂				
Level of education	Secon-dary	Secon-dary				

<table>
<tr><td colspan="7" align="center">3rd Discussion Group (Poland)[9]</td></tr>
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Course / target group	English and German course (third age)					
Place of meeting	University of The Third Age in Lublin (Uniwersytet Trzeciego Wieku w Lublinie, Towarzystwo Wolnej Wszechnicy Polskiej), 3/24 I Armii Wojska Polskiego Street, Lublin					
Information about the course	Aim and content of the course is to teach adult people to communicate and cope with everyday life challenges in English and German language.					
Number of participants	1	2	3	4	5	6
Age	above 55	above 55	above 55	40 – 50	40 – 50	40 – 50
Sex	♀	♀	♀	♀	♀	♀
Level of education	high	high	high	high	high	high

Romania[10]

1st Discussion Group (Romania)[11]

Course / target group	Soft skill training					
Place of meeting	Fiatest headquarter, Transilvaniei Street, no.24, Sector 1 Bucharest					
Information about the course	Participants of courses for development of general competences needed for adults in their professional education (soft skills).					
Number of participants	1	2	3			
Age	21	48	50			
Sex	♀	♂	♀			
Information about the participants	-					

2nd Discussion Group (Romania)[12]

Course / target group	HR skill training (human resources)					
Place of meeting	Romanian Business Institute, Romexpo Building, Sector 1, Bucharest					
Information about the course	Trainees on training courses for development of specific competences needed for their professional activities (HR skills).					
Number of participants	1 – 10	11 - 15				
Age	about 30	about 30				

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[9] Results drawn from the "Evaluation of the 3rd group discussion in Poland" and "Final report of group discussions in Poland" (internal papers).

[10] In Romania four group discussions have been conducted because the first discussion round was attended by just three participants.

T[11] Results drawn from the "Evaluation of the 1st group discussion in Romania" and "Final report of group discussions in Romania" (internal papers).

[12] Results drawn from the "Evaluation of the 2nd group discussion in Romania" and "Final report of group discussions in Romania" (internal papers).

Sex	♀	♂					
Information about the participants	-						

3rd Discussion Group (Romania)[13]							
Course / target group	**History training for adults**						
Place of meeting	Fiatest headquarter, Transilvaniei Street, no.24, Sector 1 Bucharest						
Information about the course	The attendees of the training are trainees for history training for adults interested in acquiring additional history knowledge. These trainings are organised in the Bucharest Culture House for adults for ages 25-65 years.						
Number of participants	**1**	**2**	**3**	**4**	**5**		
Age	28	27	35	30	47		
Sex	♀	♀	♂	♂	♀		
Information about the participants	-						

4th Discussion group (Romania)[14]							
Course / target group	**Foreign languages course (English language).**						
Place of meeting	Fiatest headquarter, Transilvaniei Street, no.24, Sector 1 Bucharest						
Information about the course	Trainees of foreign language training courses (English language).						
Number of participant	**1**	**2**	**3**	**4**	**5**	**6**	
Age	about 35	about 35	about 35	about 35	about 35	about 35	
Sex	♀	♀	♂	♂	♀	♀	
Information about the participants	The educational level of those participants is average. All have graduated high school and passed professional courses related to public work /restaurant sector. They need to learn English because they require it at work. They have been working in restaurants/hotels as waitresses/waiters.						

The selection of the courses and participants form the cross-section of the desired target groups in the field of literacy, basic education and language teaching (so called "third age learners").

Most important findings:

4. Learning biographies and target groups

The learning biographies in the field of literacy and basic education and integration can best be traced in detail and shall be explained in the following:

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[13] Results drawn from the "Evaluation of the 3rd group discussion in Romania" and "Final report of group discussions in Romania" (internal papers).
[14] Results drawn from the "Evaluation of the 4th group discussion in Romania" and "Final report of group discussions in Romania" (internal papers).

The first group discussion consists completely of German speaking functional illiterates between the ages of 29 to 57years. The average age is 44 years. All learners receive unemployment benefits and do not have a certificate of basic secondary schooling. The participants have many children.

In the second course (literacy campaign for migrants) all participants are also unemployed. Graduates who got their final qualification in their native country also attend the course. However, here this group is a minority. The majority of the participants have little or no education. The age is between 30 and 50 years. The average age is 37. Here it is significant that the participants of the course live for quite a long time in Germany (on average almost 14 years), which allows a conclusion to be drawn about the ability of integration.

After a relatively long period of life in Germany the participants in both courses are (again) learning how to read and write. Only a few already attended an literacy-course in Germany. In the course mentioned secondly, the German language is additionally learned.

In the third course – integration course for migrants – the learners are younger (27 to 37 years; average age: 32). On average the participants are living in Germany for 5.7 years. In the so-called integration courses the average rate of the unemployed is approx. 50 %. The educational background (mostly in the country of origin) is heterogeneous.

With regard to the participants' learning biography the form of narration and discussion in the groups refer to the construction character of the individual learn and life stories, which cannot be separately interpreted. Individual biographies pertaining to learning and living can be recorded and understood through the "group discussion" method, individual learn and life experiences in the family, in social surroundings and in the respective courses are numerously presented. This can be verified in numerous respective analyses.[15] They give information about the significance of particular incidents and experiences in the socialization process. Even if individual learning experiences differ from each other the construction character of the narrated life and learning biography has characteristics which relate specifically to the target group.

In the three groups it is striking that most learning biographies regarding formal learning are influenced by short school attendance or by school and course attendance, which are often interrupted to a great extent. Some migrants who continually attended school in their countries are the exception. The described reasons and life experiences are very different and occur due to escape and force during times of war, diseases and as a cause of dropouts because of economical poverty.

Reasons why learning and reading did not occur were expressed especially in the group of German functional illiterates. One participant talks about negative learning experiences at school, and that he had difficulties following the lessons. However at school nobody cared about it. Only good pupils have been supported. Another learner says that reading and writing was not important in his family. When he was

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[15] Results drawn from the "Evaluation of 1st group discussion in Germany", „Evaluation of 2nd group discussion in Germany" and „Evaluation of 3rd group discussion in Germany"(internal papers).

young he had to help support the family and that he had worked in an underground mine. The following statements of two course participants are characteristic of the fate of many individuals:

" (...) many people will get hurt, because they get fooled. But they are no fools. It's because of the parent education. Like it was for me. I had to work a lot when I was young, you know, reading and writing was not important for my mother. She said: "The family has to be supported! Go to the mining, working below ground – earned my money - that was more important to her. She didn't spend time educating her children."

"In my case it was not because of the parents but of the school. The better one progressed; they got a better support. But the ones who had to repeat a year, when it was noticed that one would not progress…The one was not supported any longer."

Experiences of failing due to reading and writing difficulties are present in all areas of life. The learners tell of stigmatization and exclusion in many situations in every day life. The individually felt causes of illiteracy and the respective negative experiences in everyday life have an obviously very strong impact on the behaviour and this manifests itself clearly in the emotional feelings of the learners. Here, as an example, two statements of the learners shall explain the inner array of emotions:

"It's so depressing if you can't read. You can't imagine. Outsiders can't know what's it like. I mean people who can't write and read are very poor people. Because you have to … you have to read everywhere. You have to write everywhere … or you really have to say … I also went to the bank and there I had to make a transaction … and I said: I'm sorry … I'm not able to do it."

"You even get scarred opening the post box. There could be something in it you can't read (…). It was so bad, when I had to write things somehow then it already happened – I have a partner. She lives far away – I phoned her "I got something" ..."Then read it." Then I say. "You know that I start stuttering when I begin to read." Then I'm simply not able to do it. I say: "I need to fill in something"... One word to another – I say: "I tell you what, I'll come to you!" Then I was so foolish to go to her! 57 Kilometres there and 57 Kilometres back!"

Inner drawbacks and justification of ones own life situation are much more present in the discussion of German speaking illiterates than in groups of migrants. In extreme cases anxieties are uttered that efforts at reading and writing could fail because of the usual life-style but also because of the lack of financial means, which are needed to pay for further courses. Social culture effects are reflected as well. The following statement shall illustrate the doubts of a learner.

"Interesting to me … not everybody is able to solve it completely – to write and read. I don't know what everybody else is thinking. I'm interested to carry on with the course. If there is another course. If it will be paid – ok I can't afford it, because I can probably read a bit, but I still can't read and write. And then I'm just half way through, right? Many say you will make it but I feel that I will make it half way through. Then I still don't know everything completely to read and write, because much vanishes in every day life – in the family and with friends – or what do I know. And then on Monday morning –at the weekend you have got a few days off – blah, blah, blah everything is gone – the letters. I'm interested if you have the opinion. "Will everybody make it?"... And the most of the participants say in every day life – I don't have to. I attended the course. Why should I carry on at home? "They don't do anything at home. They are watching TV, going out, are drinking beer and then they forget about it. Then it's in the cupboard … then the course was in vain. But I want to learn more. Where I started in the beginning I did not put much effort in it and he always gives me a push. Come on! Let's go. "

The importance of informal learning has a great significance in all learning biographies and the learners of all three courses are very much aware of it. Media, especially TV and radio are used to collect information and these have a considerable function in education. In the informal learning strategies television

pictures are especially supportive in understanding the German language; however, reading newspapers afterwards also play a part. As a strategy of help visual learning has a special position in all life and learning stories. Visual competence is generally very well developed by most of the learners. Here three selected examples of different learners:

"That helps learn German. In the past I was not school, learned by programmes… for example Sesame Street."

"Television. That can help too. It can be a bridge. I have noticed the news for example are in the newspaper the next day. When I have hear the news … and I see just the headlines … then I can read better. Then I know almost exactly what happens. Maybe one can read better. When I have not heard the news and I take the newspaper next day and I have the problem that I can't read the headline … and the headline is everything, I say, and I can't read the headline, then I can't read the whole Text. If I can't read the headline I don't read anything. That's the way I do it."

"For example in former times - when I was not able to read - in the past I … signs, when I had to go somewhere … I had to go for the second or third time … before I .. the way with signs which were outside … advertisement signs or something like that… I have got them in my head. According to that I was driving. Meanwhile because I can read now, I don't do that anymore. "

Regarding ones own learning biography all learners consider the course to be a huge enrichment and liberation. For many this is the first positive formal learning experience in their lives. According to many learners learning to read and write increases the quality of life and the self-confidence in the individual's own personality. This is the reason why the tutor has a special position. On reflection of the individual's life story the collected negative experiences have a deep impact. For example, a participant of the migration course tells of her former isolation when she was not able to speak, read and write:

"In former days I did not reading and writing .... and now this second course and I can read a bit, can write a bit can speak a bit … in former days not at all…no contact with people … always at home … now I can read ..."

The learners in the field of "basic education and literacy campaign" in Ireland have similar qualifications. The age structure in the courses is comparable to the courses in Germany. Due to early school leave here the learning biographies regarding formal further learning are also likely to be imprinted by interruptions.

Here the learning biographies are likewise imprinted by informal learning. Media primarily TV and Radio are thus specifically used for the acquirement which is characteristic for this target group. The visual supporting strategies are very much imprinted; the same applies to Germany. Images have an enormous activation potential for the learners and help them to manage everyday life. Here the orientation function of images comes into effect as well. Working at computers the learners find their way around with the help of images, icons and symbols. In Ireland, it is interesting that the course work at the computer very much simplifies the use of technical equipment e.g. ticket machines, mobile phones, touch screens in supermarkets and museums. However, if icons and symbols are missing the learners experience the same helplessness as the discussion participants in Germany. Besides visual supporting strategies personal contact, the help of friends, acquaintances and the tutors are very important.
Regarding the groups in Ireland it is remarkable that experiences of stigmatization and exclusion hardly occur in the respective learning biographies. Causes for not

learning how to read and write are neither mentioned here. In the group discussions in Germany this is, among others one central point. Regarding the increase in course attendance for learning how to read and write as well as related independence, this is not firstly stated in Ireland. The use of the computer and the Internet and the correct completion of forms are expressed more so. However, learners regard the course as an important shelter in which self confidence is built up and the feeling of well-being is created.

In the following the results of the group discussions shall be explained in accordance with the seven main topics

4a) Preference of media

Disregarding the level of education the use of the television clearly predominates in all of the courses (Germany and Ireland approx. 80 %, Poland approx. 95 %). The radio is often used less significantly by the learners. However, it constantly comes in second place. In Comparison relatively few participants of all groups read the newspaper regularly. It is remarkable that with an increasing level of education the mixed media used in general seems also to increase. Here the advantages and disadvantages of the single media i.e. biased reporting of the respective medium as well as the respectability of such are seen more critically. It is also mentioned that the intake of information via images, i.e. with the help of the TV is most easy.

However, the level of education is not always the prerequisite for the use of a larger mixed media. It is remarkable that the course for German speaking illiterates has a wider media mix than the integration and literacy course for migrants which is partly attended by academics, who have gained their final qualification in their native country.

Notably the participants of basic education, literacy and integration courses who use the television regard television pictures as a very good support for understanding language (here primarily migrants in Germany) but also as a support for reading and better understanding the contents in the newspaper (here primarily German speaking illiterates). Thus, the TV is an important link. Some articles in the newspaper can be grasped or understood better by previously watching the respective topics on TV. In these courses it becomes significantly clear that TV is used with the aim to educate oneself (to learn a language and/or to learn to read) and/or to inform oneself. Gathering information with a specific aim is extremely difficult for illiterates and migrants who are hardly able to read and write, if at all. In this case one depends on the help of friends and relatives or on media such as TV or radio. Furthermore the entertaining function of media is not mentioned in these groups but rather in group discussions in Poland and Romania – by participants with a higher education level (third age learners). This could be a sign of the effects of social acceptability, especially for the groups in the field of basic education and literacy campaigns. Here it is apparent that the entertaining function is completely withheld. Stigmatization and exclusion could have strengthened this effect in the past.

The internet is mainly used regularly by young learners with a higher education level.[16] Elderly discussion participants with a higher education status – mainly in the group discussion in Poland – hardly use the internet and tell about problems and timidness in its application. This is made clear by the following statement:

„I don't use a computer. I am always afraid I could break down something so for me there should be a specialist training or course."[17]

Private learners in the field of literacy and basic education and integration use the new media infrequently and/or not at all. Two groups in Ireland and one group in Germany learn regularly at the computer, however, the independent use of a computer at home does not take place. The operation is apparently too difficult without the teacher. The participants had fear to load a wrong programme. Though, as already mentioned, the course work on the computer eases the general operation of ticket vending machines, mobile phones and other technical equipment. This is an important indication that visual competence with regard to icons and symbols at computers, which was learnt in class can be applied on other fields.

Symbols and icons e.g. in learning programmes or on the Internet have to be learnt in class. These are remembered relatively well in Germany as well as in Ireland. Unfamiliar symbols are rather ignored in applications.

4b)   Experiences with pictures, symbols und pictograms in every day life and in class

There are an enormous number of examples. Significant is that in almost all group discussions certain images, signs and symbols are especially remembered. Divided into groups the learners in all group discussions list general signs in traffic, signs and window displays in shops, signs in buildings, signs pointing to danger, prohibition signs, pictures and signs in textbooks, symbols and icons in computers, logos of certain companies, symbols in every day life, for example for toilettes, motor way service areas, and hospitals. However, more abstract things are also named, for example, green for police, beige for taxi and red for fire brigade. Coloured lines in hospitals to find specific departments are helpful as are "little feet" in children's hospitals.

It is also remarkable that the examples of the discussion groups stem from the direct as well as the individual participants world of experiences. Thus, in Germany mainly company logos of the post office, Telekom, Aldi, Coca Cola and Mc Donald's are given as examples, which seem to probably be also important in the participants' every day life. Other famous brands, which could be seen in advertisements, are only mentioned in one group discussion in Romania. In the two courses in Frankfurt (Germany) more examples from public transport are given than in the course in a rural area. In this environment signs in little shops, bus stops or numbers of main roads and motorways are especially perceived. In Ireland more examples of the field of new media are rather stated as compared to Germany – such alludes to the additional computer lessons.

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[16] 2nd, 3rd and 4th discussion group in Romania and 2nd discussion group in Poland
[17] Drawn from the "Evaluation of 2nd group discussion in Poland" (internal paper).

Regarding orientation in everyday life, the applied (supporting) strategies, techniques and methods in respect of visual learning in learning processes, a differentiated image arises out of the different discussion groups:

Field of literacy, basic education and integration:

The orientation function of pictures is especially mentioned and comes particularly into effect in the groups in Germany and Ireland. In each of these courses there are participants who remember ways in foreign areas with the help of advertisement boards, buildings and other objects. Colours also have an important orientation function, for example the colour of a certain underground station. The learners remember specifically striking objects. A female migrant in a literacy course states:

"Once I was on holydays in Russia. And the underground is called metro, the metro, all metro with colours ... one green, one red ...yes, in Frankfurt as well. I got off, I didn't know which direction drive. I walked with plan, looked, I see, red comes here, green and then I walked down with the escalator and then I took the underground."

In the field of new media icons, pictograms and symbols also prove to be a big aid in orientation. The learners, e. g. in a literacy course in Germany, start the computer by themselves and load the educational programme they are working from the Internet. After the exercise the result is partly saved, so that the participants can carry on working in the next lesson. Icons, as well as Internet browser, address, buttons such as „close" and „boot" are familiar to the participants.

In certain respects the dependence on non-written information explains the higher preference of visual and auditory impressions. Personal contact is also important in all of these target groups, however the dependence on the family and on friends is sometimes regarded as a burden. For example, children or partners have to deal with certain formalities. Sometimes the participants learn together with their partners. However, in all cases this does not happen on purpose, for example with certain text books but spontaneously in every day life in connection with certain opportunities, for instance: formalities, TV-contents, shopping, finding a flat etc.

Pictures especially have a special activation potential for all target groups. Things in every day life are chosen with the help of images and visual impressions. They are very important for understanding.

This is where a distinction is to be made in Germany between the group of migrants and the group of German speaking functional illiterates. Some migrants are able to read terms but do not know their meaning. However they are able to understand it with the help of a visual impression. The following situation described by a female migrant in a department store especially illustrates this:

„I am the first time in course here. No German speak, reading and writing. But reading I understand a bit. If I buy my clothes – shirt – what's the word?... you don't know, what's that ... you read ... skirt, trouser and so …but what does skirt and trouser mean? I can read, but don't understand German ... that means skirt in German, that means trouser in German if you can see ..."

The German speaking functional illiterates and migrants who can't read at all or only with a great effort very often have to rely on visual impressions. Street names on signs are also often saved as an image as long as they have an auditory imagination

of street names. The participants are very much aware of the advantages of visual learning.

Because of the dependence of visual impressions in every day life visual competence of the learners is apparently very well developed even if this is not without reason. On the other hand there is one documented case in which a rejection of visual strategies for learning to write is intentionally described by the learner. Learning to read and write would make life much more comfortable, said one participant:

"For example in former times - when I was not able to read, I have remembered other things. I wanted to go to Cologne to the zoo – it doesn't matter where to (…) and – now I got lazier. I don't watch that much advertisements. I just go for it – and I see – look – the street."

A great obstacle for the learners is the use of the cash point and ticket machines. However, target of criticism is not the decoding of certain symbols but their complete lack and the dependency on terms. As can be shown in Ireland, computer classes are a great help in that these give the students more confidence and helps them if they want to buy train or bus tickets from a machine or even sending an sms from their mobile phone. For example the touch screen for buying a ticket on the new trams in Dublin is difficult at first, but with help and practice they are then ok. There is a fear when you've never used one of these machines before and most of the students said they would not try them at first without help.

Regarding every day life the different groups are confronted with specific problems. For Muslim migrants e.g. who cannot speak German shopping is extremely difficult. Pictures of plants on food packaging suggest for example vegetarian products. But on closer examination it comes to light that the product contains animal components of pigs. To be on the safe side some migrants always buy their food in Turkish shops.

Generally all participants of these groups have significant problems in filling out forms. The terms are often written in small letters and are difficult to understand. Some participants explain that more symbols could be helpful.

In two group discussions in Germany the teaching material is explicitly faulty. Here every time it is about ambiguous images. The respective exercises could hardly be solved. Here the frustration limit was apparently exceeded.

Concerning pictures, signs and symbols the participants see more advantages than disadvantages. Visual competence is very well developed by the participants. Therefore this prevailing access should be supported and be improved by visual methods of learning. In the courses visual strategies of the learners could be explored and documented, however, the learners had relatively little knowledge of the different visual methods of learning.

The field of "adult learning" (people with secondary and higher education):

In the above mentioned discussion rounds in Poland and Romania, as already stated the learners are very contented with images, symbols and signs of their everyday life. The orientation performance of these is regarded as a great advantage. Especially the younger learners consider image communication, particularly in the new media,

to be a great help and they very much like to work with them. The use of such is regarded as natural and inevitable.

Exceptions are primarily the elderly learners mainly in the group discussions in Poland. Even if there is a computer in some households it is not used. Here the elderly learners sight additional requirements and needs for education. Operating vending machines and mobile phones and/or the interpretation of available symbols is rather difficult for these learners.

Concerning learning processes learners deliberately use visual techniques and methods to organize life more efficiently. These are apparently wider spread especially in Romania more than in Poland, disregarding the respective course and level of education. Some examples of successfully applied strategies of different learners shall be briefly presented here:

One of the respondents uses a personal example regarding the way in which visual signs help the learning process. He considers that he learns very well by using schemes and arrows, mentioning that he learns via visual methods: *"… I have in front of my eyes a scheme out of which several branches get out… graphs are very easy to understand.[18]"*

"During the high school and the college I succeed to learn easier using visual methods like: I have tried to make an image of the learning contents and also, to memorize this image, I have used a lot of schemes which helped me to structure and remember the information easier."[19]

"I've made schemes to learn the information easier. I often used schemes to structure a complex content and, after that to memorize that content. The schemes helped me to make connection and, in this way, to understand the information, not just to memorize it. Also when I had to memorize a list of names, I've usually used a trick: I have used the first letter for each word I had to remember and I've made a new word:

- ***A**lps*
- ***I**llinois*
- ***R**wanda . The new word is **AIR** and the words I needed to remember is Alps, Illinois and Rwanda."[20]*

"…Another method to learn names of cities/states was to make a map with those cities (a map of a state) or of those states (a world map). It helps me a lot to learn by visualizing the words (the names) and their position on that map."[21]

"Visual learning helped me a lot in my adult life. In this moment I tried to learn a foreign language and I use a book with imagines (e.g.: I learned about fruits and vegetables). If I learned a new word, I would try to make connections between a fruit/vegetable image and the name of the fruit/vegetables. Firstly, I would try to memorize images and after that to make the connections between images and the name of an image."[22]

"I usually use the highlighter and, also, I use different colors in a document to help me to memorize easier (e.g.: I use a pink color for very important information, a green color for new information and yellow for things that I can use someday).[23]"

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[18] Drawn from the "Evaluation of 1st group discussion in Romania" (internal paper).
[19] Drawn from the "Evaluation of 4th group discussion in Romania" (internal paper).
[20] Drawn from the "Evaluation of 4th group discussion in Romania" (internal paper).
[21] Drawn from the "Evaluation of 4th group discussion in Romania" (internal paper).
[22] Drawn from the "Evaluation of 4th group discussion in Romania" (internal paper).
[23] Drawn from the "Evaluation of 4th group discussion in Romania" (internal paper).

Some of the responders gave examples of visual symbols used by them. They have offered the following examples:

"When I get the new version of the MS Office I had to suit to this new version. I used a lot the pictograms and icons known (there were no changes). I couldn't use the old methods known by me and I've had to discover that each pictograms/icons has the same significance. Also, was very helpful the Help menu."[24]

Another interviewee used the same example. He arranged in the toolbar those symbols used often in the old version of MS Office.

"When I play a new computer game it is helpful for me the pictograms and symbols known from the other games. Those symbols made me easier the learning process of that new game. Also, with these symbols I could make faster the settings needed (e.g.: the image of a musical note which represents the volume of sound option.)"

Other interviewees consider that the symbols and the visual elements help in generally using new technologies. They are also aware that when they need to learn a new programme they need a manual, a presentation of the application but learning will be based on the knowledge (images, symbols and common signs from one programme to the other). Examples:

- Hardware from a computer: demounting, remounting, trial and error, initial memory,

- Accountancy programme: minimum existing competences, connection between existing and new information.

- Learning to use a new camera: reading the manual, visual signs easily identified, practical application for indications offered as symbols in technical book.

Furthermore, the persons interviewed consider that teaching a training course can be much easier with multimedia means (e. g. Power Point). The advantage is that presentation can be made easier with images, symbols, schemes, words made in bold so that the attendees with visualise and remember essential aspects for the presentation.

The interviewees also consider that the group discussions (auditory), gestures and mimic, simulations support more during the learning process than does the simple teaching with learning/studying material.

In Poland younger students also use visual methods to make learning more efficient - they draw pictures, tables, underline text and use colour markers when studying at home. However, some learners see limitations in the application. In their opinion visualization would also be limited in particular cases because it is not possible to show/explain everything through the use of pictures, symbols, icons. At the higher education level it would be impossible to use visual methods in every subject:

"(...) at the moment we have too abstract issues to draw/show them in any way (...) we learn by synonyms, antonyms, associations …"[25]

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[24] Drawn from the "Evaluation of 4th group discussion in Romania" (internal paper).

[25] Drawn from the "2nd Evaluation of group discussion in Poland" (internal paper).

The analysis of the individual evaluations reveals that visual methods are often more widespread than among the participants of the group discussions in Romania than in the discussion rounds in Poland. Within these target groups regional differences regarding the potential of visual methods in learning processes can be thus identified in the participating courses.

4c)   Learning styles of the participants

Apart from Ireland the visual learning style prevails very much in all group discussions. There the very different learning styles existing in all combinations. However, the visual learning style prevails most significantly in Poland. Almost 100% of the learners prefer access to visual learning. Preferred learning styles are not always directly stated by the learners. The statements of the learners allow clear conclusions to be drawn about this fact. This will be clearly showcased with the help of three examples.

"I draw, for example when someone describes an event I usually have problems to remember but when I put a kind of mark which is my association with this subject - then I remember".[26]

"I'm a visualiser. for example when teacher asks me about something I usually do not remember the answer but I know where the answer is written - on the bottom, on right, in the middle of the page."[27]

"(...) when I study a foreign language I use video records, I watch films in English and try to catch words which I know."[28]

In Romania too, the learners have differing knowledge of their own learning style. For example, all responders in the 4th discussion group answered that visual learning is a way in which they learn best. They considered that:

- Taking notes of the main ideas would help the students to structure the information
- Learning by repetition is most useful for the student. Also, highlighting the main aspect is helpful for memorizing those ideas.
- It is better to synthesise the information in schemes, but, at the same time to also have training material.

In Germany access to ones own learning style is not easy for the participants. In each course the participants were sensitized about learning preferences by the tutor. In the group discussion it sometimes became visible that the learners have difficulties in describing their own preferences of learning. Preferences of learning are mentioned but in further explanations they partly change. Sometimes these are simply confused or they then become clear during the discussion. Some learners say that they prefer situations in which they are being taught. Reacting to the enquiry whether verbal explanations or explanations with the help of pictures would be of support the majority opts for the visual access.

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[26] Drawn from the "1st Evaluation of group discussion in Poland"(internal paper).
[27] Drawn from the "1st Evaluation of group discussion in Poland"(internal paper).
[28] Drawn from the "1st Evaluation of group discussion in Poland"(internal paper).

Visual learning style dominates very much in all group discussions in Germany. However it is very often combined with other preferences. Learning styles very often become spontaneously evident during the course of the discussion.

4d)   Applicability/usefulness of learnt skills in every day life

In Romania some responders indicated that the teaching process needs a correlation between information taught and practical application of this information. So, for the responders' activity the ones that put the theory in practice are those trainings where the teachers gave practical examples of what has been taught. The information should be associated with examples and situations from real life in order to be understood and to be assimilated by the trainees. The presentation of information has to be developed in a logical and coherent way. It is useful to use presentation means in a schematic way for supplying the information.

Learning to read and write is clearly regarded by the learners in Germany to be the most important gain. Being able to read and write is connected with freedom, independence and self-fulfilment. In this part of the discussion emotive reaction was especially stirred in the group of functional illiterates. In this connection the participants talk about stories of their life and learning; why they did not learn to read and write. Some participants said that their self-confidence increased by attending the course. In this respect the tutor is very important as a person of confidence. The occasional emotional expressions and justifications are a sign of hiding reading and writing problems for years, due to stigmatization by other people and the inner lack of self-confidence due to these negative experiences.

In Ireland primarily, the work with computers and on the Internet, filling out forms, breaking down words (into syllables e.g. is highly valued by the learners. They also mentioned that they found spelling words on the computer and then checking spelling on 'spell-check' to be very helpful. Here the comments of the learners have less emotional connotations than in Germany.

In Poland the learners mention above all the opportunities that are connected with visual learning: "(...) I have never realized that we can use visual support in a such efficient way when studying *(…) I think it is especially important when you are studying a foreign language, for example it is good to imagine or act a situation you can meet in everyday life."*[29]

4e)   Participants requests of topics

In Germany only in one course did the learners make suggestions for learning contents and for topics. These mainly affect the every day life of the learners. In this field the participants would like to have support when writing letters, filling out forms etc. The learners would like to have more information especially concerning the topics of job training and school-leaving qualifications and/or professional training. One participant who attends the second course requests that the learning contents should be more related to German culture.

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[29] Drawn from the "Evaluation of 3rd group discussion in Poland" (internal paper).

In Ireland the students said that they like to talk about things to their teacher and with each other before starting work on them. They also like working on subjects/issues that they are interested in, e.g. the budget, writing their Christmas cards.

Students said they told tutors what they wanted to do and the tutors set up a programme for them. This is a very common approach in adult literacy practice in Ireland, as the students' needs form the basis of the course contents.

In Poland some participants informed that they do not use any visual method during classes but the whole group admitted that the way of teaching suits them. Other participants informed that they use visual methods during classes though very seldom. They don't inform a teacher about problems - sometimes they are too ashamed to ask about something what is simple for everyone and sometimes there is not enough time:

"(...) I don't like to ask a teacher, I prefer not to ask because the others can think I'm stupid and don't understand"[30]

In Romania some responders want to have more concrete examples and role playing in the teaching/learning process which would provide the possibility to demonstrate what has been taught. Other interviewees consider it to be very important how the teachers structure the information in the teaching/learning process. They suggest that the methodologies and information the teacher presents should be logical.

The 3rd group is of the opinion that the trainers should convey information in an understandable way through examples and by using didactic materials so that they can be easily assimilated by the trainees. Thus, the trainees mainly want to simplify the learning process. The language needs to be simple and to be clearly understood. The use of visual examples for understanding information is indicated.

5.   Summary and conclusions

The conducted method of the group discussion with the support of the devised question catalogue is very suitable for exploring experiences of learners in every day life regarding visual learning and experience. In numerous cases strategies of visual learning can be reconstructed from the transcription of the respective discussions. Sometimes they are mentioned sporadically or come up in other contexts. The learners are mostly very much aware of it.

In all discussion groups the synergy effects of the method come well into effect. The selection of courses and participants form a cross-section of the desired target groups in the field of literacy, in basic education and language teaching (including so called "third age learners"). In all groups there was an open, friendly and committed atmosphere.

In addition to the every day life experiences the prevailing preference of media, the perceived advantages and disadvantages and/or difficulties of the participants in dealing with pictures, signs, icons and symbols can be relatively well recorded within the context of learning biographies.

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[30] Drawn from the See "Evaluation of 3rd group discussion in Poland", p. 5

Especially in the field of literacy, basic education and migration it is striking that most learning biographies regarding formal learning are influenced by short school attendance or by school and course attendance, which are often interrupted to a great extent. Some migrants who continually attended school in their countries are the exception. The described reasons and life experiences are very different and occur due to escape during wars as well as because of force, diseases and as a result of being dropouts because of economical poverty. Experiences of failing due to reading and writing difficulties are present in all areas of life. The learners tell of stigmatization and exclusion in many situations in every day life. The individually felt causes of illiteracy and the respective negative experiences in everyday life have an obviously very strong impact on the behaviour and this clearly manifests itself in the emotional feelings of the learners. The importance of informal learning has a great significance in all learning biographies and the learners of this target group are very much aware of it. Media, especially TV and radio are used to collect information and these have a considerable function in education. Pertaining to every day life the different groups are confronted with specific problems. A large number of visual help strategies can be documented here; with the help of these learners can orientate themselves in the world of their personal life. Here, visual impressions fulfil an important orientation function. In certain respects the dependence on non-written information explains the higher preference of visual and auditory impressions. Personal contact is also important in all of these target groups, however the dependence on the family and on friends is sometimes regarded as a burden.

In the field of new media, icons, pictograms and symbols also prove to be a big aid in orientation. Some groups learn regularly at the computer in the course, however, the independent use of a computer at home does not take place, or only very seldom. The operation is apparently too difficult without the teacher. The participants had fear to load a wrong programme. Nevertheless, as already mentioned it facilitates the course work at the computer, the general operation with ticket vending machines, mobile phones and other technical equipment. This is an important indication that visual competence with regard to icons and symbols at computers as was learnt in class can be applied in other fields. Regarding the individual's learning biography; all learners consider the course to be a huge enrichment and liberation. For many this is the first positive formal learning experience in their lives.

It was possible to well record the learning preferences and these show a clear visual tendency. Visual competence is very well developed by these participants. This prevailing access should therefore be supported and be improved through visual learning methods. In the courses visual strategies of the learners could be explored and documented, however, the learners had relatively little knowledge about the different visual methods of learning. This aspect was also taken up in the workshop where an extensive repertoire of visual methods for the course was presented to the tutors.

Regarding the target group "third age learners" (here "language teaching", „history training" and „soft skill training") the participants are very contented with images, symbols and signs of their everyday life. The orientation performance of these is regarded as a great advantage. Nevertheless, the knowledge of visual methods in learning processes is different. In the participating courses learners in Romania more often use different visual methods for the improvement of the leaning process than the learners in Poland. Primarily young participants are aware of the potential of

visual methods. Even in the new media Image communication is perceived as natural, necessary and helpful.

Exceptions are primarily the elderly learners, here above all, in the group discussions in Poland. Even if there is a computer in some households it is not used. Here the elderly learners sight additional requirements and needs for education. Operating vending machines and mobile phones and/or the interpretation of available symbols is rather difficult for these learners.

Regarding the perceived needs of the learners, regional differences become visible. In Germany and Ireland the learners primarily wish for further support in coping with the individual lifestyle e.g. dealing with formalities, writing letters etc. The attendance of the course is a huge improvement in life quality of the learners.

In Poland some participants informed that they do not use any visual method during classes but the whole group admitted that the way of teaching suits them. Other participants informed that they use visual methods during classes though very seldom.

In Romania the learners would like to have more illustrative learning. A concrete suggestion was to integrate more examples and role playing into the teaching/learning process. The way how tutors structure the information would be very important in the teaching/learning process. The trainees mainly want to simplify the learning process. The use of visual examples for understanding information is indicated.

As the results show, visual learning is very important for the interviewed target groups. In order to be able to give them a better and individual support in their learning needs the tutors should appropriately informed and qualified. Thus, the project "visuaLearning" has developed a qualification concept for tutors in which the theoretical background is outlined and above all visual methods in class and general Gestalt elements and principles are presented.

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