

PARADIGMS OF ARTISTIC KNOWLEDGE AND MUSIC EDUCATION

Jaroslava Gajdošíkova Zeleiova
Trnava University in Trnava, Slovakia
E-mail: jaroslava.zeleiova@gmail.com

Abstract

The changing cultural paradigm of a descriptive model into a meaning-oriented model (a holistic model) has been influencing processes, contents and contexts of art education (WaW Factor Research, DeSeco). Aesthetic literacy is grounded in language discourses of knowledge: cognitive regularities of speech, its grammar and syntax, at all levels. The present paper deals with the discussion on noetic dimension in (music) art with the possibility of an overall perception of art, music in particular. Integration of more sensory modalities at the level of sensory perception while finding the artistic value (reception) presumes integration at the level of meaningfulness as well. The integration of the value of an artwork into human experience is realised by expression, impression and reflexion of the artwork. Search for the value of an artistic creation is a case of a process when a sensory perception finds its actualisation in a motoric expression and its importance is adequate to life context, thus the artwork is created by the means of a meaning and at the same time the artwork delivers certain meaning, too.

Key words: *aesthetic literacy, logical-symbolical communication, operationalisation of experience.*

Introduction

The 21st century is characteristic for its quick lifestyle, where economy and a great quantity of knowledge has been changing society in the most dynamic manner. Therefore it's necessary and important to develop creativity, critical thinking and communicative skills for the purpose of coping with the given life challenges and changes.

At the end of the 1980s we mark the beginnings of origination of the cultural literacy movement in the American scientific community as a reaction to the publication of Eduard Donald Hirsch, Jr. (Hirsch, 1987). From the anthropological perspective the movement considers the ability to inculcate into given social, artistic, political, economical, environmental or any other surroundings and an effective transmission of knowledge, acquired in school environment, into practical sphere, being the foundation of any erudition. Under the term of cultural literacy we may understand the ability to understand and appreciate similarities and differences in customs, values and beliefs of a given culture towards a culture of other people, but primarily, the ability to orientate oneself productively and reflexively in one's own culture and its values, i.e. the ability to create adequate values and to interpret effectively the values of the given culture. Cultural literacy enables an adequate cognition of historical, aesthetical, social or technical contexts and simultaneously, it constitutes the given culture reciprocally.

Information about structuring of knowledge, development of literacy theories and systemic cognitivistically oriented approach have gradually shifted into the whole system of education and into approaches of curriculum creation. Scientific literacy theories have influenced school polity and its reformatory direction in postmodernism as well.

Aesthetic Literacy

The conception of aesthetic literacy is grounded in actual discourses of pedagogical knowledge; it is a critical reaction towards domination of technocratic approaches and rational way of cognition. It is based both on intellectual discourse and imaginative-intuitive cognition; as it is oriented synthetically and holistically, it connects rational information and physical, or sensual ways of acting, both being equivalent and relevant sources of cognition.

Art whose aesthetic value is verticalised in the dimensions of the beautiful and the ugly, harmonious and disharmonious is in the horizontal line influenced by period-historical style and values of the society. Art is an optimal creative space where an individual can express their being and can be reflective of this being using specific means and structuring aural, graphic, relief, verbal, motoric or physical shapes. Human characteristics are manifested in art and simultaneously, the overall psycho-social atmosphere of a period is reflected there; the artistic production is also dependent on outer off-art situation and at the same time it influences it. Art accompanies a human throughout their whole life, it becomes their constant guide at the changes in time as it can make their experience and contemplation audible, visible or tangible.

Art has an integrative character, it integrates:

- various expressions of creativity – integration of modalities of creativity (reality is depicted in diverse forms of art),
- various sensory perceptions – sensory integration (expressions of beauty are perceived by all senses and in a complex manner, according to the kind of art with an accent on a particular sensory perception),
- various polarities of experience and thinking – emotional-cognitive integration (impressive, expressive and reflexive character of art is a part of interlinked psychic processes).

Educational reality will always remain dynamic; it will oscillate between polarities of verbal sharing (intellectualism) and performance staging (empiricism). The conception of aesthetic literacy stresses and integrates both poles, it doesn't approach reality only partially, but in a complex manner. In school system, this polarization is displayed in balancing of descriptive model, which communicates cognition only factographically, with the meaning-oriented model, where the interposition of context and the finding of both individual, subjective meanings (personal meaning), and objective meanings, historically and culturally verified, is of importance.

Aesthetic literacy is considered being a key metacompetence, it is concerned with the ability of coping with artistic realities reflexively and creatively, the skill of „*reading symbolic cultural shapes in socio-historical space as signs of full meaning*” (Liebau & Zirfas, 2008, p. 216) and „*an ability of perceiving and communicating in the language of art, demanding personal determination and commitment*” (Gale, 2005, p. 4). It presumes the curriculum to be established in such a manner that it would be possible to know the grammar and syntax of art actively (analogically, like the regularities of a language).

In order to aesthetically orientate oneself and apply one's taste in everyday reality, it presumes willingness to enter a dialogue with oneself, the surroundings and the depicted environment (Figure 1). It is the only way how to give a true picture of depicted artefacts, how to interpret them, create and evaluate them, concerning their form and effect; if we can perceive them, a specific aesthetic literacy is linked with the ability of sensibility and representativeness. Sensibility concerns the quality of perception and experience, representativeness concerns the symbolic expression. Symbolic phrasing can be reached by conscious communication, becoming aware of intrapsychic contents in external framework, being able to work with metaphors and to generalize outer features of things, phenomena and situations into meanings. Expressing oneself about beauty is often falling behind experiencing various qualities of beauty. The ability of transferring of the heard/seen into the spoken is more difficult than it may seem, because it is a more complex psychical operation than perception itself. Naming of experience is falling behind audibling of sensory experience (Fankhauser, 2009). The problem of representativeness of aesthetically literate person is connected with the possibilities of language clarification of aesthetic

dimensions. The ability of verbal reconstruction of aesthetic experience comes under the field of aesthetic literacy.

Aesthetic experience (Figure 1) is an outcome of:

- adventure (perceptual-emotional process),
- knowledge (processing of aesthetic adventure by assessing its value),
- performance (an explicit accord of will and cognition manifested by a certain decision, value foundation of one's own aesthetic activities) and
- communicating (implicit necessity of transfer of knowledge to other people, mainly through creative activities).

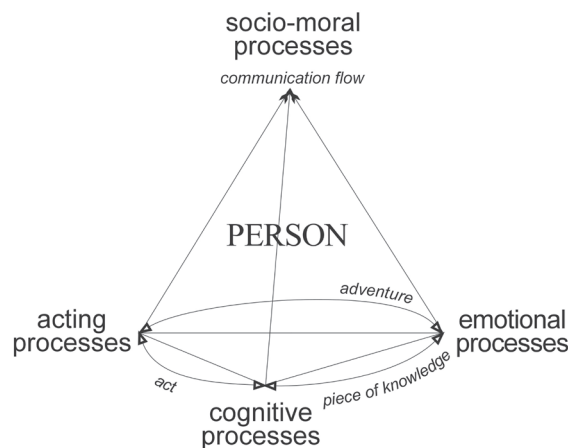


Figure 1. Aesthetic experience.

Musical Literacy

Musical literacy is a concrete manifestation of aesthetic literacy in musical-artistic modality. It is an ability to understand modes of coding of cultural awareness, communicative contents, behaviour and experience of people of a given period in music. Musical literacy represents „*an ability to hear what we see and to see what we hear*” (Feierabend, 2009). Musical literacy is „*a competence to use notation for one's own purposes and needs like a medium of archiving, creating musical sketches, arranging, or attuning at improvisation, decoding of musical model, examining musical forms, structures, course etc.*” (Kaiser, 1995, p. 5). In a broader sense it is about increasing the applicability of music for oneself, its greater disposability in pragmatic life.

Feierabend (2009) emphasizes that readiness in the field of singing skills (effortlessness of performance, vocal hygiene), locomotive skills (elegance of movement, good coordination and optimal muscular tonus) and sensitivity of expressive phrasing are all necessary for forming of musical literacy.

Inter alia, one of the tasks of musical pedagogy is to mediate general musical literacy, i.e. an eligibility to read and write music scored in a five-line system at ease. Nevertheless, musical literacy is seen as being probably more than just an ability to transform the heard into the read, a sound into a visual form and vice versa (Ott, 2004). It is about the ability to comprehend music, its functions, expressions and meanings; to produce elementary music, reflect musical environment, broaden one's own knowledge and potential by creative involvement and the ability to take an attitude to musical artefacts.

Musical experience is a conscious process of creating relations and simultaneously, it is an outcome of man's relationships toward concrete musical-acoustic surroundings. The impressions

and adventures induced by music are processed in an experience. Potential musical abilities are developed by musical experience; in experiential learning we acquire knowledge, skill or certain habit concerned with music. These are later being intermediated in a various extent of involvement to the surroundings so that we musically interact (Figure 2). Sensory, emotional or intelligible (cognitive-spiritual) contents of music are communicated in socio-cultural space.

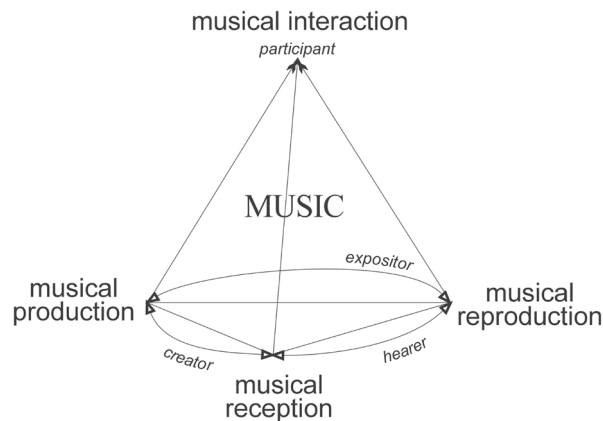


Figure 2. Musical experience.

In the context of education if a musical artefact is presented meaningfully and in an interesting manner, there occurs an integration of emotional-motivational and cognitive processes in musical processes (reception, composition and interpretation). Musical curriculum and aesthetic alphabetisation support creation of value contents, their hierarchisation into the value system (Figure 1). The assessment of musical artefacts is like a process of testing reality (balancing of tension) and joining emotional experience, needs, aims (individual meanings of music) and rational judgement (by learning about social meanings of music).

Conceptualization and Medialisation of Musical Space

Gruhn (2003) assumes that musical processes of learning are successive and spiral, similarly to speech processes – a child learns first the spoken language and then the written language. Analogically, in musical pedagogy it is needed to learn communicate musically first (Günther, 1993; Kaiser, 1995) – play with tones by the medium of hearing and later on learn how to encode and decode them in their visual form in musical notation. The succession stems from a fact that communicative strategies are an outcome of a deeper structured language competence. The modalities of speak – sing/hear (phonic medium) or read – write (graphic medium) differentiate in their structuring: graphic medium enables retrospectively e.g. a new organisation of acoustic shapes. While conceptual literacy indicates a picture of the world engraved by language, which is structured through learning; media literacy serves the ability to communicate this picture differently.

Euro-American culture is marked by conceptuality – greater domination of cognitive structures in perception of music, because fixed music and the dispose of graphical fixation (writing) enables external spreading of cultural memory. Non-European musical culture is oriented more toward complexity – multisensorially and physically, with strong somatic phenomena, since musical shapes are memorized internally, through one's own sensomotrics. The medium of cognition is one's own body which communicates this cognition to next generations.

The risk of the dualism conceptual literacy versus media literacy (rationality versus multisensorics/somatics, external cultural memory versus internal cultural memory) is the accentuation of one of the polarities. In the western musical culture it is the case of controlling

one's own motoric expression while singing and playing through eyes, not ears and thus acoustic signals of music are not primarily processed by the receptors of hearing. Unfortunately, it seems, that musical pedagogy has accommodated to the western concept of musical literacy and the education toward music and by music is practically realised by a cognitively accentuated model.

At the same time, knowledge of developmental and cognitive psychology clearly indicate that the primary natural cognition of reality around us – thus the acoustic reality as well – occurs through sensory and motoric differentiation. It's the cognitivists who consider the ability to orientate oneself sensorially and motorically in an amount of stimuli, selectively and intentionally, being the basis of the mechanism of cognition. If the basis of cognitive processes is not sufficiently incorporated (sensomotor cognition), it's not possible to develop secondary cognitive operations sufficiently as well (symbolic, concrete and logical cognition). Sensory analysis deepens and differentiates itself with the increasing age, because at an early age child's perception is syncretic and global, accumulation of sensory details without their mutual connecting is characteristic. Sensory details are integrated gradually, by repeating and acquiring motoric schemes and habits. It's about a deep unity of sensomotor processes from which perceptions and habits are being developed in the period before the arising of speech and images. These are coordinated by active repetition from the learned sensory schemes; child is able to orientate itself consciously toward surroundings and decentralise attention, to connect mean with purpose and to start making experiments systematically. The process of reactions is repeated until it's internalised at the level of sensomotor intelligence – together with morfogenetic correlate. Sensomotor process is rhythmical, repeated in certain regular intervals. Thinking is developed only later in spatial and time flexibility – structuring of individual operations of thinking happens gradually by the so called operational grouping. Acts of sensomotoric intelligence are dependent on mutual coordination of perceptions and real movements following each other, directed just at practical satisfaction of the child's needs, they regulate its balance and possibilities of adaptation toward stimuli of surroundings. Practical cognition occurs only later on by involving operations of thinking like synthesis, analysis, induction, deduction, analogy, comparison etc. According to Piaget's theory of cognitive development (Piaget, 1997, 1999; Heidbring 1997) rhythm, regulation and grouping prove to be three phases of natural developmental mechanism.

The concept of aesthetic literacy should be projected in musical pedagogy, which respects regularities of cognitive development, in its curriculum. In the procedural respect it is necessary so that – analogically to cognitive development – the development of musical speech was being formed, too. Operations of thinking at the transfer from the heard to the verbal are a manifestation of more mature psychic processes, these fall back on sensomotor experience.

Didactization of Aesthetic Space

Within the school policy in the art sciences formation it is necessary to respect both verbal delivering of information (cultivating of the ability to verbalise aesthetic experience) and nonverbal representation (performance component of intelligence) – accomplishing and going through an experience by a creative act which are – according to developmental logics – primary and they form the basis of cognition. It is needed to proceed from perception and sensual or somatic cognition to symbolic intermediation of reality or fantasy and afterwards to operationalistic cognition and (re)constructing processes that a human is able to share with others.

Musical education is principally an experimental situation where a person learns to create things consciously, to experience and reflect a musical aesthetic situation. Aesthetic educational processes are an outcome of balancing of reflexive and creative (performance) practice, it is „*a training aimed at dealing with uncertainty*”, equilibristics of tension in time and space, „*habituation of undemanding character and unassumingness*” (Liebau&Zirfas, 2008, pp. 215-220); the reason being the fact that in musical art it is a case of processes of coping with a form on one hand and aesthetic qualities on the other hand, and this is being done through expressions and meanings. In musical art it is about experimenting with tension between playful space of sounds/tones and their stabilisation in space, between dynamism and anchoring.

In German musical-pedagogical and fine art-pedagogical circles and scientific discussion there debouch tendencies to didactize artistic education in higher quality. It's directed at the so called illustrative didactics and the didactics of imaginativeness, up to the didactics of visuals. It is appealed to cognition of specific procedures how to understand the language of art in order it would give a meaning to a concrete person in their life and thus it would broaden it for a qualitatively new dimension of aesthetic cognition and experience (Gale, 2005; Busse 2008).

Didactization of aesthetic literacy focuses on adequate and to cognitive development related successiveness in education (Duncker, 2006). It recommends indentifying the individual parts of perception at first, analysing them, later synthesising them into relationships, while the quality of elements is substantial.

Personally, besides aesthetic intensive experience we assume the verbalisation of hearable/depicted/somatized reality and its cultural connotations to be of importance, because like this there occurs processing and abstracting of discovered reality into the integrity of cognition. Cognition takes place on the basis of repetition of sound/tone symbols in musical context (their quotation or metaphorisation, paraphrasing) or on the basis of contrasting or variance connection of symbols in musical context. Due to the transfer of actual cognition new coherences are created.

WoW Factor study (Bamford, 2006) supported by UNESCO and carried out in cooperation with IFACCA offers results of analytical research of »education in art« and »education by art« from more than 40 countries in the world.

The research compared qualitative studies. Enthusiasm and the ability to attract attention (aha-moment, wow-effect) appear in all of the studies as one of the most important moments of effective aesthetic education, whether musical, dancing, fine art or literary. The attractiveness of musical curriculum for the learners is highly dependent on personal involvement of a pedagogue and his didactic erudition.

Similar attitudes toward these issues are held by a team of international authors (apart from the authors from Eastern Europe) who besides the problems of formal education at school institutions analyse also the informal musical education in families and churches. They bring about new perspectives on forming through art – the problems of corporeity and spirituality, as artistic creativity is linked with the integrality of self-representation, ethicality and authenticity of identity.

Logical-symbolical Communication by Art

Kucer (2005) holds the support of altered communicative systems like music or mathematics and alternative ways of communication by art for possibilities of acquiring the skill of adequate interpreting of any meanings.

Tenability of the need for formation of aesthetic and musical literacy lies both in functionality of perception and interpreting at symbolic and metaphoric level (linguistic and cognitive level of literacy) and in functionality of symbolic representing, communicating and interacting (sociocultural and developmental level of literacy). It is about two complementary perspectives – functionalistic and anthropological, where the instrumental pragmatism meets the growth model of personality. Aesthetic literacy does not only serve the purpose orientation in life, but it also deepens this orientation and ability to communicate and create meanings for next generations.

With the integrative approach to artistic creation it is necessary to realize the complex character of art – in its miscellaneous forms it is always an expression of human activeness and thinking, enthusiasm and reflexivity, intuition and logics, a fight between a certain conservative abundance of rules of structuring and simultaneously their violation, tendencies to stagnation and at the same time of dynamism, fixed and newly, flexibly changed shape. These seeming polarities between experience and cognition, rationality and emotion, dependence on a familiar shape and originality, stereotyping and spontaneity in an unknown space get into a new relationship in the dimension of artistic experience.

Symbolic and logical rationality bring a structure in the sensory experience, they reveal bonds. Various social discourses influence interpretation of the sensory and the ways of finding the meaningful. Symbolic language that art is operating with touches not only the cognitive side of the hearer, his beliefs, but also his motifs, interests, aspirations, desires and needs. It enables them to confront with their own limits and possibilities. Until they hit the borders of experience, they are not forced to contemplate about the value of good and beauty and make decisions in accordance with the truth. Symbolic way of verbalisation hits the values connected with the existing experience of the hearer. Mostly it gives a vivid picture of emotionally filled memories, revives sensorial field (integrated in the past experience). From the perspective of transformation of non-intentional processes of the hearer the symbols are often more effective than logics, with their multiple conceptuality they affect volitional processes more directly through projection, they attack intentionality (intention). They express paradoxes, tensions, life conflicts. Rational logics works more with the definiteness of meanings, clarifies assumptions and leads to arguments. However, the evidence for the truthfulness of the answer to the question »why does a human live? « and »why does a human create? « is not purely logical, even not symbolic. It is not only about rational arguments, but about ontological reasons that are directed at the integrity of being (Figure 3).

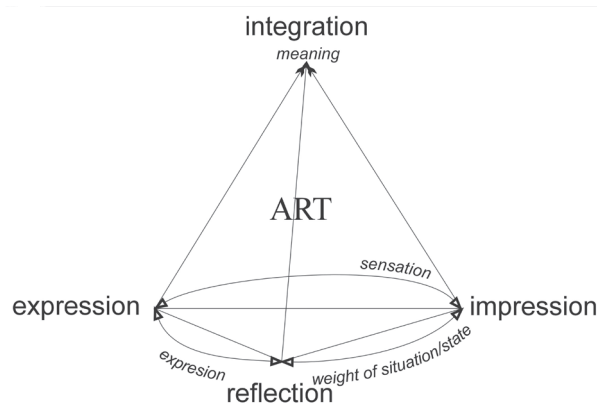


Figure 3. Artistic-existential experience.

It will always remain a function of aesthetic and musical literacy to provide a balance of human perception and behaviour, as flexible and structurally permanent as possible. And this is done by making a person able to interact by a symbolic language of music at the level of sensorimotor creativity (experimenting with tones) but at the same time to communicate their creative and interpreting procedures (operationalisation, conceptualisation of musical experience).

Functionalistic and Anthropological Paradigm of Curriculum

Aesthetic (specifically musical) curriculum is required to be built upon integration of both structural-functionalistic perspective and anthropological perspective: to integrate instrumental purpose-built performance as well as aesthetical forming in the contents and processes of education. In the musical-aesthetic education the physical and sensual experience is mediated as primary (anthropological line respects developmental regularities, is connected with media literacy and sensorimotor intelligence), but the reflection of cognition and the cultivating of the verbalisation of aesthetic experience can't be omitted either (functionalistic line assumes conceptual literacy that is developed by operations of thinking). Theories of curriculum are formed as a consequence of penetration of the concept of aesthetic literacy into school policy (Hirsch, 1987). Anthropological paradigm of education accentuates experiential learning and the space of experimentation, pragmatic line and functionalistic paradigm accentuates operations of thinking that are linked with the structuring of cognition. Both are influencing and complementing each other (Figure 4).

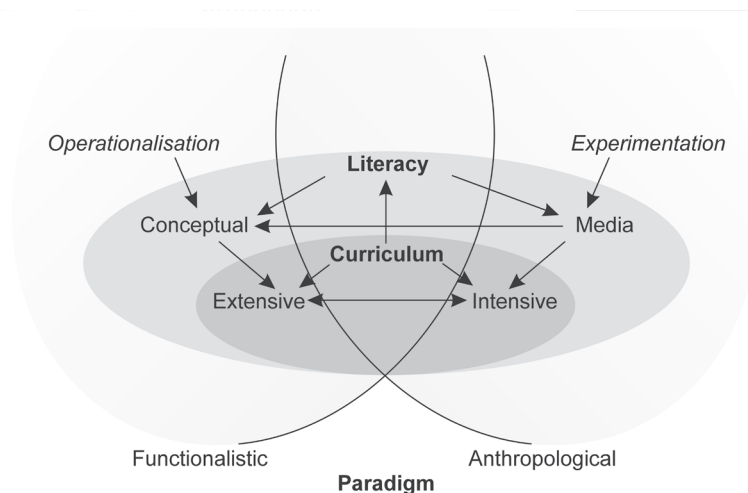


Figure 4. Relationship between literacy and curriculum.

Artistic value is fixed by creative experience (experimentation) and by verbal reconstruction of experience (operationalisation). On the basis of experience a human creates autonomous meanings of aesthetic shapes, which they register only by themselves, but by the reconstruction of one's own experience and of experience of the others they enrich themselves in contextual meanings that exist in the given society. Acceptance of both polarities – the individual experiential one and the social one – anticipates a successful acquiring of aesthetical literacy.

Conclusions

Art will always remain an expressive manifestation of identity and the ability to »write and read« its meanings is not only an indicator of literacy, but also of quality of self-constitution because it is the matter of natural and healthy creation of identity. This anthropological perspective is in a critical contradiction with the so called purposelessness of aesthetic cognition or musical minimum. The viewing of aesthetic literacy can't be truthfully conceived exclusively through the prism of instrumentalism and pragmatism (Fankhauser, 2009).

From the theories of literacy it follows that for understanding – artistic, social, historical and other contexts – the aesthetical dimension is universal. Both sound and the depiction are media of cognition, an experience is generated by the perception of them and they are requisite for the development of intelligence.

The concept of aesthetic literacy and the musical/aesthetic curriculum fully support three fundamental categories of key competencies established in the OECD project DeSeCo:

- ability to interactively use media and instruments, i.e. ability to use artistic instruments and one's own body as communicative media (sensibilisation, sensualisation, representativeness),
- ability to interact in heterogeneous groups, i.e. ability to interact aesthetically and creatively at group sharing and coping with social tension through musical tension (experimenting with dynamism in elementary musical composition and understanding of grading and stabilisation in music), ability of symbolic interacting,
- ability of autonomous modes of performance, i.e. ability to support authentic and creative self-constituting (by using of symbolic musical language in elementary composition, by verbalisation and metaphorisation of musical phenomena, by their contextual understanding, by pointed creativity while playing with tones and their relationships etc.).

Schools mediating general education and acquisition of cultural literacy should necessarily implement also specifically aesthetic and art-scientific contents into their contents (Smith, 1991). Art-aesthetic curriculum forms a space for acquisition of aesthetic literacy (Hahn, 1994). It supports possibilities of learning through experience with art – through its modes of expression as well as critical reflection.

Art of successful life – private and public, too, is assigned by key competencies. However, these can't be effectively used without matured moral feeling and acting. Theories of cognitive development hold for the fundamental cognitive assumption of moral feeling a specific ability of symbolisation and verbalisation which are included in aesthetic literacy.

Aesthetically literate person integrates beauty into the fields of science and culture, they understand that various scientific knowledge is communicated right artistically, that aesthetics penetrates all disciplines and modes of thinking. Artistic dimensions of various scientific areas support understanding; the language of art is connected with understanding in other areas, too.

Acknowledgment

The study was prepared with the financial aid of the Ministry of Education of the Slovak Republic: Dynamic factors of forming of contemporary culture (VEGA 2/0113/08).

References

- Bamford, A. (2006). *The wow factor: global research compendium on the impact of the arts in education*. Münster, New York, München, Berlin: Waxmann Verlag.
- Bresler, L. (Ed.). (2007). *International Handbook of Research in Arts Education*. Dordrecht: Springer Netherlands.
- Busse, K. P. (2008). Bildumgangsspiele: der didaktische Umgang mit kulturellen Skripten. *Kunst Portal*, 48 (3), 1-5. Retrieved September 5, 2009, from <http://www.schroedel.de/kunstportal/bilder/forum/2008-05-busse.pdf>
- Duncker, L. (2006). Ästhetische Alphabetisierung als Bildungsaufgabe. *Kursiv: Journal für politische Bildung*, 2 (1), 12–24.
- Duncker, L. (2007). *Die Grundschule: Schultheoretische Zugänge und didaktische Horizonte*. Weinheim, München: Juventa.
- Engines for Education. (2009). *The Cultural Literacy Movement*. Retrieved September 15, 2009, from <http://www.engines4ed.org/hyperbook/nodes/NODE-91-pg.html>
- Fankhauser, R. (2009). Bild und Wissen: Wie Schülerinnen und Schüler naturwissenschaftliche Bilder rezipieren. *FQS Forum: Qualitative social research*, 10 (1). Retrieved August 15, 2009, from <http://www.qualitative-research.net/index.php/fqs/article/viewFile/1183/2597>
- Feierabend, J. (2009). Developing Music Literacy: An Aural Approach for an Aural Art. *GIA Publications*. Retrieved May 20, 2009, from http://www.giamusic.com/music_education/feier_developingmusicliteracy.cfm
- Gale, R. (2005). Aesthetic Literacy and the »Living of Lyrical Moments«. *Journal of Cognitive Affective Learning*, 2 (1). 1-9. Retrieved May 20, 2009, from <http://www.jcal.emory.edu/viewarticle.php?id=56>
- Gruhn, W. (2003). *Lernziel Musik. Perspektiven einer neuen theoretischen Grundlegung des Musikunterrichts*. Hildesheim, Zürich, New York: Georg Olms Verlag.
- Günther, H. (1993). Erziehung zur Schriftlichkeit. In P. Eisenberg & P. Klotz (Eds.), *Sprache gebrauchen – Sprachwissen erwerben* (pp. 85-96). Stuttgart: Klett.
- Hahn, J. C. (1994). *Framework for Aesthetic Literacy* (Instructional Guide). Washington: The Montana Arts and English Curriculum.
- Heidbrink, H. (1997). *Psychologie morálního vývoje*. Praha: Portál.

- Hirsch, E. D. (1987). *Cultural Literacy: What Every American Needs to Know*. Boston: Houghton Mifflin.
- Kaiser, H. J. (1995). Notation(en) im Musikunterricht oder: Was hat schülerorientierter Musikunterricht mit der schriftlichen (Re)Präsentation von Musik zu tun? *Musik in der Schule*, 2(3), 35–39.
- Kucer, S. B. (2005). *Dimensions of literacy: a conceptual base for teaching reading and writing in school settings*. Florence: Routledge.
- Liebau, E. & Zirfas, J. (Eds.). (2008). *Die Sinne und die Künste. Perspektiven ästhetischer Bildung*. Bielefeld: Transcript.
- Ott, T. (2009). Notation von Musik – als Medium betrachtet. *Diskussion Musikpädagogik* 23(1), 8-10. Retrieved August 22, 2009, from http://www.uni-koeln.de/ew-fak/Mus_did/dozenten/ott/Notation.pdf
- Organisation for Economic Co-operation and Development. (2001). *Knowledge and skills for life. First results from PISA 2000*. Paris: OECD.
- Piaget, J. (1999). *Psychologie inteligence*. Praha: Portál.
- Piaget, J., & Inhelderová, B. (1997). *Psychologie dítěte*. Praha: Portál.
- PISA-Konsortium Deutschland (Ed.). (2004). *PISA, 2003: Der Bildungsstand der Jugendlichen in Deutschland – Ergebnisse des zweiten internationalen Vergleichs*. Münster, New York, München, Berlin: Waxmann.
- Smith, R. A. (1991). *Cultural literacy & arts education*. Champaign: University of Illinois Press.
- Swanwick, K. (1999). *Teaching Music Musically*. London, New York: Routledge.

Advised by Juraj Lexmann, Slovak Academy of Sciences, Slovakia

Jaroslava Gajdošíkova Zeleiova

PhD., Dipl. Psych., assistant professor, Department of Pedagogy and Psychology, Faculty of Education, Trnava University, N° 4 Priemysel'na Street, 918 43 Trnava, Slovakia.

E-mail: jaroslava.zeleiova@gmail.com

Website: <http://pdfweb.truni.sk/fak/katedry/kpdgpps/personal/zeleiova.htm>