

**HPEPA 2019****Humanistic Practice in Education in a Postmodern Age 2019****INFORMATIONAL TECHNOLOGIES AS A FACTOR OF  
SELF-EDUCATION FOR A FUTURE MUSIC TEACHER**

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***Abstract***

The urgency of the studied problem is justified because of the fact that in conditions of permanent scientific, technical, social and cultural changes in the society of a music teacher's personality with the multivalent qualification has gained significance, so that the teacher can both lead high standard professional activity using modern technologies and work on improvement of their qualification during the whole lifetime. It stresses the urgency of the problem related to improvement of a future music teacher's readiness to self-education by means of modern informational technologies (IT). The article deals closely with the process of professional training and forming readiness to self-education in future music teachers relying on their informational and communicative competence. The present scientific statements on arranging self-education have been considered. The article determines informational and communicative competence and "self-education by means of music computer technologies" aimed at improving abilities for music, bringing up a socially active personality and developing art skills of electronic music making (composing, sound managing, performing). The article is aimed at developing a methodical model of forming readiness to self-educational activities in future music teachers by means of informational technologies. The leading method is the method of modelling of self-education by means of IT in the pedagogical university as a targeted and organized process of improving a future music teacher professional training components required for the efficient professional activity. The present model structure includes motivational, meaningful, operational and reflexive components.

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**Keywords:** Informational and communicative competence of a music teacher, music self-education.



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## 1. Introduction

The post-industrial society is a self-forming society where self-education is a source of technological and social innovations. Self-education is closely related to education, there is no self-education without education and vice versa. However nowadays self-education is taking the lead. Self-education processes analysis is changing in terms of the society informatization concept. Reforming social relations system informational progress transforms self-educational processes, creates a new type of electronic education and self-education and requires new level specialists with self-educational, informational and communicative competences.

Currently forming self-educational competence is one of the most important components of readiness to continuous improvement of professionalism with the following determining criteria: special professional knowledge and skills, new information sources studying techniques, creative approaches to professional pedagogical tasks, studying activities and independence. Currently it is modern informational technologies that provide sources and instruments for the above mentioned elements of the professional competence. Therefore informational and communicative competence of a future music teacher is the key point in achieving self-educational goals.

Prevalent speaking illustrative method of learning and teaching in the age of computers, the Internet and massive publishing cannot keep up with the tendencies of the modern culture that has acquired multiart and multilingual shape. Informational and communicative technologies transform ways of arranging self-education providing access to information, simplifying the search of it and giving appropriate tools to work with it. These technologies can be: graphical, audio-visual, logical, mathematical, statistical. Both these procedures enhance self-education opportunities and create environment for creativity (Shuklina, 1995).

Music education informatization has modern requirements to a music teacher's professional features, such as informational competence with the developed informational culture of the level determined by the theoretical knowledge, practical skills in IT, a need in communication, creative experience and research abilities related to these technologies.

The society needs music teachers with high level of professionalism in IT , it stresses the issue of forming informational communicative competence in future music teachers at the university to train them for continuous self-education by means of a computer, music digital synthesizer and Internet-technologies.

## 2. Problem Statement

The raising need in music teachers competent in informational communicative technologies is not supported enough with efficient efforts of training educational institutions. It justifies the urgency of studying the issue.

There is a contradiction between the need of the society in highly self-educated music teachers and the lack of scientific methodological developments to rely on that could help get ready to the teaching activity with the help of technologies. The contradiction determines the problem of the research.

The problem of making self-education an inseparable part of continuous proficiency improvement have been widely considered in philosophic, psychological and pedagogical as well as sociological papers describing historical types and shapes of self-education activity including ones engaging IT. The papers

were written by: I.P. Podlasyi , V.A. Slastenin, E.D. Beznisko, I.M. Kuznetsova, I.A Lukonina, V.B. Sharonova, I.N. Shakhova, E.A. Shuklina etc (as cited in Zabbarova, 2014). They play a significant role in developing forms, methods and pedagogical conditions for arranging self-education by means of IT.

For many years music self-education has been considered with different approaches of aesthetic and creative improvement; it was described from the viewpoint of traditional specialized music performing training (both vocal and instrumental) by V.B. Aryutkin, I.V. Dubrovina, O.V. Martynova, A.G. Menabenya, Z.B. Karmazina, L.I. Ukolova (as cited in Zabbarova, 2014). However researches conducted on this issue are substantial, they do not touch on a list of important and topical problems, namely: they do not resolve the problem of training future music teachers; they do not fully explore the potential of musical computer technologies for future music teachers' self-education in modern informational environment.

A range of recent researches dealing with IT potential for self-education made self-education improvement be closely related with modern electronic musical instruments (EMI) (Kulanina, 2017; Pankova, 2016; Plotnikov, 2013). To form the content of self-education involving IT teachers (Gorbunova & Davletova, 2015; Zabbarova, 2014; Zinnurova & Alikbayeva, 2011) viewpoint on a music teacher training with the help of IT at the higher and vocational education institutions was counted. The term self-training by means of musical computer technologies was studied in the papers of Krasilnikov (2007), and other leading scientists dealing in computer music. Prospects for application of informational and musical computer technologies in the educational process are described in works of modern scientists (Bezverkhaya, 2016; Gorbunova & Davletova, 2015; Ilyichev, 2018; Lavina & Kosolapov, 2015; Kosolapov, 2015; Maikovskaya & Mansurova, 2016; Odintsova, 2012; Omelyanovich, 2018; Pokladova, 2014; Popovich, 2013; Shakhnazarova, 2015; Zaitseva & Gerasimova, 2015;). It is important to emphasize theoretical statements of the research that reveal pedagogical problems of musical education computerization.

### **3. Research Questions**

The Subject of the research conveyed in the article is future music teachers forming readiness to self-education by means of IT while they are being trained at the University. To reach the goals of the research it is necessary to analyse scientific and theoretical issues of this topic and build a model of the sought readiness formation.

To fulfil the task of the research it is important to consider the potential of IT in terms of self-education. It is believed that there are positive didactic training factors by means of IT such as: saving time; productive remembering (75% of information);, saving costs; big scale of free access information (with an ability to select it in terms of studying goals); improving training process control (more individual and differential training; ability to use both logic and imagining ways of acquiring information; actualization by means of enhanced display materials; high interaction in informational educational environment and consequently deep understanding of the material and high motivation for acquiring new knowledge).

Didactic potential of musical computer learning includes training, information searching and creative functions of IT since a computer helps fulfil academic tasks within instrumental and research activities, it performs informing and controlling functions of teaching. Moreover a computer is a mean of self-actualization and an author's self-expression being a creativity tool that supports the development of abilities and expression of identity/ Computer facilities in music activity deal with a list of educational

problems: music studying activity arrangement; digital data processing ways that help speed up its receipt and minimize errors; information search with telecommunication means; research activities; creative development of interpretation skills (arrangement, composition, improvisation, harmonization); solfege training; playing skills upbringing. All of them are connected with auditory perception, music thinking, memory and art taste.

If a musician works with the help of informational technologies they receive plenty of opportunities that help build the own strategy for self-education. Individualization and differentiation of the process is performed via personal level-by-level promotion, feedback monitoring, results assessment, self-training exercises, creating and using data bases and access to the global information network. There are unique opportunities to encourage and support high level of cognitive interest, to develop creative, communicative and organizational abilities of the students.,

In terms of components of electronic creative music making (performing, composing, sound management), self-training by means of musical computer technologies shall belong to informational technology of self-education topical when training a future music teacher, since this process involves developing educated, well-mannered and socially active personality as well as improving music abilities and creative skills (in composing, sound managing, performing), because it displays a music teacher's professional competence.

The following factors play an important role in music self-education: diligence and independence; professional culture and skilfulness; creative self-improvement, self-identification and self-actualization; acquiring informational competence as a way to master teaching pupils by means of IT.

It is believed that the drive of self-education is *motivation*. Since motivation for self-education is connected rather with professional growth, qualification upgrade and modern technologies acquirement, motivation is supplied with the aspiration to gain informational and communicative competence.

Attraction to *self-educational actions* with the help of IT is formed thanks to *project forms* of educational work such as assessments of informational technologies acquirement, exams and concluding conferences with exchanging experience and opinions via papers, presentations, textbooks, author's portfolios, various types of practical art-creative activities involving IT.

*Self-education skills* are reinforced with new knowledge acquirement since it takes the skill to select and process professionally important information wisely. *Studying* other's and own experience is a significant component of a music teacher's activity because it helps enhance methodical competence.

Reflection as a way to control actions helps regulate influence on self-education. Highly developed *self-control and correction* can facilitate self-improvement and self-identification in the culture.

Thus self-education as an active professional creative activity is a combination of *informational, communicative, creative and research activity* elements.

*The content* of a music teacher self-educational training by means of IT engages mostly teaching, improving and upbringing abilities of IT: hyper text searching ones, communicative remote ones, sound recording ones, creative constructive ones, multimedia displaying and encouraging ones, controlling and assessing training ones, teaching, functional, and interactive managing ones, abilities connected with searching, creating, processing, storing, exchanging and displaying information.

The content includes such elements as knowledge and skills, creative experience and relations within three spheres of professional activities, namely IT, pedagogical technologies on the basis of IT (PT) and electronic music making (EMM), since the first sphere determines whether it is possible or not to perform independent activity with the help of IT, the second one functions as the underlying for a music teacher's professional activity, the third one enriches this activity.

Above that the created pedagogical conditions shall stimulate informatization of the educational space: provide access to the professional creative communication by means of Internet technologies, encourage creative achievements in IT application within pedagogical practice and on-stage performing activity; help match different types of pedagogical assistance (cooperation management, consultation (including remote one), engage students into electronic music making; assist in monitoring theoretical knowledge and practical skills when working with IT, in controlling creative tasks quality completion, help compare self-assessment of IT application with the expert assessment of the instructor.

Acquiring musical self-education training by means of IT in these conditions allows to form a balanced readiness of the future music teacher to professional activity in the modern electronic educational space because it builds connections between motivational, content-operational and reflexive components.

*Methods* of formation of readiness for self-education by means of IT shall be oriented to: self-education *motivation improvement* (to stimulate the interest in acquiring IT skills, to develop positive attitude to their application when gaining psychological pedagogical competences, to form interest to self-expression in electronic musical creativity); *engagement into actions and operations* of self-education (conceiving the potential of IT, acquiring pedagogical competences by means of IT and electronic musical creativity skills); self-education *control and adjustment development* (to provoke reflexive actions when gaining IT competences, to control oneself when gaining pedagogical competences by means of IT and to upgrade requirements to the products of electronic music creativity).

During the self-education development *three principles of self-education by means of IT* in a university are defined. The most important of them are the principle of project completeness and complex approach to implementation, the principle of IT application experiment testing and the principle of IT systematic integration into different types of music activity.

The above mentioned pedagogical approaches and principles together as well as opportunities of IT simplify independent students' work in the development of professional skills. Whereas electronic technologies engagement into all the milestones and forms of training (individual, group) encourage the permanent need in self-education by means of IT in future music teachers.

The final result of this methodical model implementation is a future music teacher ready for self-education by means of IT.

#### **4. Purpose of the Study**

*The purpose of this article* is to develop a model that shows formation of readiness for continuous self-educational activity by means of IT in future music teachers, this model testing and implementation into scientific pedagogical practice in higher education.

## 5. Research Methods

During the research the following research methods were used: analysis of philosophic, sociological, psychological and pedagogical, musicological, culturological, methodical literature and regulations on the research problem statement; summary and arrangement of facts and concepts; experiment and modelling methods; scientific statements analysis and integration; methods of prediction, expert assessment and statistic analysis during research findings pedagogical monitoring; diagnostic techniques.

## 6. Findings

Experiment works were conducted by means of Bashkir State Pedagogical University named after M. Akmulla.

Engagement of this model took the following stages of the experimental work.

*Identification stage.* To conduct the experiment diagnostic criteria of the sought readiness were developed. The criteria were related to the structural components (motivational, content-operational, reflexive) and self-education elements: 1) IT, 2) pedagogical techniques by means of IT; 3) electronic music making. The criteria include the following data: 1) the need in regular creative self-actualization in self-education by means of IT; the need in continuous improvement of knowledge on constantly progressing IT; value-related attitude to IT; the intention to succeed in pedagogical activity by means of IT; the need in self-expression by means of EMI; 2) ability to plan the sequence of creative operations by means of IT.; ability to establish a creative project; ability to acquire pedagogical technologies by means of IT, 3) intention to keep the achieved creative results for objective self-monitoring in IT skills acquiring; ability to consider the critics of the others, the ability to criticize themselves when acquiring IT; ability to consider other people's opinion and criticize yourself.4 ability to perform a comparative analysis of pedagogical experience by means of IT in term of self-education process.

According to the developed criteria the readiness of the future music teachers to IT self-education was tested. Two groups of students were tested: a reference group (62 people) and an experimental group (60 people).

The level of *motivation to IT self-education* is defined with: polling students on their attitude to self-education by means of IT, monitoring their self-educational activity and talking on this issue. It can be seen how the attitude to IT application is changing if you monitor how active, attentive, engaged, curious, challenged and independent the student is. It can be seen how the student is *performing self-education by means of IT* if you assess the quality of the issued product (its artistry, ingenuity, etc.) and the student's competence in using IT in their pedagogical activity. The *ability to keep self-disciplined by means of IT* can be defined if you make a relative assessment of self-education by means of IT (using the table of professional achievements). Adequacy of the student's self-assessment corresponds with their level of self-discipline.

Comparative analysis of the poll results allowed to conclude that the level of the general self-educational readiness and key informational communicative competence was relatively equal and low in both groups. 71% of students showed low level, 19% showed middle level and 10 showed high level.

*Forming stage.* Approbation of the developed model took place during special courses on electronic music making and formation of informational environment for professional specialized training of music students.

To motivate students to self-education by means of IT a complex discussion helped to proof the necessity of the related competence development and to reveal the ways of its implementation. Electronic music making; acquiring IT by means of Internet technologies Another way to encourage motivation is watching professional activity by means of IT of University professors as well as art meetings with music figures and composers of the Republic of Bashkortostan. The art strategy was formed along with studying the IT application pedagogical experience earned within pedagogical practice, experience exchange by means of communicative technologies and choir signing training by means of (EMM). Such an intensive activity helped realize the potential of EMI in terms of development of special music abilities, skills and self-education.

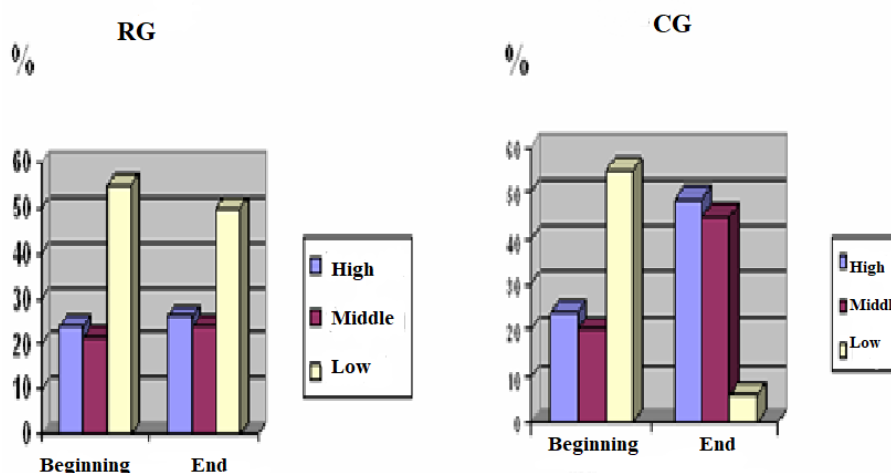
The development of self-educational actions and operation by means of IT was performed within implementation of diverse art projects. They were related to contest electronic music arrangement, multimedia presentations to the performed pieces and music classes, sound recording and stage performance directing, acquiring music styles of different composers, epochs and peoples. Project activity results were used in performance practice at schools and universities.

Acquiring PT by means of IT was based on studying methodological information involving the usage of remote technologies when writing papers and notes for music classes. The technologies were used also for managing art groups and performing art studying, choir signing and art entertaining activities involving IT.

After art projects implementation self-analysis of the work done took place. The analysis involved It as well. The student filled in the Achievements Table in so-called personal technological cards and dairies. It helped improve self-control skills. Discussions on achievements in developing skills of projects and papers public presentations

When modelling self-educational activities of music students using IT methods related to IT self-education motivation encouragement, acquiring corresponding actions and development of IT self-monitoring skills appeared the most effective.

The controlling stage of the research involved a repeated assessment of IT self-education skills. General results proved the experimental group to have significant both quantitative and qualitative changes. Unlikely to the reference group the experimental group showed the increased rate of motivation to self-education by means of IT. It was reflected in the polls of the students. While monitoring the quality of self-educational actions involving IT it was registered that the students were more active and had better creative productivity, tests showed their good knowledge of ways of working with IT. When studying their self-assessment it was found that it matched the assesment of the professor. Finally the students showed interest both to the results and the process of professional creative activity involving IT, of self-improvement and self-correction. The received tendency of self-education components was formed due to the methodological model, that is displayed with a diagram (Figure 01).



**Figure 01.** Comparative diagram of the readiness of the future music teachers to IT self-education

## 7. Conclusion

The analysis of self-education processes and peculiarities thereof, the teaching, improving, developing potential of informational technologies allows to boost the quality of future music teachers training to self-education by means of IT in a pedagogical university, to apply the most effective pedagogical conditions and implement the methodological model of readiness to IT self-education formation.

The issues of a future teacher's self-education by means of IT were analysed. It helped to define informational communicative competence as a key one for this activity. This competence facilitates independent informing, communicative, creative and researching activity of a music teacher.

If we model IT self-education of future music teachers at the pedagogical university and arrange it in accordance with the developed conditions and methods of engagement in this activity it will promote general self-education competence formed with the help of IT.

It has been found that the model of readiness to IT self-education formation helps make music education bachelor training continuous and consistent. The model improves professional, cultural and specific competences to provide successful self-actualization in the informational environment.

The research results reveal a number of scientific problems and prospective directions that require further studying. It is possible to study some issues touched on in the article deeper. These issues are related to studying and broadening the self-educational potential of modern IT and developing scientific methodological facilities.

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