

## DIGITAL LITERACY IN NEW FORMS OF EDUCATION

### Literacy and its interpretations

Just we can go into the past and see there mankind giving itself into a recognisable formal social formation, so we can see there always some effort to up-bring and educate youth. As the social structures have always been connected with the establishment of a system of education, either formal or (at least) informal, so education has always been connected with removing, or at least the elimination, of illiteracy. The very first basic task of schooling, teachers, school institutions, and school policy has been to develop literacy: the literacy of youth and, in a broader sense of all citizens.

The notion *literacy* is a very old professional term. Nowadays, we can see this term more often, and often having been modified with various adjectives. One speaks about reading literacy, computer literacy, second literacy, media literacy, information literacy, science literacy, technical literacy, visual literacy etc. If in however the case of literacy (by itself) we all know what we mean, this need not be the case with these other special literacies.

The term “literacy” it is generally accepted as being the ability to understand knowledge of the alphabet, represented by having skill to read and write (while knowledge of figures and summing up skills represent a special kind of literacy, so-called *numerical literacy*). This basic content of the term literacy has remained the same for the centuries. It has changed only very slightly. In the 19<sup>th</sup> century the knowledge to read and write meant a skill to sign and read one’s name. At the beginning of the 20<sup>th</sup> century a literate person had to know already how to read and write a letter, yet this is not enough today. Today, to be designated as literate one has to be able to use the knowledge of reading and writing in a contextual way.

UNESCO has fulfilled a very important role in the struggle against illiteracy. The above-mentioned slight shifts in understanding of literacy can be seen also in definitions of the term literacy accepted by this organisation. In 1958, UNESCO defined literacy as the ability to read and write a short simple statement based on common life. But from 1978 UNESCO has been speaking about *functionally literate* people, as those who are able to participate in all activities which enable them to continue to use reading, writing and counting knowledge for both the sake of their own development and of community development.

In the context of the current UNESCO definition of literacy we can see that the requirements from a literate person nowadays include his/her ability to act in the

expanding world of information: a literate person should be able to use information in such a way that it will allow and enable him/her his/her full integration into the community. Literacy is understood as a basic precondition for one's social participation in the life of society, a precondition for both his/her own personal prosperity and the prosperity of the whole society.

Living and acting in the current information society, as it has been stated by UNESCO, leads us to the already mentioned notions of the specific literacies that we are facing today. Among them the most frequent are information literacy and computer literacy.

### **From information and computer literacy to digital literacy**

*Information literacy* expresses one's ability to identify a need to obtain information, to choose which kind of information is necessary to deal with a concrete task (problem), to find the required information, to assess its reliability and adequacy (as linked with the task or problem), to rank it, and to use it to be able to solve the task (problem) successfully and effectively. As we live today in the conditions of a so-called *information society*, it is specified that knowledge and information are to be processed by the means of information and communication technologies which are based on computer technologies; and information literacy (having nothing in common with computers) can be further developed only on the basis of computer literacy (so-called second literacy).

In contrast with to the term *literacy*, the term *computer literacy* is on the one hand more considerably historically determined and, on the other, the meaning of this term in its time-relations has been changing very quickly. If in the 70-ies of the last century computer literacy meant a basic knowledge of programming, today it is mainly the ability to be a successful and effective user of professional software and computer peripherals.

In the case of both computer and information literacy it is very difficult to define in a complete way the content of such notions. The current tendency is to use for them so-called *standard definitions* consisting of a list of knowledge, skills and abilities which one should be able to use to be either computer or information literate. Related to this, we can find in various sources a lot of such definitions or lists (of a larger or smaller range) created by various specialists, authorities, institutions, committees and bodies.

Some authorities suggest using the term *digital technologies* instead of the term *information and communication technologies* – consequently they speak about *digital literacy*. In Slovakia there have been some tendencies to use the term “digital literacy” instead of the term “computer literacy” because the basis for all computers (and information and communication technologies, too) has become digital technology. We can object that digital technologies include also further ones, e.g. the means of production, and that in this relation, too, the term digital literacy is the more unclear than the term computer literacy. But despite all these rational objections, the further development in education will probably lead to a requirement to use a special kind of skill – which can be named literacy – as a platform for successful acting in

new educational forms and environments. Information and communication technologies, – let's say digital technologies – influence education in several ways: education is supported by these means, education is presented by these means and education is more and more also being managed by these means. A dominant common feature of all these processes nowadays is the fact that they utilise a new multimedial dimension for the creation of electronic forms of teaching materials, which leads us to e-learning issues.

Various authorities dealing with education and the use of information and communication technologies in education give different definitions of *e-learning* – and they have a different approach to an understanding of this term: they differ mainly in how much can be included in this notion. One approach defines e-learning only as so-called *computer based training* (CBT), another definition broaden it to *technology-based training* (TBT – education supported by different electronic media, e. g. interactive telecasting, videoconferencing, audiotapes, CD, DVD). A further approach recognises it as *web-based training* (WBT – education supported by web technologies). In some cases e-learning is identified to be a special kind of *distance learning*. At all events, e-learning should not be limited only to the teaching process as we know it from schools, for its potential possibilities are far greater (mainly in terms of life-long learning). The European Commission defines e-learning as the use of new multimedial technologies and the Internet to enhance the quality of education by the means of accessing information sources and services and by the means of their exchange and co-operation.

### **Approach of youth to computers and digital technology**

At present, e-learning is something new in education. We can explain or characterize it as a new complex, enlarging service in education. The letter *e* stresses the importance of digital technology in this new kind of service and it also refers to its possibilities in education. Very likely there will come a day, when this letter will disappear from the name – so what we now call e-learning, in the future will be normal, traditional learning/teaching. Also as, today, a precondition of any further education is (reading and writing) literacy, tomorrow it will be digital literacy. (On this point also the importance of digital literacy for teachers and the performing teaching profession should be stressed.)

For young persons computers and digital technology with their various applications, are an integral part of the environment people have been born into. These means and the rapid the dynamic development accompanying them, are a normal matter for youth. Young people acquire digital literacy alone side school: at school it can be only broaden itself and be more formed in an appropriate way. We were interested how these matters are reflected in attitudes of youth: what life values are mostly accepted by the such persons, what are their interests and spare-time activities, and how the computer technology is reflected among them.

Pilot research aimed at exploring the interest and value orientation of the young people – and reflection of computer technology in such orientations – was carried out in the academic year 2003/2004. The research sample was 209 secondary school

students (107 girls and 102 boys) from 2 grammar schools, 4 secondary technical schools and 3 secondary vocational schools. To minimise the possibility of misrepresentation of the results, the selected schools were not specialised in computer technology studies.

The obtained *value hierarchy* of the young persons (aged 15–19) has been the following (listed in a descending sequence): life, a good job, education, health, a full-value life, friendship, material welfare and material life-conditions, social recognition, a sense of life, self-achievements and self-realisation, love, spare-time activities (hobbies and interest activities), family, self-confidence, originality, happiness, tolerance, moral values, intellectual values, freedom, justness, ecological values, nationality. To create the ordinal hierarchy and set the sequence of its particular items coefficients of signification from the input data obtained from the investigation carried out among the selected research sample were counted. On the basis of these coefficients the *figure 1* and *2* show the numerical differences among the levels of importance given by youth to the particular life values in their value hierarchy. *Figure 3* and *4* show the results separated for girls and boys. Let us summarize the most interesting findings of the study:

- Of great interest is the emplacement of a good job along with education. For boys a good job is of the same priority as life (the highest values). Education goes only after obtaining a good job. Girls rank education and a good job equally, beneath life. The results show us to get a good education is appreciated by both girls and boys very much. Youth is very often assessed as losing interest in education because of its striving for material goods. We can see here that, contrary to this estimation of the young they have an interest in education and rank it with their life goals. Of course, we may be in some doubt as regards the reason why this is so. Current consumer life styles influence youth to some extent, which is reflected in their value hierarchy: material welfare, i.e. material life-conditions, are placed on the same level as friendship (with the difference between boys and girls in that girls rank material life-conditions ahead of friendship, and boys are vice versa) with this going above such values as a sense of life, love and family. This lead us to a hypothesis that education is highly valued by youth today as a necessary precondition to satisfying one's own material needs – and not as a moral value (a pre-condition for intellectual largeness). Another fact supporting this hypothesis is the general “fall” in both moral and intellectual values.
- From the perspective of our research, of great interest the is the finding that hobbies and interest activities (spare time activities) are highly appreciated by the young people – and they reach the level of as such values as family and love. This result indicates a significant change in life style and life values as accepted in society.

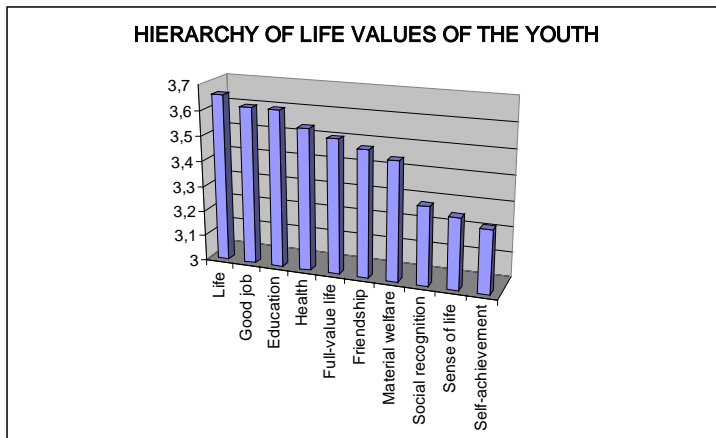


Figure 1: Value hierarchy of young people with coefficients of signification of its particular items – part 1

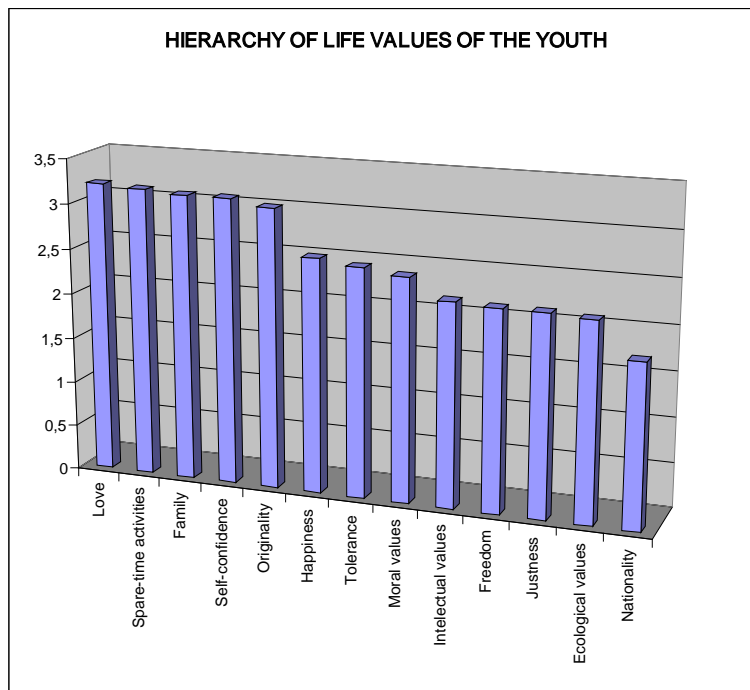


Figure 2: Value hierarchy of young people with coefficients of signification of its particular items – part 2

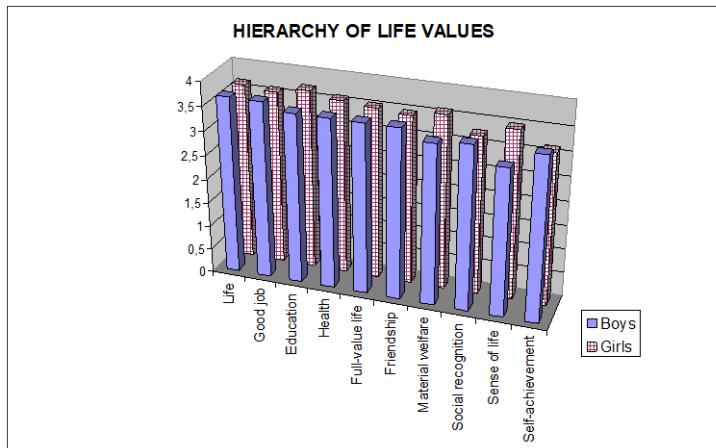


Figure 3: Value hierarchy of young people with coefficients of signification of its particular items: separate results for girls and boys– part 1

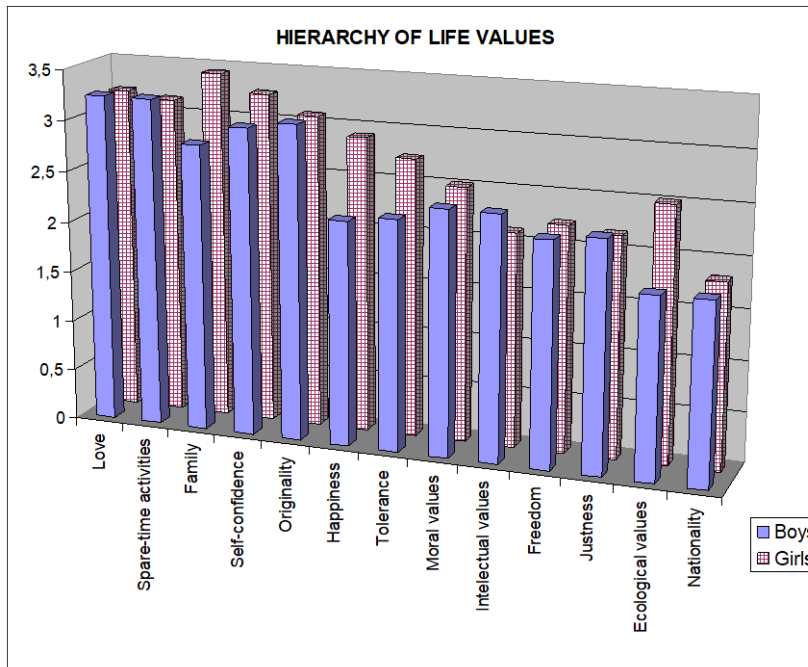


Figure 4: Value hierarchy of young people with coefficients of signification of its particular items: separate results for girls and boys– part 2

- Questionable is how to interpret the result observed nationality. Its position on the lowest place can be related to the already mentioned “fall” of moral and intellectual values due to a higher orientation towards material welfare. Yet it can also be related to the increasing globalisation and integration of the world. This means that holding onto national and country “principles” is accidental for youth they appreciate more to be “Europeans”.

The obtained hierarchy of students’ *hobbies and interest* is the following (again listed in a descending sequence): music, entertainment with friends, exploring new countries, nature, active sport, discos, cinema, concerts, foreign languages, watching and going to sport competitions, computer technology, animals, watching TV, theatre, nature protection activities, sci-fi and detective novels, biographies and books of travel, professional literature, fine art, poetry, art exhibitions, and fiction.

Computer technology opens the second part of the most frequently resorted to areas of the youth’s hobbies and interests. The results show us, that in connection with their personality development and value hierarchy formation, computer (digital) technology is becoming more important factor than television, literature and/or art.

Significant differences between boys and girls appeared only in two cases. The first is that, for girls, foreign languages and theatre belong among to the most frequent interests, fiction occurs at the beginning of the second half of their interests while entertainment with friends and active sport are situated far lower. The second case looks solely at computer technology, and girls (and more specifically a group of girls attending a secondary grammar school) pay a surprisingly lower amount of attention to this field, for it holds only 17<sup>th</sup> position in their assessment.

### Conclusion

The obtained results regarding the interests and hobbies of the young people show that during the last 30 years the situation has notably changed. Whereas in the previous century the most favoured spare time activities of youth were reading, sports and music (in this order – and these were followed by watching TV, nature and tourism, handicrafts, theatre), today music pre dominates, and reading is somewhere at the bottom of the interest range. This result is probably caused to a great deal by computers, digital technology etc., and also linked media. Such media bring people traditional literature and music in new forms and sometimes it is very difficult to say which causes the greater interest: whether it is digital technology or music (considering, for example, pre possibilities interest in programming music).