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CONTENT

GENERAL THEME

BASIC EDUCATION

Study regarding the ICT knowledge evolution on the West region of Romania

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Stanciu Sorin[G], Băneș Adrian[G]

Abstract

ICT has become an important driver of everyday life and economic activity, increases the efficiency of public administration, public services and give priority to a better quality of life in society. The present paper is analyzing some statistics relating to knowledge in the field of information technology and communication from year 2009 to 2012. The data presented are the result of processing more than 100 surveys annually, from a part of the 5 west region of Romania, Timis, Arad and Caras-Severin Counties. Questionnaires have tried to include a higher sphere on ICT knowledge of the persons interviewed, from what is known as a simple user of usual programs, passing over aspects regarding minimum hardware knowledge and ending with the e-commerce. The study revealed a basic knowledge that allow writing, technical, calculations, surf the Internet and transmitting/receiving e-mails. In other areas (accounting, databases, CAD etc.), only those who work day by day in that domain, have knowledge about this software. The situation is the same at hardware chapter, where the vast majority of persons interviewed are not interested in this type of knowledge, even though in most cases would save time and money.

Keywords: ICT, statistics, knowledge society, urban-rural differences

Introduction

Knowledge is information with meaning the information that operates. Therefore, the knowledge society is possible only grafted on the information society and cannot be separated from it. The information society is characterized by the democratization of information, communication, understanding and cooperation. In essence, this company is based on the Internet. Computer Society is a new stage of human civilization, a new superior quality lifestyle that involves intensive use of IT in all spheres of activity and human existence, with a major economic and social impact. Computer Society allows wide access to information, a new way of working and knowledge, enhances the possibility of economic globalization and increased the social cohesion.

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The advance to the information society, based on knowledge, is considered worldwide as a necessary development to ensure sustainable development in the context of "new economy", based mainly on product and intellectual intensive activities.

Information society knowledge is more than progress of technology and data processing and communications applications, it integrates the social dimensions (impact on health care, solidarity and social protection, employment and labor market, education and lifelong learning, etc.), ambient (impact on resource use and environmental protection), cultural (impact on conservation and development of national and international cultural heritage, promote cultural pluralism, the need for child protection, industrial development and multimedia content production information) and economic (development of new paradigms digital economy and new economy based on knowledge, innovation, entrepreneurial culture and management, education of the citizen and consumer).

A study made at the beginning period of the survey, shows, that in our Country individuals who do not need to take a computer course because their computer skills are sufficient is about 8%, much smaller than in other EU countries, and also against the EU average, 24%, as shown in figure 1.

After 23 years of "Romanian" Internet, the information society is on a steady growth path. More than two decades of investment in ICT are bearing fruit, fuelling innovation in ICT areas and transforming the EU into a knowledge-based economy. Since 2005, the ICT sector has become increasingly driven by the expansion in the software market and relatively less by the electronic communication segment. This reflects innovation trends requiring more pervasive software products. Large sales in systems software and eBusiness applications indicate that businesses are adopting new and more mature eBusiness solutions, even if these new investments may still be limited to large companies or early adopters of advanced eBusiness solutions. Users are quickly embracing new services brought about by convergence (Băneş, A., Szabo, L., 2008).

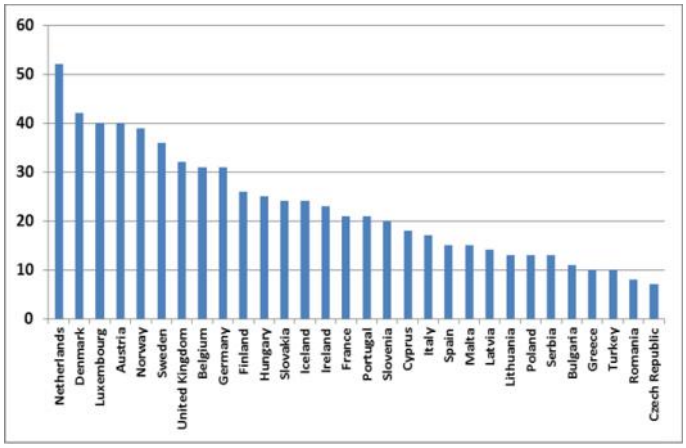


Figure 1. Individuals whose computer skills are sufficient, % (Băneş, A., Szabo, L., 2008)

Materials and methods

Study during college is different from high school and differ for students from day one in from distance learning. What teachers expect from students is to learn more on their own, and themes / activities / projects are usually much larger. Much of the learning process is related to the use of computers and e-learning platforms. As discussed, it is important to know the skills in ICT, in the area where potential future students will be selected.

The study was done on a number of 122 questionnaires in 2012, 161 questionnaires in 2011, 70 questionnaires in 2010 and 84 questionnaires in 2009, a total of 159 from rural area and 278 from urban area, about half women, and age between 18 and 60 years. These questionnaires (Băneş A., Manuela-Dora Orboi, et. al., 2011) contain a total of 24 questions, each with one or more variations of response. Most of the questions have a single answer, yes or no type, to achieve simple quantification and processing of the results, but there are questions with 3 or more answers and also questions with answers that must be written.

Questions cover a pretty wide area, starting from knowledge of ICT considered basic, hardware knowledge and at the finish those concerns such as family income.

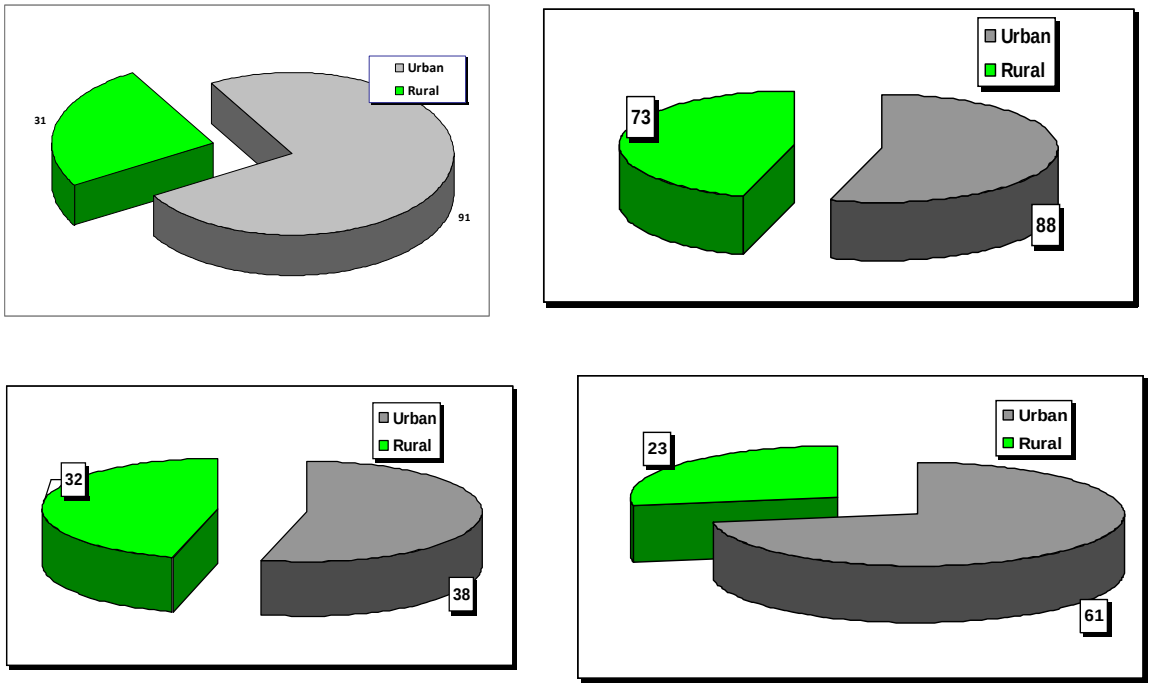


Figure 2. The structure of surveyed population (2012, 2011, 2010, 2009), number (source: the authors)

Results and discussion

The first study was one in which we want to know the so called basic skills of the respondents. In this basic knowledge there are programs from Microsoft Office package, namely MS Word (editing), MS Excel (spreadsheet and graphical representations), MS Access (databases) and PowerPoint (presentation). Another element that has been studied was about surfing the Internet and to know how to transfer and receive e-mail.

As seen in Figure 3 (year 2012), the vast majority of respondents have editing and spreadsheet knowledge, but their number is decreasing drastically to half or below when we refer to databases or CAD. The "presentation" situation is also not very low.

The situation (Figure 4, year 2012) reflects a good knowledge of using Internet and e-mail, in both cases most of the respondents (111 and 110 cases) having such knowledge.

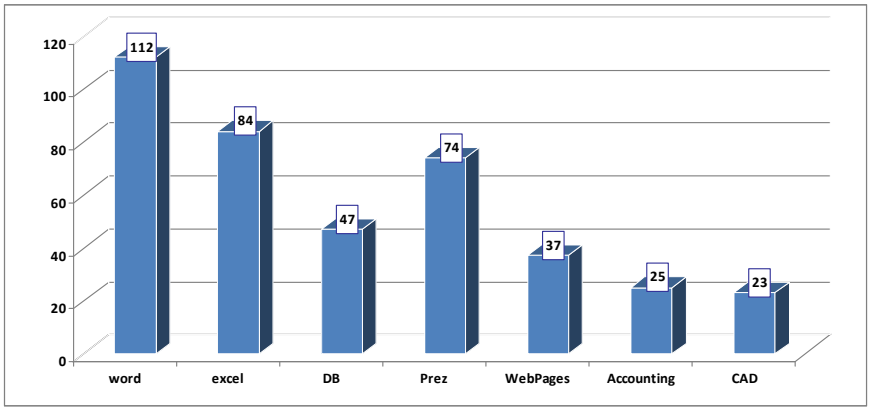


Figure 3. Basic and specific IT knowledge of surveyed population - 1 (2012), number of respondents (source: the authors)

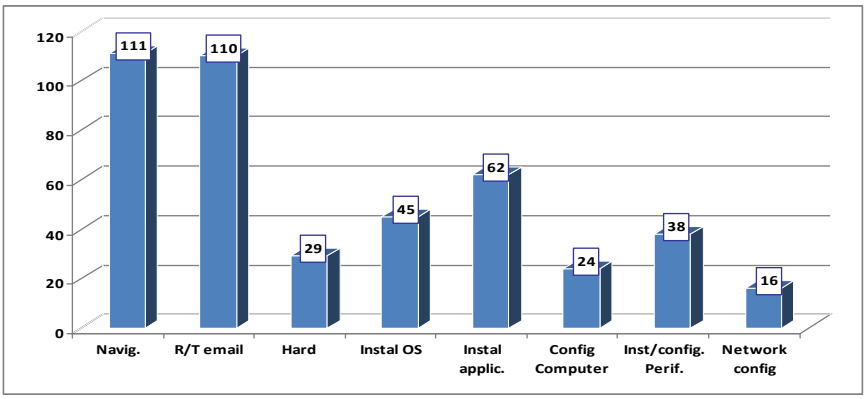


Figure 4. Basic and specific IT knowledge of surveyed population - 2 (2012), idem, (source: the authors)

The situation is not so good, when we are speaking about hardware and about configuring the computer and the applications.

What was the situation in previous years? We focused on basic knowledge, because to the other tracked items, the performance was very low. Also, we want to see if there are differences in urban vs. rural population.

The results are presented in figure 5 and 6, as percent, because the number of surveyed people was different in every year.

As seen, all these "basic" skills have almost the same value, from year 2010 to 2012. Is gratifying that for spreadsheet, database or presentation applications, the level is higher (in most cases) than in previous years.

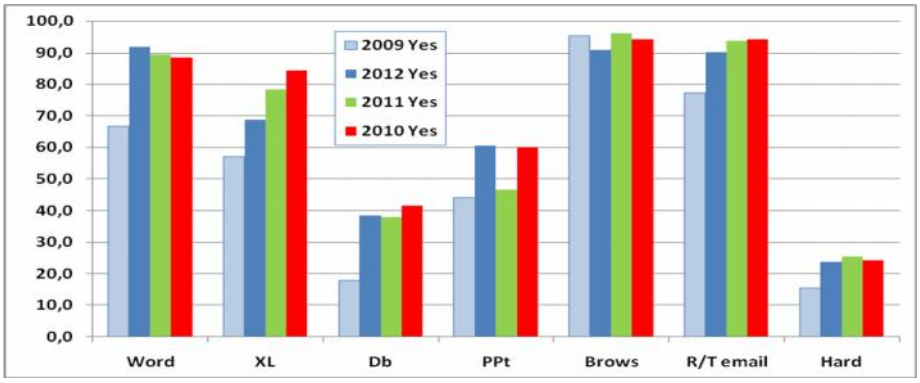


Figure 5. Some basic and specific IT knowledge of surveyed population (2009-2012), % (source: the authors)

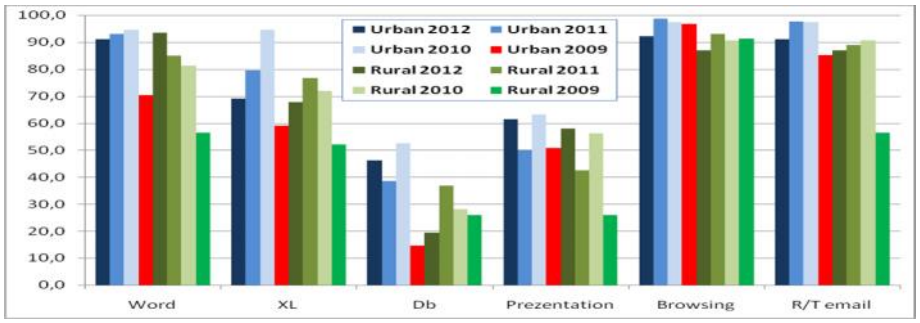


Figure 6. Basic and specific IT knowledge of surveyed population, urban vs. rural (2009-2012), % (source: the authors)

When we are speaking about rural area, the level of knowledge is much higher in year 2012 than in 2009, and is approaching to the urban level of knowledge.

This means that even in rural areas, the computer and the Internet is no longer a mystery, and its use is said to bring benefits.

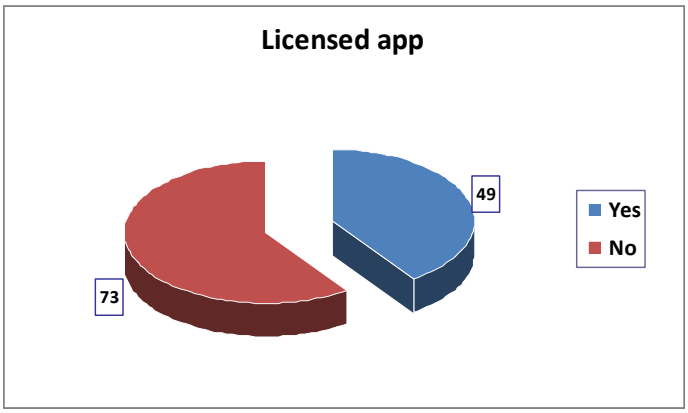
Conclusions

As discussed previously, the knowledge increased in the same field in the studied period, year 2012 compared to 2009, but also preserved the differences between applications. An interesting situation was in 2010, most values were higher compared to 2009 (as expected), but also higher compared to 2011. One of the reasons is perhaps, that 2010 being a year of crisis, many people have tried to specialize in working with computers, to find more easily a job.

There is also a problem (still), regarding the legality, the licenses for the software (figure 6). When we are speaking about operating system, in 2012, more then 50% are working with licensed OS. This is because now, every new computer came with a licensed OS (Microsoft Windows or other), so from this point of view everything is fine.

Regarding the applications, the situation is a little bit different, more than 50% of the surveyed people are using software without license, or shareware. The most common explanation was that they are too expensive, and nobody controls a home user (yet).

The information society is characterized by explosive growth of information "digital" products available through ICT. This means, for governments and administrations, public services more efficient, more transparent and faster, closer to citizens' needs and less costly.



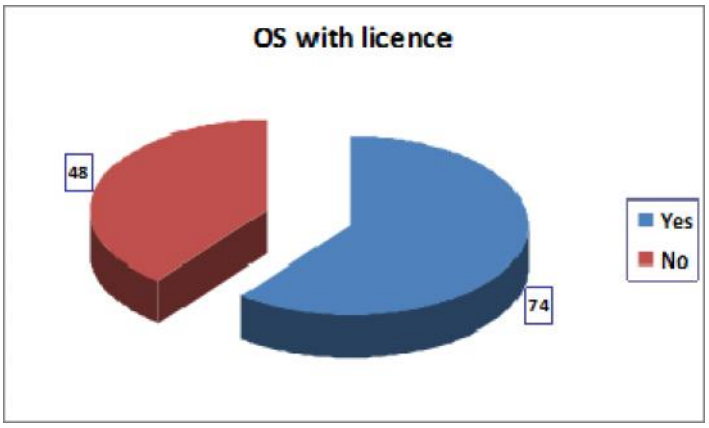


Figure 7. Licensed OS and application of surveyed population, (2012), number (source: the authors)

Romania should be prepared to meet new requirements imposed by the European and global development and the Romanian citizen must be able to use information as a resource in all activities they undertake.

Citizens' access to information is a current requirement of the development of Romanian society, in the context of globalization. Development of information society, based on technical infrastructure development, creates the need to ensure every citizen access to information.

Among the main components of the information society can be said: electronic documents, Internet and network services, electronic libraries and virtual libraries, information centers for citizens, distance education, electronic commerce and electronic payments, mobile telephony, government online services etc.

Recent decades have transformed the information and communication technology (ICT) of a product for a limited number of individuals, due to high cost and relatively large size in a ubiquitous tool in professional and personal lives of people.

Adult education cannot be separated from formal education, being in fact an extension of it throughout life. We believe that is useful and necessary the understanding and also deepening knowledge in ICT, to overcome the barrier of a minimal understanding, that will improve the skills and competencies in this area.

References

Băneş, A., Szabo, L., (2008), Număr de utilizatori vs. număr de calculatoare, Revista Agricultura Banatului, nr. 2/2008, Banat's University of Agricultural Sciences and Veterinary Medicine of Timişoara.

Băneş A., Manuela-Dora Orboi, et. al., (2011), The knowledge on IT&C in the west side of Romania, International Scientific Symposium, Agricultural Management, Banat's University of Agricultural Sciences and Veterinary Medicine

of Timişoara, Series I, vol. XIII.

National Institute of Statistics (2010), Statistical Yearbook of Romania, 2009.

National Institute of Statistics (2011), Statistical Yearbook of Romania, 2010.

National Institute of Statistics (2012), Statistical Yearbook of Romania, 2011.

National Institute of Statistics (2013), Statistical Yearbook of Romania, 2012.

http://ec.europa.eu/eurostat, ICT Statistics, 01.09.2011.

Challenges of an ESP course design for Romanian law enforcement students

Cristina Pielmuş[6]

Abstract

This paper aims at showing what the challenges of an ESP course design developed for law enforcement students at the Police Academy in Romania have been. The law enforcement course book has been the result of a thorough process of identifying the students' needs and its goal has been to cover as many police-related topics and also to integrate activities tailored to the students' need to practice all English language skills.

Keywords: ESP course design, law enforcement students, learners' needs, English language skills, task-based learning

Introduction

To begin with the concept of ESP (English for Specific Purposes) is a branch of EFL/ESL (English as a Foreign/Second Language) system, which functions as the main branch of ELT (English Language Teaching). ESP can be further divided into two main sub-branches, which are EAP (English for Academic Purposes) and EOP (English for Occupational Purposes). On the other hand, English for Law Enforcement (which will be the focus of our study) is a variety of ESP, encompassed by EOP.

According to Hutchinson and Waters (1987) ESP is a more focused approach to language learning, whereby the content and method are based on the learner's particular needs to learn the language. Therefore, the process of planning and designing an appropriate course that meets the needs of an ESP target group (in our case, law enforcement students) is a rather challenging one due to the complexities of such an approach, which requires that extreme attention be paid to various facets of the language learning process so as to meet the specific English language needs of the target group and produce a learner-centred course.

With the course for law enforcement students, for instance, we have taken into consideration their English language proficiency, their language learning styles (focusing on the language learning skills they need to improve or practice more so as to help them in the language acquisition process), the most important topic areas of their concern, the police-related contexts they will be using English in.

Context

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First and foremost, it is essential that some clarifications be made about the institution in charge with the training of the future police officers. In Romania, this is the responsibility of „Al. I. Cuza" Police Academy in Bucharest, which is a state budgeted higher education institution, part of the national academic system and subordinated to The Ministry of Home Affairs, as sole beneficiary of the graduates trained in the three constituting faculties (Police Faculty, Firefighters Faculty and Archives Faculty) for the future careers of police officer, border police officer, penitentiary officer, gendarmes, firefighter officer and archivist.

As to the students enrolled in the Police Faculty (which is the focus of our study), who are being trained in the Bachelor's degree field called "Public order and national security", they will undertake further specialization in various areas of policing such as criminal investigations, fraud and financial crime investigation, countering organized crime, forensics, traffic police, public order, transport police etc. Therefore, due to the students' specialized training within the academy, the need arises to adjust the approach of their foreign language syllabus (we shall make reference to English language in particular) so as not only to facilitate the acquisition of specialized law enforcement vocabulary, but also practice and develop English language skills.

On the other hand, most of the police academy students that attend English classes have an advanced language competence, as they have to pass a rather high-level English language test when taking the admission examination to the academy. For this reason, attention should be paid both to the level of difficulty of the course unit tasks and the content of the law enforcement English language course.

Needs Analysis

The content of an ESP course should only be determined by a thorough needs analysis as this is seen as being an absolutely essential first step before designing an ESP course, if the course developers aim to design a course that will maximally benefit their learners (Wright, 2001). When designing an ESP course, needs analysis is an inherent stage of great importance the course developer has to carry out. In the literature, needs analysis has been viewed as a process needed to determine the specific reasons for learning the language (Hutchinson and Waters, 1987) or as a process of determining the needs for which a learner or group of learners requires a language and arranging the needs according to priorities (Richards and Platt, 1992, p. 242). Other views consider needs analysis as the means to specify exactly what students/learners need to achieve through English (Robinson, 1991) or the techniques and procedures for collecting information to be used in syllabus design (Nunan, 1988, p. 13).

On the one hand, there are ***learner or the target group needs***, which are typically interpreted both as what the learner *wants* to do with the language (*goal-oriented* definition) which relates to course objectives or the end of learning and what the learner *needs* to do to actually acquire the language (a *process-oriented* definition) which relates to the means of learning. In ESP contexts both interpretations are usually taken into consideration as both language learning goals and process are of outmost importance. Therefore, before designing the course, the ESP

teacher should find out why the students are taking the course and how they will use the learning. Moreover, the course developer should know exactly what kinds of tasks and activities require learners to employ English For instance, what kind of real-life job scenarios impose the use of English (Kandil, 2003).

According to Hutchinson and Waters (1987, p. 59) there is a set of questions the course developer might use to discover relevant information: Why is the language needed?; How will the language be used?; What will the content areas be?; Who will the learners use the language with?; When/Where will the language be used?

On the other hand, we can talk of the ***learning needs***, which may refer to the learners' language difficulties, their learning objectives or their learning styles etc. Jolly and Bolitho (1998) suggest that in order to understand what are the target group's or students' learning needs, the ESP course developer needs to answer the following questions: Why are the learners taking the course?; How do the learners learn?; What resources are available?; Who are the learners?; When/Where will the course take place?

However, in the literature of needs analysis there are other relevant perspectives to be carefully analysed before designing an ESP course. Thus, Dudley-Evans and St. John (1998, p. 145) discuss criteria for ESP course design and formulate a series of questions to be considered by the course developer such as: Should the course be intensive or extensive?; Should the learners' performance be assessed or non-assessed?; Should the course deal with immediate needs or with delayed needs?; Should the role of the teacher be that of the provider of knowledge and activities, or should it be as facilitator of activities arising from learners expressed wants?; Should the course have a broad focus or narrow focus?; Should the course be pre-study or pre-experience or run parallel with the study or experience?; Should the materials be common-core or specific to learners study or work?; Should the group taking the course be homogenous or should it be heterogeneous?; Should the course design be worked out by the language teacher after consultation with the learners and the institution, or should it be subject to a process of negotiation with the learners?

Therefore, designing an ESP course has to be a learner-oriented approach, as satisfying learners' needs has an important influence on their motivation and, subsequently, on their achievements. In addition, undertaking such an approach will allow the target group population to participate in the syllabus design, as they are more aware of their own professional context, the tasks or activities they need to use English in.

Irrespective of the questions the ESP course designer takes into consideration before starting to develop the language course, the outcomes of a needs analysis will not be absolute, but relative, as there are a number of factors that could affect its results such as the people asked; the questions employed and the interpretation of their responses (Dudley-Evans and St. John, 1998).

Another essential step in the needs analysis process is the ***information gathering***, which can be done by employing the following methods alternatively or, for a more reliable needs analysis, a combination of these might be

used: a) questionnaires, which allow the course designer to determine the learners' purpose for learning the language (Nunan, 1989); b) authentic data analysis that might be employed to determine the features of the genre of the text required for the ESP context; c) interviews; and d) observation.

As far as our initiative of designing an English language course for law enforcement students is concerned, the needs analysis stage was conducted based on the use of a combination of procedures such as: a) *interviews* with both police academy students and representatives of The General Police Inspectorate, which is the main beneficiary of the Police Academy graduates, the future police officers, who will be employed in the units of The Romanian Ministry of Internal Affairs. As a result of these interviews we have jointly decided what the most relevant topic areas that the police academy students need to become familiar with in terms of police-related specific terminology are. Moreover, this method associated with the *questionnaires* administered to students shed more light upon their needs in terms of the development or improvement of the language learning skills, functional language, lexis, or grammatical structures; and b) *observation*: Having taught English at the Police Academy for a considerable number of years, I had the opportunity of becoming familiar with the culture of a police organization, which further allowed me to draw some conclusions about what can constitute the English language needs of my students as concerns police vocabulary or topics of interest. In addition, observation contributed with more information about the students' learning styles, the methodological approaches, the types of tasks or activities they prefer.

Apart from these procedures, as it is a common fact in the ESP course design literature that one of the most important steps is to determine the students' language level, we administered placement tests to the students at the beginning of the first year of study at the academy. Nevertheless, the students' general English language proficiency is established prior to their enrolment as police academy students by means of a foreign language test at the entrance examination. The language test is usually an advanced level test and its results provide relevant information as to what the candidates' language level is. However, the drawbacks of this test are that, on the one hand, it does not give any hint of the candidates' communicative competence and, on the other hand, the groups of students are not homogeneous as language level is concerned. Notwithstanding, the test gives sufficient input about the students' language level, which is more often than not upper intermediate to advanced, and this can be retested by means of a subsequent placement test.

Mainly, the needs analysis revealed that there is an imperative need of the police academy students to acquire specific vocabulary related to the various strands of policing, to develop and improve their both productive and receptive skills, as well as be able to use English in real-life job-related scenarios.

Course Objectives

In the light of the findings revealed by the needs analysis and the consideration of the police academy context, a set of general objectives was formulated for the English language course addressed to the law enforcement students.

At the end of the course, the learners will be able to:

- use appropriate vocabulary and grammatical structures in given situations
- identify and use task-related vocabulary
- skim relevant texts for content and meaning, and scan them for specific information
- use appropriate language and skills while interpreting role-plays
- make critical judgements about police-related situations according to their own experiences
- write different police-related types of reports
- describe various police equipment components, organizations or situations
- express a variety of language functions in both speaking and writing
- use discourse markers to produce cohesive communications etc.

Syllabus

Choosing course content

As a result of the needs analysis, we were able to decide together with the beneficiaries upon the most relevant broad topic areas the future police officers should be taught in a course addressed to law enforcement professionals. These broad topic areas were converted into 14 units, which were further organized in main sub-topics, as in the table below. The units were arranged in an easy-to-follow sequence, from general to more specific topics such as: *police organisation and ranks, police career sand training, police uniform and equipment, law enforcement weapons and vehicles, police ethics*, *police powers and procedures*, *police duties and responsibilities, types of crimes and criminals, punishments and the prison system*, *police investigations*, *international police cooperation, police force and the media etc.* The table below shows a sample of how the unit topics and sub-topics were organised.

Table 1 English for Law Enforcement. Course Content Sample[1].

Units/Topics	Sub-topics
POLICE CAREER AND TRAINING	• What is a police officer? • A Police Officer's Selection, Education and Training (Romania, UK and US compared) • Police Recruitment Application Form • Police Recruitment Interview • A Police Officer's Oath of Allegiance
LAW ENFORCEMENT WEAPONS	• Handgun Components - Components of a Glock Pistol • Handgun Shooting Tips • Types of Police Weapons: Firearms, Less Lethal Weapons, Specialised Weapons, Body Armour • Handgun Shooting Positions and Techniques • Police Use of Firearms

As far as the *vocabulary* is concerned, the course allows attendants to acquire general and semi-technical police vocabulary related to the most relevant policing matters (as mentioned above). Moreover, the lexical component of the course will focus on unknown vocabulary specific to police tasks/activities, spelling, word formation, phrasal verbs, compound nouns etc.

The course aims to familiarize law enforcement students with *language functions* by giving them the opportunity to practice: expressing opinions, arguing/bringing arguments, agreeing or disagreeing, explaining situations, contrasting and comparing situations, describing people/situations/equipment,

[1] Cristina Pielmuş (2012). English for Policing Purposes. An English language course book for law enforcement students and professionals, Sitech Publishing House, pp.6-10

summarizing, giving detailed information, making suggestions, speculating, justifying, giving instructions/orders etc. These functions can operate as course objectives and can be added to the above list of general objectives.

Moreover, the law enforcement students should be able to use all *grammatical structures* with a considerable degree of accuracy as they usually fit the upper-intermediate to advanced learner profile.

Selecting syllabus framework

Among theorists it has been argued that "task" represents the basis of syllabus design in second language acquisition (Richards, 2001, p.161) and tasks function as a vehicle of presenting suitable target language models (Long and Crookes, 1991, p.43). Embracing such a postulate and the belief that an ESP course is a learning-centred approach, while bearing in mind the results of the needs analysis stage, we have designed a task-based English language course for law enforcement students and professionals, oriented primarily on the development and improvement of the students' language learning skills with a closer focus on the communicative competence.

Thus, the course tasks have been designed to serve as a means to practise all four skills: speaking, reading, listening and writing. In addition, the course included mainly two types of tasks: *pedagogical* and *real-world*. *Pedagogical tasks* are specially designed classroom tasks that are intended to require the use of specific interactional strategies and may also require the use of specific types of language (skills, grammar, vocabulary), whereas *real-world tasks* are tasks that reflect real-world uses of language and which might be considered a rehearsal for real-world tasks. Among the first category of tasks the course includes: filling in the gaps, matching words with their definitions, pairing words into collocations, answering comprehension questions/multiple choice questions/true-false questions/short answer questions, expressing opinions, contrasting and comparing things/situations, translating words/sentences/short texts, brainstorming, word formation tasks, solving crossword-puzzles, finding synonyms/antonyms etc. The category of real-world tasks encompasses activities such as: interpreting role plays (police officer recruitment interview, enforcing police powers and procedures, executing an arrest warrant, carrying out an intimate/vehicle search or a crime scene examination etc.), writing a police job application form/ a police report (incident/crime scene report)/ an action plan/a crime scene investigation report/ a media release, designing a police recruitment campaign poster, problem-solving, filling in a suspect's description form etc.

Structuring instructional blocks

An ESP syllabus is inherently organized on certain criteria which allow the amount of knowledge to be learnt to be arranged into manageable units. Thus, Hutchinson and Waters (1987, pp. 85-89) show that there is an array of syllabi an ESP course could follow such as: topic, structural/situational, functional/notional, skills or task-based syllabus. However, any teaching materials may be designed according to several of the above syllabi, one of them

operating as the main organizing criterion, while the others may function simultaneously. All coursebooks contain texts, which are about particular topics, that is why an ESP course will automatically have a general topic syllabus. Moreover, the need to make students practice the language imposes the use of tasks based on language processing skills and for this reason the course will also be focused on this way of structuring the teaching materials.

When designing the English language course for law enforcement students and professionals we have considered the above-mentioned criteria. Furthermore, by breaking down the topic-centred units into task-based activities, we have organized the teaching materials around tasks focused also on skills development.

Thus, the coursebook units usually fit the following pattern:

Speaking input: At the beginning of the instructional sequence there are usually unit topic-related questions (asking for opinion, discussing topic-related concepts, contrast and compare facts/situations) or topic-related visual input used as a starter for discussion or brainstorming new vocabulary. On the other hand, at the end of the instructional block, when specific vocabulary has already been introduced and practiced through various vocabulary tasks, then speaking practice can be carried out through *role-plays* (e.g. police recruitment interview, tasks performed by a police officer on a patrol job, carrying out police procedures such as asking for people's IDs, stop and search, arrest and detention, interviewing witnesses or interrogating suspects etc.).

Reading input: usually followed by tasks such as: discussion, answering comprehension/multiple choice or true-false questions, inferring meaning from context, , finding the gist or specific information, organizing new vocabulary in categories/diagrams/charts, matching pictures with paragraphs, etc.

Vocabulary practice tasks: finding synonyms or antonyms for specific vocabulary items, filling in vocabulary diagrams, translation of specific words or phrases, word-formation or gap-fill exercises, finding collocations with key-words, filling in word puzzles, matching word with definition etc.

Writing tasks: e.g. filling in a suspect's description form, a police recruitment application form or a police report, a crime scene investigation report, writing a police media release, filling in a victim/witness statement etc. Some other writing tasks included in the coursebook involved carrying out *project-works*, focused, for instance, on designing a poster for a police officer recruitment campaign, for combating drug abuse among teenagers or fighting corruption in police force etc.

Listening input: usually followed by one or more of the following tasks: comprehension/multiple choice/true-false questions, discussion, fill-in exercises etc.

Materials

When it comes to designing ESP teaching materials, after the steps of needs analysis and syllabus outline have been completed, there are three possible alternatives an ESP teacher or developer may choose from: *materials*

evaluation, which means to select from existing materials; *materials development*, which refers to the teacher's option of writing his/her own materials and *materials adaptation*, whereby the existing materials are subject to alteration or adjustment (Hutchinson and Waters, 1987, p.96).

As for the process of designing our English language course for law enforcement, we resorted primarily to materials development and secondly to materials adaptation. But, since the materials adaptation implies actually the prior two processes, that means we eventually made use of all the options available to turn the ESP syllabus into teaching materials. Nevertheless, the materials development was the main option that covered an extensive amount of the final law enforcement teaching materials and this was due to the lack of prior English teaching materials designed for the field of law enforcement.

For this reason, the materials included in the course were carefully collected from a wide array of authentic sources, both written and visual, in order to fit the topic areas relevant for the students' lexical needs as they had been identified by the needs analysis. Then the materials went through a thorough process of selection at the end of which only those texts that adequately met the course objectives were kept. Therefore, the course for law enforcement students and professionals is the result of an extensive process of documentation and selection of police-specific resources followed by the development of English language learning activities.

As Hutchinson and Waters (1987, pp.107-108) show there are certain guidelines that can orient an ESP course developer, some of which we also attempted to cover in our own course design process: materials have to give students a stimulus to learning by suggesting interesting texts and enjoyable activities; materials organize the teaching-learning process by a clear and coherent unit structure and, last but not least, materials should provide models of correct and appropriate language.

Evaluation

When it comes to ESP teaching, there are two levels of evaluation, which we are about to discuss in the following paragraphs.

Learner assessment

Every course manager will eventually conduct the learners' assessment. This can be carried out at the beginning, at the end or throughout the course and it gives information to the teachers of how the aims of the course have been met and on how much teaching is still needed.

Learner assessment can take 3 forms such as:

1) *Placement tests* are usually used to "place" a student into a particular language level and are administered at the beginning of the course.

2) *Achievement tests* assess how well the learner has acquired the subject matter included in the syllabus and it is commonly taken any time through the course. In other words, an achievement test determines whether course objectives have been met (with skills acquired) by the end of a period of instruction.

3) *Proficiency tests* have the purpose of assessing the students' global competence in a foreign language and are administered to test if the students can meet the requirements of a specific situation.

All these tests can also function as diagnostic tests, which means that they can determine potential weaknesses learners might have.

In order to assess the students who attended the course for law enforcement purposes, we usually used achievement and proficiency tests. As a rule, the foreign language entrance examination test at the Police Academy functions as a placement test, which is an advanced level grammar examination. The achievement tests take the form of written and oral semester and yearly tests, which mainly assess the acquisition of police and legal vocabulary and the students' ability to communicate effectively on police-related topics or in police officer's job situations. Whereas the proficiency test at the Police Academy is a pass-fail, standardized test administered at the end of the academic cycle. Its aim is to assess students' general competence in English for law enforcement.

Course evaluation

An ESP course has to demonstrate that it meets the educational need which it was designed for in the first place. To put it differently, it has to show that it is justified in its present form. Course evaluation usually reveals how well the course objectives are met (Hutchinson & Waters, 1987, p. 152).

The purpose of the course evaluation is to gather relevant information about the parts of the course that may need some revision or clarification. It may also give ESP teachers an idea about those course objectives that have not been fulfilled so as further necessary adjustments to the course syllabus could be made.

An ESP course can be evaluated by using one or more of the following techniques (Hutchinson & Waters, pp. 153-154): test results, questionnaires, discussions; interviews or informal methods (conversations, comments etc.). As for those that are involved in the course evaluation process, they are usually the parties closely concerned with the ESP course, namely the ESP teachers, the learners and the sponsors or the beneficiaries. All these categories of persons could provide useful information about what needs to be improved or modified in the ESP course so that its aims be met or how well the ESP course prepared the learners for the target situations they are in at present. Moreover, the course evaluation may be conducted at any time, but the most valuable and recommended moments are usually the end of the course or, if possible, after the course, as in such cases the former students can offer insightful feedback on how the course helped them in their real-life police officer's job-related situations.

As for the evaluation of the English language course for law enforcement students we have designed, we resorted to discussions with peers and feedback questionnaires administered to Police Academy students who

attended the course in order to extract valuable information about the extent to which the course prepared them for real-life situations they would be facing as police officers. In addition, the results of both the achievement and proficiency tests have provided input on how well the students acquired the specialized terminology of the policing field and the degree to which they are able to cope with police-related communicative tasks.

As a complement, we will be considering using also video-recordings of classroom teaching as a means of course evaluation. Watching video-taped classroom practice provides the teacher a good chance to listen to his or her own instruction as the learners do and observe their reactions and responses simultaneously, which will help the teacher more easily obtain some objective viewpoints and comprehensive perception of the aspects needing modification and adjustment (Davis, 1993). The positive aspect of making video recordings is storing both verbal and nonverbal information for peer evaluation and course evaluation, avoiding interruption and facilitating fluency (Westerfield, 1989).

Conclusions

The process of designing an ESP course for law enforcement professionals is indeed a challenging one. This is a task that requires an experienced teacher with considerable ESP teaching and materials development practice. Only a teacher with a long-lasting career can live up to such a challenge, which an ESP course design proves to be.

First and foremost, an ESP course designer should be able to adequately go through all the steps involved in the designing process. Thus, when designing the English language course for the Police Academy students, we have learned that it is of paramount importance to accurately identify learners' learning needs in order to develop proper teaching materials to meet them. This stage is usually followed by others such as drafting the course objectives, outlining the syllabus framework based on the teaching theory the ESP course developer embraces, then evaluating, adapting or developing course materials and ending with the learners' assessment and course evaluation.

An educational environment such as the one at the Police Academy, where the students are trained for the police officer's profession, required a foreign language syllabus adjusted to the students' specializations in all policing branches. English language makes no exception. Thus the English language syllabus had to be tailored so as to meet the students' need to learn the specialized terminology in English and be able to use English in specific police contexts. When outlining the English language course for law enforcement professionals, attention has also been paid to structuring materials around tasks meant to develop all productive and receptive language skills such as speaking, listening, reading and writing.

To sum up, an ESP course design is an on-going process of planning, development, implementation, reflection and refinement and it faces the ESP designer with a large array of complexities when it comes to developing effective materials that will meet the specific language learning needs of the ESP target group.

References

Davis, B. G., (1993), Tools for Teaching., Jossey-Bass Publishers, San Francisco, Retrieved from http://teaching.berkeley.edu

Dudley-Evans, T. & St. John, M.J., (1998), Developments in ESP: A multidisciplinary approach, Cambridge University Press, Cambridge.

Hutchinson, T. & Waters, A., (1987), English for specific purposes, Cambridge University Press, Cambridge.

Kandil, A., (2003), Needs Analysis and the Arab Learners, "TESOL Arabia", Vol.10 (2), 10-17.

Long, M.H & Crookes, G., (1991), Three approaches to task-based syllabus design., "TESOL Quarterly", 26(1), 27-56.

Nunan, D., (1988), The learner-centred curriculum, Cambridge University Press, Cambridge.

Pielmuş, C., (2012), English for Policing Purposes. An English language course book for law enforcement students and professionals, Sitech Publishing House, Craiova.

Richards, J., (2001), Curriculum Development in Language Teaching, Cambridge University Press, Cambridge.

Richards, J. C, Platt, J. & Platt, H., (1992), Dictionary of language teaching and applied linguistic, Longman.

Robinson, P., (1991), ESP Today, Pergamon Press.

Westerfield, K., (1989), Improved linguistic fluency with case studies and a video method, "English for Specific Purposes", 8, 75-83.

Wright, C., (2001), The benefits of ESP, Retrieved from http://www.camlang.com/art001.htm on the 20th of November 2006.

Learning science through drama activities and creative writing in primary and secondary school classes

Dana Crăciun[G]

Abstract

Science and technology play an important role in our modern society. It is important to know the scientific concepts, their usefulness to society, but also the ethical and moral issues related to them. However, science is often perceived as elitist, accessible only to the elect. On the other hand, humanities and artistic activities offer a livelier, non-traditional way of learning and involve the majority of the children in the science class. Children are willing to draw, play or write stories. And so, science and games, drawing or creative writing, are braided to form the scientific thinking of children and to acquire specific concepts. In this study we present the reasons for which drama or creative writing can be applied while teaching science (physics, chemistry) courses at primary and secondary level in Romania, with the aim of changing the attitude of children towards such disciplines. The study also highlights various opinions of current and future science teachers.

Keywords: science education, humanities, creativity, extended intelligence, pre-service teacher training

Introduction

In the last decades, the interest of children in sciences (physics and chemistry) has experienced a constant drop both in Romania as well as in a large majority of European countries (Osborne and Dillon, 2008; Crăciun, 2013).

However, modern society is based on science and technology, which implies the need for knowledge about and understanding of these topics from an early age. Thus, various teaching methods have been designed or modified to be applicable in classrooms aiming to create scientific knowledge and understanding of its impacts on society.

In this regard, we can mention context-based science education, or science, technology and society education-STS (Turner, 2008; Albe, 2008; Wieringa et all, 2011), which also highlights both the social effects of scientific progress as well as the controversies and ethical problems that comes with it. Teaching methods which use dramatization techniques such as debate and role-plays, can be used to develop empathy in children and to make

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them aware of the different viewpoints emerged on a given topic. The aim is to develop reflexive competences in children as an answer to current socio-scientific problems (Holbrook and Rannikmae, 2007).The children can either directly play the roles in the proposed dramatization or we can consider science theatre with professional actors, a method developed in some European countries such as UK, Norway, and The Netherlands (Odegaard, 2003).

Authentic learning situations are created in these cases. Theatre plays develop the interest for science of children exposing them to contradictory feelings towards given topics. An open end of the theatre play could also provoke self-reflection.

Furthermore, theatre also enhances the imagination and creativity of children. These two characteristics are considered important components in the learning process (Wieringa et all, 2011; Holbrook and Rannikmae, 2007).

The imagination can also be developed through other activities which imply for example creative writing, drawing, animated drawing, etc.

All these activities that are not specific to science classes can lead to a favourable attitude of children towards such disciplines, researchers and research work in general, especially in the case of elementary and secondary school children for which games, poetry and drawing are still enjoyable activities.

As showed in (Osborne, Simon and Collins, 2003) this favourable attitude presumes:

- the acceptance of scientific enquiry as a way of thought;

- the adoption of 'scientific attitudes';

- the enjoyment of science learning experiences;

- the development of interests in science and science-related activities; and

- the development of an interest in pursuing a career in science or science related.

This increase in interest and a favourable attitude towards science within children in elementary and secondary schools is a necessary condition for a competitive science education at high school and undergraduate level. We highlight that the educational process is cyclic. More children interested in physics offer a larger selection base from which to select university students and future physics teachers respectively. These students in turn could lead to a shift in the attitudes of elementary and secondary school children and can motivate children to study sciences.

This study highlights the reasons for which this type of activities should be applied in elementary and secondary school physics (science) classes. This study presents various ways to apply methods and to use activities that stimulate the imagination and creativity of children expressed through the opinions of current and future science teachers.

Method

The union of science, art and writing around a central scientific focus represents a powerful way of bringing science into the classroom. This approach is based on the imagination, creativity and active collaboration of children in multidisciplinary activities.

The role of imagination and creativity in science education

In his book Cosmic Religion and Other Opinions and Aphorisms, A. Einstein wrote "Imagination is more important than knowledge. For knowledge is limited, whereas imagination embraces the entire world, stimulating progress, giving birth to evolution." (Einstein, 2009).

In education, imagination develops writing, speaking, and creative self-expression of children. It is a necessary component for innovations, inventions and understanding in general. Imagination is a sine qua non condition for scientific creations and its stimulation implies the stimulation of abstract thinking, the generation of mental images, convictions, narrative thinking, etc. (Coskun Samli, 2011).

Creativity, however, is linked to a given problem to which original solutions have to be found. Scientific theories are the creative products of scientists that are based on personal ideas (or that can be based on other scientific ideas and be creatively reorganized) and that determine essential contributions to the domain. Researchers must use their own imagination when they develop their theory. This process can be highly creative; it can be logical/rational or even accidental (Hadzigeorgiou, Fokialis and Kabouropoulou, 2012). Creativity has an applied component linked to solving concrete problems. It implies fluency and mental flexibility along with sensitivity to the problems.

If we refer ourselves to science education we should first make a distinction between scientific creativity and scientific activities through which scientific knowledge can be learned.

Scientific activities can include theatre, art in general or methods specific to humanities like creative writing and poetry which can be a novel way for children to express their ideas and the concepts they learn in school. In order to develop the scientific creativity, children must first know the scientific content for a given topic. The teacher must focus on the development of imaginative thinking, narrative thinking, visual-spatial thinking, all of which should be integrated in a social context. In authentic learning situations, teachers should allow the children to choose their own way of expressing themselves so that they can manifest their creativity.

Drama and science

Drama is a universal form of human expression found in cultures all over the world. Role-plays, mime or creative drama are activities that elementary and secondary school children enjoy doing and thus, can be successfully used in science education (Odegaard,2003).

The following characteristics can be found among the beneficial aspects of applying such teaching methods during science classes:

- it is a form of active learning;

- develops imagination and creativity;

- it is an activity which uses multiple senses at once and which operates with the extended intelligence of the children (analytical, emotional and kinaesthetic intelligence);

- it's an effective strategy to learn scientific content and processes;

- children find role playing memorable and fun;

- increases the motivation of children;

- creative drama can be used to construct knowledge and lead to a deeper understanding of the subject matter;

- children reflect on the experiences and show a greater degree of responsibility for their learning;

- allows the children to define the problem, find solutions to it and apply them;

- creating the play allows the children to use scientific knowledge recently acquired by teaching it to others;

- can teach about ethical and moral issues arising from the science curriculum, etc. (Odegaard , 2003; Dorion, 2009; Wieringa et all, 2011)

We have presented numerous activities that imply this method in a previous study (Crăciun, 2010).

The power of writing

At the opposite pole of the continuum of expression media lie the written communication methods used during the science classes but which also presume student centred activities in which children are actively involved. When a child writes, he (or she) must think about the topic considered, form his (her) own opinions, sort out his (her) uncertainties and connect the newly acquired knowledge to the prior one or to the preconceptions regarding the topic. Written communication is precise; it increases retention and enriches the vocabulary of child.

According to Keys (1999), writing genres used in the school curriculum can be divided into three major categories: poetic genres used to reflect on the personal experiences and emotions (stories, poetry, drawings, lyrics, drama, etc.); expressive genres used to explore ideas (notes, brainstorming, questions, abstracts, descriptions, journals, etc.) and transactional genres used to inform and report (experiment, explanation, report, speech, biography, etc.).

The author considers that writing in scientific genres promotes the construction of new knowledge by creating a unique, reflexive media for the children that are involved in scientific activities (investigations, experiments, systematic observations, etc.). Note that in this case, the written text must be objective, logical and precise.

On the other hand, creative writing encourages the learners to use their imaginations and express their emotions to create written material. It can include any written expression: a novel, short story, drama, play, epic, poetry, lyrics of a song, script of a play, dialogue or non-fiction writings like speech, autobiography, biography, historical writings, memoirs, travelogues, etc.

In this type of creative writing one can use metaphors, allegories which find their correspondent in analogies or abstract theoretical models devised by scientists (Ashkenazi, 2009). It provides the adequate means to develop the emotional intelligence of children and to make them sensitive to current problems in physics and sciences with the implications and controversies these problems generate in modern society (Metaphor is an organizer of ideas and concepts. Metaphor creates similarity).

Last but not least we should mention that written communication using graphical organizers, diagrams, mind maps or drawings can be framed somewhere at the border between writing and art.

Procedure

In this study, we investigate if this type of activities is used when teaching science in primary and secondary school. Furthermore, we are interested in the opinion of current and future teachers about methods that are not specific to science education and their comparison to the traditional ones.

We also want to know if these teachers have acquired the necessary competences for such a teaching activity during their initial teacher training or their specialization studies.

In order to answer these questions, we have applied a questionnaire to a group of 35 primary school teachers, 30 secondary school teachers (of physics and chemistry) and 11 students of the Faculty of Physics which have been also enrolled in the teacher training classes within the West University of Timisoara. The questionnaire have used is the following:

Questionnaire regarding approaching science through drama and creative writing activities in primary and secondary school

Q1. Which are, in your opinion, the best methods for teaching (learning) science in primary/ secondary school? Why?

Q2. Do you consider that these methods allow the majority of students to study and deepen specific themes belonging to top domains of science?

Q3. B. Nicolescu: "In education, transdisciplinarity means operating with an extended intelligence, which reflects the triad: analytical intelligence, emotional intelligence, body intelligence."

Do you consider that the methods usually used in science classes develop this extended intelligence?

Q4. How do you think you can develop emotional intelligence in science classes?

Q5. Do you consider that the use of creative writing, drama or interactive role-plays can develop, during science classes, this type of intelligence?

Q6. Do you consider that top science topics can be studied through such activities specific for humanities?

Q7. Do you consider that creative writing and drama activities, done during the science class, may bring science and less interested students closer together?

Q8. Do you consider that the approach to science through specific humanities activities can lead to

(a) the development of creativity and imagination

(b) holistic approach of science

(c) formation of metacompetences

(d) healthy and harmonic development of the student

(e) development of social skills

Q9. Provide other elements that would, in your opinion, bind science and humanities together, in school.

Q10. During your professional training did you acquire

a. competences in science? b. competencies in humanities ?

Q11. If a programme of studies in this direction would be proposed, would you participate in it?

Q12. Other comments or proposals.

For questions 2, 3, 8 and 11 they have to choose between the following answers:

Yes/ No/ Don't know.

For questions 5-7 they have to choose between the following answers:

I agree/ I partially agree/ I partially disagree/ I disagree/ I don't know.

Results and discussions

The questionnaire has been applied to primary and secondary school teachers in Timisoara, during the academic year 2012-2013. The same questionnaire has then been applied to students which have been enrolled in

the teacher training program from the West University of Timisoara in the academic year 2012-2013 (5 students) and also to students that are currently enrolled in the academic year 2013-2014 (6 students).

Among the methods that are used for teaching science, the participants have enumerated hands-on approaches / experiments and direct observations, team work and various active methods (brainstorming, investigations, etc.). These methods are considered to allow the majority of children to study and deepen specific themes belonging to top domains of science. It has to be noted that methods neither based on written communication nor on role-playing have been mentioned among these methods.

With respect to trans-disciplinary education, over 50% of the participants have considered that these methods do not develop the trilogy: analytical intelligence, emotional intelligence, body intelligence (40 out of 76).

Regarding emotional intelligence, over 70% of the participants have considered that it can be developed through team-work, group activities and assignments, role playing and basically most activities that include working in groups as opposed to individual work (60 out of 76).

The participants have also considered that using creative writing, drama or interactive role-plays could develop the emotional intelligence of the children (95%, or 72 out of 76). Up to question 5, we have not found significant differences between the answers current or future teachers have provided. This highlights the fact that these methods are not related to the initial teacher training, but are rather correlated to the age of the children.

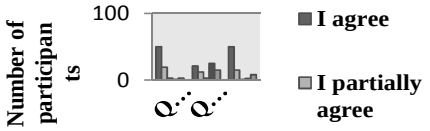

Figure 8. Distribution of teachers answers regarding questions 5,6 and 7

A first major difference of opinions can be observed once we consider the subject of top science topics and the approach of such topics using methods specific to the humanities. Only 10% (4 out of 35) of the primary school teachers have considered that this might be a good idea, as opposed to 60% (20 out of 30) of the secondary school teachers and 80% (9 out of 11) of the future teachers.

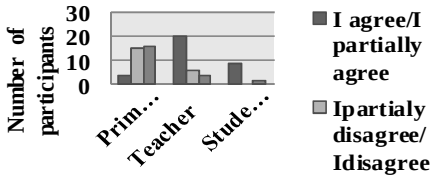

Figure 9. Q6. Classification of responses depending on the category of participants

This result suggests that primary school teachers have only a basic training in the science domain (only a limited number of subjects have been approached during training, most of them being related to the verbalization of science) and are not able to make a correlation adapted to the primary school level between top scientific theories and their impact on society.

Another significant difference in the opinions of the participants has been observed when answering question 7. More than 95% of the current teachers (62 out of 65) have answered positively to this question, as opposed to only 27% of the future teachers (3 out of 11).

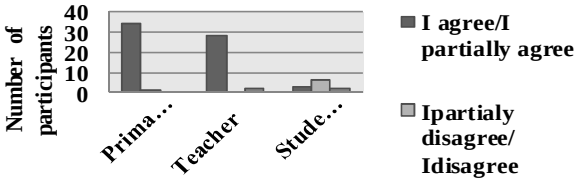

Figure 10. Q7. Classification of responses depending on the category of participants

This result can be explained by the fact that future teachers have a solid theoretical training, but lack the class experience and the interaction with children. In their perception, the teaching process is still based on what the teacher has to do in class and not on the teacher – student interaction.

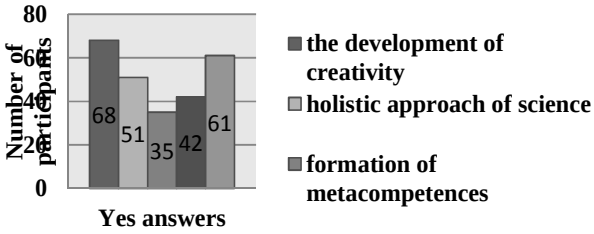

Figure 11. Q8. The frequency of positive answers with respect to humanities activities in science education

Regarding question 8, most teachers who have completed the questionnaire have felt that both creative writing and dramatic activities primarily develop creativity in science approach.

Drama and creative writing develops social skills, a harmonious development of the child and leads to a holistic approach to science.

Secondary school teachers but mostly primary school teachers have found other ways to link science and humanities within the teaching activities. Among the various activities they have proposed we mention: analogies between facts or concepts that are not directly linked to each other; creative experiments proposed by students; journals of observations; free essays; science-fiction storytelling; games; mind maps; crosswords; creative writing

with the aid of drawings or symbols; making analogies to explain various concepts or phenomena through drawings, texts or movements; posters or timeline organizers to detail events and dates.

Teachers have considered that it is important for children to be able the correctly write observation protocols or experiment sheets, but also give them the chance to write essays or stories on a subject they have studied during the science class. Investigative activities can be combined with creative presentations such as student books, or posters.

With respect to their own training in scientific domain and humanities, 95% (34 out of 35) primary school teachers have considered that they did not accumulate sufficient competences during the initial teacher training (except for elementary mathematics) and would like to participate in additional programs in this direction.

However, 95% (39 din 41) of the science teachers are not interested in humanistic training, even if it leads to better communication and interaction with their students.

Conclusions

In this study we have highlighted the need to build a positive attitude in elementary and secondary school children towards sciences in a modern society that is based on science and technology. This attitude can be obtained also through methods such as role-plays, creative writing or other artistic activities which are not specific to science teaching but are loved by the children. Combining such methods with others that are specific to science teaching can lead to an authentic learning of the scientific content as well as the problems and issues scientific research generates in a modern society. The use of such methods in science classes leads to the development of creativity, imagination and reflexive thinking. All these components are necessary for scientific research and technological progress.

The transition from creative writing to the scientific one is much easier if children are taught to report the facts also in a poetic manner. In this way, we can think of crossing from creative activities to scientific creativity, from a science fiction nature of imagination to abstract thinking and from logical intelligence to multi-sensorial activities that operate with the extended intelligence of the children (analytical, emotional and kinesthetic).

References

Albe V. (2008). When scientific knowledge, daily life experience, epistemological and social considerations intersect: Students' argumentation in group discussions on a socio-scientific issue, *Research in Science Education, 38*, pp. 67–90.

Ashkenazi G. (2006). Metaphors in Science and Art: Enhancing Human Awareness and Perception, *Electronic Journal of Science Education, 11*(1), Retrieved from http://ejse.southwestern.edu on 10th January, 2014.

Coskun Samli A. (2011). From Imagination to Innovation, NewYork : Springer Science+Business Media, LLC.

Crăciun D. (2010). Role-Playing as a creative method in science education, *Journal of Science and Arts, 1*(12), pp. 175-182.

Crăciun D. (2013). Direcții interdisciplinare în formarea inițială a profesorilor de Științe, *Journal of Educational Sciences, 1*, pp. 34-45.

Dorion K.R. (2009). Science through drama: A multiple case exploration of the characteristics of drama activities used in secondary science lessons, *International Journal of Science Education, 31*(16), pp. 2247–2270.

Einstein A. (2009). Einstein on Cosmic Religion and Other Opinions and Aphorisms, (pp. 97), Dover Publication, Mineola, New York. (originally published in 1931 by Covici-Friede, Inc., New York)

Hadzigeorgiou Y., Fokialis P. & Kabouropoulou M. (2012). Thinking about Creativity in Science Education, *Creative Education, 3*(5), pp. 603-611.

Holbrook J. & Rannikmae M., (2007). The nature of science education for enhancing scientific literacy, *International Journal of Science Education, 29*(11), pp. 1347–1362.

Keys C., (1999). Revitalizing Instruction in Scientific Genres: Connecting Knowledge Production with Writing to Learn in Science, *Science Education, 83*(2), pp. 115-30.

Odegaard M. (2003). Dramatic science. A critical review of drama in science education, *Studies in Science Education, 39*(1), pp. 75–102.

Osborne J., Simon S. & Collins S. (2003). Attitudes towards science: A review of the literature and its implications, *International Journal of Science Education, 25*(9), 1049–1079

Turner S. (2008). School science and its controversies; or, whatever happened to scientific literacy?, *Public Understanding of Science, 17*(1), pp 55–72.

Wieringa N. F. , Swart Jac. A.A., Maples T., Witmondt L., Tobi H. & van der Windt H. J. (2011). Science Theatre at School: Providing a context to learn about socio-scientific issues, *International Journal of Science Education, Part B: Communication and Public Engagement, 1*(1), pp. 71–96.

Theory and practice in the teaching of organic colorants to chemical engineering students

Simona Popa[6]

Abstract

The paper covers some aspects regarding theory and practice in the teaching of organic colorants to chemical engineering students. There is little in the world of education that is more depressing than bad university teaching. Intellectual development is a product of both internal and external processes. In the paper are presented the importance of teaching and learning, the conditions of learning, and some methods of evaluation, all specific to teaching the subject in question.

Keywords: knowledge, teaching, learning, evaluating, organic colorants

Introduction

Knowledge is a process not a product. Teachers teach, and it can be observed simply by watching the act itself, without the knowledge of the students' learning. The concept of teaching as a success results in the learning process. The evaluation of the professors activity in class should not be influenced too much by the students' performances, because the first ones do not control each and every variables in the process which affect the results.

Theoretical and practical knowledge

"Teaching is one of the most delightful and exciting of all human activities when it is done well and that it is one of the most humiliating and tedious when it is done poorly. There is little in the world of education that is more depressing than bad university teaching. Every teacher can learn how to do better. Anyone who has seen really good teaching in action will not need to invoke the exigencies of performance appraisal and maintaining academic standards as reasons for improvement".(Ramsden, P., 1992)

Intellectual development is a product of both internal and external processes, and the higher thinking reveals from the interrelationship and the dialogue among people. The school is based on accumulating information - which is not enough, it should develop the capacity of thinking in order to solve problems, to understand, to innovate and to take decisions, as well as to communicate efficiently with the students fellows and with the teachers (Danciu,L., 2004).

According to Dona Ogle (1992), the school should form students which will contribute to the development of the society, and as a result, school should become a center for developing of thinking and learning in an agreeable medium, encouraging discussions and cooperation (Danciu,L., 2004).

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Johnson, D., Johnoson, R., Houbec, E.(1991) consider that "learning is something the students do, not something which is done to them. Learning is not a sport where you are a spectator. It requires direct and active implication of students".

According to Pintilie, M. (2002), the notion of *methodology* comes from the Greek words *metodos* - meaning way, line, direction - and *logos* - meaning science. The methodology is considered a method or a sum of methods of teaching, learning and evaluating. It is a subdivision of training technology, a set of principles, methods and processes. The training technology covers some issues:

- the way in which the knowledge is transmitted and accumulated

- the way in which intellectual and practical abilities form and develop

- the control of achieving the knowledge and establishing the level of instruction

The modern methods of teaching, learning and evaluating offer a good opportunity for pedagogical organization of a thoroughly, easily and pleasantly learning, and at the same time has a pronounced active character from the students.

Among the diversity of learning types, according to Margaritoiu, A. and Brezoi, A. there are: learning of notions, learning of principles and rules and solving problems. "*Learning of notions* represents the formation of notions and concepts ant it requires the capacity of a student to classify objects on the base of common properties. *Learning of rules* refers to actually learning a series of concepts and notions. *Solving problems* is based on the thinking process, on learning and applying rules, it is a process which generate a new learning".

In their book, Margaritoiu, A. and Brezoi, A. also present the conditions of learning, which are divided in two categories (according to psychologist R.Gagne):

- "*internal conditions of learning*: depend on the hereditary potential and the cognitive structure of the students, on their motivation, learning skills and individual work techniques;

- *external conditions of learning*: depend on the teachers personality, on their methods and strategies of teaching, on the school curricula, on the subjects particularity, on the interrelationship among teachers and students, and on the time management".

Evaluating students ensure the quality of the teaching process. That means that the feedback the teachers receive after the evaluation permits them to adjust and to modify their activity. Also, the future performances of the students can be evidenced by the evaluating processes.

According to Albu, G. (2001) there are several methods of evaluation. Among them there are:

- "*current observation an oral appreciation*: watching the way in which the students participate in the learning process in class, if they take notes, if they accumulate new concepts and notions

- *oral examination*: the quality of the students knowledge, their understanding level and their ability to operate with the learned notions and concepts are examined, not only by reproduction but also by the interpretation of the data

- *writing examination*: permits the examination of all students in due time with no interference of the professor

- *elaborating papers or projects with a certain theme*: reveals a much deeper appreciation and the identifying of individual performance of the students as well".

The teaching, learning and evaluating processes act together and are indispensable for the educational process.

"The *brainstorming* is a way to elaborate in class, spontaneously, some ideas, models, new solutions in solving theoretical and practical problems". (Kozan-Naumescu, A., 2010)

According to Senos, S., (2013), it can easily be observed "a general divergence between theory and practice".

Problematic issues and method

Learning process is connected with the notions of change or modify, meaning that learning may be defined as a change in individual behavior as a result of a personal experience, determining some change in the knowledge or mental skills. The learning process is an authentic creative act, generating new behavior, offering school the meaning of a live laboratory where human metamorphosis at individual level as well as at group level may occur.

The idea of a process implies the necessity of duality, meaning the existence of a force that favorite the change - the teachers - on one hand, and on the other hand the students - which have an active role and will be transformed during the process of learning. There must be a tight cooperation among them offering the possibility of identifying fundamental acts that define de learning process. Teaching alone, no matter how good it would be, do not lead automatically to the expected results, but is connected and conditioned by the learning activity of the students. Another function of the learning process is the evaluation of the results connected to the overview of the teaching-learning process.

Teaching a certain concept referring to other ones can help students to understand better, based on the previous experiences, learning being in this case an active process. It is also important to reward students along with the learning process in order to motivate and stimulate them. Nevertheless, the students must have some targets to accomplish and the teachers are obligate to support them in the effort of achieving them.

According to Ramsden, P.: "The vital competences in academic disciplines consist in understanding - the way in which students apprehend and discern phenomena related to the subject, rather then what they know about them

or how they can manipulate them. Many students can juggle formulae and reproduce memorised textbook knowledge while not understanding their subjects in a way that is helpful for solving real problems. Merely being able to repeat quantities of information on demand is not evidence of a change in understanding, but learning that involves a change in understanding implies and includes a facility with a subject's techniques and an ability to remember its details. It involves changing in the professors conception of teaching and is based upon their experiences of teaching.

The aim of teaching is simple - to make the student learning possible. Teaching always involves attempts to alter students' understanding, so they begin to conceptualize phenomena and ideas in the way scientists conceptualize them.

To teach is to make an assumption about what and how the student learns; therefore, to teach well implies learning about student's learning. Learning and teaching are constantly interchanging activities. One learns by reaching; one cannot teach except by constantly learning. One can never assume that the impact of teaching on student learning is what one expect to be. Students' thoughts and actions are profoundly affected by the educational context or environment in which they learn. They react to demands of teaching and assessment in ways that are difficult to predict: a lot of their *learning* is not directly about chemistry, but about learning how to please lecturers and gain high marks. These strategies all too often lead to them using methods of study that focus on simplify recalling and reproducing information rather than the actions which lead to changes in their understanding. An important part of good teaching is to try to understand these contextual effects and to adapt assessment and teaching strategies accordingly.

Good teaching involves striving continually to learn about students' understanding and the effects of teaching on it. Precisely because the research into students learning in higher education has studied and described the conditions which are necessary for changes in student understanding, it provides a convenient source of ideas for teaching. Teaching in higher education involves concentrating on various techniques of instruction: how to give a lecture, organize a laboratory class or run a discussion. Professional teachers in higher education posses a broad range of specialist teaching skills, they never lose sight of the primacy of their goals for student learning, they listen to and learn from their students, they constantly evaluate their own performance. They understand that teaching is about making it possible for students to learn".

On the basis of the above presented theory, the practice in the teaching of organic colorants to chemical engineering students involves the following aspects:

- *professional competencies*: Operation of processes and installations with applying knowledge in the field of chemical engineering. The description, analysis and use of basic concepts of structure and reactivity in organic

compounds synthesis. Operation of the equipment and methods of analysis and specific characterization of organic chemicals.

- *transversal competencies*: The execution of professional duties in accordance to the requirements specified in the terms imposed, in compliance with professional ethics and moral conduct, according to a predetermined plan of work and with qualified guidance. Solving professional tasks in line with the general objectives set out by integrating within a working group and distributing tasks to subordinate levels.

- *general objective of the discipline*: Discipline aims to instill the students the knowledge about the relationships between the structure of organic compounds, color and characterization of chromophore groups, classification of organic dyes in different categories, the technologies of these dyes, their characterization, application of dyes on different textiles and their characterization. Considering the notions of technological understanding and application specific synthesis of colorants, chemical substances with very diversified structures, understanding the relationship between structure and biological activity (for the food, drug or cosmetic colorants), the need for intensified research to obtain active substances, no harmful, economic and convenient with biological qualities, as well as the choice of shape and conditioning formula for increasing the effectiveness of the treatments and to reduce the danger of pollution to the environment.

- *specific objectives*: The content of discipline contributes in proportion of 10% to industry-specific essential skills development - "Engineering Sciences"-legislation, economy and 90% at-specific skills development specialization: 40% abilities in designing and conducting chemical processes; 50% to the knowledge and use of the notions of chemical technology and operation of industrial installations. Its share in the training of students is 1.71%.

- *the content of the course*:

Themes	No. of hours	Teaching methods
Raw materials for the synthesis of aromatic intermediaries. Notions about the synthesis of aromatic intermediates	6	Interactive course using modern methods of presentation
Relationships between the structure of organic compounds and their color. The notion of color, mutual influence of the auxocrome and antiauxocrome groups. Characterization of chromophore groups	2	Interactive course using modern methods of presentation

Classification of organic dyes. Azo dyes. Structure, methods of obtaining, properties	4	Interactive course using modern methods of presentation
Azoic dyes	10	Interactive course using modern methods of presentation
Other classes of dyes. Anthraquinone dyes. Disperse dyes. Reactive dyes. Phtalocyanin dyes. Structure, methods of obtaining, properties	10	Interactive course using modern methods of presentation
Characterization of textile fibers and dyeing processes. Cellulose fibers. Protein fibers. Structure, properties. Pre-treatment, dyeing and dyeing finishing	3	Interactive course using modern methods of presentation

- *the content of applied activities*:

Themes	No. of hours	Teaching methods
Synthesis of various azo dyes	8	Participative lecture; Conducting laboratory work, study and interpretation of the results, problem solving, debate
Applications of some dyestuff on textile	5	Participative lecture; Conducting laboratory work, study and interpretation of the results, problem solving, debate
Chromatographic and Spectrophotometric analysis of colorants	8	Participative lecture; Conducting laboratory work, study and interpretation of the results, problem solving, debate

The content of the discipline is consistent with what is being done in other universities in the country and abroad. For a better adaptation to the demands of the labor market to the content discipline study visits to industrial units occurred.

- *evaluation:*

Type of activity	Evaluation criteria	Evaluation methods	Share of the final grade
Course	- the accuracy and completeness of knowledge; - logical coherence; - the degree of assimilation of language; - criteria of attitudinal aspects that concern: conscientiousness, interest in self study	Written examination, test the knowledge presented at the course. The weighted average is calculated only if the student proves sufficient knowledge in the written examination. For the note 5, the student must be familiar with the fundamentals of the theory. For the note 10 the student should demonstrate a thorough knowledge and ability to apply it properly. The student should highlight the essential aspects and show that he has not assimilated them mechanically.	60%
Applied activities	- ability to operate with similar knowledge; - ability to apply in practice; - criteria of attitudinal aspects that concern: conscientiousness, interest in self study	How to make laboratory work and interpretation of results shall be assessed in a continuous way. For the note 5 the student will carry out laboratory work and interpret at a basic level experimental data. For the note 10 student should participate actively in the work of the lab, to problem solving, to answer questions and interpret independently obtained data correctly and completely	40%

Conclusion

Teaching organic colorants to chemical engineering students aims to instill the students the knowledge about the relationship among the structure of organic compounds, color and characterization of chromophore groups, and all the subjects that are previously described.

In order to accumulate theoretical notions of the technology and application of specific syntheses colorants - chemical substances with very diversified structures, and to understand the relationship between structure and biological activity (for the food, drug or cosmetic colorants), as well as the need for intensified research to obtain no harmful active substances, and to reduce the danger of pollution to the environment, the method of teaching must be an interactive one, because the subjects in question are complex and all the notions are based on other courses materials. So the teacher has to link together all the knowledge learned by students so far.

During the experimental applied activities, the students learn how to make a laboratory work, how to interpret the results, and how to solve theoretical problems, which are linked to the real technology in industry.

The evaluation process occurs during the whole semester, in class, during the teaching by answering the questions which appear, during the laboratory hours, by solving theoretical problems, and off course during the examination session at the end of the semester. The students may elaborate a paper regarding an issue of their choice, which is presented in front of the class. The appreciation made by the teacher covers all these aspects.

References

Albu, G., Mecanisme psihopedagogice ale evaluării şcolare, Ed. Universiţăţii din Ploieşti, 2001

Danciu, E.L., Învăţarea prin colaborare. Aspecte metodologice, Ed.Orizonturi Universitare, Timişoara, 2004

Johnson, D., Johnoson, R., Houbec, E., Circles of Learning: Cooperation in Classroom, Edina, Minnessota, Interaction Book, 1993

Kozan-Naumescu, A., Paşca R.D., Strategii euristice în procesul de predare-învăţare la chimie, Romanian Journal of Education, 2010, 1 (2), 57-64

Margaritoiu, A., Brezoi, A., Metode interactive de predare - învăţare, Suport de curs, 2013, http://profesoriitineranti.files.wordpress.com/2013/01/metode-interactive-de-predare-invatare-suport-de-curs.pdf

Ogle, D., K-W-L: A teaching Model that Develops Active Reading of Expository Text, The Reading Teaching, 1992, 39, 564-570

Pintilie, M., Metode moderne de învăţare evaluare, Ed. Eurodidact, Cluj Napoca, 2002

Ramsden, P., Learning to teach in higher education, Routledge London - New York, 1992

Senos, S., Theory and practice in the teaching of language for adult migrants, Journal of Educational Sciences, 2013, 1 (27) 45-51

Functional Elementary Adult Education in the Republic of Serbia

- A new model for development of adult competencies -

Aleksandra Pejatović[6]

Abstract

Model of Functional elementary adult education which became part of the formal educational system in Serbia in the school year 2013/2014 has been presented in the paper in the baseline considering the context it was created in and the needs it should satisfy. After all, it has been dominantly analysed as a programme focused on competence development in adult participants: key, subject specific and vocational competences. The findings of the conducted analysis show that with the model, a vast space for action on the competence development in the level of education has been opened. The results of conducted evaluation research from the experimental phase of the progamme have shown that the programme has contributed to the development of specially defined sets of competences in attendees.

Key words: **(**il)literacy of adults, competencies, functional elementary adult education, general competences, subject specific competences

Adult illiteracy – a problem that persists

Illiteracy in adult population, at the world, European and many national levels, persists even today in the gap between, on one hand, attributing great importance to literacy, and, on the other hand, the impossibility of finding broader implementation of efficient strategies for significantly reducing the problem of illiteracy. The importance of literacy can be noticed at both individual and social levels. "Literacy is not just a crucial skill for the individual, but is a vital component of economic prosperity and social well-being. At the national level, improved literacy incerases the stock of human capital, enhances the innovative capacity of the economy and helps to desseminate new tehnologies" (Carnerio, R, Gordon, J, 2013: 476). Illiteracy, as one of the positions on a literacy continuum, is most often associated with social exclusion, unemployment or low-paid jobs, poverty, in which families whose members are illiterate live, with hard escape from the "vicious circle of poverty" of the youngest family members, too.

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Attention needs to be drawn to the fact that illiteracy, by its very nature, additionally networked with numerous associated factors, opposes greatly to the transfer to literacy. Demands for literacy, as well as criteria defining it, are continuously growing larger and becoming more complex, thus making the deflection from reading skills and writing simple texts about everyday life and carrying out simple numerical operations to the whole set of competencies. The term "competence" itself, as well as "to be competent", imply a certain complexity of elements a person should have, that is, achieve. By analysing a larger number of definitions of the term "competence" we have come to the conclusion that a competence is the ability to perform, and what is more, properly, adequately, well, and that is in the specific, defining, special context…, but first of all changeable. Basically, a competence is a set, a combination, a cluster, a complex combination…, and that is: of knowledge, skills, behavior, attitudes, understanding, self-efficacy… The elements mentioned, with their specific internal structure and interrelations, should also cause certain behavior, that is, acting, and/or which again adequately gives certain results, within a particular context (Pejatović, 2012: 95). As can be seen from the above stated, in order to master a certain competence, a lot has to be acquired and developed within its internal structure, and one has to, with what one possesses, adequately respond to external requirements, which, in fact, represents demonstration of a competence, that is, confirmation of its possession and development at a certain level. In addition to constantly growing complexity of the set we define as "literacy", its nature is further made more complex by the fact that, when not used, it is relatively easily restored to "illiteracy".

Illiteracy and elementary adult education in Serbia

Serbia is among the countries where, for decades, there has not been a small percentage of adult illiterate and semi-illiterate population, as where there is not a particularly favourable educational structure of the population, given the requirments of the modern world of work and life in the civil society. According to the latest census, in 2011, there is 1.96% of illiterates among persons aged 10+, that is, those who stated that they could not "read and write a text about everyday life" (Republički zavod…, 2014: 42). Although the above stated percentage might not seem high, when compared to the one from 2002 census when there were 3.5% of illiterates (Stanković, B, 2006: 155), one gets a slightly different impression when, the criterion against which it was measured is analysed. Practically, categorising people as literate or illiterate is based on their statement and assessment whether they are literate and whether they can meet the criterion set. So, in this case, it can hardly be said that all those who stated that they were lliterate, even at the most elementary level, are really lliterate. Actually, the question arises of what those having just a few grades of elementary school can really apply in terms of literacy in everyday life. In order to justify the stated doubt to a certain extent, the percentage of illiterates should be considered in the context of the educational structure of the population of Serbia, in relation to the latest census. Among persons aged 15 and more there is 2.68% of those without school qualifications, 11.00% of those wih incomplete elementary education and 20.76% of those with elementary education (Republički zavod.., 2013: 33). The data listed indicate that in Serbia there are 34.44%, that is, approximately one third of the population without, with incomplete and complete lowest level of education. It seems

logical to assume that witin this cumulative percentage there lies hidden a larger percentage of illiterate population in comparison to the registered one.

One of the innovations in the latest census in Serbia is data collection on computer literacy of persons aged 15 plus. The population declared on the development level of this type of literacy, in each individual case, by giving statements based on their own assessment of the level at which they can "perform some of basic computer operations (text processing, table drafting, sending and receiving e-mails and using the Internet), but not all four" (Republički zavod…, 2014: 33). The data collected show that 51.01% is computer illiterate (Republički zavod…, 2013: 139).

In parallel with educational needs expressed in this way, for many years a programme for elementary adult education, assessed as inadequate in relation to the needs of adults to acquire this level of education, has nevertheless survived. *In the National Report on Development and State of Adult Education and Learning – Serbia*, by Medić, S, at all, one can conclude the following on this part of the adult education system in Serbia: "In these schools adults can complete elementary education (which normally lasts 8 years) in four years, but the programmes implemented are only reduced in scope and are not adapted to the needs and characteristics of adults" (Medić, S, at all, 2008:21). In addition there has also been a lack of adaptation in terms of its implementation, given that a significant part of teaching was carried out in the form of consultations and instruction.

In response to the state described in the field of elementary adult education in Serbia, the *Action Plan for the implementation of the Strategy of Adult Education Development in the Republic of Serbia for the period 2009 – 2010*, states, among the priorities, one of the objectives: "Creating preconditions for development and development of modern programmes of elementary adult education: preparation programmes to meet standards of elementary general education and integrated (work-oriented) programmes of elementary education and training" ("Akcioni plan...", 2006: 7). Recently several projects focussed on development of functional elementary adult education in Serbia have been implemented.

Functional Elementary Adult Education in Serbia

Today's formally acknowledged model of functional elementary adult education (FEAE) in Serbia was developed within the project "Second chance – System development of functional elementary adult education in Serbia" (2009-2013).

As a general goal of FEAE the following has been set: '' gaining and improvement of knowledge, skills, values and attitudes necessary for proactive and constructive problem solving and facing challenges in everyday life, improvement of family and personal living conditions, doing simple jobs and adequate actions in working situations and working surroundings, further education and active participation in the community" ("Pravilnik ...", 2013: 4).

"Teaching plan and programme of FEAE should lead to a double result – the ending of elementary education and initial vocational training. Programmes for initial vocational education have been prepared in a way to respond to the local labour market needs, attendees' needs, and special jobs/occupations needs" ("Procena ostvarenosti ciljeva i ishoda…", 2013:12). Teaching plan and programme were projected to strive towards realisation of general outcomes, that is key competences, then subject specific outcomes, as well as outcomes connected to vocational training, meaning vocational (working) competences ("Pravilnik ...", 2013: 3).

Within the FEAE model this level of adult education lasts for three years and is realised through three one-year cycles. During the first, attendees can gain basics of functional literacy, and during the second and third basics of general education and vocational competences within simple occupations or groups of jobs. In order to gain vocational competences, training, organized through schooling, is based on working standards and labour market needs (Ibidem).

Having finished the third cycle, adults are trained both for further education and gaining vocational qualifications and for doing a certain job.

Space for competences development within the functional elementary adult education

FEAE programme is based on outcomes, which need to be realised, by putting into function, all available elements composing one specific educational situation (teaching contents and the way they are structured – integrated programmes, social partners teams, teachers, subject teachers, professional associates, andragogical assistants and school pricipals organized in school teams, organization and the way of working with attendees, monitoring and assessing attendees, etc). FEAE outcomes have been formulated in the form of competences which need to be developed in attendees. The model has been projected to work on the development of competences, which, for the need of analyses , can be divided into several categories shown in Table 2.

Table 2: Categories of competences on whose development the work within FEAE has been directed

Competence type	Annotations
Key competences	Each subject and module contribute to their development.
Subject specific competences	General subject specific comptetences have been formulated within each subject and module. Subject competences are assessed on the basis of standards defined for each cycle and they match two levels of acomplishments: basic level and advanced level.

Vocational competences	On the basis of conducted work specification and learning specifiication developed on its foundations, achievement assessment of vocational competences is assessed on the basis of occupation standards that is, work standards. Checking the mastery of competeneces is done on the final exam of the training.

When it comes to key competences, we can say that FEAE model strives towards harmonization of elementary adult education with ”Key Competences for Lifelong Learning (2007) (”Druga šansa...”, 2011:11). In the mentioned document, the following eight were enlisted as key competences: 1) Communication in the mother tongue; 2) Communication in foreign languages; 3) Mathematical competence and basic competences in science and technology; 4) Digital competence; 5) Learning to learn; 6) Social and civic competences; 7) Sense of initiative and entrepreneurship; and 8) Cultural awareness and expression ("Key Competences...“, 2007: 3).

Of course it was necessary to adapt to the specific situation both the number and content of key competences from the document used as a starting point, but also, first of all, to the level of education the programme is realised on and the outcomes in competence terms were set, as well as previous knowledge of attendees, their former educational achievement, needs and the context in which they live and from which they come. As a result of this adjustement a list of twelve key competences, together with their determinations, has been made (Table 3).

Table 3: List of the key competences with determinations

Key competences developed by FEAE	**Competence determination**
Linguistic literacy	Ability to express ideas, feelings, facts and opinions in spoken and written form in the mother tongue in different social, cultural and communicational contexts... This ability covers communication in a foreign language in the fields of listening, speaking, reading and writing.
Mathematical literacy	The usage of mathematical thinking and basic mathematical operation in problem solving in everyday life situations.

The basics of scientific literacy	The usage of acquired knowledge, skills and knowhow in noticing, understanding and explaing natural phenomena.
Digital literacy	Efficient, functional and responsible use of various information-communication technologies in work, free time and communication.
Personal learning plan management	Ability to organize their own learning, whether on their own or in a group, and readiness for lifelong learning in different situations. Includes capability to resolve and overcome obstacles for successful learning.
Problem solving	Recognition, explanation and problem solving by using knowledge and skills from various areas.
Social interactions and cooperation with others	Each and every behaviour used to efficiently and constructively communicate in the social life of an individual with the aim to solve conflicts in a non-violent way.
Civil responsibility for democracy	Active and responsible participation in the civil life based on knowledge about social and political values, concept and structures.
Health competences	Taking responsibility for their own health and the health of their family, looking after their health and recognizing influence of various lifestyles and life habits in order to sustain and improve their health.
Ecological competences	Active attitude towards preservation and improvement of the environment.
Initiative and entrepreneurship	Readiness to put idea into practice, to start changes, to adapt to innovations, to take risks, to plan and manage activities in order to achieve set goals.
Cultural awareness, multiculturalism and creativity	Sensitivity, acceptance of existence and positive valuing of different personalities in social, cultural, ethnic, religious and creative domain, together with the understanding of importance and respect for creative expression of ideas, experiences and emotions through various media (music, literature and visual art).

Taken from "Pravilnik...", 2013: 4-5

The list and key competences determinations whose development is supported within FEAE in relation to the "Key Competences for Lifelong Learning", contain several modifications. First, easily seen, is that a few new competences have been added, such as: Problem solving, Health and Ecological competences. Some have been divided into two, like Mathematical competence and basic competence in science and technology which has been broken down into Mathematical literacy and The basics of scientific literacy. Also there are cases that a segment has been added together with reframing and content change. Thus, Cultural awareness and expression has been reframed into Cultural awareness, multiculturalism and creativity.

Special emphasis of competences such as Problem solving and Creativity, actually do not represent novelty in relation to the starting point, since when explaining "Key Competences for Lifelong Learning", the author clearly states that this type of "topic", as well as some others, play the role in all eight key competences ("Key Competences…", 2007: 3).

From the very definitions of key competences within the FEAE it seems there has been a certain "simplification" of content, which is reasonable due to the necessity to adjust to the concrete "lowest" level of education, as well as to the other characteristics, as has been stated.

If we now focus our attention to the general subject competences formulated for each subject and module, except vocational training, first we have to explain the way the content has been defined. From teachers of particular subjects, who underwent special training and are now working with attendees within FEAE, or who participated in the programme development and who were given support by members of expert team during the process, we needed to find the answer to the question: what a participant, after having successfully finished their subject, can do in life, that is what the purpose of a specific subject content is and what benefit attendees will have of it in their lives. General subject specific competences shown according to subjects are presented in Table 4.

Table 4: General subject specific competences according to subject (modules)

Subjects (modules)	**General subject competence**
Geography	...plans, organizes and realises various activities in family and life community using knowledge about basic natural-geographic and social-geographic objects, appearances and processes, by establishing a responsible relationship with geoheritage, natural and cultural goods, protecting and improving the environment
Chemistry	...in everyday life and activities performed, applies knowledge about properties

	and changes in the substance of matters and commercial products used in practice, complies with precautions in working with substances (materials, commercial products), uses them rationally and disposes of waste in accordance with regulations.
Biology	...is able to apply the knowledge about the living world with the aim to improve living conditions and the quality of work.
Basic life skills	...applies preventive measures of health protection and understands their importance; makes distinctions between functional and dysfunctional family patterns and works on their promotion; finds information necessary for everyday life; knows ways and uses procedures to obtain personal documents using which realises civil rights and obligations; manages personal potentials and possibilities; realises creativity and innovations in problem solving; thinks critically and solves problems in everyday life in family, neighborhood and local community.
History	...possesses basic historical knowledge and skills, understands the role of history in forming contemporary surroundings and is capable of active participation in the democratic society; can orient oneself in historic time, uses major terms of the history of civilization, connects the most important events and the most prominent personalities of global and national history and the history of their state, uses their political rights and has respect for civil duties; constructively communicates in the surroundings and acts with responsibility towards cultural-historic heritage.
Mathematics (3rd cycle)	... in everyday situations analyses problems and uses mathematical models to bring decisions and solve problems. In order to solve different problems uses mathematical symbols, designations and mathematical operations, applies formulas to calculate geometrical objects in the surrounding and uses basic measurements for the area, length, volume, mass and time.
English language	...has linguistic skills on the elementary level and uses the English language to satisfy personal needs and interests in everyday life situations.

Responsible living	...attendee shall have the knowledge, skills, attitudes and values enabling them to responsibly take on various roles in life in family, society and the world of work, which will empower them to use their civil rights without violating others' rights and to show initiative in solving various personal, family and social problems.
Entrepreneurship	...plans, organizes and manages resources on their own or in cooperation with others, during realisation of simple activities in family, work and social surroundings, actively participates in the world of work and employment/self-employment, using basic economic and business literacy.
Serbian language (3rd cycle)	...participant has developed skills of oral communication and in more details uses the Serbian language in written communication in order to participate in the social life, at work and for personal development. Independently reads and interprets literary-artistic works.
Applied natural sciences	...participant will know, by using scientific explanation, to explain the use of old and new materials in building a house, the danger of inadequate use of electrical installation and appliances, unprofessional disposal of waste civil engineering material and house and industrial waste; to give scientific explanation for basic principles of safe, economical and healthy production, preparation and storage of food, as well as scientific explanation for the respect of basic principles of hygiene. Attendee will know to think critically about phenomena and processes happening in the everyday surroundings, important for house, food and health and to treat the environment ecologically.
Physics	...participant will explain natural phenomena and predict their flow on the basis of the laws of Physics and in everyday life will apply the knowledge from Physics by using meters, measurement and technical equipment in various situations, and, on the basis of measured, obtained and/or evaluated data about certain physical measures, as well as by conducting simple calculations by using basic laws of Physics will safely participate in traffic, handle simple machines and appliances and predict consequences of interplay between physical bodies in their surroundings.

Digital literacy	...uses computer on their own on the elementary level, by doing simple operations, starts desired application, can find needed information, can do basic adjustments of the working environment, enter, edit simply and print a text and communicate with other users over the internet. Acquired elementary digital literacy, apart from using a computer applies also when using a mobile phone, digital camera and other electronic devices in everyday use.

General subject specific competences are stated on the basis of 15 handbooks for teachers relating to the general achievement standards for elementary adult education, published by the Institute for evaluation of quality education in 2013.

What is common to all stated general subject specific competences, originates from the basic characteristics of competences themselves, and that is all the descriptions contain sets of knowledge, the nature of relationships established by participants, and, at least given in hints, attitudes and values, then based on all these components participants, having successfully completed a subject, do something, perform in the applied real life context (local surroundings, work surroundings, family surroundings...). These general subject specific competences should not be observed separately form the key competences which also need to be developed within the FEAE. Both actually represent expected outcomes of the total cumulative action of numerous elements of the educational activity. Some general subject competences have been closely connected to key competences, for example, the one from the Serbian language with the general language literacy. However, mutual relationship between these two kinds of competences for sure is not only linearly intertwined between a separate competence but, we believe they need to be observed as interaction between each of the competences (from any category, including those from the same categories) and all the other competences. Vocational competences, which participants have the chance to develop in vocational trainings, also enter in this interaction.

Final considerations

We could say that the new FAEA model represents a multiple response to needs, on one hand, of individuals without gained elementary education to, in this way, their life opportunities and adapted former knowledge, improve the quality of their own life by general elementary education and initial vocational training. On the other, this model represents a response to the labour market needs, the needs of the local and national community for trained manpower and active participation of citizens in the community.

Furthermore, the FAEA model is also the result of strivings to improve the educational composition of the population in Serbia., aged 15 and older, as well as efforts to adapt the existing model of elementary adult education to adult people to a higher degree with respect to the current trends in the field of education (adults) – an integrated programme based on outcomes, focused on competence development according to the tested needs.

Recognizing these needs and endeavour we have decided that the work of the new FAEA model we present first by explaining the context, as the source of needs in which it was created, then by showing its basic characteristics, and predominantly by analysing it through competences, key, general subject, and less, vocational to those it needs to lead to in attendees.

The process of developing this model can still be considered unfinished, and it is unlikely it will ever be finished. However, the first results, gained on the basic of the *Evaluation of goals and outcomes realisation of the Programme of Experimental functional elementary education of adults (Procena ostvarenosti ciljeva i ishoda Programa ogleda funkcionalnog osnovnog obrazovanja odraslih)*, conducted in 2013, show there is a visible ''slight shift in the real status of participants (with respect to employment and employability), but also their visible progress in the field of confidence boost, conscience about the importance of personal and family health and welfare and readiness for higher activity in solving individual and personal problems" ("*Procena ostvarenosti*'…", 2013: 26). Stated changes, recorded in participants can first of all, easily be connected with a set of determined subject specific competences. However, we cannot neglect that the evaluation shows ''conscience development'', ''readiness'' etc, which to a higher degree shows mastering of knowledge, understanding, attitude forming of changing, which still does not mean the possibility to act in the changeable real life context, which, in our opinion, would point towards competence development. Yet in the *Evaluation of goals…*, in the form of a conclusion it is pointed out that ''… the process of curriculum implementation of FAEA shows it is well functioning in the practice and that by this curriculum it is possible to achieve planned results'' (Ibidem, page 29).

References

Akcioni plan za sprovođenje Strategije razvoja obrazovanja odraslih u Republici Srbiji za period 2009 – 2010. godina, (2006), retrieved from: http://www.vetserbia.edu.rs/Strateski%20dokumenti/Akcioni%20planovi/AP%20ODRASLI.pdf, accessed: 4. 12. 2014.

Carnerio, R, Gordon, J, (2013), Warranting our Future: literacy and literacies, *EUROPEAN JOURNAL OF EDUCATION research, development and policy*, Volume 48, No. 4, p. 476-497

Druga šansa – Razvoj sistema funkcionalnog osnovnog obrazovanja odraslih u Srbiji od 2011. do 2013. godine; Škola, školski tim i nastavnik; Priručnik za nastavnike, (2011), Beograd: Projekat „Druga šansa" – Razvoj sistema funkcionalnog osnovnog obrazovanja odraslih u Srbiji koji realizuje GOPA Consultants

Key Competences for Lifelong Learning – European Reference Framework, (2007), Luxembourg: Office for Official Publications of the European Communities

Medić, S, Popović, K, Milanović, M, (2008), Nacionalni izveštaj o razvoju i stanju obrazovanja i učenja odraslih – Srbija, Zvaničan ekspertske grupe Ministarstva prosvete Republike Srbije, podnet 2008. godine UNESCO-u za

Confintea VI, Šesta međunarodna konferencija o obrazovanju odraslih, Beograd: Društvo za obrazovanje odraslih i dr.

Pejatović, A, (2012), Jaké kompetence mají mít vzdělavatelé dospělých? (What Competences Should Adult Educators Have?), *Studia pedagogica*, Vol. 12, No. 1, p. 91-111

Pravilnik o nastavnom planu i programu osnovnog obrazovanja odraslih, (2013), Beograd: Ministarstvo provete, nauke i tehnološkog razvoja Republike Srbije

Procena ostvarenosti ciljeva i ishoda Programa ogleda funkcionalnog osnovnog obrazovanja odraslih, (2013), Beograd: Zavod za vrednovanje kvaliteta obrazovanja i vaspitanja Republike Srbije

Republički zavod za statistiku, (2014), *Statistički godišnjak Republike Srbije - Stanovništvo*, retrieved from: http://webrzs.stat.gov.rs/WebSite/repository/documents/00/01/52/99/02-Stanovnistvo.pdf, accessed: 3. 12. 2014.

Republički zavod za statistiku, (2013*), Popis stanovništva, domaćinstava i stanova 2011. u Republici Srbiji; Stanovništvo - Školska sprema, pismenost i kompjuterska pismenost, Podaci po opštinama i gradovima*, Beograd: Republički zavod za statistiku

Stanković, B, (2006), Obrazovne karakteristike stanovništva, u: Panev, G, (ur): *Stanovništvo i domaćinstva Srbije prema popisu 2002. godine*, Beograd: Republički zavod za statistiku Srbije; Institut društvenih nauka, Centar za demografska istraživanja; Društvo demografa Srbije, str. 155-179

The Fight against Illiteracy and the Adult Literacy Assessment in France in 2014

Jean-Pierre Jeantheau[6]

Abstract

For over thirty years France has been addressing the needs of young people and adults with limited basic skills competence and having the opportunity to start their initial schooling in France. The 'fight against "illettrisme"(the term "illettrisme" became part of French public debate during the early 1980s and has since been a concept used solely in this country) is a national priority since 1998, and had been declared by the Prime Minister as the "great national cause" for the year 2013. The scale of the phenomenon has often been central in the public debate. A number of major national studies have sought to more fully understand its complexity and extent. In France as in the other countries, direct assessments of adult basic skills competence have progressively been found necessary for national evaluation. Since the 1990s direct surveys have attempted to provide more precise and reliable data than the available previous self-reporting ones have offered. This paper provides a presentation of the two major French adult literacy surveys: the IVQ survey (Information and Everyday Life Survey) carried out by the INSEE (National Institute for Statistics and Economic Studies) and the ANLCI (National Agency for fighting "illettrisme" since 2002, and the JCD survey (Military Registration Day) carried out by the ministries of Defence and Education since 1998. In addition it will show how INSEE and ANLCI took up the challenge of developing comparability between existing national indicators through specific statistical studies and to promote the IVQ (Information and Everyday Life Study) model for new tests. In the future, the ANLCI considers that it will be more efficient to build tests, which could be comparable with IVQ, even if adapted to a particular context.

Keywords: adult literacy survey, Illiteracy, literacy assessment, adult literacy, young adult assessment, France

Introduction

At a time when a major debate on education is taking place, when illiteracy prevention is being developed, when decisions are being made to modify organizations and redefine responsibilities between the State and local communities, at a time when changes in employment policies and professional training are being negotiated in the framework of decentralization and negotiations between social partners, but also within the European framework of lifelong education and training, and at a time when integration and social inclusion policies are changing, it is more

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than ever necessary to provide decision-makers with clarified, stabilized and disseminated simple definitions and with effective and reliable literacy indicators on a phenomenon that is increasingly recognized throughout industrialized countries. Since the 1990s direct surveys have attempted to provide more precise and reliable data than the available previous self-reporting ones have offered and since 2000 the National Agency to Fight Illiteracy (ANLCI) associated with partners as the National Institute for statistics and Economic Studies (INSEE) or the Ministry of Education has made efforts to provide stakeholders with a comprehensive view of the extent of the illiteracy phenomenon.

Thus, the assessment of the extent (or frequency) of low literacy and the basic skills proficiency levels within the overall population has been considered a priority in France for several years now, and has been the subject of increasingly large-scale and scientific measurement campaigns. Policymakers have rapidly become aware that measuring low literacy levels is crucial to justify the creation and implementation of public policies. This measurement nevertheless encounters certain obstacles linked to the characteristics of the target population. When attempting to assess a non-captive adult population with respect to the basic skills or low literacy, one must face two main challenges: defining the social situation or phenomenon to be measured, and finding the appropriate methodology and technology to perform satisfactory measurements. The present paper will provide an overview of the adult literacy assessment in France in 2014

Assessing low literacy and basic skills proficiency: the French context

Once the lack of basic skills among a large part of the population had become a social issue (Lahire, 1999), it was necessary to produce figures to estimate the extent of the problem and the intensity of the efforts required to solve them. In the 1980s several surveys were therefore carried out on literacy in France, yet the majority were more or less partial and based on self-declaration. It is thus easy to understand that, due to their very nature[2], these surveys were debatable and led to arguments concerning the figures, still perpetuated by certain individuals.

The conviction that the information produced by surveys proposing practical tests to respondents was of much better quality led France to participate in the IALS[3] survey organized by the OECD in 1994. However, France withdrew from the study before its results were officially published. This withdrawal triggered many comments that we will not list here, as well as numerous reports criticizing the methodology used for the OECD survey.

Despite the controversy, the IALS episode marked a move in France towards surveys using a measurement approach based on standardized individual performance tests. The following year, in 1995, the Directorate for Military Service (DCSN)[4] organized a vast programme to test conscripts. As of 1997, the DCSN, in collaboration with the

[2] the self-declaration of scholastic difficulties is usually difficult and is often avoided with strategies aimed to supply an answer considered acceptable for the survey rather than a truthful answer
[3] International Adult Literacy Survey
[4] Ministry of Defence

Ministry of Education's Directorate for Evaluation and Forecasting (DEP), studied a way to set up a test system for young French citizens to replace the psycho-technical studies previously used for the draft (selective tests designed to orient conscripts towards the positions offered by the Army that were the best adapted to their skills). In 1998, the Military Registration Day (JDC/JAPD) was instituted and included a reading skills test (as of 2000 this system was also extended to girls). The same year, after refusing to participate in the OECD's new ALL survey, the statistics departments of several French administrations decided to start designing a quantitative survey to measure the literacy levels of the adult population living in France. They drew upon the know-how of their statistics staff, in particular at the DEP and INSEE, as well as the years of qualitative surveys and studies concerning low levels of writing skills carried out by several university teams in order to design a new survey called the IVQ – Information and Everyday Life survey. The creation of the ANLCI (National Agency to Fight Illiteracy) in 2000, which subsequently became the INSEE's main partner in the consortium, led to the implementation of a specialised module to identify people with low literacy levels, called the ANLCI module. The IVQ survey was designed to supply, through testing, precise figures concerning the competences of the adult population living in France, information on low literacy and the skills of individuals faced with written or oral communication tasks in standard French, and some indications concerning their command of arithmetic in everyday situations. We therefore see that the years from 1994-98 were decisive in France for the development of direct surveys (based on tests) of adult skills.

Agreeing on the terms: illiteracy, "illettrisme" and basic competencies

The development, more than the emergence, of direct surveys of adults was thus closely linked to the media coverage of illiteracy, even if the constraints linked to surveying an entire population of adults meant testing a large number of people who were not concerned by low literacy. During this period, the illiteracy issue (in fact "illettrisme") was so topical that it eclipsed other subjects of public debate concerning adult literacy levels in the overall population.

France, by adopting the word "illettrisme" has decided to distinguish between three situations: "illettrisme" for people (native French speakers but not only) having attended school in French who have not acquired sufficient mastery of written communication, analphabetism for people (almost exclusively foreigners or people of foreign origin), who have never learned any written code, and immigrants who arrive in France and must learn French as a foreign language. While in all cases the ability to read and write in the French language is indeed absent or insufficient, the origins of the problem, people's background and the ways to help them all differ. The fight against "illettrisme" therefore was born and developed alongside the linguistic training policy devised for immigrants.

In other words, it is one thing to arrive in a new country without speaking the language and to have to learn this new language: this is the case for the immigrants who arrive in France and must learn French as a foreign language. It is another thing to have never attended school, and to be illiterate ("analphabète" in French), as are many men and especially women in countries where schooling is not compulsory. It is yet another, completely different situation to find oneself, after having attended school in France, unable to write a check, read signs,

withdraw cash from an ATM, read safety instructions, write a shopping list, read a child's school report, etc.… It is extremely difficult, and people often conceal the fact to avoid stigmatization, to have no command of the absolute basics: reading, writing, arithmetic and the fundamental skills required for autonomy in simple everyday situations. This last situation required a name, given to it by the French NGO "ATD Quart Monde": The term "illettrisme". It is a word that we would like to see disappear, a word that provokes reaction, but above all a word that should encourage us to act in a consistent and effective way by focusing our efforts where they are truly necessary if we want this phenomenon to be eradicated in France.

The initial definition of "illettrisme", was subsequently reworked, completed and above all generalized in 2003 by the ANLCI, who worked with nearly 100 partner institutions to revise and circulate it. Since 2003, the official definition is therefore as follows: "Illiteracy describes the situation of individuals over 16 years of age who, although they have attended school, cannot read and understand a text dealing with an everyday situation, and/or cannot communicate simple information in writing"[5].

The main surveys available (not based on self-declaration)

In France today, in order to assess and count the number of people with literacy problems, we can use several recent surveys, not based on self-declaration, whose frequency should allow us to comprehend the evolution of the literacy or basic skills of people living in France: the international PISA survey (Program for International Student Assessment), the PIAAC survey (Program for International Assessment of Adult Literacy) both organized by the OECD and carried out in France by the research departments of the Ministry of Education (PISA) and the national institute for Statistics and Economic Studies (PIAAC), the Military Registration Day (JDC/JAPD) tests organized by the Ministry of Defence with exercises supplied by the Ministry of Education, the LPP Survey (Reading and Incarcerated Population Survey) and finally the Information and Everyday Life survey (IVQ) carried out by the INSEE with the participation of the ANLCI.

Because the OECD's studies are very well documented and well-know (OECD provides numerous complete reports about PISA and PIAAC surveys), we will focus on the other surveys.

The Reading and Incarcerated Population Survey - Individual positioning

The penitentiary administration, with the participation of teachers from the Ministry of Education, organizes detection upon arrival in prison. Since 1994, education services in French prisons use a battery of tests to situate incarcerated individual in relation to a level defined as illiteracy. The LPP tests involve simple word recognition reading and understanding of simple sentences and texts. Testing takes place in an individual face to face mode within penal institutions. They last ten minutes and include question and oral replies to written material. As is the case

[5] Rest of the definition, read ANLCI National Guidelines, 2003, page 72

with the Military Registration Days, the purpose here is not statistical, even if the detection operations carried out do provide figures concerning low literacy in French prisons About 50,000 individuals are yearly tested (2013).

The Military Registration Day (JDC/JAPD) - Assessment focused on the individual

The Military Registration Days (JDC/JAPD) were created in 1998 to replace the former draft system. Originally applied to boys only, they were extended to girls in 2000. These days provide the opportunity every year to measure the literacy skills of an entire age group with no distinctions made concerning academic background or gender, and to detect young people with literacy problems. The detection aspect is emphasized, since all of the boys and girls registered (and therefore of French nationality or requesting French citizenship), and who are at least 17 years old, take a series of tests organized by the Ministry of Defence in collaboration with the Ministry of Education.

The main objective of the JDC/JAPD (Military Registration Day) survey, contrary to PISA, is to actively search for young people with low literacy levels, and it essentially concerns young people between 17 and 19. While most 18-year-olds are still in school, young people in difficulty have often left the school system at this age and therefore, depending on the level of their test results, may enter the "illettrisme" category as it is defined in the ANLCI handbook.

The JAPD tests are administered collectively (classrooms of maximum 40 young people), due to the huge number of young people to be tested each year (nearly 800,000). They are administered in rooms specially set aside for these tests, most often within military facilities. As of 2009, after an experimentation phase, the test procedure (answer collection and processing) has been largely automated to facilitate operations and keep a better record of each young person's answers. Following this reading test, young people who have been detected with a problem are given the opportunity to meet with an adult to discuss their future, in a context that is different from the one they are familiar with. This meeting provides an opportunity to inform the individual of the possibilities available to help improve their level of written French, and can be continued through guidance and support activities offered by the educational system if the young person is still in school, or by local Youth Centres or other bodies if they have left school. For the Military Registration Day, no sample is formed. During the Military Registration Day, the main goal of the tests given is to identify young people with literacy problems in order to refer them to the support agencies that can assist them. These tests nevertheless supply files that allow the establishment of national and local statistics used as a reference for the public programs designed for these young people. The national figures were sometimes calculated in the past on the basis of samples (certain selected days), but only during the period when the test was being experimented with. Unfortunately, in 2004 the tests used since 1998 were replaced with new ones, interrupting the statistical series underway. The figures (table 1) for 2013 indicated that 9.6% of the 800,000 young people who took the tests had reading problems (4.1% had very severe problems and 5.5% had serious problems) .

The Military Registration Day tests concern different levels, but the detection of reading difficulties is the main focus. The tests include both systematic exercises to measure the extent to which deciphering a text is automatic for the young candidate, and others measuring the candidate's ability to identify information, understand it and process it.

Table 5 JDC Profiles in 2013

Profile	Reading Comprehension	Reading automaticity	Vocabulary	Boys	Girls	Boys & Girls	%
5d	X	X	X	68,7	74,1	71,4	Efficient readers **81,8**
5c	X	O	X	12,2	8,6	10,4	
5b	X	X	O	5,6	7,3	6,4	Mediocre readers **8,6**
5a	X	O	O	2,5	1,9	2,2	
4	O	X	X	3,6	3	3,3	Readers facing difficulties **5,5**
3	O	O	X	2,9	1,4	2,2	
2	O	X	O	1,8	1,9	1,8	Readers facing strong difficulties **4,1**
1	O	O	O	2,8	1,8	2,3	

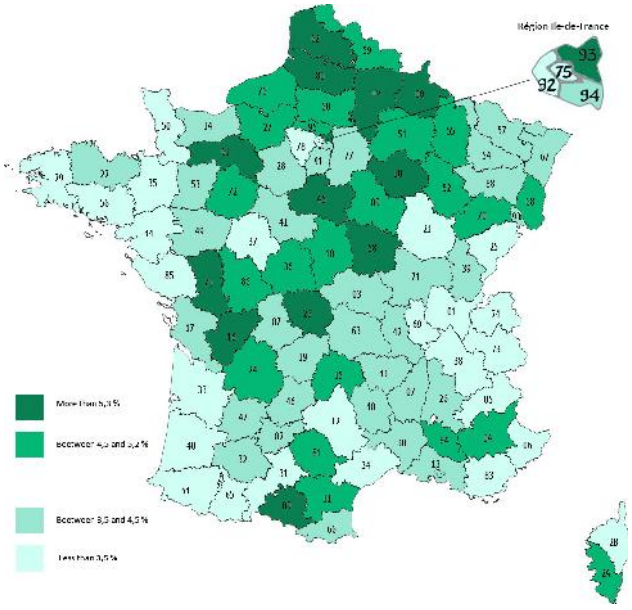
Source: Ministry of Education (DEPP), Ministry of Defense (DSN) Note : X = success, O = failure

The statistics drawn up after the tests taken by young people during the Military Registration Day are published in an annual report by the Ministry of Education's Directorate for Evaluation Forecasting and Performance (DEPP). They inspire no particular emotion nor heated debates, even though they are regularly quoted to support various positions. Since they are carried out by region and by "département", they mostly play a role in discussions on a more local level. They are also used as indicators by the regions to plan and monitor regional policies (regional plans for the fight against illiteracy in particular). Since their target population is very specific (17 to 19 years old in practice), they are in direct competition on the national level with the Ministry of Education's figures concerning

students leaving school with no qualifications and with the IVQ figures that cover the entire adult population from 18 to 65[6].

The large dimension of the sample (in fact whole population) and the geolocalisation of persons[7] facing literacy difficulties enable JDC to provide stakeholders with figures by relatively small territorial units (departments, small towns, neighbourhoods of the large cities).

Map 1: JDC 2013. "Illettrisme" rates by "departments"



Note: The figures on the map correspond to the departments' codes

Data from Ministry of Education (DEPP), Ministry of Defence (DSN)

The Information and Everyday Life survey (IVQ)

First studied as of 1998 by a steering committee made up of several partners, the tools and methodology for this survey were fine-tuned after several tests and a methodological survey carried out at the end of 2002 on a sample drawn from 10 regions in metropolitan France that enabled the performance of 2083 interviews. This survey includes a specific module to assess low literacy levels developed for this purpose by the University Lyon 2 upon request from the ANLCI. The first main survey was carried out in 2004/2005 by the INSEE using a very strict methodological approach, and following in-depth fine-tuning to guarantee the quality of the data collected. The last one was carried out in late 2011 and early 2012.

[6] The two first data sources (JDC and Ministry of Education data files) will be connected in 2015.
[7] Since 2014

The target population

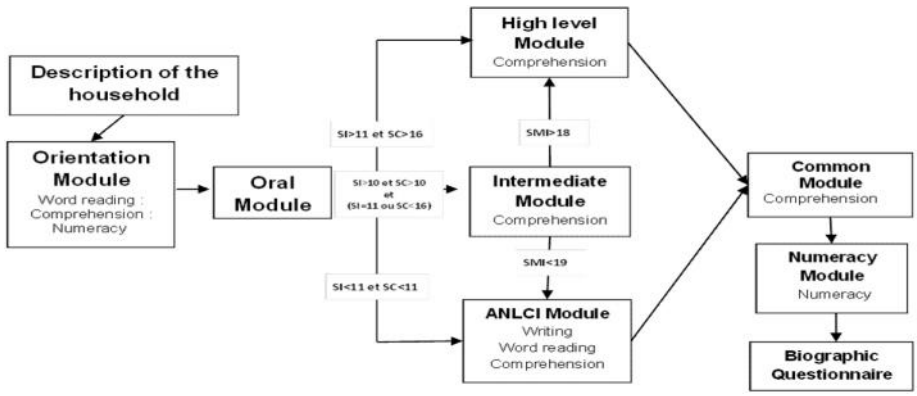
The IVQ survey focuses on representative samples of the general population, and among other goals tries to identify the proportion of people with low literacy levels among the overall population It can therefore supply a wealth of information on this population, on the population referred to as illiterate, and also on all individuals living in France (including immigrants) or on any other sub-category of individuals, provided that they are sufficiently represented in the sample.

Test administration

For the IVQ survey, the tests are taken individually in a one-on-one situation, at the home of the respondents. The INSEE interviewers selected are specially trained for this task for 3 days. They also use a software application CAPI that assists them in administering the modules, makes the required score calculations and automatically orients the people surveyed toward the most appropriate testing programmes. The software enables data entry in encoded form. The main objective is to encourage the involvement of the adults surveyed by proposing tasks very similar to those they encounter in everyday life, using materials linked to this situation, significantly limiting the use of the written word in the expression of their answers, and providing them with tests that are as appropriate as possible to their level. Thus during the interview in their home, respondents with literacy problems do not have to provide written answers, aside from the dictation test. Their answers are expressed orally and entered by the interviewer on his/her computer. This choice was made so that the tests could be taken in a context as different as possible from scholastic testing and as close as possible to everyday life.

The IVQ test initially orients the subjects (screening) as quickly as possible towards the test that is the most appropriate to their literacy competence level. Experiments resulted in the proposal of a twofold orientation: an orientation module that makes it possible with a few questions to initially detect the people in the sample with significant difficulties and those who seem to have none, and then an intermediate confirmation module for the people close to the orientation threshold. The diagram below shows the different steps and illustrates the sequence of the specialised modules.

Figure 1: Organization of the IVQ 2011 modules



The samples

For the 2011/2012 IVQ survey, a data file is available containing 13,743 records (10,384 in 2004), i.e. the information collected from the 13 743 respondents who participated in the survey in metropolitan France. Basically, these candidates were chosen through a double random draw: first the random draw of a household, then a second random draw of an individual among the people usually living in that household and eligible for the survey. The main consequence of this method is that the population targeted by the survey represents a variety of nationalities and social backgrounds. However, certain populations are excluded, such as prisoners, the homeless, the members of certain religious groups, and students living in dormitories. Therefore all of the respondents correspond to an adult population of working age living in ordinary households. To facilitate a certain number of studies of specific problems, logical stratification measures were taken in the sample draw.

When the data base was set up, in order to ensure that the group of respondents was in conformity with the national population as it is known through other national surveys, it was adjusted, leading to the use of weighting for each respondent. All of the calculations were done using this weighting. INSEE has placed a methodology report on its website with additional details on these aspects.

The tests used

The IVQ survey was designed using the conception of illiteracy and basic skills proficiency specific to France. Therefore, oral comprehension exercises related to simple texts are proposed (in order to subsequently determine whether failure is due to a lack of comprehension of the language), along with comprehension tests on short texts, tests involving the reading of words, groups of words or sentences, and the writing of simple words. It was also decided to refrain from calculating scores for the exercises or tests, but rather to assign levels according to success percentages. Thus when exploiting the data from the IVQ survey, it was decided that the category of "people with low

literacy" would be composed of adults between 18 and 65 (field of the survey) having achieved very low results[8] during the tests on the fundamental aspects of written communication. This simple construction can be used immediately and easily.

The tests proposed during the IVQ survey are organized into modules. The modules administered to all respondents (the orientation and oral comprehension modules) explore the reading of words, written and oral comprehension, and arithmetic (orientation and numeracy modules). Another module, referred to as the "high level" module, explores the competences of respondents with no particular reading difficulties in more depth, using varied materials (e.g., a TV programme). The ANLCI module, designed for respondents who had literacy problems with the orientation module, explores their ability to read and write words and to comprehend a simple text. The choice of exercises and their fine-tuning were the subject of research projects involving teams from several universities[9]. Efforts were especially focused on defining the survey methodology in order to guarantee the best possible data quality and avoid the biases that often affect this type of survey (Murat, 2005). Several experiments were carried out in the field to fine-tune the questioning procedures and set up a psychometric control of the modules including the 2002 field trial test. This large-scale methodological investigation made it possible to validate the questioning procedures used for the 2004/2005 IVQ survey and the following IVQ surveys.

Impact of IVQ surveys

As far as adult education is concerned, the IVQ survey has been a success in France. Its results are reported on and used by all of the national and local political and administrative officials, as well as by most academics and almost all NGOs. Extensions financed by the local public authorities were carried out in three metropolitan regions in 2005 and in 5 regions in 2011, but also in all regions of France's overseas territories since 2006. In addition to the methodological quality and the size of the samples, this success can be attributed to several factors:

The tool design quality, achieved by involving university teams familiar with the target population (especially for the ANLCI module). Indeed, in the case of adults, statistical knowledge alone does not allow the design of a tool that can be recognized as valid by practitioners. Since the validity of assessment tools for adults can only rarely benefit from external data that make it possible to confirm the external validity of the tools (or surveys), the choice of recognized experts is essential, at least during the first phases of tool development. (Jeantheau, 2008)

A communication strategy in which the ANLCI took into account the preoccupations of both the statisticians or researchers and the decision-makers. Communication on the figures was carefully targeted, and different documents were drafted for different decision-making levels; they were easy to read and understand but also highlighted aspects

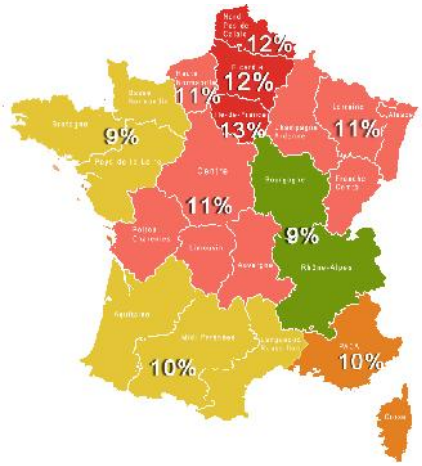
[8] Less than 60% success in one of the three areas described as fundamental to literacy.

[9] The work on the orientation module, the oral module and the ANLCI module was done by the team at the PsyEF lab of the Université Lyon 2, led by Jean-Marie Besse. The numeracy modules were the work of the team led by Camilo Charron and Claire Meljac at the Université Rennes 2 and the Hôpital St Anne, and the "high level" module was the responsibility of H. Tardieu's team at the Université Paris V.

of the results that, scientifically recognized, were in line with the preoccupations of the decision-makers. For example, IVQ figures are the main reference (15 pages) for the 2013 official report, "preventing and combating illiteracy" submitted to Mr. SAPIN, Minister of Labor, Employment and Vocational Training and to Mrs PAU-LANGEVIN, Deputy Minister for Educational Success[10].

The flexibility of the studies conducted: they were always designed to meet the preoccupations of ANLCI partners or to immediately respond to topical issues under public debate. For example, the results of this survey were used to make a distinction in public policy between fighting "illettrisme" and teaching French as a foreign language. Indeed, the IVQ showed that the populations concerned by the first issue were much larger than those concerned by the second (maps 2,3,4).

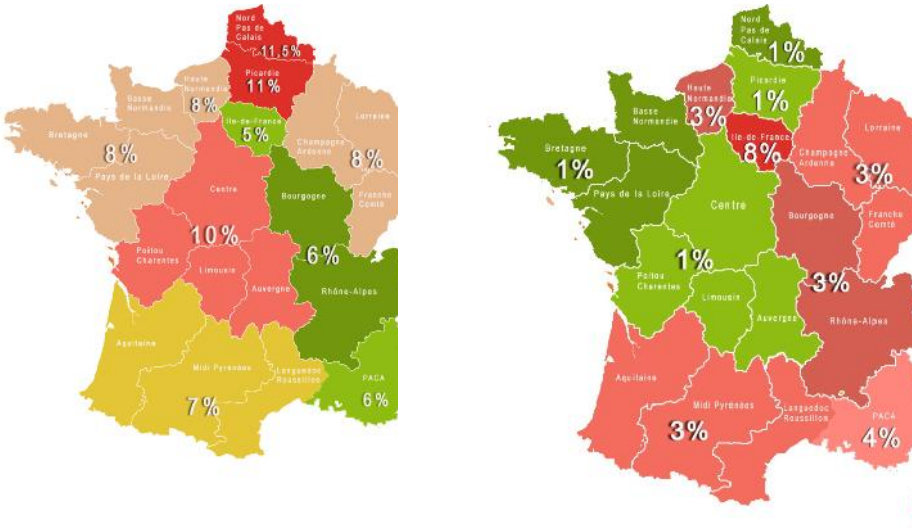
Map 2: IVQ 2011 illiteracy rates by Regions and aggregated regions



Data from IVQ 2011 (INSEE), computed by author.

Map 3 and 4: "illettrisme" rates, on the left, and French as a Foreign Language rates (no initial schooling in France) on the right

[1010] Summary and full report available in English on the web site: www.cnfptlv.gouv.fr



Note: the comparison of the maps shows that Ile de France (Paris region) is the region with the lower "illettrisme" rate but in the same time the region with the higher FFL rate. This situation is very different of the Nord's situation, even if the global illiteracy rates of the two regions are close to each other.

The survey also served as a basis for reflection to modify governmental projects that concentrated all of the resources for fighting illiteracy in the most underprivileged neighbourhoods, by proving that this type of concentration would deprive 90% of the people with low literacy levels of State aid. Moreover, since the survey showed that most people with low literacy levels were at work, the law was modified to expand vocational training programs (financed by companies for salaried employees) to include the fight against illiteracy. The same observation supported the efforts of certain professional branches to set up targeted programs (the figures taken from the survey concerning each professional branch contributed even more to this aspect). Since 2009, this positive trend is continuing by the development of new IVQ surveys using the improved IVQ assessment tools and methodology in order to gather literacy data concerning the workers of several professional branches.

In addition to the three success factors mentioned above we can add that the particular impact of this survey is also linked to the fact that most of the organizations in charge of actions in the field (they are numerous in France) were involved in the project from the start and associated with the processing of the results. They have truly taken ownership of these results, a real sign of success.

Towards a system of indicators

In recent years real progress has been made to coordinate the efforts of the different players involved in the fight against illiteracy in France. Decision-makers have become aware of the multi-faceted nature of the issue and the necessary diversity of actions to be implemented in order to reach a wide public. Many policies have been

implemented and all are justified in their context. No single policy can make significant progress alone in the fight to improve access to the written word for all. The effectiveness of these policies can only be reinforced by coordinating the actions they deploy. Each partner or group of partners, along with the national coordinators and public authorities, needs statistical information. Some bodies have already set up indicators that correspond to their needs, such as the Military Registration Day tests of the Ministry of Defence, the prison entry tests for the Ministry of Justice, recruiting tests for vocational training organizations, etc. Other bodies have requested indicators, such as the National Employment Agency, the National Training Centre for Local Civil Servants (CNFPT), or certain NGOs. One of the ANLCI's current tasks consists in harmonizing the existing literacy indicators to make all the stakeholders speaking with the same statistical references. Thus, a study to create a bridge between the JDC/JAPD and the IVQ tests was completed in December 2008, another focusing on a link between the prison entry and the IVQ tests was carried out in June 2009.

The Vocational Training Agency (AFPA) was the first to use the IVQ tools in 2006 (ANLCI modules) in a study on 1000 candidates entering training courses. Other training organizations such as the National Training Centre for Local Civil Servants (CNFPT), representing several million local civil servants, have expressed their need for tools to help them identify individuals who could benefit from basic skills training. The CNFPT has chosen to align itself with the ANLCI's definition of "illettrisme", and since November 2007 it has been developing an assessment tool called EVADO compatible with the IVQ survey to be used on the Internet or with a DVD (2012), in collaboration with the ANLCI and the Caisses d'Epargne Foundation for Solidarity. Taking in consideration the last evolutions of the new governmental foundation of basic skills introduced by Decree at the very end of 2014, actually a new update of EVADO is carried out.

Conclusion

The development of tools to assess low literacy levels of adults is fairly recent in France. It was inspired by the recognition of the need to implement a national policy and encourage cooperation between stakeholders. The system is mainly designed to supply information to help manage public policies, even if it also assesses other subjects. It concentrates on the fraction of the population that is the focus of a public policy. This approach is fairly similar to the PIAAC, even if it is more radical and more in-depth, and therefore in the end simpler, more pragmatic, and less expensive. In addition to this method, it appears that rather than a national (or international) survey conducted with intervals that are often quite long, it would be extremely useful to have access to a large number of comparable surveys that could regularly or continuously supply reliable information concerning the different policies deployed. The "large-scale surveys" could then be used to place local indicators in better perspective. The cost of such a method, where the participants enter a tool-sharing process, could be considerably lower than that of an international survey, and at the same time more immediately useful.

References

ANLCI., *Lutter ensemble contre l'illettrisme. Cadre national de référence*. (*Fighting Illiteracy Together*, *National Guidelines),* ANLCI, Lyon, 2003

ANLCI, under the direction of J.-P. Jeantheau, *Les chiffres de l'illettrisme*, ANLCI, Lyon, 2010

CNPTLV, *Preventing and combating illiteracy*, CNPTLV, Paris, 2013

DEPP, Direction de la prospective, de l'évaluation et de la prospective. Ministère de l'éducation nationale *Les évaluations de lecture dans le cadre de la journée d'appel de préparation à la défense. Année 2013*, *Note d'évaluation*, n° 12.14, Ministère de l'Education nationale, Paris, 2014.

J.-P. Jeantheau, and F. Murat, *Les évaluations en lecture dans le cadre des journées d'appel de préparation à la défense* (Reading assessment during the compulsory military call-up days). Note d'information, Paris. 1999.

J.-P. Jeantheau, "Low levels of literacy in France First Results from IVQ Survey 2004/5 Focus on the ANLCI Module" in *Literacy and Numeracy Surveys*, Melbourne, 2006.

J.-P. Jeantheau, « IVQ-Erhebung 2004/2005: Schwerpunkt ANCLI-Modul und erste Ergebnisse ». In: A. Grotlüschen und A. Linde., *Literalität, Grundbildung oder Lesekompetenz? Beiträge zu einer Theorie*-Praxis-Diskussion, Waxmann, S. 57–69, Münster, New York, München, Berlin, 2007

J.-P. Jeantheau, "The national survey IVQ a basis for an indicator net and an opportunity for research.", in *The methods and Applications of Research on Literacy,* NIKL, Seoul, 2014

N. Jonas, *Pour les générations les plus récentes, les difficultés des adultes diminuent à l'écrit, mais augmentent en calcul, INSEE première N° 1426* , , INSEE, Paris, 2012

B. Lahire *L'invention de l'illettrisme*, La Découverte, Paris, 1999

Professionalisation of adult basic skills teachers – issues and challenges across Europe

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Introduction

This paper starts from two premises. Firstly that that adult basic skills are highly important in modern societies, in both economic and social terms, and secondly that this area of education provision is among the most challenging and skilled areas of teaching. It will argue for the importance of subject specific initial and continuing professional development as a key element of the policy structure needed for an effective basic skills teacher training system.

In developing this argument we will draw on discussions within a recently completed EU Learning Partnership. BASKET – Professional development of basic skills trainers[11] was funded by the Lifelong Learning Programme of the European Commission, under the Grundtvig learning partnership action. The project was implemented within the period 2011-2013 by a consortium of 8 partners from Europe: Norway, Germany, Switzerland, Hungary, Scotland, England[12], Romania and the Czech Republic[13], each at a different stage of development of systems to support improvements in the basic skills levels of their adult populations. The aim of the project was to explore national systems for the professional development of adult basic skills teachers. It also explored country specific challenges[14].

Keywords: teachers, basic skills, professionalization, profession, continuous professional development

The importance of adult basic skills

For the BASKET partners the term 'adult basic skills' encompasses the literacy, language and numeracy skills adults need to function in daily life. By literacy, is understood the ability to read and write; by language, the knowledge and understanding of the host country language; and by numeracy, the ability to understand and apply numerical concepts. For some BASKET partners digital skills, such as searching the internet, using email and simple office applications was also included.

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[11] http://basket.vox.no/

[12] Education is a devolved area in the United Kingdom meaning that Scotland and England have separate systems of education, including adult basic skills.

[13] http://basket.vox.no/?page_id=146

[14] The BASKET partners are also members of the European Basic Skills Network (EBSN), a non-profit association gathering policy makers and policy providers engaged in basic skills training for adults. EBSN's vision is to make sure that all inhabitants of Europe have the level of basic skills they need to have access to lifelong learning, ensure their employability and be active citizens. EBSN advocates the importance of creating good models and systems for training basic skill teachers for adults. It promotes the development of models for delivery of the training as well as focusing on how to support and motivate teachers to attend such training.

The importance of basic skills development is emphasised at the highest level within Europe. The *EU High Level Group of Experts* on Literacy (European Commission 2012) was set up to advise the European Commission on policy responses available to member states in the face of concern about literacy levels following the publication of the results from PISA, the OECD's Programme for International Student Assessment, which found that one in five 15 year-olds in the European Union member states has 'insufficient reading skills' (European Commission 2012, 9).

The focus of the High Level Group's work was on literacy, specifically reading. However, it took a view of literacy as multi-dimensional, recognizing its links with areas such as language, numeracy, and digital and competences.

> *Literacy is about people's ability to function in society as private individuals, active citizens, employees or parents. … Literacy is about people's self-esteem, their interaction with others, their health and employability. Ultimately, literacy is about whether a society is fit for the future (*European Commission *2012: 11).*

In November 2012, in response to the report of the High Level Group, the Council of the European Union adopted conclusions on adult basic skills (European Council 2012). The Council acknowledged the crucial role of basic skills in empowering individual citizens and enabling them to play a full role in society. It called for a renewed European agenda for adult learning and broader learning provision for adults in the EU who lacked basic skills describing such provision as "*an effective way to combat the root causes of early school leaving, unemployment and limited participation in lifelong learning for the low-skilled*" (European Council 2012: 3). They noted also the negative impact of low basic skills levels on countries' ability to engender sustainable economic growth.

The recently published OECD Survey of Adult Skills (OECD: 2013) highlights the cost to individuals of poor basic skills:

> *The median hourly wage of workers who can make complex inferences and evaluate subtle truth claims or arguments in written texts is more than 60% higher than for workers who can, at best, read relatively short texts to locate a single piece of information* (OECD: 2013, 3).

The OECD takes a broad approach to what it calls "key information-processing competencies" rather than basic skills. The Programme for the International Assessment of Adult Competencies (PIAAC) assesses the proficiency of adults from age 16 onwards in literacy, numeracy and problem solving in technology-rich environments. It also emphasises that those skills are relevant to adults in many social contexts and work situations, and are necessary for fully integrating and participating in the labour market, education and training, and social and civic life.

The demands of society are dynamic, requiring the improvement of skills - whether "basic skills" or "essential skills" or "key information-processing competencies" - throughout the entire life of an individual. What these skills encompass has extended over the last 20 years due to changes in the nature of work, the economy, information technology, educational expectations and society more generally. The EU High Level Group report (EC: 2012, 26)

recognises that, due to technological progress, adults face greater demands on their literacy and numeracy skills in the workplace and also for effective social and civic participation.

The international report of the recent OECD Survey of Adult Skills (OECD: 2013, 46) stresses the enormous changes that have taken place in recent times and the impact of those changes on the demands made on citizens. The report suggests a number of factors that have contributed to the growth in the importance of adult basic skills, among them the fact that access to computers and other information and communication technologies (ICTs) is widespread and growing and that such ICTs are changing how services are provided and consumed, requiring citizens to engage with more and more complex textual information than before. The report also stresses that employment in services and high-skilled occupations is growing, adding significantly to the basic skills demands on employees:

> *It is no exaggeration to use the word "revolution" when talking about how our lives have changed over the past few decades. Today we rely on information and communication technologies and devices that hadn't even been imagined in 1980. The way we live and work has changed profoundly – and so has the set of skills we need to participate fully in and benefit from our hyper-connected societies and increasingly knowledge-based economies* (OECD 2013:3).

The risks of the social and economic exclusion of a significant proportion of adults are clear, with negative consequences for individuals and society. As literacy, numeracy and digital skills become more important and relevant than ever before it is vital for the health of our economy and society that EU citizens are supported in improving their basic skills.

Teaching adult basic skills

The difference good teaching makes to the strength of a national education system has been recognised. An influential 2010 analysis of the world's best school systems concluded that "*the quality of an education system cannot exceed the quality of its teachers*" (Mourshed et al: 2010, 16). The report authors went on to state that of all the controllable factors in an education system the most important by far is the quality of teaching and that this is heavily influenced by the selection and training of teachers. In this, the adult basic skills system is no exception. In fact, we would argue that such is the complexity of the task faced by the adult basic skills teacher that their initial and ongoing training are of fundamental significance for the success of countries in addressing the basic skills needs in their populations.

It is clear then that addressing low levels of adult basic skills is vital for the health of our society and that teachers of adult basic skills have a particularly important role to play. However, this role is far from straightforward. There is a tendency to assume that teaching basic skills is a simple task. Actually, it is one of the most challenging and skilled areas of teaching. Adult basic skills teachers are often confronted with learners for whom traditional or

simple methods of learning to read or write or use numbers have not worked. This negative prior experience of education, or, equally, a lack of familiarity with formal education (for those who missed out on much of their schooling for a variety of reasons), plus the experience of coping with adult life without such important skills, means that a deep level of teacher knowledge and expertise are required.

If we want adults to improve their skills through formal and non-formal education initiatives then we need to recognise that teachers require opportunities for initial and continuing professional development to equip them with the skills and understanding necessary to support the needs of adults with low levels of basic skills.

Teaching adults is different from teaching children. Teachers of adult basic skills need an understanding of adult pedagogy, as do teachers of other subjects working with adults. Knowles, (REF) an American Adult Educator who popularised the theory of andragogy, observed that adults learn best when: (1) they understand why something is important to know or do; (2) they have the freedom to learn in their own way; (3) learning is experiential; (4) the time is right for them to learn; (5) and the process is positive and encouraging. These are important general principles and can be equally applied to adult basic skills learners. However, prospective teachers of adult basic skills have more to learn than other teachers of adults. The former do not start with recognised background knowledge of their subject in the same way as vocational teachers or other teachers of adults do. Teachers of adult basic skills do not bring an identifiable professional or vocational identity to their training course with them. For someone a vocational teaching health and beauty course, this identity might be as a hairdresser drawing on recent salon experience. Such a teacher has a dual identity as a hairdresser and as a teacher, whereas a teacher of adult basic skills has no directly-related vocational or professional field to fall back on. Teachers of adult basic skills did not gain as adults the skills they are required to teach and reflection on the nature of adult basic skills has an important role to play in preparing new teachers.

Basic skills learners need highly skilled professional to help them succeed and not re-experience earlier negative experiences (Tett, 2014). Those working in adult basic skills have to understand the context of the adult learner, recognise learners' knowledge and experience and build on learners' strengths in order to create an effective learning process. Teachers must have the skills to engage, motivate and empower learners to enable them to reach their goals in their private, family, community and working lives. Adult basic skills learners may have specific learning difficulties or be difficult to reach, due to the multiple barriers to participation in training and the labour market they face. Again this requires specific competences for practitioners to motivate and stimulate adults to learn, to increase their self-esteem, and eventually encourage them to progress towards other forms of learning.

The EU High Level Report on Literacy states that, "*...high-quality teachers and teaching lead to better learning outcomes, including literacy performance*" (EC: 2012, 44). This was recognized by the adult basic skills learners who took part in the European Commission funded *EUR-Alpha – European Network for Adult Literacy and Numeracy –*

project that took place between 2009 and 2012. In their Learner Manifesto[15] they called on EU governments to ensure that basic skills learners had access to 'specially trained teachers'.

In this paper we address the need for the professionalisation of adult basic skills teachers. We cannot make the assumption that we already have a "profession" for basic skills teachers across Europe (Nuissl, 2008). Indeed, the role of the adult basic skills teacher is under-valued in many EU member states. There is a lack of established systems for the training of adult basic skills teachers, with no established professional development pathways in many member states, and no formal qualification requirements for those teaching adult basic skills. Moreover, there is no common European frameworks or standards for professional development. There are also differences between countries in how they approach continuing professional development (CPD).

Training adult basic skills teachers

In 2006 the National Research and Development Centre for adult literacy and numeracy (NRDC), at the Institute of Education, London carried out a review of international literature on basic skills teacher education covering work on all types of professional development relevant to the needs of teachers of adult literacy, numeracy and language: primarily initial teacher education programmes, but also continuing professional development (Morton et al 2006). The review makes a number of suggestions for the design of teacher education programmes for basic skills teachers.

Such programmes should start by providing opportunities for teachers to explore their own beliefs and values relating to what and how they teach in the context of teaching adult literacy, language or numeracy. There can be conflict between the knowledge base as espoused on the course and participants' own practices and beliefs, which are often derived from their prior experiences as learners. Such beliefs should be acknowledged and challenged to avoid unconscious replication of school-based practice.

Trainee teachers are also adult learners and so teacher education programmes should be based on what is known about how adults learn, both in terms of the pedagogies that participants will use with their own learners, and in terms of their own lifelong learning as adult educators.

Teachers of basic skills need rich, flexible networks of subject matter knowledge, but we should not assume that raising the level of subject matter in syllabuses on its own will have a direct effect on practice.

Teachers of basic skills need rich, flexible networks of subject matter knowledge, but we should not assume that raising the level of subject matter in syllabuses on its own will have a direct effect on practice; subject matter knowledge alone is of little use without the knowledge of how to teach it.

[15] http://www.eur-alpha.eu/IMG/pdf/manifesto_ukbat2.pdf

Best practice in basic skills teacher education is to avoid an "application of scientific knowledge" approach and instead to support trainee teachers in integrating the theoretical and practical ideas they are confronted with.

Basic skills teachers need to develop competence in teaching in less formal arenas than a traditional classroom. They need, for example, to operate in workplaces or in prisons or in community contexts and may need to experience this as part of their initial teacher education. However, there is no guarantee that what works in one context – e.g. a small community group with older adults – will transfer effectively to another context – e.g. a young offenders' institute. Thus, teachers need access to conceptual frameworks which allow them to articulate their own perspectives on learning and teaching, and to reflect critically on the wider institutional, policy, social and cultural issues that enable or constrain their practice.

Teachers should be taught as they are expected to teach by taking part in practical professional development activities, which not only support their acquisition of relevant subject matter knowledge, but help them to "see" the subject from their learners' point of view. Above all education programmes for adult basic skills teachers should be designed with an understanding that gaining expertise in teaching is a process with various stages. Teacher learning should be seen as career-long, and licensing of newly qualified teachers should ensure an extended period of structured education and development following initial training.

Competences for teachers of adult basic skills

There is a lack of agreed competence profiles for teachers of adult basic skills at the European and national level (see Lattke 2008, p. 160f), but there have been a number of recent and notable attempts at the EU level to specify the competences required.

Firstly, the partnership behind the EU Grundtvig project "*TRAIN – Professionalization of Literacy and Basic Education – Basic Modules for Teacher Training (2006-2008)"* carried out explorative research to obtain more information about actual skills and the competence needs of those working in the field in the participating countries (Cyprus, France, Germany, Ireland, Slovenia and Switzerland). A questionnaire "*Profile of competencies in the field of literacy and basic education*"[16] was developed and sent out to researchers, trainers and managers working in the field of basic skills.

The resulting TRAIN framework specifies five competence categories:

Competence categories	
1. skills and abilities	The ability to recognise blockages and learning difficulties and to reflect on these with learners.

[16] See: http://www.die-bonn.de/train/english/materials/questionaire_english.PDF

	The ability to teach with person-centred methods
2. *professional competence*	knowledge and experience in adult education in general and in the field of basic skills as well. The need to deal with heterogeneous learner groups
3. *Methodical expertise*	knowledge of different approaches and methods of basic skills acquisition knowledge and abilities regarding learning styles, person-centred approaches, self-directed learning and use of ICT
4. *soft skills*	The ability to establish an environment for learning based on respect, appreciation and partnership
5. *personal competence*	The ability to reflect on and change personal moral concepts as well as attitudes regarding teaching and learning

Alfarådet, The Nordic Adult Literacy Network: *Description of Teachers' Competence in initial and functional literacy for adults with non-Nordic mother tongues"* (2013), drew up a description of the competences required for the teaching of basic skills by defining six different competence areas. Each area is sub-divided into *knowledge* and *skills and actions* with very detailed advice and directions:

1. Literacy in a global, local and individual perspective. Theoretical and didactic aspects and approaches. The teacher applies, and converts into didactic practice, various scientific theories of literacy – drawing on research - in their daily teaching work and is aware of how the individual's and society's values and attitudes to literacy affect both, policy planning as well as teaching, but also the participants' daily lives.
2. Adult formal learning in a creative and critical learning environment based on teachers' reflective practice and learners' learning goals. In interacting with the learners the teacher refers to their background, daily lives and goals. The teacher adapts content, didactics, and methods in order to suit the learners' level and creates a supportive and creative adult learning environment while constantly reflecting on own teaching practices.
3. Materials for adult learning multimodal, up-to-date and challenging. The teacher is capable to analyse, choose and utilise adequate teaching and learning materials according to the learners' needs for current and further situations.

4. Teaching oral communicative competence without written support to adult second-language learners. In cooperation with the learners, the teacher develops their oral communicative competence by referring to their resources, cultural background and communicative needs.
5. Initial and functional literacy for adult second-language learners. The teacher has theoretical, didactical and methodical knowledge concerning reading and writing skills and converts that knowledge into an adult-oriented, challenging and communication-based learning environment.
6. Basic Everyday Mathematics (Numeracy) for Adult Second-Language Learners. The teacher uses the learners' practical experience of mathematical situations as a basis for the development of communication-based mathematical skills adapted to the learners' individual everyday needs.

Developing basic skills teacher education

The BASKET Learning Partnership produced a set of recommendations for developing professional adult basic skills teachers in Europe that go beyond the specific content of basic skills teacher training programmes to look at the place of these programmes within wider national education systems. The recommendations, aimed at decision makers, researchers and other stakeholders in adult basic skills, are informed by the work of the TRAIN and EURALPHA projects as well as previous research in this area.

Initial and continuing professional development for basic skills teachers

BASKET recommendations:

Teachers of basic skills for adults should undertake initial professional development with a focus on three main aspects of the role: 1) teaching adult learners; 2) subject-specific knowledge and understanding; and 3) developing expertise in the teaching methodology of the specific subject.

However, even in member states where initial teacher training exists and offers a quality baseline, it needs to be enhanced and developed through regular continuing professional development (CPD), which supports practitioners in updating their theoretical and practical knowledge and understanding. Unfortunately, there are currently very few opportunities for basic skills teachers to engage in CPD. Professional development needs to be valued and teachers provided with space, time and, where possible, funding to undertake qualifications and training.

Models for delivery of CPD should be as flexible and accessible as possible. A variety of formats need to be considered for delivering CPD to fit into busy people's lives and help to motivate them so that good teachers are not lost. ICT and blended learning make it possible for teachers to access training at a time and place that are suitable for them. Module-based training enables teachers to learn more about a particular subject that is of interest to them and helps their professional development. Flexible pathways through CPD with prior recognition of learning should be

developed to facilitate the movement of some existing schoolteachers and teachers of other subjects to adults into the adult basic skills workforce.

Effecting change: building the infrastructure to support the development of adult basic skills

The BASKET partners recommend that countries should include adult basic skills as a permanent part of their national education system, rather than as a short-term solution to solve a temporary problem. In some countries the infrastructure for developing a workforce of basic skills teachers is at the formative stage. Awareness raising about the ever shifting uses of literacy, language and numeracy in modern societies is an important initial and underpinning stage in the development of a coherent national policy for basic skills. In advocacy work with policy makers, use should be made of available national and international data on the impact of poor basic skills as well as individual case studies focusing on the individual, family and societal impact of low basic skills.

As the *3201st European Council Education, Youth, Culture and Sport Council meeting: Council conclusions on literacy* pointed out:

> *Monitoring skills levels in the adult population and engaging businesses, media, NGOs, social partners, cultural institutions, as well as social, employment and health services at local level, should form the basis for strategies aimed at increasing awareness of literacy problems in society as a whole. (*European Council 2012)

Basic skills development should be included as a specific area within the national strategy for Lifelong Learning. The EU Commission criteria for *National Strategy Reports on Social Protection and Social Inclusion* should include useful reference to basic skills levels in the adult population and steps being taken to address low levels of basic skills.

Awareness-raising should also take place with individual citizens emphasizing the impact of improving basic skills on their life chances and encouraging them to take responsibility for the development of their skills.

Standards, Frameworks and Funding

There are currently no common European qualification frameworks or standards for the professional development of teachers in the field of adult basic education. There are national systems of standards in some countries (give good practice examples), but for member states wishing to create systems where nothing is in place, a European reference point would be very helpful.

Access to funding to engage in teacher education and continuing professional development is reported by many as a major barrier to improving the quality and effectiveness of the basic skills teaching workforce.

Wider European support

Poor basic skills is not just a national problem, it is a shared European issue that all member states need to address. The size and the make up of the low-skilled group in each country may differ, but there are many people in

each country who would benefit from improving their literacy, language and / or numeracy. However, countries are at different stages of development in terms of addressing these concerns. The expertise and experience built up in certain EU countries should be shared with those who are at an earlier stage of development. There is a need to make such knowledge accessible to others and available for transfer. Sustained mechanisms should be developed that provide countries with access to expertise and experience built up in other countries: frameworks, advocacy strategies, structures, content etc. The EC should facilitate the transfer of effective policy initiatives.

Conclusion

The demands of society are dynamic and the range of essential basic skills has extended over the last 20 years, largely due to technological progress, requiring us all to improve our skills as we progress through life. And yet basic skills teachers are often undervalued. It is easy to assume that teaching basic skills is a straightforward task. Many people believe that as the skills they teach are "basic" that it must also be "basic" to teach them. In fact adult literacy, language and numeracy are complex capabilities and teachers who support adults in trying to improve their basic skills require high levels of empathy, knowledge and skills in order to perform well.

References

Alfarådet, the Nordic Adult Literacy Network (2013) *Description of teachers' competence in initial and functional literacy for adults with non-Nordic mother tongues*. http://www.nordvux.net/download/7330/english_brochure_for_printing_with_bleeds.pdf accessed 01/09/14

EUR-Alpha (2012) *Charter – Tutor Training for the self-determination of literacy learners*. Brussels. Online: http://www.eur-alpha.eu/IMG/pdf/charte_ukbat3.pdf accessed 01/09/14

European Commission (2012) *Act now! Report of the EU High Level Group of Experts on Literacy* Brussels: EC.

European Council (2012) *3201st EDUCATION, YOUTH, CULTURE and SPORT Council meeting Council conclusions on literacy* Brussels: EC.

Knowles, M. S. (1980). *The modern practice of adult education: From pedagogy to andragogy.* Englewood Cliffs: Prentice Hall/Cambridge.

Morton et al (2006) *A literature review of research on teacher education in adult literacy, numeracy and ESOL* London: National Research and Development Centre for adult literacy and numeracy (NRDC)

Lattke, Susanne (2008): Challenges and Options for Further Action. In: Nuissl, E./Lattke, S. (eds.) *Qualifying adult learning professionals in Europe*. Bielefeld

Lave, J. and Wenger, E. (1991) *Situated Learning. Legitimate peripheral participation*, Cambridge: University of Cambridge Press.

Mourshed, M., Chijioke, C. and Barber, M. (2010) *How the world's most improved school systems keep getting better.* New York: McKinsey and Company.

Nuissl, E. & Lattke, S. (eds.) (2008) Qualifying adult learning professionals in Europe. Bonn: Bielefeld

OECD (2013) *Skills Outlook 2013 First Results from the Survey of Adult Skills*: Paris: Organisation for Economic Cooperation and Development

Tett, L (2014) *Learning, literacy and identity: 'I don't think I'm a failure any more' British Journal of Sociology of Education* DOI: 10.1080/01425692.2014.939265

Work-related basic education - Human resources development for low-qualified people?

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Abstract

This article focuses on the education-political strategy of reaching low-qualified workers in companies through work-related basic education. Starting from the question of why further education of low-qualified is currently so high on the agenda and of what the obstacles are we mainly present work-related basic education as an operational concept of education. Based on actual needs for competence development, this concept tries to overcome two barriers: to raise awareness for further education of low-skilled employees in the companies and to turn learning into a useful experience for both companies and employees. The following will become clear: after seven years of research and development we do not have any knowledge deficits about how work-related basic education can be designed anymore; the implementation still faces high hurdles.

Keywords: work-related basic education – low skilled employees – demographical development – literacy – competence development

The state of continuing vocational and in-company education and training of the low-qualified

If businesses in view of demographic changes are now forced to develop qualified professionals from their staff, they will focus on those who have not been in the centre of HR strategies yet – the so-called low-qualified without any recognised or in less demand professional qualification. Here lies an extraordinary reservoir in the companies. Out of the young adults (20 to 34 years), just over 2 million did not have a vocational degree in 2011; the quota of 14 to 15 percent of unskilled workers in that age group has remained stable over time (Bundesinstitut für Berufsbildung 2014). This shows that this group has not been in the focus of education-political interventions so far and has not played a role in the companies' HR policy. The results of PIAAC Germany have also shown that "people who did not adequately learn certain basic skills in the German education system (and therefore attained only low levels of proficiency in PISA) can hardly compensate for these deficits in later life. There are probably many reasons for this: These people have limited chances of obtaining (vocational) training, participating in the labour market or finding a cognitively challenging and stimulating job. Moreover, their participation in further education and training is comparatively low. Hence, opportunities to improve inadequate skills in adulthood are lacking" (Rammstedt et al.

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2013). The German PIAAC national supplementary study with the focus on the low qualified highlighted the result "that the subgroup with the lowest levels of proficiency has the lowest rate of participation in formal further education and training" (ibid.). This is also evidenced among other things for example by the education voucher system of North Rhine-Westphalia. In NRW, employees can receive a support of 50% for their further education from the state; the other half can either be paid by the employer (business approach) or by themselves (individual approach). The low-qualified are highly underrepresented in the business approach.

Another background for this is – amongst others – the result of the LEO Level One study which assumes that out of the 7.5 million people in Germany who do not have sufficient reading and writing competences, 56% are employed (Grotlüschen /Riekmann, 2012). It is assumable that they often belong to the group of low-qualified people.

As aforementioned, this article concentrates on the low-qualified whose common feature is the lack of a recognised professional qualification. The Federal Employment Agency defines the low-qualified as those, 'who do not have a professional qualification or those who do have a professional degree, but have worked in a semiskilled or unskilled job for at least the past four years and do not work in their original job anymore'. The Institute for Labour Market and Employment Research defines the low-qualified as those, 'who do neither have completed any vocational training nor any education at a vocational school or university'. These definitions focus only on official formal qualifications and do not take sufficiently into account that some of those so called low skilled are highly capable and do a professional job. On the other hand the job income is no indication as to being qualified or low-qualified. Germany has gathered the quantitatively biggest low-wage labour market in Europe and watered down the connection between vocational levels and the level of income. The number of low-wage workers increased since 1995 from 5.9 to 8.4 millions in 2012. Just over than three quarters of those have a formal training qualification (66.8%) or an academic degree (8.6%). It is thus not that easy to find a clear definition for the low-qualified. Even trying to connect it to the complexity of vocational requirement structures is not very successful. Also supposed 'simple job' require increasing capacities. If you have ever watched an assistant for dement people – a typical so-called 'simple job' for the low-qualified – you would know how inappropriate the term 'simple job' is here.

More investment into education is necessary

Cost aspects

The employment risk of the low-qualified shows which economic and of course individual effects can be observed. It is not surprising that low-qualified workers have a higher risk of becoming unemployed than other groups of employees. The rate of unemployment for low skilled is with 19 % around four times higher as for people completed some sort of vocational training. In the group of those without training qualification is one in five unemployed. The central problem is that the duration of unemployment has changed significantly. When a low-

qualified worker lost his job in 1992, he had to expect to stay unemployed for 0.8 years; in the year 2000 it was already 1.4 years and in 2008 he had to expect to be unemployed for 2.5 years. The following applies to low-qualified workers: who becomes unemployed, stays unemployed for a long time. The descent to the so called "Hartz IV" (very limited unemployment benefit / payment of social security contributions) is predestined for this target group. What hinders low-qualified workers to ensure and broaden their employability through vocational training?

Reasons for abstinence – people far from education or education far from people?

When taking a closer look at empirical evidence (Schiersmann 2006, Baethge, Baethge-Kinsky 2004, MacKeracher et al. 2006), one can see some confusing findings about the reasons for abstinence from further training of this group. 41.9% of the respondents without professional qualification do see a demand for further training for themselves, but only 23% do attend training. What are the barriers that keep them from doing what they consider important? It is not – what would be likely to be expected – the costs, those are subordinate.

Barriers to further training	Without professional qualification	Unemployed	Older than 50
Lack of benefit	30,7%	44,0%	58,8%
Stress/lack of time	28,9%	10,3%	20,2%
Lack of information / supply	24,9%	24,5%	14,1%
High costs	12,7%	19,0%	3,8%
Lacking quality of further training	2,7%	2,2%	3,2%

Schiersmann 2006, p. 48

Hefler et al. find different barriers to further training (2013, p. 94):

Situational barriers	Conditions that hinder participation individually	Role conflicts, well-planned life, missing resources: time, strength, money Missing support from the environment
Cognitive barriers	Missing competences that are	Ability to read / write / calculate

	assumed in most training courses	Computer literacy Reflective faculty Attention span Provision of information
Institutional barriers	Conditions that limit the access to groups of supply	Missing entrance prerequisites Missing support
Dispositional barriers	Patterns of attitude that do not make participating in further training attractive	Self-confidence / self-reliance Attitude towards the use of training Negative early learning experiences Feeling isolated in the learning group Health impairment

One-dimensional attempts of explanation like assuming a general distance from education do not explain anything; at best they relieve the education-political decision makers because they put the responsibility for the lack of participation on the individuals.

Levers for reaching the low-qualified

Since the barrier issue is so differentiated there is not the one lever but there will have to be development at the different levels. This can apply to

- forms of knowledge that are supposed to be spread with the seminars
- the way of consulting which education providers offer respectively the design of access for people interested in basic education
- learning and teaching formats as a differentiated frame for learning design
- didactic considerations and therefore also the learning goals which are supposed to reach the low-qualified.

It has to be assumed that in light of the heterogeneity of interests and demands, of living conditions and the individual perspectives (cf. PIAAC results), we will need much more differentiated access forms, learning / teaching formats and didactic orientation than we have at the moment.

Design of vocational-operational training for low-qualified employees

We will now concentrate on work-related basic education as an area of practice of the continuing vocational and in-company education and training of the low-qualified and the question how employers and employees can be reached. What is to be considered for designing the learning surroundings and which didactic and methodical approaches have proven themselves useful? The background for this are practices of work-related and workplace-oriented basic education from the Ministry's first and partly also the second funding priority of basic education and alphabetisation of adults.

What is work-related basic education?

Work-related basic education stands in an education-theoretical tradition and is a pedagogic concept which includes broad educational goals like reflexion faculty, autonomy and identity. It is hence more than just imparting cultural techniques like reading, writing, and calculating and - not only in the case of migrants - also speaking. We inherently advocate viewing the understanding of work-oriented basic education from different perspectives (cf. Klein/Reutter 2014): the programmatic perspective, the pedagogic-didactic perspective and from the perspective of compatible communication with businesses.

Work-related basic education means a continuing vocational training and in-company continuing vocational training aiming at target groups that are usually not in the focus of HR development in companies and that do usually not participate in further training. The main aspects are (cf Klein/Reutter 2014):

- Basic education includes those bodies of knowledge that are vital for an orientation in society and labour market, and those that promote inclusion and decrease the danger of exclusion. Basic education is therefore to be under-stood as an open, context-specific and process-oriented educational process.
- Work-related basic education uses the workplace to be a place and opportunity to preserve or develop employability and to enhance the flexibility of workforce in the labour market.
- Work-related basic education has a compensatory function: Within this broad understanding, work-related basic education is based on the knowledge about inter-generative educational deficits.
- It is focuses on the individuals.
- It is not deficit-oriented but uses existing, often hidden competences as a starting point for learning.
- It is focused on, but not reduced to work and does not exclude other life environments.
- It uses and develops a conducive labour organisation that supports and demands learning within the work process.

- Work-related basic education is an individual seminar concept developed and realised to match the particular company.

Using the learning potential of the workplace for training

When looking at the results of empirical research about further training, particularly the studies of Baethge/Baethge-Kinsky (2004) and Christiane Schiersmann (2006), the meaning of learning close to the workplace and work-related learning becomes evident, especially for the group of the so-called low-qualified. This does not mean that they would hold institutionalised learning places and forms of organisation of adult education to be unsuitable for them. Baethge/Baethge-Kinsky explicitly point at this: 'This indicates that the valuation of the most important learning context is mainly a matter of opportunity structures and not of motivational learning preferences' (p. 47). It is about gaining access to operational learning areas and enabling qualitatively inspiring learning experiences.

However, account being taken of the fact that work-related basic education in the company has two addressees: the employee and the organisation – the company respectively the management. There are a bunch of conditions that have to be considered during implementation; and a counselling approach is needed in addition to the teachings themselves in order to gain access to organisations and employees and to reach long-term effects. This will be discussed in the following chapters.

Finding and designing access to businesses – the challenges

Work-related basic education is not a sure-fire success

Companies see themselves as and are indeed mainly workplaces, and the actors do not simply see them as learning surroundings. Workplaces serve the gaining of business profitability and not the broadening of employees' competences which are still held to be an obligation to provide of the employees. Strangely, broadening competences is understood as an obligation to provide especially for low-qualified workers themselves (cf. Käpplinger 2009). The view into current practices shows:

- Contacting businesses works well with multipliers who are close to the company and who are convinced of the necessity to put employees into the focus of training, who are competent of building relationships, and who are experienced in building trust, or who already have a trusting relationship with the company.
- On the business side it is evident that in companies which are open for training their semi-skilled and un-skilled employees, operational concerns and the need for re-structuring processes correspond with an appreciative attitude towards their employees.

- Management and workers' representative committees only hold work-related basic education to be a useful option if they can not only see an individual benefit, but also a benefit for the company. This benefit has to be clearly describable and noticeable.

Outlining the benefits for the company: a must

Outlining the benefits is not necessarily a task close to pedagogues who are new to the field of professional-operational training. Benefit in an educationally ideal context is still a grubby category for many pedagogues; but it is compulsory for the business logic of thinking and acting. A look at the practice shows: it is not sufficient to only work with HR management because they usually do not know the on-site demands well enough. It has been useful in different practices to take the following steps in dialogic processes (cf. Abraham 2010; Behlke 2010) like initially mounted workshops for HR staff, employees' representatives, works councils and line managers (shift supervisors, nursing management, foremen):

- Informing them about chances and possibilities of work-related basic education respectively develop those approaches. One benefit from a business point of view is e.g. more qualified staff.
- Developing needs assessments and derive substantial priorities for basic education together with them
- Arranging options to take over possibilities for intervening and controlling in the process, i.e. taking management et al. into responsibility
- Making learning developments visible and getting them, especially the management, on board for the transfer.

The central message is to formulate learning causes,

- which result from specific work requirements (e.g. making short notes about skin alterations of residents, writing an accident log, criticise professionally while staying friendly and polite – cf. Behlke 2010),
- for which learning is directly connected to current day-to-day work
- by which an optimisation of this work activities can be prepared through learning, and therefore business and individual benefit is the goal.

It becomes apparent that formulating cause-related learning topics is also of interest for the low-qualified employees. They would not accept training for the enhancement of their reading, writing or calculating competences, i.e. a cognitive access to the learning subject. On the one hand because they would 'come out' as illiterate; on the other hand because they want applicable, useful learning for their working situation. If an education provider

advertised "DIY for people who are all thumbs', it would probably reach those who rate their handicap confidently and casually; those who suffer from it would surely not be reached.

Approaching employees

A current study (Ehmig 2014) shows that

- insufficient capacities in reading and writing is not a taboo issue in enterprises (as we have often believed)
- employees with low competences in reading and writing in enterprises are quite known
- not least because the employees made no secret of the fact that they have problems to read and write correctly.

This fact must be taken into consideration when planning the access paths for the target group.

Nevertheless it still holds true: Avoiding discrimination – emphasising normality: For the development of specific seminars it is therefore mandatory that their titles do not contain unwanted discrimination of the employees and that they are matching the usual titles of business trainings. It is worthwhile to devote a great deal of energy finding labels which

a) focus on the business relevance and do not form descriptions of the employees' deficits

b) refer to changing requirements at the workplace and connect to higher or new requirements for written language skills

Some specifying examples of seminars of work-related basic education[17] :

Business German in working with the elderly. Mastering daily situations verbally.

Communication with clients – mastering new and old requirements confidently. Oral and written communication requirements of dealing with clients will be trained according to the working requirements.

Documentation of working processes and results – changing requirements due to QM systems. The central requirements will be practised and stabilised in a work-related way.

Mastering shift changes – documentation for colleagues

Job change: mastering the new role as a superior. If simple workers attain a superior position, this training helps to master the role change and to stay relaxed in critical situations.

[17] See www.sesam-nrw.de: Unternehmensbroschüre

Understanding spread sheets. How do spread sheet programmes (Excel, Lotus 1-2-3, Quattro Pro etc.) work? What are their advantages, where can they be used efficiently?

Information technology – gaining basic competence for digital media. Basic knowledge will be imparted in short seminars and with examples based on real working tasks.

Developing and realising seminars with employees:

Learning content is realised together with the employees. A first reference point is their demands and their interests – e.g. enhancing their professional capacities and therefore their job satisfaction. The demands and interests are consequently used for didactics. This requires small steps. It has proven to be necessary and useful to consequently redeem this line from the first information and the first contact, during all clarifying steps until implementation. The briefings for the management and employees' representatives already have to communicate that content will be developed with the employees in order to be useful. Also informative notices have to point out that learning will refer to specific demands resulting from work. Information events which present the goals and broad subjects from the perspective of the management have proven to be useful. The management has to point out that the training will be used to meet changing requirements more accurately and that the training will refer to work.

The signal of the management's support for those purposes is essential. The developed ideas for content reinforce the seriousness of the purpose and shall be complemented, relined or even dismissed by the employees.

Didactics of work-related basic education

Learning based on real concerns

The didactics of work-related basic education are based on real concerns; these come from the employees themselves. This cannot be met by one single investigation of demands and interests. It rather requires a ritual of continuous reflection of working requirements and their action-oriented processing. An established example for this is the structural element 'current issues'. In every seminar unit, participants formulate specific issues and questions from their recent work which are then adapted as learning subjects. The descriptions first refer to certain situations and cases and will then be specified as particular action requirements, e.g. 'documenting skin alterations of residents' or 'showing error reports about XY' or 'approaching an interested client in a friendly way'.

These specific situations will then be worked on. It is thus about learners bringing up questions deriving from their work (and other living environments) and processing them with the goal of a better management which makes

them more content with their work. The examples show how manifold the demand behind the situations and cases can be and also how different the didactic concretisation can be: it can be about oral-communicative variants, about precise, briefly written and still understandable and legally correct documentation, about body language in communication, about alternative semantics in communication etc. The didactics of work-related basic education thus provide the broad range of social forms and methodical approaches, e.g. small group work, role plays, oral and written trainings etc.

Having different learning formats at hand

Work-related basic education can and has to be realised in different learning formats; and this refers to the learning surroundings as well as to size and composition of learning groups. In this article we have particularly strengthened the 'company/business' to be a good learning environment and pointed out its strengths, but also which action logics have to be considered when organising and realising learning there. The term 'work related' implies didactic thoughts about the learning environment as in that the learning environment does not mandatorily have to be in the company. Companies and/or employees are often interested in realising work-related basic education in an educational institution – be it because discrimination expected in the company can be avoided, be it because company processes will not be disturbed or be it because the learning equipment in the company is not sufficient. Work-related basic education can therefore be established in the company or in educational institutions, and it is an explicit part of negotiation to decide where the learning should take place.

Securing the learning transfer

Learning alone is not enough. The most important task for work-related basic education is to transfer what has been learned into a competence for working action. We can partly rely on this to happen incidentally but empirical evidence suggests promoting and accompanying these processes. The reason is that for one person it requires courage to apply newly learned knowledge into the reality of daily work; for another person it requires to overcome habits ('my colleague has always done this for me'); for groups of people who are labelled with the self-perception of deficits it requires breaking with traditional role patterns.

There are a few strategies for securing the learning transfer but there is definitely demand for development (cf Klein / Reutter / Rodenbücher 2014). The existing practices also show that hurdles have to be overcome in companies. The learning transfer can happen fruitfully when the system knows and practises a feedback culture which welcomes changing behaviour and changing role patterns and which makes room for changing behaviour of the employees. This feedback culture is rather underdeveloped in many companies and it can also not be developed

just everywhere. Securing the learning transfer thus has to be organised systemically, in the learning process with the employees and in regard to a promoting and encouraging behaviour in the company environment.

It becomes clear that work-related basic education is part of a systemic perspective and therefore the people responsible in the company – management, employees' representatives and CEO – have to be made responsible for the relevant decision-making processes. The goal is not only planning an isolated learning unit for low-qualified workers – this would not be sufficient. It is mainly about creating prerequisites in the company on how work-related basic education as 'business training' for these employees can be organised and realised in a way that everybody concerned – employees and business – can profit from it; this also implies the necessary prerequisites for the transfer of what has been learned into changing work action.

Enhancing the learnability of work places

It should be the long-term goal and didactic aspiration of work-related basic education in the company to not only couple them with looking at the learning potentials of the workplaces, but to design workplaces in a way that they become more learning conducive. Baethge / Baethge-Kinsky (2004) have worked out the main criteria. If you have looked into the concept of learning consultation (Kemper/Klein 1998; Klein/Reutter 2005), you will notice the tendential accordance with the leading principles there. According to Baethge / Baethge-Kinsky it is mainly about:

- Creating opportunities and necessities to learn something new while working and developing professionally. One prerequisite for this is that learning in the company is understood to be self-evident and not a sign for deficits.
- Designing working tasks holistically; i.e. workings tasks are not specified in every detail and there is the opportunity to make independent decisions when carrying them out.
- Designing work in a way that requires cooperation with others. Intense communication and cooperation enhance the learning competences of the employees.
- Offering opportunities for participation; i.e. many agreements can be made among each other, and considerations and ideas of employees can be taken into consideration during changes; employees are included into main decisions.

What this means for the so-called simple jobs is yet to be developed.

The CEDEFOP Policy handbook "Access to and participation in continuous education and training (CVET) in Europe (CEDEFOP 2014) also emphasises that work-based learning can be promoted in different ways in enterprises:

(a) as part of training provision, for example, CVET courses that use work simulations, or planned and guided on-the-job training;

(b) through learning-conducive work organisations and workplaces, which favour characteristics such as autonomy, teamwork, task variety and task complexity;

(c) a combination of both; this requires comprehensive integration of various forms of learning with wider HR and management practices. (CEDEFOP 2014, pg. 35)

Esther Rossmann of the Kaiserswerth Seminars describes her empirical findings as follows: 'Basic education in companies requires a high level of organisation consulting competence. Dealing with the system and its actors has to be considered stringently. Hierarchic relations, cultural conditions, and informal knowledge have to be examined and to be tested for their influence on the basic education measure. (The top management has to be involved and to actively support the measure; managers have to be enabled to accompany the measure on a team level and to provide resources. Learners have to be involved with their interests; colleagues should be informed and involved.) (Rossmann, 2011, 108 f.)

In her project, Rossmann pointed at an important experience that has to be considered when carrying out measures of basic education. She points out that enhanced competences in the sense of "more abilities" also need growing competences in the sense of "being allowed to do more". This can threaten traditional hierarchic patterns, and matching counter-reactions have to be considered beforehand. The learning individuals have to face an organisation that sees itself as a learning organisation and is therefore able to deal with change. Enhanced competence has to be able to manifest itself in a changing performance if it is supposed to be a useful and beneficial effort. Learners in basic education measures have to be able to experience that their enhanced competences allow for enhanced opportunities of shaping and participating.

Challenges for teachers

The direct orientation on learners' working contexts brings new challenges for the pedagogues. It requires a high level of sensitivity for the action and thinking logics of companies, the understanding for company perspectives and the ability to deal with the company's communication culture which is often very different from pedagogic communication culture. In company contexts, the consulting competence of the pedagogues who are both learning counsellors and organisation consultants is of central importance. Work-related basic education is not just a matter between teachers and learners in the classroom but it is connected to the action logics of the company; it is therefore a project that requires a systemic view and a systemically holistic way of action if it seeks to be successful.

The systemic project will only be sustainable if HR staff and employees manage to design workplaces in a way that they are learning conducive and that the benefits of what has been learned are immediately visible for the employees and for the company.

Conclusion

Experience and research results show that *work-related basic education as a way of qualifying the endogenous potentials is a tedious and rocky road and that partings of way hold high risks of detours and wrong tracks.*

The existing knowledge about the design of work-related basic education cannot just be disseminated broadly. Even though requirements concerning written language have risen in many fields of work, companies do not see the demand for work-related basic education: it just has very low priority.

In order to strengthen work-related basic education in cooperation with enterprises, some preconditions should be laid down:

- sustainable structure to provide advice to companies with successful approaches to companies
- internal multipliers, key-persons, development drivers
- professional trainers who are able to work with and in companies and to develop tailor made work related measures (flexibility, conducive learning settings)

Despite all that: The experiences made so far bring the encouraging insight that basic education measures in companies can reach three, at first sight incompatible, goals: Empowerment in the sense of strengthening individuals, employability and ensuring company success.

References

Abraham, Ellen (2010): Betriebliche Weiterbildung für Geringqualifizierte. Ein Akquiseleitfaden für Personalentwickler. Bielefeld

Andresen, Sabine (2010): Bildungsmotivation in bildungsfernen Gruppen und Schichten, in: Quenzel, Gudrun, Hurrelmann Klaus, Hrsg.; Bildungsverlierer- Neue Ungleichheiten; Wiesbaden S. 499-516

Baethge, Martin / Baethge-Kinsky, Volker (2004): Der ungleiche Kampf um das lebenslange Lernen, Münster

Behlke, Karin (2010): Wanderer zwischen zwei Welten – Zum Spannungsverhältnis zwischen betrieblichen und Beschäftigteninteressen. In: Klein, Rosemarie (Hrsg.) 2010: Grundbildung und Beratung. Göttingen. Online unter: http://www.giwa-grundbildung.de/BehlkeGO4.pdf; last excess 5.12.2014

Bundesinstitut für Berufsbildung (2014), Datenreport zum Berufsbildungsbericht 2014, Bonn

CEDEFOP (2014), Policy handbook "Access to and participation in continuous education and training (CVET) in Europe, Working paper No 25, Luxembourg

Ehmig, Simone C. (2014): Berufliches Umfeld funktionaler Analphabeten - Ergebnisse der SAPfA-Studie, Fachtag der Stiftung Lesen | Bonn | 21. Oktober 2014

- https://www.stiftunglesen.de/download.php?type=documentpdf&id=1354 (last access on 5th December 2014)

Geißler, Rainer / Weber- Menges, Sonja (2010): Überlegungen zu einer behutsamen Perestroika des deutschen Bildungssystems, in: Quenzel, Gudrun, Hurrelmann, Klaus, Hrsg.; Bildungsverlierer- Neue Ungleichheiten; Wiesbaden S. 557-584

Grotlüschen, Anke / Riekmann, Wibke (2012): Funktionaler Analphabetismus in Deutschland, Ergebnisse der ersten leo. – Level-One Studie, Münster

Hefler, Günter (2013): Eine Frage des Geldes? – Theoretische Perspektiven zur Wirksamkeit von nachfrageorientierter Weiterbildungsfinanzierung. In: Käpplinger, Bernd / Klein, Rosemarie / Haberzeht Erik (Hg) 2013: Weiterbildungsgutscheine. Wirkungen eines Finanzierungsmodells in vier europäischen Ländern. Bielefeld, S. 79-103

Käpplinger, Bernd (2009): Die Weiterbildungsbeteiligung von Geringqualifizierten – Wie sehen dies die Betriebe in der Altenhilfe? In: Klein, Rosemarie (Hrsg.): „Lesen und schreiben sollten sie schon können" – Sichtweisen auf Grundbildung, Göttingen. S. 181-192

Kemper, Marita / Klein, Rosemarie (1998): Lernberatung. Baltmannsweiler

Klein, Rosemarie / Reutter, Gerhard (2014): Work-oriented basic education – What do we talk about? Online: http://bbb-dortmund.de/jobbb2/index.php?option=com_content&task=view&id=62&Itemid=88; zuletzt am 07.12.14

Klein, Rosemarie / Reutter, Gerhard, Hrsg. (2005): Die Lernberatungskonzeption. Grundlagen und Praxis. Hohengehren

Klein, Rosemarie / Reutter, Gerhard / Rodenbücher, Gina (2014): Vom Lernen an realen Anliegen zum Lerntransfer. In: AlfaForum: Was dazugelernt? Test – Prüfung – Lernzielkontrolle. Münster, S. 32-36

MacKeracher, Dorothy / Suart, Theresa / Potter, Judith (2006): Barriers to participation in adult learning, mentioned in: Hefler, Günter u.a., (2013): Hefler, Günter. (2013). Geringqualifizierte erreichen lernen – zur Rolle

nachfrageorientierter Weiterbildungsförderung für formal geringqualifizierte Personen in Wien. In: Käpplinger, Bernd / Klein, Rosemarie / Haberzeht Erik (Hg) 2013: Weiterbildungsgutscheine. Wirkungen eines Finanzierungsmodells in vier europäischen Ländern (pp. 153-178). Bielefeld

Rammstedt, Beatrice / Ackermann, Daniela / Helmschrott, Susanne / Klaukien, Anja / Maehler, Débora B. / Martin, Silke / Massing, Natascha and Zabal, Anouk (2013), PIAAC 2012: Overview of the Main Results, Münster - http://www.gesis.org/fileadmin/piaac/Downloadbereich/PIAAC_Zusammenfassung_engl.pdf

Rossmann, Esther (2011): Grundbildung in Alten- und Pflegeeinrichtungen im Spannungsfeld von Personal- und Organisationsentwicklung. In: Klein, Rosemarie u.a. (Hg.): Bildungsferne Menschen – menschenferne Bildung. Grundlagen und Praxis arbeitsbezogener Grundbildung. Göttingen, S. 99-109

Schiersmann, Christiane (2006): Profile lebenslangen Lernens, Bielefeld

Teaching basic skills to marginalized groups: blended learning in prison settings

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Abstract

This paper presents the findings from a study on the education provisions in the prison systems of Italy, Romania, Greece and Cyprus. Specifically, it attempts to identify commonalities and differences in the regimes and structures of the education systems across these four diverse systems. After, presenting the rationale for introducing an innovative program utilizing blended learning to teach basic skills to inmates, namely numeracy, literacy, budgeting and ICT skills, the paper presents findings from an empirical investigation in prison institutions in the abovementioned four European countries. Three distinct methods of data collection were employed: Structured interviews with inmates, in-depth interviews and focus groups with inmates, teaching staff and administrative staff. The data, both qualitative and quantitative were analyzed in order to draw useful insights, recommendations and guidelines for drafting a basics skills curriculum.

Keywords basic skills, blended learning, prison systems

Introduction

Education and training can and should be provided in numerous settings and circumstances, prisons being one of them. Even though international and European conventions (UN, 1957, 1977; EU, 2000) and recommendations have been approved and recognized so as to protect and promote prisoners' right to education and training, prison education is still one of the most pressing issue globally and more specifically in Europe since, on the one hand, the importance of quality education in prisons is not always fully recognized, while on the other hand, the education provided very often fails to meet the demands for personal fulfilment, active citizenship, social inclusion and employability.

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In an effort to address these very important issues partners from four European countries, namely, Italy, Romania, Greece and Cyprus sought and secured funding from the European Union in order to study the education provisions in the prison systems of their respective countries. The project titled "Prison Education Basic skills Blended Learning (PEBBLE)" attempts to identify commonalities and differences in the regimes and structures of the education systems across four diverse prison education systems by making use of blended learning in order to teach basic skills to inmates, namely numeracy, literacy, budgeting and ICT skills. The present paper reports the findings from an empirical investigation focusing on all those parameters that would ensure the successful fulfillment of the goals of this project such as inmates perceived competences in the four basic skills and willingness to engage in an innovative program that made use of blended learning and the existing infrastructure of the educational provisions in the prison systems of the four countries (i.e. existing curricula, content, modes of attendance and organization of Prison schools). Data were collected using structured interviews and qualitative personal interviews and focus groups with inmates and additional focus groups with teaching staff and administrative staff.

Theoretical framework

Prisons create a very distinct educational environment with multiple challenges in comparison to the mainstream education and training. Imprisonment in overcrowded institutions and the diversity of prison populations are mainly the reasons which constitute prison education a challenging issue across Europe. Today, the need for educational and learning provisions in prisons is more urgent than ever. Around 640.000 people form the European prison population and a significant proportion of it is low-skilled individuals. It is estimated that only 3- 5 % of them would be qualified to undertake higher education (Hawley at all, 2013). Moreover, research has shown that over half of prisoners have no qualifications of any kind, while 43% do not have the reading skills expected of an 11-year-old and 82% do not have the corresponding writing skills (Clark & Dugale, 2008). Low levels of skills and qualifications have negative effects on prisoners' employment opportunities upon release, which has been found to be one of the most important factors influencing whether or not ex-prisoners would re-offend. Even though prison education plays an important part of the rehabilitation process and can help inmates gain valuable skills which can be useful for future employment and further education and training opportunities, participation in education programmes among prisoners remains below 25% in most European countries. Institutional barriers, such as the shortage of resources and staff and the restricted educational opportunities in terms of content and level, as well as dispositional barriers such as prisoners' previous failure in education limit the extent to which prisoners can access learning within prisons. These are facts which apply to almost all European prisons and are no different in the prisons of Greece, Italy, Cyprus and Romania, which are the four countries participating in the PEBBLE project.

Based on these facts, finding ways to improve the attractiveness, quality and efficiency of prison education is imperative. Even though there can be no single approach to the arrangements for prison education which can be applied in all countries, it has been pointed out in numerous studies that the provision of education and training in

prisons should be contextualised at the local and national levels and tailored to the individual. Innovative teaching and learning methods, which focus on the individual learner and build on existing knowledge and experience, attract more prisoners into learning. This includes the use of ICT and of alternative methods of teaching and learning, such as blended learning, so that prison learners may be more engaged and their learning opportunities enhanced.

But what is the situation in the four countries that participate in the project? In terms of curricula and contents the existing infrastructure in the prison systems is a reflection of the diverse regimes that may be found in the four systems and are influenced by the conditions within which they are offered. In Greece for example these are linked with the national provisions of Second Chance Schools. Italy, and more specifically the prison of Pescara, is a notable case in the sense that it has managed to link the education offered in prison with an existing system of distance learning (the web learning system named TRIO, managed by the Region of Tuscany) which provides users with free educational products and services. Romania has developed specialized provisions based on the philosophy of rehabilitation that runs through the system. Lastly, in Cyprus the curricula and contents are set by the needs of the inmates and there is a lot of flexibility due to the fact that there is no accreditation and comparability with already existing programs. In most cases the delivery of the programs offered follow the traditional face to face mode.

The PEBBLE project

The aim of the research carried out in the framework of the PEBBLE project was to design and implement an innovative program in adult basic education to be delivered in prison setting. It was based on the Instructional System Design Model (Ford & Kraiger, 1995) and relevant literature on individual Training Needs Analysis (thereafter TNA, also referred to as learning needs analysis or training needs assessment) (Goldstein & Ford, 2002; Kaufman and English, 1979; Moore & Dutton, 1978). It implies that programs and treatment interventions should be focused on

(1) individual needs,

(2) circumstances of each prisoner,

(3) prison context and setting and the way inmate is inserted therein (including both the general prison context and the context of the prison where the programme is to be implemented).

The importance of conducting individual assessments of inmates-learners' needs and actual skills is highlighted in several reports (Taylor & O'Driscoll, 1998; Scheiner et al., 1988; Rossett, 1987). Individual learner assessments prior to the delivery of training or education help to ensure that it meets the individual's needs and enables the prisoner to enhance his/her chances of reaching his/her own learning goals. An additional aim of this approach is supporting prisoners in gaining employment on release (vast literature investigates the relationship between education and recidivism, i.e. Kaiser, 2010; Steurer, S. J. et al., 2001; Duguid, S. et al., 1996).

In our research we adopt TNA process-oriented and impact-driven approaches (Kirkpatrick, 1998; Robinson & Robinson, 1989) that allow us to cover both individual and context related dimensions that need to be considered for

the training design, planning, delivering and evaluating (Sweeney, 1999). Individual needs-analysis is the most crucial phase of the learning process as it establishes links between training, results and impact. TNA includes the establishment of individual learning objectives, and influences the way learning is designed, developed, delivered, and evaluated. The *individual dimension* related to the TNA process examines individual features and lives of inmates-learners such as his/her biography, individual aptitudes, emotional structures, behaviors, educational background and learning goals. When investigating TNA in a prison setting, prison experiences of each inmate concerned, such as time that can be dedicated to learning, tasks covered within prison, treatment interventions joined and penitentiary individual biography, should be taken into account.

People involved in the training needs analysis process include a number of actors such as: the Governor, senior management, teachers from the school system, trainers from external agencies, prison educators (that can vary from country to country, and prison officers. They can guarantee that adult basic education programs – in the fields dealt with in the research - are strictly connected to inmates' goals and objectives for improving their lives and their lives in prison.

The learning process could be based on the following steps:

1. Activities are built upon inmates' expectations of their individual and social life-improvement as for specific and significant aspects (i.e. being able to read and understand their conviction)
2. A learning project consisting of a combination of learning actions leading to the expected changes will be agreed in an Individual Learning Plan (ILP)
3. The learning project will include different kinds of actions: self-directed learning and group actions and mentoring
4. Every inmate will get support – based on available human resources and materials – to reach his/her own learning objectives
5. Each inmate is directly involved in the learning actions' implementation and has the responsibility for reaching the learning objectives
6. Learning impact evaluation will be based on evidences of the learning goals achieved

In order for the above to be implemented an empirical investigation was needed to look into the factors that would ensure the successful fulfillment of the goals of the project such as inmates perceived competences in the four basic skills and willingness to engage in an innovative program that makes use of blended learning and perceptions about the existing infrastructure of the educational provisions in the prison systems of the four participating countries.

Methodology

With the aim of gathering information that could be used as a guide for successfully implementing the PEBBLE project, a survey was conducted in agreement with all the partners that took part in the project. Specifically,

three distinct methods of data collection were employed: structured interviews with inmates, in-depth interviews and focus groups with inmates, teaching staff and administrative staff. The success of such an endeavor relied heavily on the collaboration of the respective participating prison's administrative and educational staff.

The research questions that all four partners had to seek answers to, were the following:

- What is the socio-demographic profile of inmates interested to participate in a basic skills program?
- How do inmates perceive/ evaluate their competences in the four skills:
    - Communication in mother language
    - Numeracy
    - Digital competence – ICT skills
    - Financial skills
- How necessary do inmates perceive these skills for their future lives?
- How do inmates/educators/ administrators evaluate the educational facilities in the correction institution?
- How useful do inmates/educators/ administrators find the objectives put forward by PEEBLE?

Data collection: Personal closed and open-ended interviews and focus groups

The structured interview consisted of around twenty questions in total. Four of them asked about demographic data including, gender, age, level of education and time and length of incarceration. There were questions asking the inmates to give a subjective evaluation of their skills regarding the four key competences of the PEBBLE project. In particular, the questions focused on their perceived abilities prior, during and what they expected them to be after their release from prison. Moreover, they were asked to indicate how necessary they thought the four key competences would be for their future lives. Lastly, the inmates were asked to specify how useful they thought the objectives of the PEBBLE project were and how motivated they would be to participate in such a program. All questions were closed ones and the response scales were ordinal. Following the structured interviews 10 inmates per prison setting were then asked to give more in-depth answers on similar questions to the ones in the structured questionnaire. This was deemed particularly important in order to get inmates to articulate as best as possible their thoughts about the issues under investigation. The last mode of data collection included three focus-groups with inmates, educators and prison administrators in order to extract useful information from all parties involved in prison education and thus accommodate as best as possible the drafting of the curricula and the sample content to be delivered in a way that would correspond to the real needs of the target population.

Sampling criteria

A purposive sampling strategy was employed in order to collect information from around 160 (40 inmates per country). The individuals selected should have had the following characteristics:

- ages 18-35
- both sexes (although it is expected that the sample will be over-represented by males)
- voluntary recruitment (indicating an interest on a basic skills program)
- fluent in the country's main language (regardless of ethnicity)
- inmates eligible to attend prison education and that have participated at least in one of the programs already offered in the correction facility

Once the structured interview was completed a selected number on inmates were asked to elaborate their views in open-ended questions. Selection was to be made by an in situ assessment of whether individuals were willing to engage in a more in-depth elaboration of their views. Lastly, 3 focus groups were scheduled and took place in each country with inmates, educators and administrators (4-6 participants selected for each group).

In total 151 inmates from all four countries took part in the first phase of the survey. Of them, only 7 were female and they all came from the Central Prison of Cyprus. Their educational level by country is presented below. The majority of the inmates from Italy, Greece and Romania had Lower Secondary School education and below. In Greece 22,5% had no formal education whereas in Cyprus nearly 60% of the inmates had some kind of secondary education and a significant percentage had postsecondary level education as well. Upon further probing into this latter percentage it emerged that this group of inmates had convictions on economic related offences (tax evasion, debts, etc.).

Table 6: Country and Level of formal Education

	No formal education	Primary school or lower	Lower Secondary school	Higher Secondary school	Technical secondary education	University, College
Italy	3,4%	3,4%	65,5%	20,7%	3,4%	3,4%
Romania	0,0%	10,0%	67,5%	22,5%	0,0%	0,0%
Greece	22,5%	15,0%	50,0%	12,5%	0,0%	0,0%
Cyprus	0,0%	18,4%	18,4%	10,5%	28,9%	23,7%
Total	6,8%	12,2%	49,7%	16,3%	8,2%	6,8%

Findings

Structured questionnaires

Below we present the way the inmates responded to the questions of the structured questionnaire by country regarding their personal subjective evaluation of the level they though they possessed the four basic skills.

Table 7: How easy do you find it …

	… reading a text?				
	Very easy	**Fairly easy**	**Average**	**Fairly difficult**	**Very difficult**
Italy	45,2%	51,6%	3,2%	0,0%	0,0%
Romania	65,0%	25,0%	5,0%	2,5%	2,5%
Greece	37,5%	27,5%	32,5%	0,0%	2,5%
Cyprus	71,1%	13,2%	10,5%	5,3%	0,0%
	… to perform additions with numbers up to 100?				
	Very easy	**Fairly easy**	**Average**	**Fairly difficult**	**Very difficult**
Italy	71,9%	21,9%	6,2%	0,0%	0,0%
Romania	55,0%	25,0%	12,5%	0,0%	7,5%
Greece	35,0%	30,0%	30,0%	2,5%	2,5%
Cyprus	65,8%	21,1%	10,5%	2,6%	0,0%
	… to work with a PC				
	Very well	**Fairly well**	**Average**	**Not very well**	**Not well at all**
Italy	20,0%	26,7%	30,0%	20,0%	3,3%
Romania	52,5%	27,5%	17,5%	2,5%	0,0%
Greece	15,0%	20,0%	25,0%	7,5%	32,5%

Cyprus	28,9%	23,7%	26,3%	10,5%	10,5%
	…to manage your personal budget?				
	Very well	**Fairly well**	**Average**	**Not very well**	**Not well at all**
Italy	39,4%	42,4%	12,1%	3,0%	3,0%
Romania	20,0%	57,5%	10,0%	12,5%	0,0%
Greece	27,5%	37,5%	15,0%	12,5%	7,5%
Cyprus	42,1%	28,9%	18,4%	5,3%	5,3%

The majority of the inmates that were surveyed in this study indicated that they had a good or fairly good level in the four basic skills that the PEBBLE project deals with. However, of the 4 skills ICT and budgeting appear to be less well possessed personal skills. Specifically, there was an increased proportion of inmates that indicated that these skills compared with literacy and numeracy was average or below average. It is worth noting, however, that it may be assumed that the interviewees/ inmates were over-estimating their real competences and the reason that they gave such responses was the fact that they may have felt uncomfortable telling the truth about themselves. The latter point was further strengthened by the responses they gave to the question about the necessity of such skills for their lives and their willingness to develop them further as the next set of data present.

Table 8: How necessary are the four basic skills?

	Literacy necessary				
	Very necessary	**Fairly necessary**	**Average**	**Not very necessary**	**Not necessary at all**
Italy	75,8%	18,2%	3,0%	3,0%	0,0%
Romania	32,5%	0,0%	65,0%	2,5%	0,0%
Greece	75,0%	20,0%	2,5%	2,5%	0,0%
Cyprus	73,7%	21,1%	5,3%	0,0%	0,0%
	Numeracy necessary				

Italy	78,8%	21,2%	0,0%	0,0%	0,0%
Romania	30,0%	2,5%	67,5%	0,0%	0,0%
Greece	72,5%	22,5%	0,0%	5,0%	0,0%
Cyprus	57,9%	23,7%	13,2%	0,0%	5,3%
			ICT necessary		
Italy	69,7%	27,3%	0,0%	3,0%	0,0%
Romania	42,5%	15,0%	42,5%	0,0%	0,0%
Greece	82,5%	12,5%	5,0%	0,0%	0,0%
Cyprus	68,4%	18,4%	7,9%	0,0%	5,3%
			Budgeting necessary		
Italy	60,6%	36,4%	3,0%	0,0%	0,0%
Romania	27,5%	27,5%	45,0%	0,0%	0,0%
Greece	72,5%	20,0%	7,5%	0,0%	0,0%
Cyprus	81,6%	10,5%	5,3%	2,6%	0,0%

The four basic skills were considered by the vast majority of the inmates that participated in the survey to be either very or fairly necessary. Moreover and more importantly when they were asked about how interested and motivated they would be to engage in a program that uses new technologies to promote these skills more than 9 out of 10 provided positive responses.

Table 9: How interested would you be to engage in a program that uses new technologies to promote these skills?

	Very interested	**Fairly interested**	**Average**	**Not very interested**	**Not interested at all**
Italy	97,0%	3,0%	0,0%	0,0%	0,0%

Romania	80,0%	15,0%	0,0%	5,0%	0,0%
Greece	70,0%	25,0%	2,5%	2,5%	0,0%
Cyprus	78,9%	13,2%	2,6%	2,6%	2,6%

Personal interviews

Many of the issues that were explored in the questionnaires were further elaborated with personal open ended interviews with a selection of 10 inmates from each participating prison. Below we present some common issues that emerged from their answers.

The first important issue that emerged was the fact that many gave answers that connected with their everyday life and also to the necessity of having such skills to a level that would allow them to function better in society upon release from prison. For example, there were references to literacy skills being necessary to read prison rules and to improving their reading of books borrowed from the school library. Furthermore, good reading skills would allow them to have better communication with the public authorities, develop their personality and improve themselves. There were references that such a skill would allow those with children to help them once they got out. Similarly, inmates gave analogous responses to the numeracy skills questions. Even though it appeared that during the interviews there was an association of numeracy skills to mathematics it was widely acknowledged that people who possessed that skill were in a better position to perform their everyday tasks with more confidence and self-assurance. Regarding ICT skills it was clear to the inmates that ICTs were to be found in all aspects of contemporary life and because of its ever changing nature these skills were necessary to make it in the modern world. Among the issues cited for the necessity of ICT skills were the use of ICTs to secure employment after their release from prison, to communicate free and easy, to have free access to information on a range of topics and importantly the fact that computers and the Internet were a pleasant form of entertainment. Personal budgeting appeared to be a newfound concept to many inmates and once they found out what it meant they were quick to indicate that it was a very important skill that would make them deal with financial issues more competently both within the prison but most importantly once they were released.

A key element of the personal open interviews related to their motivation to engage in a program that uses new technologies to promote basic skills. This was a key issue in the study because positive motives to engage in such a program would ensure its success. The responses in the interviews corroborated the answers that were given in the structured questionnaire that such a program was a motivating factor in itself for someone to participate.

Focus groups

By far the most interesting piece of information from the three modes of data collection was generated from the focus groups. This rich form of information was pivotal for the success of the PEBBLE project.

Motivation

Regarding the issue of motivation and incentives of inmates to participate in a project for the acquisition of basic skills, inmates initially tended to focus on intrinsic motives. Intrinsic motives, however, though very important were not always enough. There was a need to introduce motives connected to privileges within the prison but also with issues that connected to the reduction of the prison sentence and the accreditation of the skills that were being taught. These motives depended on the profile of the inmate. Inmates serving long sentences would be tempted by privileges within the prison but others serving medium to short sentences would be tempted by reduction of the sentence. This was not something that was in place nor was there any immediate prospect for it to be introduced in the short term. As with inmates, teachers and prison officials also talked about accreditation and smooth re-entrance to civilian life which would connect to a continuity of the knowledge they acquired once they were released. The regime of sentence reduction as an external motive was not uniform in all the countries.

Usefulness of the scope and the target of the PEBBLE project

All respondents in the focus groups were uniform when asked about the usefulness of the scope of the PEBBLE project. Inmates focused on issues that connected with skills that would prepare them for their after prison life. Special reference was made to the ICT skills, which was thought of as essential in every aspect of contemporary life. Educators and administration staff also agreed on the usefulness and the necessity of the PEBBLE project. Teachers pointed out the necessity of the program to be implemented complementarily with the other classes organized and delivered in the school system so that the "human connection" between the trainers and the trainees was not lost. On the other hand, the administrative staff thought that this project would help inmates develop important skills and competences, such as their creativity, and would promote their knowledge on different issues. Generally, all actors participating in the focus groups appeared very positive and were fully supportive of such initiatives.

Organizational issues and teaching materials regarding prison education

On a number of instances there were references of shortages on issues of facilities and teaching materials. In Italy for example there were references about the efforts being made to compensate for these shortages by utilizing other available means. In the case of Cyprus two issues were noticeable. One was the fact that education in prisons was under the Ministry of Justice and the second was the fact that there was no accreditation in place such as in Greece where prison schools were under the national Second Chance School scheme. In Greece, however, there were other impediments in place such as many and strict controls involved in the operation of the Second Chance

School, making educational processes bureaucratic and inflexible, even in the case of activities which were cleared for implementation. In Romania too even though educators considered the educational activities well organized, they also believed that the activities were not focused enough in developing practical skills or professional competencies of the inmates. Furthermore, administrators considered education in prisons still organized in traditional ways.

Existing educational programs inside the prison and available educational materials

On the whole from all the focus groups it emerged that there were expressions of content about the programs on offer in all cases. The programs were frequently based on inmates' preferences and availability of instructors. The need for prison programs to be accredited by recognized bodies was paramount in every system. The heterogeneity of inmates' profiles attending prison programs, however, presented all systems with many challenges. Despite visible shortcomings which were unique in the different systems, the schools appeared to be well-equipped to meet the requirements of delivering a basic skills program based on a blended methodology. Access to the Internet, however, was a contentious issue due to security and other prison regulations.

Discussion and Conclusions

The research presented in this paper does not aspire to generalize its results to all prison settings and their educational contexts, but rather to address specific questions and challenges when introducing a novice program. On the one hand, the research aimed at assessing the perceived skills of a specific prison population and to capture and record their perception and motivation for basic skills learning. On the other hand, it hoped to investigate the appropriateness of developing and implementing a basic skills curriculum for offenders. The results of the research conducted set out very good premises for the development of a basic skills program. The development of the basic skills curriculum should be in line with the education needs of inmates and should be successfully integrated into already existing programmes and can create lasting positive effects that will ultimately upgrade the educational provisions within the prison system. Based on the results and findings of the research presented, the following recommendations and guidelines appear to be of particular importance when drafting a curriculum for basic skills (Vryonides, 2014):

- The motivation of inmates to improve their basic skills should be taken into consideration. This motivation is related to several needs concerning the re-integration into society and family life, entering the labour market and finding a way for personal fulfilling. Thus, particular attention is to be paid at the contents of the curriculum, which should correspond to the development of skills in different life contexts and dimensions.
- There is a huge heterogeneity among the prison population and the educational profiles differ significantly. Therefore, a basic skills curriculum should provide individualized learning pathways that ultimately meet the needs and realities of each inmate learner.

- A blended learning approach should have a balanced integration between the face to face teaching and self-directed learning. To a certain extent, the absence of human interaction (teacher and learner) raises some concerns among inmates.
- A basic skills curriculum should involve a formal recognition of the skills gained or developed by inmates. The development of such a curriculum should be made in line with the existing accreditation criteria. A formal accreditation for basic skills would bring a lot of added value and relevance for inmates, especially in countries where a rewarding system (i.e. reducing sentences for participation in educational programmes) is in place.
- A basic-skills curriculum should have a practice-oriented approach, focusing on developing skills, rather than sharing theories. Activities and educational programmes already existing in prisons are not focused enough in developing practical skills or professional competences for inmates.
- A basic skills curriculum should relate in a visible way with the interests of the inmates, it should start from the idea of empowering the inmates, increasing self-esteem and raising awareness of the importance and value of learning. Moreover, it should motivate and re-engage inmates with education and training.
- Particular attention should be paid to the training of teachers, educators, prison-officers, who will facilitate the implementation of a basic skills program. Basic skills provision is not a common educational practice, thus even if the education personnel master the methodologies and pedagogies for teaching adults, they may lack the subject specific knowledge and understanding – the didactics of teaching literacy, numeracy, financial literacy and digital skills.

References

Clarck, C., Dugdale, G. (2008). Literacy Changes Lives: The Role of Literacy in Offending Behaviour. London: National Literacy Trust

European Union (2000). Charter of Fundamental Rights of the European Union, http://www.europarl.europa.eu/charter/pdf/text_en.pdf

Duguid, S. et al. (1996). Using Recidivism to evaluate Effectiveness in *Prison Education programs. In Journal of Correctional Education*, Vol.47(2).

Erisman, W. & Contardo, J.B. (2005). *Learning to Reduce Recidivism*. Institute for higher Education Policy.

Ford, J.K. & Kraiger, K. (1995). The application of cognitive constructs to the instructional systems model of training: Implications for needs assessment, design and transfer. In C.L. Cooper, and I.T. Robertson (Eds.). *International review of industrial and organizational psychology*: 1- 48. New York: Wiley.

Goldstein, I.L. & Ford, J.K. (2002). *Training in Organizations*. Belmont: Wadsworth. Fourth edition.

Hawley, J., Murphy, I., Souto-Otero, M. (2013). Prison Education and Training in Europe, Current state-of-play and Challenges. Summary report, Brussels: European Commision, http://ec.europa.eu/education/library/study/2013/prison_en.pdf

Kaiser, M. (2010). Correctional education, because it works. In *Correctional Today*, 72(4), 18-20. Retrieved from EBSCOhost.

Kaufman, R. and English, F.W. (1979). *Needs assessment: Concept and application*. Englewood Cliffs, NJ: Educational Technology Publications.

Kirkpatrick, D.L. (1998). *Another Look at Evaluating Training Programs*. American Society for Training and Development.

Moore, M.L. & Dutton, P. (July 1978). Training Needs Analysis: Review and Critique. In *Academy of Management Review*: 532 – 45.

Robinson, D.G. e Robinson, J.C. (1989). *Training for impact: How to link training to business needs and measure results*. San Francisco: Jossey-Bass.

Rossett, A. (1987). Training Needs Assessment. In *Educational Technology Publications*, Inc. Englewood Cliffs, New Jersey.

Schneier, C., Guthrie, J. Olian, J. (1988). A Practical Approach to Conducting and Using the Training Needs Assessment. In *Public Personnel Management*, Vol.17, 2:191-205.

Steurer, S. J. et al. (2001). The State Recidivism Study. In *Correctional Education Association to the Office of Corectional Education, US Department of Education*.

Sweeney, S. (1999). Planned Training Yields Best Results: Training Needs Analysis in Supply Chain Management. In *Logistics Solutions, the Journal of the National Institute for Transport and Logistics*, Vol. 2, No. 2: 6-7, April 1999.

Taylor, P.J. e O'Driscoll, M.P. (1998). A New Integrated Framework for Training Needs Analysis. In *Human Resource Management Journal*. 8, 2: 29 – 50.

United Nations (1957, 1977).Standard Minimum Rules for the Treatment of Prisoners, https://www.unodc.org/pdf/criminal_justice/UN_Standard_Minimum_Rules_for_the_Treatment_of_Prisoners.pdf

Vryonides, M. (2014). Comparative report on prison education. PEBBLE project

Challenges, trends, and priorities in national educational research specialists in the accounts of education sciences

Ana Simona Negomireanu[6]

During the period 10th - 11th of October 2014, the West University of Timisoara, in collaboration with the University of Bucharest, Babes-Bolyai University in Cluj-Napoca, Alexandru Ioan Cuza University of Iasi, Institute of Educational Sciences in Bucharest and the Romanian Institute for Education Adult Timişoara, provided an important platform for dialog for the specialists in education sciences through the first edition of the National Conference of Educational Research, "*QUALITY IN EDUCATION*".

This event brought together about one hundred specialists from Educational Sciences Faculties and Teacher Training Departments, who brought together their practical expertise on educational research and jointly developed a concrete analysis of the situation of educational research in Romania

There have been constructive discussions on research strategies and plans, such as the Research and Innovation Strategy 2014-2020 (SNCDI2020) and the National Research, Development and Innovation Plan 2014-2020 (PNCDI3 / NP3), which have been developed in conjunction with the European Research Strategy 'Horizon 2020' (H2020).

Among the analysis of educational research policies, one of the major challenges emphasized was that socio-educational research requires a better focus and representation, given the challenges faced by the Romanian society. The analysis resulted after during the conference debates served as a frame to draft recommendations for improving the educational research, as well as to engage discussions among decision makers and researchers in educational sciences.

Potential educational research themes were drafted, in accordance with the specific objectives and priorities set out in SNCDI2020, in correlation the with trends in the European education space, (EERA's Agenda for Horizon 2020): Sustainable communities; Education Innovation; School curriculum and national values of Europe; Skills and challenges of educational professionals; Digital Literacy; Health education and quality of life; Learning in all contexts of work and lifelong learning etc. A more detailed formulation of the themes and research directions can be found in Memorandum on educational research in Romania, discussed during the conference.

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Also, it was considered that actual steps of opening up calls for research projects focused on priorities within the educational system were needed, dealt with by interdisciplinary research specialists, with the addition of social sciences. Establishment of an advisory task force structure within the National Council of Scientific Research, with a view to generate policies and strategies for educational research. Improvement of infrastructure of educational research both by measures of allocation of funds, as well as by supporting, by PN3, competent centers and institutes of advanced studies to discuss educational issues, so as to attract expert researchers.

This short summary of the conference is meant to emphasize how this new new manifestation of scientific educational research, conducted under the auspices of high-quality specialists who are qualified to think critically, analyze, argue, act proactively innovate, eventually contributing substantially to the diagnosis and replication of educational research, so that it can generate proposals for the specialization and innovation of educational research, up to European standards.

Because we cannot talk of quality assurance in education research "in itself", but according to the values promoted in society, the myriad of contextual factors, incorporated into educational policies and consistent strategies, relevant and well-articulated, annual replication of this important scientific event will certainly provide a more valid barometer for the status quo of educational research in our country.

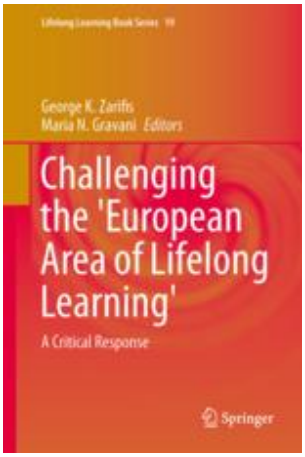
The series of the National Conferences on Educational Research opened at Timisoara in 2014 continued also in 2015 under the tile *Learning Communities in the 21st century. Challenges for Higher Education*, organized by the Alexandra Ioan Cuza University and hosted in Iași, June 19-20 2015.

More details on the educational research conferences can be found on the official conference websites www.cered.ro (CERED 2015) and www.cered.uvt.ro (CERED 2014).

This series of events will be organized in the future under the aegis of the National Association for Research in Education, which will aim to be accepted as a member of EERA (European Educational Research Association), since the first event, the discussion topics have been consonant with the topics of association, and the position taken by EERA for H2020 is also invoked in outlining the communication resulting from the national conference.

Challenging the"European Area of Lifelong Learning" A Critical Response

Denisa Mariana Lombrea[6]



To challenge something means to doubt it just as well as to dare it. "Challenging the European Area of Lifelong Learning" is the title of a Collection of articles from 37 authors, representing sort of an academic community in the field of European adult education, edited by Maria N. Gravani and George K. Zarifis. The book bases on the „Memorandum of Lifelong Learning", therefore it is organized into five parts that quasi trail the structure of the Memorandum. These five aspects represents also „the core issues that Europe faces today in relation to the idea of making a 'European Area of Lifelong Learning' a reality", so the editors voice.

The parts are as follows:

- Part I: Lifelong Learning and New Basic Skills for All
- Part II: Lifelong Learning and More Investment in Human Resources
- Part III: Lifelong Learning, Innovative Teaching and Learning and Rethinking Guidance and Counselling
- Part IV: Lifelong Learning and Valuing Learning
- Part V: Lifelong Learning and Bringing Learning Closer to Home

In their Introduction the editors refer at first the history of the actual concept: „The 'Memorandum' has tried to respond (probably very persuasively) to the ongoing debate amongst European policymakers, social partners and scholars on the reasons why the time is right to promote active citizenship and employability as two equally important and interrelated aims for our societies." From the early beginning the idea of Lifelong Learning in Europe was coupled with neo-liberal policy, and with the formation and organization of the European Union, as an economic and marketing area, more than an cultural area. Therefore the Memorandum became the most influential but also the most dissimulated policy. In present time the European Area is very pressed from the ongoing socio-economic crisis, which still threatens the foundations of the European imagery. So what are now the connections between education,

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policy, economy and market? And what are the meanings of these words and their impact for educational theory and practice as well? As Gravani and Zarifis argue, it is now the time to contemplate on the validity of the semantics of globalisation and the authority that resides behind them. From this lens they see the purpose of this book is to critically reflect on the context in which lifelong learning policies and practices are organised in Europe with the contribution of people who are working in the field either as researchers or as policymakers.

A very remarkable article is written by Katharina Popovic. On my opinion it demonstrates the way, in which the debate have to turn, if it will become more seriously and more scientifically. Popovic analyzed the rhetoric backgrounds of the ‚Memorandum' and its impact in reference to the concept of skills and competencies as a paradigmatic representative of educational policy. She highlights the difficulties around the concept of ‚skills', that dominate European policy since the ‚Memorandum' and the Communication about it, were launched. Popovic, a Serbian researcher with a long-time experience in European policy, exposes here in which way an educational problem was influenced from economic needs, and she asks: „Why is the notion of skills limited in its appropriateness for the area of education? As the term comes from human capital theory, reflecting in its nature the world of work, it is not really adequate for the world of education". On her opinion the serious problem with skills is their value-free character, and that attempts to include attitudes to the definition that skills are not grounded, while some of the most important questions of human life, such as values, ethics and emotions are untouched by the concept of skills.

The special feature of Katharina Popovic's statement is given by opening a theoretical discussion that was missed in the past. It was very common in the last time to make and publish studies or surveys grounded with a very thin theoretical basis or with a theory that seems in the first instance based on political needs. Maybe in the next time, we will have more questions than answers, what at least is a characteristic of philosophical thinking. Anyway if philosophizing marks also the traditional roots of pedagogical thinking, we need to return to these roots. The demand of the book, as the editors posted, should be to start a critical discussion and to offering an analytic and systematic outlook of the main challenges in creating the „European Area of Lifelong Learning". Popovic shows us, what it needs, to satisfy this high demand. It is a great effort of the authors, that they do not persist in a general critic at the idea of a European Education Area. Finally they strike new paths, in which Lifelong Learning is less a political question and more a philosophical approach to make humans human. „A critical response" is the books under title. But it's more. In some articles one arises the possibility of how the image of an „European Area of Lifelong Learning" can be realized by giving space for critical thinking and discussions not only following the political mainstream.

Recommendations for authors

The recommendations below are meant to clearify the expected quality of the journal and it's articles.

The authors can send the electronic version of articles at : resjournal@e-uvt.ro

The sent papers shall be submitted under a peer-review from the members of our Editorial Board and beyond.
The scientific criteria used by them are bellow.

Editing criteria:

1. The accepted publishing languages are: English, Romanian.
2. The words and quotes in foreign languages are written in Italics. The quotes in Romanian are writen normally. Every quote shall have a foot note.
3. Citations should be indicated in parentheses the author, year of publication, page, can be easily identified with a complete reference to the citation from the end of the article. For example, if references to an author who had two publications in the same year, 2010, will be written including one bibliography 2010b works, to be easily identified. Footnotes should be used only in exceptional cases, if necessary annotations by the author.
4. Every author shall insert his name below the title of the paper, upper right on the paper, with a foot note that shall stipulate: academical title, institution, city, country, e-mail.
5. Every text shall be preceded by an abstract; every abstract shall be followed by the key-words section of a total of 5 key-words. The abstract and the key-words section shall sum a total of 800 characters; The abstract and key-words shall be written both in Romanian and English.
6. Each abbreviation shall be explained only at first use.
7. The bibliographical references must include at least one author listed by ISI or quoted in ISI articles.
8. At least 30% of the references must include papers published in the last five years.

Technical criteria:

1. page - A4;
2. page setup: up – 2cm; down – 3 cm; left – 3 cm; right – 2 cm;
3. length of paper: 8-10 pages (max. 30 000 characters, including bibliography and abstract);
4. the abstract and key words shall be submitted in English (and Romanian, if possible);
5. page setup: justified, line spacing: 1,5;

6. title: aldine (bold), 14p;
7. text: Arial Narrow, 11;
8. first line indent: 1 cm;
9. bibliographical references, listed in alphabetical order, APA Style:

- book: AUTHOR. (publication date). Title. city: publishing house.

- article**:** AUTHOR, (publication date). Title. Name of Journal. page number.

- online article**:** AUTHOR, (publication date). Title. Name of Journal.(is it is the case). Retrieved from (web site address).

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The references are not numbered

Deadline for the submission of papers: **20th of May 2015**

SCIENTIFIC EVALUATION CRITERIA FOR THE JOURNAL OF EDUCATIONAL SCIENCES ARTICLES

CRITERIA	1	2	3	0
A. Scientific merit of the paper				
A.1. The importance and the actuality of the discussed topic, as well as the relevance of the discussed question upon the research is made.				
A.2. The level of information (e.g. actuality and relevance of the publications from the bibliography) and the quality of the description of the current progress of knowledge in the discussed field on national/international level.				
A.3 The argument and basis of the discussed problem are well clarified and defined (e.g. conceptual clarifications, separating the aspects which shall not be discussed); the central idea of the article is very well drawn.				
B. Potential contributions to developing scientific knowledge				
B.1 The research question is adequately answered, raising conclusions related to the theoretical basis presented in the article and the shared new ideas.				
B. 2 The type and the authenticity level is achieved by the references.				
B.3 The set of conclusions represents a synthesis built on a personal interpretation of the prior exposed results, with references to further developments on the discussed subject. (e.g. open questions to research).				
C. Argumentative procedure				
C.1. The research design is correct, the hypothesis are relevant, the methods and empirical investigation instruments are transparent and the interpretation of data is credible.				

C.2 The affirmations are sustained by credible data from research or current theoretical elaborations.				
D. Structure and presentation of the article				
D.1. A logic sequence/connection (the ideas are logically linked together, the transit from an idea to the other is easy to follow, the order in which the parts of the paper are discussed is inherently correct.				
D.2 The used language is coherent, grammatically correct, meeting the scientific standards of expression and argumentation.				
D.3 The imposed structure of the paper is respected: abstract of approximately 800 characters, relevant key-words, correct quotations.				

EVALUATOR'S CONCLUSIONS:

I recommend the publishing of the article

I recommend the publishing of the article after revise of the author

I do not recommend the publishing of the article

Final comments :**

*Note: the evaluation scale of meeting the criteria presents itself as follows: 1 – done; 2 – partially done (requires further revise or annexation); 3- not done, does not fulfill the criterion; 0 – not the case, does not apply.

**Please provide explanations regarding the reasons for rejecting the article or list (on a separate sheet) with the concrete revision requirements