

Irina- Teodora MANOLESCU
Nelu FLOREA
Carmen-Claudia ARUSTEI
Alexandru Ioan Cuza University of Iasi

FORMS OF LEARNING WITHIN HIGHER EDUCATION. BLENDING FORMAL, INFORMAL AND NON-FORMAL

Case
Study

Keywords

*Forms of education,
Interferences of learning forms*

JEL Classification

M10

Abstract

Changes that occur in the socio-economic environment determine new challenges for individuals that strive to acquire new, more valuable competencies. The universities, considered one of the most important pillars in developing such competencies, are challenged to develop and harmonize different forms of education (formal, informal and non-formal) in order to respond to individuals' and organizations' needs. The mixture of learning forms can bring competitive advantage for the universities. However mixing the learning forms is not so easy to accomplish, considering that the stakeholders' requirements could be divergent and the resources are limited. This paper aims at presenting the advantages and disadvantages of these forms of learning and also outlines few examples of the interferences. At last, the paper presents some preliminary results of a quantitative research regarding the perception on the usage of the three forms of learning of one of its stakeholders - the higher education candidates. Some implications for both universities and high school education are highlighted.

INTRODUCTION

The education topic was and still represents a continuing challenge to new work generation development. While at the beginnings the focus was on non-formal education in order to gather up knowledge and develop skills needed for natural environment survival (between 60's-70's, at international level the focus was on non-formal education), later on the education's importance was differently perceived and the focus moved to formal education (Cucos, 1996). This form of learning was oriented to gather up and develop knowledge and skills that were currently expected by the society and by the dynamic environment which asks for flexibility with low costs.

In order to define education and its forms which will further be referred to learning forms, an etymologic perspective will be first approached. The *education* term comes from Latin and means to grow, to cultivate, to guide. The Romanian term results from France country, XVI century, *éducation*. According to Romanian Dictionary (DEX) the education definition is: a set of systematically measures applied to train and develop the intellectual, moral or physical traits of children, youth, people or the whole society through pedagogical activities, resulting in good growth, civilized behaviour in society; fundamental social phenomenon of transmission of life experience and culture of adult generations to generations of children and youth and empowering for their integration into society [7]. Larousse Dictionary offers different meanings, such as: a certain code of development conduct for children or adults; special professional training; intellectual, cultural, morale knowledge acquired in a field [8]. A more pedagogical definition is offered by Bontas (2001) and states that education represents a socio-human phenomenon which assures the transition of theoretical and practical accumulation obtained by humanity during the socio-historical evolution of youth, developing their personality and professional route needed to implement useful activities in social field (Bontas, 2001).

FORMS OF EDUCATION

A typology for education was developed since 1974 (Coombs, Ahmed, 1974) and emphasised three forms of education: non-formal, informal and formal. The same idea was accepted and further used by other international players from the education scene. The typology relies on the variety of learning situations, its intention, purpose and the way of manifestation in time.

The formal education (lat. *formalis* – to shape, valid, precise) refers to intentional and systemic influences, all developed within a specialized

institution (school, university), designed to form the human personality. Its aim is to progressively introduce students to the great knowledge paradigm and to offer them proper tools, like cultural techniques, that will ensure a certain educational autonomy (Cucos, 1996). Another definition is offered by Coombs and it is defined as being an educational system which is systematically, chronological organised, starting the primary school and finishing with university which includes besides the academic studies, also a variety of specialised programmes and professional preparation institutions (Coombs, Ahmed, 1974).

The non-formal education (lat. *nonformalis* – no official forms) covers the totality of educational influences that are happening outside the classroom, through a set of optional activities. It is considered complementary with formal education, considering its finality, a less formal reality. A comprehensive definition is offered by Kleis (1974) and shows that it represents any intentional and systematic educational activity carried out usually outside the traditional school, whose content is adapted to the individual needs and circumstances, with the purpose to maximize learning and knowledge and to minimize the problems they face in the formal system (Kleis, 1974).

The informal education (lat. *informalis* – no determined shapes, incidental situation) is considered to be an incidental education and includes all non-intentioned, heterogeneous influences through which each person acquires knowledge, skills and abilities from its daily experiences. This form is determined by socio-human and cultural actions which spontaneously happened, unexpected, unplanned, without being conscious.

Each of the three forms mentioned above has advantages and disadvantages. A selection of them is presented in Table 1.

INTERFERENCES OF THE LEARNING FORMS

Further we will address the forms of education as learning forms, as their finality is knowledge acquiring which produces change. The distinctions between the three learning forms proceed from the system area, which develops and that is why they may be considered rather administrative distinctions. When focusing on competences acquired as a result of the learning process, the evaluation considering the stages covered and the grades obtained as a result of formal education becomes more and more incomplete. The foundation of competences development is built though by a mix of methods and learning experiences which come from all the three forms, in a different proportion, considering a complex

individual, organisational and environment feature system.

There can be distinguished three main competences areas a person could hold: general competences, common to more fields and specific competences. The forms of education may pursue to develop a certain type of competences with a certain priority – for example the formal system may be focused more on common competences, non-formal one to those specific and the informal one to general competences.

Even though the learning experiences can be classified considering the three forms of learning, the interferences of the non-formal and informal methods, the proportion of time allocated to learning outside the formal system, the abundance of methods used to share the knowledge and the high level of interest for trapping the results of informal and non-formal learning into the evaluation process or into some formal certifications are all emphasis to existence of an interference between the three forms of education / learning.

Some important insights could be underlined in this interference area:

- Continuing education portfolio- represents a support tool for managing learning outcomes in different contexts, including non-formal and informal ones. It aims to bring together educational experiences of individuals at any stage of their careers, and through an adapted evaluation process, can be a more appropriate source of information on the competences owned for oneself, for parents, educators and employers (Colardyn, Bjornavold, 2005). An example of inserting non-formal and informal learning experiences in skills assessment is the Europass Language Passport, which integrates diverse learning experiences, including non-formal and informal.
- Widespread use of methods belonging to non-formal and informal learning area within formal learning - the training conducted to teacher and educators focus now on using non-formal and informal (role playing, working groups, socio-educational animation, (Hani, 2014) movies / documentaries, interviews, visits, trips, theatre, living library, etc.) in the formal framework in order to increase the learning outcomes and attractiveness of learning process.
- The so called “Different School”- is a structured program within the formal system, which intensively promotes formal and informal learning through the methods listed above; it is applied in different forms (either a specific time of year compact, or one day a week), but focusing on the proximity of the learning community.
- EU-funded projects and other public and private entities - encourage the use of formal and

informal learning methods, constituting itself as learning solutions for particular circumstances, which may not be included in the formal education system.

- Partnerships (also based on formal or informal) between educational institutions and various groups / organizations:
 - with family - meetings with parents, parental involvement in cultural events of the school and recreative activities, volunteering, parents’ associations, or services developed by the school of which the students’ families benefit - counselling centres, sports centres and other recreation centres, afterschool programs for children offering homework supervision after classes, volunteer centres; clubs; canteens; boarders, etc.;
 - with local authorities - various initiatives, depending on the local issues, such as those for enhance children's participation in pre-school and compulsory education, developing education programs for young parents, organizing training courses for children who cannot meet the program requirements, are dropouts in order to facilitate reintegration, organization and development of suitable leisure and recreation facilities in order to prevent school drop for economic reasons;
 - with the police - for preventive educational approaches and intervention in special situations, especially for prevention of juvenile delinquency and crime, reduce family, street and school violence; road safety education; prevention for social risk activities (drugs consumption or trafficking, persons exploitation, etc.).
 - with health establishments - education on specific topics, such as: personal hygiene at home, in school space, the environment; first aid in emergencies; sexual and reproductive health education; diseases and accidents preventions; sportswear; healthy food consumption etc.
 - with church - organizing joint cultural and artistic events at major religious holidays, trips, pilgrimages to various religious establishments; identifying the needs of children and families, as well as the risk situations where they may be located; information and guidance, to the various services; involvement in solving problems through community consultative structures.
 - with private sector - visits to businesses, open lectures, sponsorships from businesses for various events, representatives participation to economic events that aim to sustain the economic education, students’ involvement in business activities in order to apply knowledge acquired in school, counselling, activities aiming educational and vocational guidance,

presenting various crafts etc.; internship in certain fields according to specializations offered by the school.

- NGOs - initiatives extremely diverse, given the wide range of objectives and activities of NGOs (providing social services to different social categories of people; influences on the curriculum and on educational policies; professionalization and / or teacher specific training; involving teachers / pupils / parents / government organizations in various activities, promoting models of activities / projects / innovative educational programs.

SUBSTANTIATION OF NON-FORMAL AND INFORMAL EDUCATION EFFECTS

Considering the variety of the contexts in which they can be implemented, the cultural aspects that should be considered (Strauss, 1984) and the large period of time they produce effects, quantifying the non-formal and informal learning effects is very difficult.

A cost-benefit analysis would imply the existence of a systematic program on the education system, through which costs and benefits might be highlighted along with the positive or negative outcome, that might recommend or not the application of the program. Overall, the items that can be considered benefits of non-formal and informal insertions within the formal educational system come from net advantages of these forms of education:

- flexibility and customization of educational offer: decongestion of curricula and study materials; providing real opportunities for every education entity to create their own curriculum; introducing subjects / chapters addressing community life; students' support to demonstrate their talents and skills, supporting disadvantaged or gifted individuals to exercise their capacity;
- competence orientation: fast and appropriate answer to specific training needs, contributing to the local human resources development; contribute to broadening and enriching the general and specialized culture of the participants, providing professional development activities and completion of studies;
- increased educational system attractiveness: it creates opportunities for spending free time organized in a pleasant way; ensure a rapid update of information from different fields; maintaining public interest (Cuc, 2014), by providing flexible alternatives to all age groups and their professional training.

Cost elements are determined by additional resources needed (better prepared lecturers (Sava,

Lupou, 2009) smaller learning groups, more material resources necessary for learning process, more time for developing specific skills).

The side effects that can be highlighted are also interesting, due to the interference educational forms, such as the amplification media of cognitive gaps (Bunescu, Negreanu, 2005).

However, the most important gain, though "learning to learn" competence is visible on long term, when the attitude towards learning appears and is demonstrated in interpersonal relationships, resulting in a better and easier adaptation to the environment and increased productivity through an effective communication.

SAMPLE

In order to identify the perception on the three main forms of education, formal, informal and non-formal a pilot quantitative study on high university candidates was conducted. The questionnaire was distributed to 100 potential respondents, but only 53 could further be used in the current research. The instrument was developed considering the literature in the field and was composed by 20 questions of different types: matrix, multiple choices, hierarchical and so on. Regarding the sample, most of the respondents graduated high schools (88.7%), that are located in North-East side of the country (79.24%), are from urban areas (75.5%) and are 18-19 years old (86.8%).

In order to identify any possible perception differences between respondents and any correlation may occur we considered four independent variables, such as: *gender*, *type of high school* graduated (theoretical, technological and vocational), *monthly family income* and *respondents' performance* in terms of the mean obtained using results at the national exam (BAC) and those obtained at the end of the four high school years of study. The majority of our respondents are male (54.7%) and are from urban areas (75.5%). Considering the family background, 54.7% have parents with a high school degree and 45.3% have at least one parent with university studies. Regarding the high school type graduated, similar percentages had been recorded: 43.4% graduated theoretical high schools, 41.5% technological and 15.1% vocational. The performance variable will be discussed in correlation with respondents' perception on non-formal and informal education.

MAIN RESULTS

Considering the amount of time spent for each type of learning (formal, non-formal and informal), 72,55% (cumulative percentage) of the respondents

spend 3-6 hours for formal learning during a school year, besides course hours, while informal and non-formal learning receive most of the time less than 2 hours (Figure 1). As expected, the situation changes considerable during the holidays, when respondents spend more time for informal and non-formal learning (friends meetings, TV, internet, extracurricular activities) (Figure 2), even though there are rather high percentages for respondents who spend less than 2 hours for any type of learning (56.6% for non-formal and 39.6% for informal learning). However we consider that the learning process is continuous, so the results are referring to conscious type of learning when using non-formal and informal techniques.

The results are supported by another question which addressed the matter, showing that the formal learning is, on average, more used than non-formal and informal learning (38.87 points allocated as against 34.34 for non-formal and 27.17 for informal learning). The situation remains the same considering the gender as a control variable, even though statistically significant differences are registered for the other two forms (Table 2). Male respondents use informal learning more than female (30 points on average allocated as against 23.75; sig. < 0.05) and female respondents use non-formal learning more than male (40 points allocated on average as against 29.66).

A statistically significant difference is registered also considering the *monthly family income*. Respondents with a monthly family income between 3001-4000 RON use more non-formal learning methods (course preparation, extra-curricular activities) than those with a smaller income, 2000-3000 RON (Table 3). One of the reasons may be the fact that non-formal learning methods could be more expensive than the informal ones and it could not be afforded by families with smaller incomes. Considering the *type of high school* results show that respondents who graduated from technological field use more formal education (41.82 point out of 100), than those who graduated a theoretical one (36.52, sig. < 0.05).

No statistically significant difference was registered between respondents with variate levels of performance. However respondents with an average performance higher than 9.00 declared that their favourite discipline was math or computer science, while the ones with 8.01 to 9.00 average performance preferred foreign languages and mother language.

In order to determine what are the non-formal and informal activities that respondents consider them useful in acquiring and developing the competences they need a 5-points Likert scale was used. Respondents considered that top five activities that are very important and important in gaining their competences are: meetings and dialogue with friends, documentaries, music, family discussions

and learning visits to variate institutions (Table 3). Surprisingly at the bottom of their top are trips that are not organised by any institutions (just 10 respondents considered it important).

Regarding the competences acquired using the non-formal and informal activities, as was expected, the ones that are considered to be more soft are in the top five (Table 4): foreign and mother language communication, learning to learn, entrepreneurial skills and digital competences. Mathematical and technological competences are situated at the bottom of the top, having means less than 3.5 (out of 5).

The respondents' perception on the non-formal and informal activities is similar considering the *gender* and *performance variables*. However some differences occur, as male respondents consider the internet, computer games and behaviour observation of public personalities more important (58.6%, 41.4%, respectively 41.4%) as opposed to female respondents (41.7%, 29.2%, respectively 29.2%). Large differences of opinion register at six out of twelve non-formal and informal activities presented, considering respondents' average performance. Only two activities registered higher frequencies to respondents with performance greater than 9.00 (watching artistic movies and observing behaviour of public personalities) as opposed to respondents from the second category, with 8.01-9.00 average performance. On the other hand, respondents from the second category considered more important friends meetings, documentaries and news programmes, as well as visits to institutions (Figure 3).

The non-formal and informal tools used by high school teachers in teaching the students were documentaries, YouTube movies and tutorials, simulations, the internet and role plays. There are no statistically significant differences registered between these methods, considering the high school profile (theoretical or technological). The respondents were asked about their expectations regarding the methods that will be used during their higher education period. One of the question was open type, so most of the respondents used attributes that described them, like: current, modern, relevant, online, interactive methods. They were also asked to choose the most desired educational methods and the most chosen ones were: games (18.9%), role play (13.2%), internship (13.2%) and debates (11.3%). The results remained the same for respondents with different average performance.

Regarding the benefits of non-formal and informal learning, the most important one was chosen the positive impact on economic productivity. At the same time, some barriers were identified by respondents: the competitive pressure, high costs and lack of support coming from the employers. Significant difference of opinion was registered

between respondents considering monthly family income (MFI). Surprisingly 61.1% of the respondents with MFI between 3001-4000 RON think that high costs represents a barrier for having non-formal and informal activities, as opposed to only 41.7% of the respondents with MFI between 2000-3000 RON. Thus, in order to benefit more from the positive effects of non-formal and informal learning, more support from employers is needed and new ways form mitigating costs are required.

CONCLUSIONS

Education, as a support process for value creation at the individual and society level is a constant concern in civil society and the political environment as expenditures made by government / state should be recovered through effects capitalization, such as the quality of professional occupation, innovation, social environment insertion. Although the three forms of education (formal, informal and non-formal) have a differently distributed weight, from one country to another due to the various decision-making actors influences (usually financial influence), in order for education to be effective, it should exist and be used a holistic vision on education process.

It is important to take into account the maturity level of the individual, the more increased expectations of the individual and social environment, due to the rapid change and challenges and influences of constantly changing technology on education.

We are witnessing the emergence of certain new, innovative forms of education, corresponding to social change, the proportion of informal education increasing due to modern technologies for transmitting information, the family interest in children education, seen as a passport of success, training awareness as an investment that has no borders due to globalization.

Thus the current research, seek to address the necessity of aligning the three forms of education / learning in order to respond to the demanding environment. Further research could focus more on the effects that different forms of education /

learning could have at organizational and employee's level.

REFERENCES

- [1] Bontaș I. (2001) *Pedagogie*, Editura BIC ALL, Bucharest, p. 15-20
- [2] Bunescu, Gh.; Negreanu, E. (coord.), (2005), *Educația informală și mass-media*, Institutul de Științe ale Educației, București
- [3] Colardyn, D.; Bjornavold, J., (2005), *The learning continuity: European Inventory on Validating Non-formal and Informal Learning. National Policies and Practices in Validating Non-formal and Informal Learning*, disponibil la www.cedefop.europa.eu/files/5164_en.pdf
- [4] Coombs P., Ahmed M. (1974), *Attacking rural poverty: how non-formal education can help*, Baltimore, MD, Johns Hopkins University Press
- [5] Cucuș C. (1996), *Pedagogie*, Editura Polirom, Iași, p. 26-40;
- [6] Cuc, M. C., (2014), *The influence of media on formal and informal education*, *Procedia - Social and Behavioral Sciences* 143 (2014) 68 – 72
- [7] ****Educație, <https://dexonline.ro/definitie/educa%C8%9Bie>
- [8] **** Êducation, <http://www.larousse.fr/dictionnaires/francais/%C3%A9ducation/27867?q=education#27722>
- [9] Hani, A., (2014), *Utilizarea metodelor de acțiune în formele educației continue a adulților*, in *Revista română de psihodramă nr. 2 / 2014*
- [10] Kleis R. J (1974) *Non-formal education: the definitional problem*, Michigan State University
- [11] Sava, S.; Lupou, R., (2009), *The adult educator in Europe – professionalisation challenges and the alternative of validation of learning outcomes*, in *Procedia Social and Behavioral Sciences* 1 (2009) 2227–2232
- [12] Strauss, C. (1984). "Beyond 'Formal' vs. 'Informal' Education: Uses of Psychological Theory in Anthropological Research." *Ethos* 12.3 (1984): 195-222.

ANNEXES

Table No.1
Advantages and disadvantages of the three forms of education

Education forms	Advantages	Disadvantages
Formal education	<ul style="list-style-type: none"> - elaborate and time-bound programs as a social order; - official framework and well trained staff; - recognition of individual gathering of knowledge; - dictated by the individual's needs of social integration; - multiple expectations from individuals. 	<ul style="list-style-type: none"> - orientation toward compliance with the requirements of the approved programs and not to changing environment; - large volume of transmitted knowledge which will not be applied in practice; - monotony and capping that can lead to lack of motivation; - high social cost, impossible to be recovered; - overlapping demands from social and political environment.
Non-formal education	<ul style="list-style-type: none"> - non-formal framework; - flexibility and variety to the interest felt by education; - help for those with reduced formal education opportunities; - complementary to formal education as content and embodiments; - specific skills and competence development, in a relatively short time. 	<ul style="list-style-type: none"> - specific knowledge transmission which are asked in a certain time; - " popularization" of science, not perverting its values, lack of valuation for teaching tool; - relatively high costs endured by individuals
Informal education	<ul style="list-style-type: none"> - adapting to real situations of everyday living of the individual; - efficient use of knowledge gained through trial and experiences; - managing their own training process. 	<ul style="list-style-type: none"> - lack of skills certification proofs; - sometimes just empirical knowledge learning; - large period of time needed to be trained; - motivation issues, in time.

Source: adapted from Cucuș (1996) and Bontaș (2001)

Table No.2
T-test for equality of means considering gender and monthly family income

Forms of learning	Gender	N	Mean	sig.	MFI (RON)	N	Mean	sig.
informal learning	M	29	30.00	.012	2000-3000	24	45.21	.038
	F	24	23.75		3001-4000	18	37.50	
nonformal learning	M	29	29.66	.013	2000-3000	24	27.08	.01
	F	24	40.00		3001-4000	18	29.44	

**Legend: N = number of respondents; M = male; F = female; MFI = monthly family income*

Table No.3
Respondents' distribution considering non-formal and informal activities

Items	N	Freq
Q3_meetings_dialogue_friends	53	36
Q3_documentaries	53	31
Q3_music	53	24
Q3_family discussions	53	22
Q3_intititutional learning visits	53	20

Table No.4
Competences acquired through non-formal and informal activ.

Items	N	Mean
Q4_communication_foreign language	52	4,04
Q4_learning to learn	53	3,92
Q4_digital competences	53	3,89
Q4_proactivity and entrepreneurial skills	53	3,58
Q4_communication_mother language	53	3,53

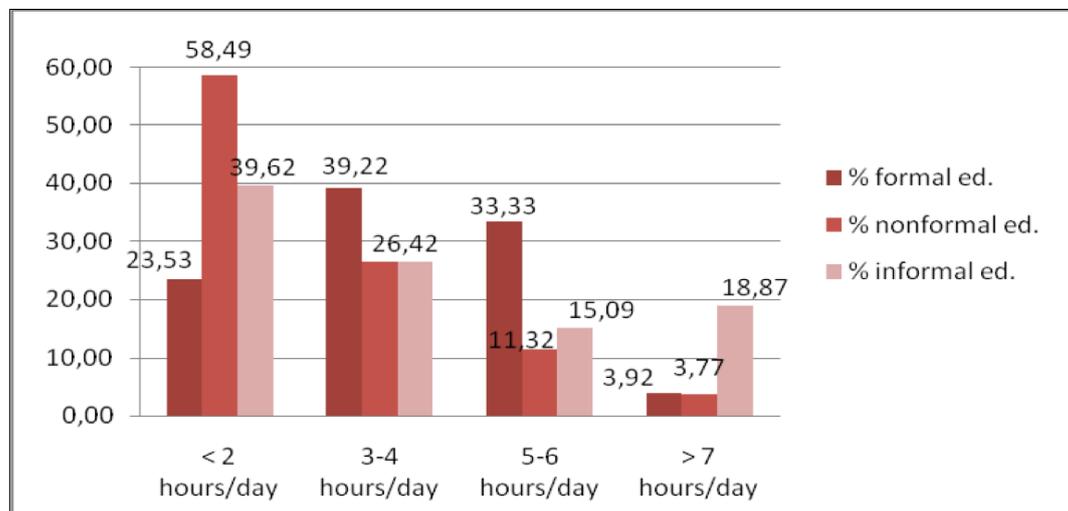


Figure No. 1 Respondents' distribution considering the time spent during a school year for the three types of learning.

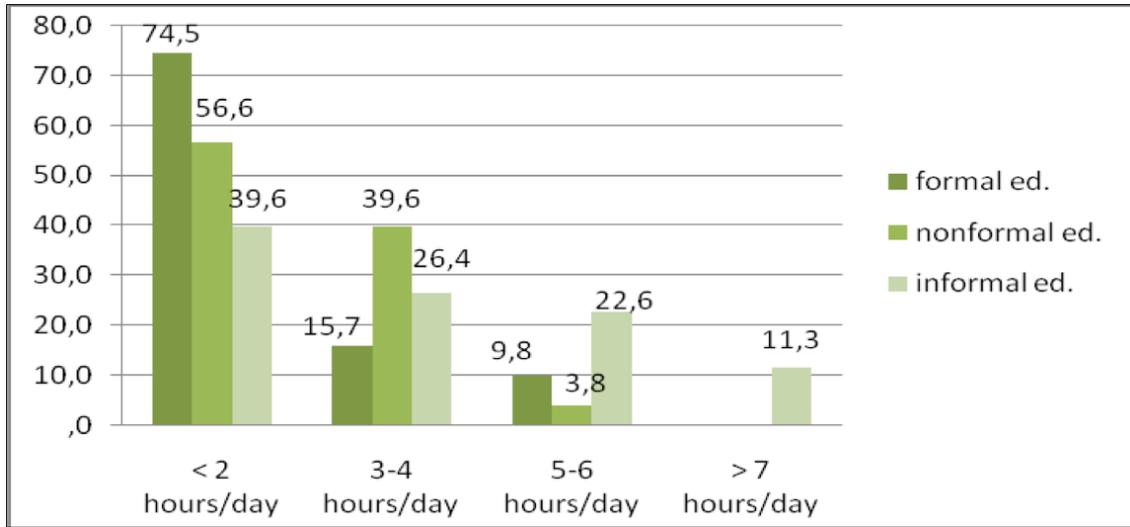


Figure No. 2 Respondents' distribution considering the time spent during holidays for learning.

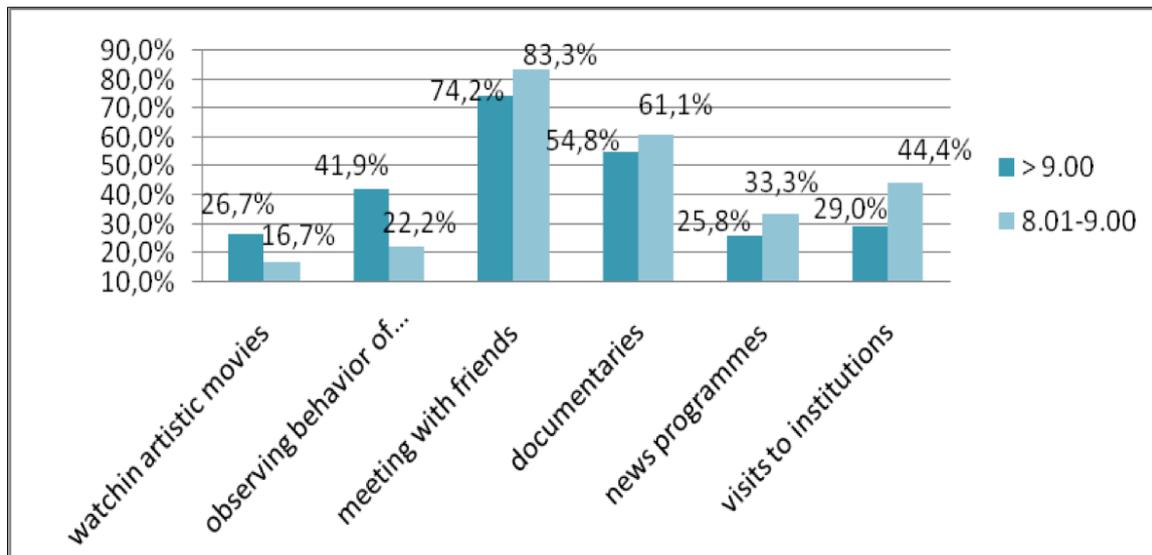


Figure No. 3 Respondents' distribution considering the importance they perceive for nonformal and informal activities.