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Monitoring the student's music-related advancements[1]

The article considers the monitoring of educational advancement within the humanitarian-holistic approach (the term "advancement" interpreted within the socialization context). The suggested forms of monitoring sum up the peculiarities of basic education interpreted as a combination of upbringing and teaching. The main criterion of assessment is the value of the student's activity for the development of his personal qualities (desire for self-expression, objectivity in critical self-analysis, constructiveness in making plans for self-development, etc.). The integrity of the observed educational advancements includes the fields directly associated with music (learning singing and playing the musical instrument, expanding musical erudition, etc.), and indirectly associated with it (choreography training, the use of a personal computer to create movies, etc.). Peculiarities and implementation prospects of the given direction are connected with the use of Musical and Computer Technologies (MCT) and are described on the basis of teaching experience and scientific research of the author.

Key words: basic education, upbringing and teaching, educational advancement, music, monitoring, evaluation and self-esteem, Musical and Computer Technologies.

Introduction

Monitoring of student's educational advancements is the most important educational issue, which is understood as a set of processes, training and education (including the "self" mode). The relevance of monitoring activities is that the availability of such procedures and the objectivity of their interpretations allow the learner (and his teacher and his parents):

- to adequately assess the received (indirectly — and missed) educational augmentations;
- to promptly edit the activities and plans (training, educational);
- to build an educational route for the next phase of (self-)training and (self-)education [18, p. 63].

We agree with N. N. Abakumova that the monitoring system successfully functions as "diagnostic, monitoring, certifying factor as well as professional development". Monitoring in education is understood as a process, a system, a result, a technology (monitoring is represented by the definition of "educational monitoring", "statistical monitoring", "information monitoring", "performance monitoring of innovation", "monitoring study", "pedagogical monitoring", "quality monitoring" etc. [1, p. 1—2].

The subject of our study (by N. N. Abakumova's classification) is *the informational monitoring*. It allows you to ascertain the state of **the object** — the *educational advancement of a schoolboy* as a certain stage of development, together with all the individual characteristics of a particular student; it allows you to record achievements, potential difficulties or deviations, allowing to identify further route for the implementation (including the "self" mode).

The scope of studies is limited to the educational field *"Art: music"*. On the other hand, the specificity of this educational field makes us consider monitoring the music-related advancements of a schoolchild much broader. This problem is caused by the phenomenon of music comprising a variety of creative directions, a historically emerging culture, a unique specific language, a special communication system (II-B).

As a result, we can say about contradictions that exist in this field and are formed due to the fact that:

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- on the one hand, the federal government standards of primary and basic education set a goal to solve **the problem** of *monitoring student's educational advancements*, including the sphere of "music" [3, p. 13, 20; 4, p. 20];

- on the other hand, the monitoring procedure which would adequately reflect the situation and comply with easy access and interpretation of the user has not been developed yet;

- on the one hand, a modern student now has technical means to allow recording (audio and video);

- on the other hand, basic education teachers (as well as students and their parents) do not use the funds in mass practice.

Materials and methodology

We select materials that have served as basis for theoretical analysis and practical activities in the framework of this study:

- normative documents of general (primary and basic) education in the first place — federal standards and various guidelines, instructions, etc., which are addressed to practicing teachers (including the level of a secondary school).

- Russian national statistical database about the spread of devices and technologies among schoolchildren that allow them to meet the challenges associated with monitoring their own educational advancements;

- empirical observations of pedagogical training and education processes (including "educational experiment" mode) in the summer children's camp, in a secondary school (e.g., [20, p. 91—97, 117—161, 287—290]).

The items listed below are the methodological basis of the study:

- ontological understanding of modern education and training — reaching the individuality ("existence as authenticity of identity") and subjectivity; value-activity aspect of these processes (N. M. Borytko [2]);

- understanding education as a process of change, not as a status ("advancements" instead of "achievements");

- representing the processes within the meta-system, which includes multiple systems, such as "Education", "Informatization of Society", "Man and Music".

The main elements in these systems are:

- education and training (in the "Education" system; I);

- personality and music -> child, culture, creativity, peace, society (in "Man and Music" system); regarding educational processes and within the informatization context the system is represented by the personalization development (II);

- people and ICT; in this study: people and Musical and Computer Technologies (abbreviated — MCT; within "Informatization of Society" system; III).

Thus, the methodology of our study is based on humanitarian and holistic approach in pedagogical research (N. M. Borytko).

Results and discussion

(I) According to the current federal government standards (both for elementary school and general education, corresponding to the period when the subject "music" is part of the curriculum) the outcome of educational program implementation is a certain result achieved by the pupil. This evaluation involves a complex of three groups of achievements [3, p. 29]: subject (I-A), meta-subject (I-B) personal (I-C).

(I-A) While investigating the process of planning the results in school subjects (level of general education, by the example of music) [16, p. 34], we have come to the following conclusions:

- a three-pronged system of planning the results in school subjects includes the outlining of results in school subject (i = I-A), presentation of activities that ensure their achievement (ii; see

III-G), Criterion and evaluation framework that allows you to define a measure of the planned (iii; see III-F);

- goal-setting (iv) is a strategic factor (e.g. III-E) for the planning the studying outcomes; therefore it is necessary to outline the results in subjects that will allow their implementation in different forms and activities;

- stage-by-stage approach meaning gradual complication and expansion of the scope of requirements for the planned results.

(I-B) As opposed to subject results which are evaluated individually, the evaluation procedures of meta-subject results are of general character, they show no individual student achievement, but the achievement of a whole class, a parallel, a school, a municipality.

(I-C) Individual results of mastering the educational program are presented in the "Portrait of an elementary school graduate" in the "Portrait of a junior high school graduate". The complexity (even impossibility to a certain extent) of the real evaluation of such personal characteristics as availability and student's capacity for self-development, "value-conceptual orientations of students reflecting their individual viewpoints, social competence, personal qualities" [3, p. 5] is understandable.

(II-A) If personal results could be linked to the educational field of "Music, elementary school could be presented by an extensive list (by federal standards — paragraphs 1—3, 7, 8, 10):

- "Forming the foundations of Russian civil identity, a sense of pride for the country, for the Russian people and the history of Russia; awareness of ethnic or national origin; formation of values of the multinational Russian society <…>;

- forming a holistic <…> view of the world with the organic unity and diversity of nature, peoples, cultures and religions;

- forming respect for another view, another history and culture;

- forming aesthetic needs, values and generating feelings;

- developing ethical feelings of goodwill and emotional-moral responsiveness, as well as understanding and empathy for others;

- <…> Motivation for creative work, work for the result, respect for the material and spiritual values [3, p. 6—7].

(II-B) The big scope of qualities given in the quotation is explained by the uniqueness of the phenomenon of "music", which includes:

- different creative directions (both the process and the product of self-realization and self-expression), including those of a musician — singing activities, playing music instruments, composing music, sound processing, etc. (1), as well as those indirectly related to music — choreography, stage direction, etc. (2) (T. Adorno, D. K. Kirnarskaya et al.).

- a specific communication, in which the effect of music is explained as a "humanistic (spiritual-creating) function in the field of culture" (I. A. Korsakova [11, p. 31]), and a positive effect on physical and mental health of a person while listening and performing (S. Hallam [9, p. 99—100.]);

- a musical culture, accumulating ethical, aesthetic, and other ideals of different epochs, different nations, traditions and social strata (V. N. Holopova, V. V. Medushevsky et al.);

- irreplaceable musical language, which combines abstractness and concretion; the language encoding the information that is important for the person — an experience of emotional, intellectual, spiritual and other nature (M. Sh. Bonfeld, T. V. Lazutina, etc.).

(III) We have considered the educational potential of MCT (including the direction of "Media Education" [19, p. 38—39]) since 2003. We shall present the results of exploring the possibilities and features of these technologies in the context of the stated problems of

monitoring in respect of: hardware and software base (III-A); subjects of the process (III-B), the object of the process (III-C), its materials (III-D) and goal setting (III-E), the example of the criterion monitoring unit (III-F); the operational component of the implementation of the monitoring activities of its subject (III-G).

(III-A) Our observations of the direct educational practice (lessons in 1—8 classes of a comprehensive school, seasons at summer camps) as well as the statistics show that currently more than 90% of Russian urban teenagers use smart phones. Here are the operations that junior high school students and youngsters perform: recording (audio, video), downloading the information from the Internet, file sharing [6, p. 273, 275].

The hardware and software base for operations with sounds and music (as listed above, and others) is called "Musical and Computer Technologies" (MCT, I. B. Gorbunova [5, p. 123, 137]).

Immediate practical training of students (in secondary school and summer camp) showed that the hardware and software of MCT enable younger students and young people to use these technologies in the following areas:

- access databases containing musical material — to listen to music, download audio and video files (a subclass of computer software "Player");

- maintain a sound recording and video series (subclass "Recorders" programs);

- playing the electronic versions of musical instruments (including virtual), especially keyed and string instruments, sometimes (in some applications) with the option of fixed sound (program subclass called "Electronic Musical Instruments" / "EMI");

- edit audio (and video) materials to perform operations to change the tone, tempo, to cut and "bind" fragments, etc. (a subclass of "Audio and video editors").

- use options that allow to represent and edit both audio and visual (including text) and other information (a subclass of "Multimedia" program) [13, p. 106—111].

(III-B) Bothe adults and students can monitor the educational process ("pedagogical support" mode for information monitoring).

The first (in this sense) advantage of MCT is the following: a teenager himself (we mark this age because of psychological readiness for such activities) can fix and then analyze his own results. Besides, he can do it in the most favorable conditions for himself (in terms of psychological comfort and amenities that are related to digital information storage and accessing it) [12, p. 56—57]. Moreover, the student gets an opportunity to develop skills of self-evaluation while studying and self-education.

Another advantage of the MCT use for the information monitoring is that the function of an "adult" can be fulfilled not only by "a subject teacher" or by "a class teacher", but also by a parent, a further education teacher [7, p. 238].

(III-C) One more substantial reason for the use of MCT in the debated direction is that education is regarded as an integrity and not just a sum of components taken separately (training or upbringing) [7, p. 238].

(III-D) The information monitoring has enough chances to get into the "multidisciplinary" category. This is explained as follows:

- music (as a versatile phenomenon; II-B) is in this material by definition;

- poetry or literature are regarded in vocal genres;

- fine arts, acting, etc. are in the musical and theatrical genres;

- if MCT is used for monitoring, it is characterized as an educational field "Computer science and ICT".

Besides, the information monitoring, which means recording (partial or full) the music-related training project, has two more positive qualities. So, this recording makes the student:

1) get a chance to express individuality and thoroughly and deeply represent all those aspects of the school subject that are comprehensible and handy for him;

2) present the fruits of not only individual, but also collective work [14, p. 6].

(III-E) As is shown above, (e.g. III-A), the direction of the information monitoring has organizational base (including the software and hardware).

We have noted [14, p. 35—45] that the psycho-pedagogical bases of monitoring include:

- age characteristics of students,

- perceptual polymodality,

- manifestation of subjectivity as a basic feature of the creative activity of a person.

It is also shown that the monitoring (if included into the educational process) has (as the educational process itself) a serious educational part.

All of this together:

- on the one hand, guarantees reliable goal-setting on the part of the student during monitoring activities a (e.g. I-A-iv.);

- on the other hand, allows to implement training projects (including cloud technologies [8, p. 80]), which after processing (including reflection and self-esteem) becomes the content of the information monitoring.

(III-F) We have determined and tested the criterion-level inventory to track the student's advancements. This inventory includes:

- interest in musical education (a);

- mastering levels (b);

- evaluation criteria, as well as important principles of monitoring [13, p. 49—63], including its initial stages in special musical education [15, p. 212—217].

a) We have distinguished ten sectors: "Erudition", "Collection", "Player", "Concert", "Dance", "Vocal", "Musical Instrument", "Ensemble", "Choir", "Notes", which entirely describe the educational advancement of a schoolboy. Such a complex, on the one hand, helps to assess different directions in musical education of a student, on the other hand, it shows the panorama of the student's development, training, going beyond the strictly educational field of "music".

b) Promotion levels (or "steps") in any of the above mentioned sectors are:

- 1) a step from complete absence;

- 2) presence within the family, 3) previously, individual existence; 4) now, life within the inner circle;

- 5) episodic classes under command, 6) systematic classes under command, 7) classes with the "self-acting" mode;

- 8) performance without audience (rehearsal) 9) speaking in front of a familiar audience, 10) speaking to an unfamiliar audience.

The evaluation system is depicted in Figure 1.

The student (with the help of a teacher, a parent, a friend) fills in the "Map of musical development" at the beginning and the end of the school year; the map is supplemented by recordings (audio, video), which are used to verify the facts and provide the details.

(III-G.) The operational component of the monitoring process is introduced into the study as one of the necessary components for the realization of these plans (monitoring implementation; it should be noted that the operational component itself is included into the education system by I. P. Podlasy). It is abundantly clear that without a specific set of operations it is impossible to carry out the tasks that the supervisors face. The supervisors may be a teacher, a student himself or a parent (e.g. III-B.). The task requires specific training as the supervisors have no competence for this.
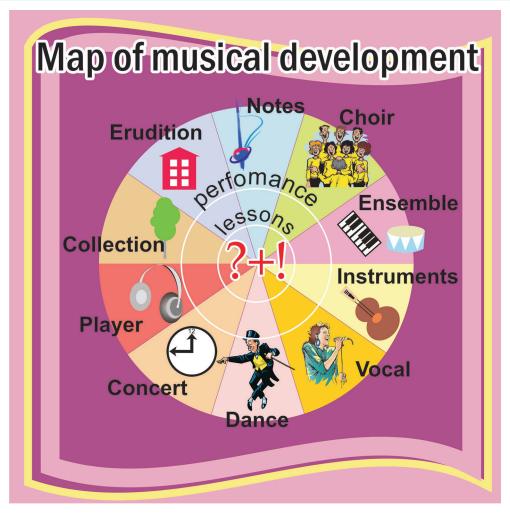
Fig. 1. Map of musical development

We distinguish several groups of competences:

- Technological (i) — execution of operations (audio, video) to preserve and transfer (if necessary) the recorded material; this is done with the help of MCT software and hardware;

- Culturological (ii) — the competence in the field of music and general culture; which allow you to adequately assess the specific music track and build student's prospects for further comprehension of music and related arts and sciences (through creativity, communication, learning language, getting acquainted with certain cultural phenomena; e.g. II-B);

- Psycho-pedagogical (iii) — knowledge in the field of psychology of a certain age group, the ability to organize pedagogical support and guidance for the student to be creative and get self-realization, etc.

The list (which is far from being complete) shows that there is a need for comprehensive training of competences in these areas. It must be mentioned that each subject (a teacher, a student, a parent) has a number of advantages and disadvantages:

- Teachers (according to their teaching experience, profile, etc.) have the experience and knowledge in the field of pedagogy and psychology, but they (except computer science teachers) concede to pupils in swift use of modern gadgets and to parents in the knowledge of personal characteristics and preferences of the child;

- Students show technological competences, which is well explained by the fact they study computer science, spend much time using gadgets, etc., but they do not always have enough knowledge and experience which may lead to mistakes and failed objectives;

- Parents (most often) are interested in the development of their child, they are willing to assist him (including financial assistance — buying personal electronic devices, paying for the hobby-related training courses). Unfortunately, parents do not always have sufficient authority in the eyes of their adolescent children; on the other hand, parents do not always (for various reasons) correctly assess the situation and offer the right advice.

The best constructive and realistic ways to avoid (in terms of organization) contradictions in training competencies (direction of "informational monitoring"; operational component; III-G) are as follows:

- Introducing a module of training teachers for the monitoring activities into the course of "proficiency enhancement" for subject teachers (in "Music", "World Art Culture", etc.), and for class teachers;

- Developing and implementing an educational course "Organization of special educational support for student's creativity and development", taking into account his information monitoring capabilities (new direction).

Conclusions

The conducted research allows to state:

1. The information monitoring of a student's music-related educational advancements is relevant, meaningful, and secures its subjects (III-B) with the object of this process (III-C), with goal-setting (III-E), software and hardware base (III-a), and the material (III-D).

2. The use of MCT recording in information monitoring has certain advantages:

- reliance on a system-activity approach which implies a wide use of practical tasks (note: in case of music it allows turning into the category of "creation") (A);

- non-standard tasks using the method of "training project", creative work, self-esteem (b);

- personalized monitoring and further evaluation (c);

- an integrated approach to the assessment of the results of studying (with subject and personal components) (d);

- the cumulative assessment system (portfolio of cumulative score) (e);

3a. We notice not only the merits (e.g. Conclusions / 2b), but also the necessity of development, discussion and application of formal evaluation and standard methods.

3b. On the other hand, a problem arises: it is necessary to define and introduce a framework for the planned school subject (and personal) results; it will allow the teacher, the pupil and his parents to monitor the stages of Educational Progress (I-A-v; see Conclusions 1 & 3 — [10, p. 6]). Such techniques should use criterion-level monitoring (III-F), must take into account the operating element (III-G).

4a. Considering the complexity and multidisciplinary character of the given trend, on the one hand, and its topicality and long-term benefits, on the other hand, we suggest examining the materials offered to the student (III-G-i, III-G-ii, III-G-iii). Thus, only a methodology expert or a teacher with the necessary skills under the guidance of a methodology expert may develop the steering document on the subject ("Music" and others).

4b. It is necessary to train specialists of general school education to conduct educational activities in this direction.

5. We pay special attention to the development of self-confidence among adolescents through the vocal activity [17, p. 166—167], which is both one of the most important and promising directions to be boosted by the information monitoring.

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