

Functional Elementary Adult Education in the Republic of Serbia

- A new model for development of adult competencies -

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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 programme 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 increases the stock of human capital, enhances the innovative capacity of the economy and helps to disseminate new technologies" (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 (Pejatovi , 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 requirements 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" (Republi ki 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 (Stankovi , 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 illiterate, even at the most elementary level, are really illiterate. 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 with incomplete elementary education and 20.76% of those with elementary education (Republi ki 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 within 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” (Republiki zavod..., 2014: 33). The data collected show that 51.01% is computer illiterate (Republiki 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 Medi, 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” (Medi, 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 principals 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 competences 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 accomplishments: basic level and advanced level.

Vocational competences	On the basis of conducted work specification and learning specification 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 competences is done on the final exam of the training.
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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 adjustment 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 explaining 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.
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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 that 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 from 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 basis of the *Evaluation of goals and outcomes realisation of the Programme of Experimental functional elementary education of adults (Procena ostvarenosti ciljeva i ishoda Programa ogleđa 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).

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