

AN INVESTIGATION OF SIGNATURE PEDAGOGY IN ART TEACHER EDUCATION
THROUGH ONLINE LEARNING: DESIGN OF SMALL PRIVATE ONLINE COURSE IN
TERTIARY EDUCATION

KARKINA SVETLANA

SUPERVISORS

JUAN JOSÉ MENA MARCOS

ROZA ALEKSEEVA VALEEEVA

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INTRODUCTION

The concept of signature pedagogies was introduced by Shulman for the demonstration of distinctive qualities of professional preparation in the fields of medicine, law and the clergy. According to Shulman's works this concept means "the characteristic forms of teaching and learning" (Shulman, 2005). The researcher highlights three fundamental dimensions of any profession: surface structure (educational process that includes all forms of classroom interaction between teacher and students), deep structure (the knowledge about effective methods in the subject area) and implicit structure (values and dispositions of professional experience). The key idea of Shulman's concept of signature pedagogies is a necessity to teach during the educational process to think like a real professional. His thesis states that professional education is a preparation for accomplished and responsible practice in the service of others. As a profession is much more than academic discipline, it is needed to create the new methods for the preparation for the professions including values and hopes of the professions.

Despite the fact that Shulman studied the signature pedagogies in the fields of medicine, law and the clergy only other researchers have found this method as useful to observe closely the pedagogy of the professionals in action. Christie (2009) have taken research experiences in computer science, Komoto (2009) published paper in the area of geography in the aspect of main characteristics of teaching and learning process. Some researchers are studying signature pedagogies in arts, such as Meacham (2009) whose paper offer the research of vision and re-vision in creative writing pedagogy; Don (Don et al., 2009) studied theory and practice of signature pedagogies in music theory and performance.

This research based on the point of view that in Russian art teacher education system at a university might be influenced by discourses outside the music domain; these could include pedagogy and psychology, biology and physics, socio-cultural trend, even information technology, business, marketing and law which prepare students for a contemporary work environment. The interplay of the different discourses blurs the boundaries of the core discipline, lessening the insularity. This is consistent with the trend towards more generalized Schools (as opposed to individual Departments), within universities and third level institutions, as a phenomenon of weakening boundaries (Bernstein, 1996). In weakening boundaries, influences at local level come into play, with social and cultural factors – even lecturers' research interests – having an impact. On the other hand, strong boundaries are maintained by professional bodies where 'specialised communications', and 'contexts and contents' are predetermined, fixed and defined (Bernstein, 1996).

Many of universities offer a great number of online contents in the field of music. For example, the one of the largest platform of distance learning education Coursera offer a wide range of courses for learning music, such as "Introduction to Classical music" (Yale, USA), "The world of the string quartet" (Philadelphia, USA), "Jazz improvisation" (Berklee, USA).

The use of the Massive Open Online Courses is a new model of distance education (García-Peñalvo et al., 2018) that allows to realize modern pedagogic approaches (Ramirez-Montoya et al., 2017). Most part of research works in distance learning possibilities based on Moodle (Barbera et al., 2004) and studying the perspectives of improvement of virtual education environments (Aparicio et al., 2016; Gros & García-Peñalvo, 2016). Researchers highlight the main reasons of support the combination of e-learning and face-to-face teaching are: accessibility, flexibility, and interactivity (Olmos et al., 2015). Analysis of researches allowed to state that music distance learning is important for providing quality musical instructions, eliminating various barriers such as socio-economic status or geographical location, offering deep reflection by instructors of teaching process (Pike, 2017).

The rapid development of Information and Communication Technologies (ICT) allows to choose for any study purposes the most appropriate ways for management of learning process (Gros et al., 2016). A wide range of technologies can be used in educational process, such as MOOC (Massive Open Online Courses) (Fidalgo-Blanco et al., 2016; García-Peñalvo et al., 2018), SPOC (Small Private Online Course),

BOOC (Big Open Online Course), DOCC (Distributed Open Collaborative Course), LOOC (Little Open Online Course), MOOR (Massive Open Online Research). Each of these technologies could be characterized as a special tool for learning through the Internet.

The SPOC (Small Private Online Course) was introduced by Fox in 2013 (Fox, 2013) for describing the way when a teacher uses an online course as a supplement to classroom teaching rather than being viewed as a replacement for it, that allows to increase instructor leverage, student throughput, student mastery and engagement. According to researches the SPOC provides no less possibilities than MOOCs such as lecture videos, reading materials, weekly exercises and forums for questions and discussions (Ziebarth et al., 2014). Besides researches highlighted advantages of usage SPOC such as the possibility to use flipped classroom, interactive practice, orientation on the improvement of professional skills and potential to provide transforming pedagogical model (Datsoon, 2018).

Among different approaches we did not find special one for improvement of creative thinking and creative skills as a signature pedagogy in art teacher education by the means of SPOC (Compeau et al., 2014).

WORKING HYPOTHESIS AND PRINCIPAL OBJECTIVES SOUGHT

The using of an online learning has become very popular as the number of students is increasing every year (Ya Ni, 2013). The most popular among them Coursera, EdX, Udacity are offer courses for learning every school subject for different purposes. Online format allows to learn each student in a most appropriate way such as connected knowledge for building 'ideas on the basis of others through collaboration' (Olmos et al., 2015). The most famous musical and art teachers highlight the importance of artistic individuality of learners and their rights for free creation, which we recognized as a principle of signature pedagogy in art education. The possibilities of the online learning in the process of art teacher formation is not studied enough nowadays. The research work in the design of online courses based on the signature pedagogics in art education might be an important trend in this area.

The meaning of the dissertation follows from the research question:

Which complex of learning format and methods will provide successful development of student's professional skills in art teacher education?

General objective

Development of student's professional skills through the small private online course (SPOC) based on signature pedagogy in art teacher education.

Specific objectives

To achieve this purpose, we have identified the following tasks:

1. Determining the principles of the signature pedagogy in art teacher education for implementation in the educational framework.
2. To explore the development of modern online education technologies and choose the most effective for art education from them.
3. Design of the online course in the format of SPOC in MOODLE based on the principles of the signature pedagogy in art teacher education.
4. Realization in the form of an experimental work the online course based on the principles of the signature pedagogy in art teacher education.

Hypotheses

The study will consist of three stages, which are described in detail in the methodology section below.

Hypotheses are presented for phase 3 (please, see the description of the phases in the methodology section):

H1 (alternative hypothesis): Statistically significant differences of quality appear between students using online learning courses based on signature pedagogy in art teacher education and those who do not.

H0 (null hypothesis): There is no statistically significant difference in quality between students using online learning courses based on signature pedagogy in art teacher education and those who do not.

H2 (alternative hypothesis): Statistically significant differences of quality appear between students using online learning courses in the format of SPOC in MOODLE in art teacher education and those who use MOODLE in b-learning way.

H0 (null hypothesis): There is no statistically significant difference in quality between students using online learning courses in the format of SPOC in MOODLE in art teacher education and those who use MOODLE in b-learning way.

METHODOLOGY

The methodology of the research based on the analysis of the theory and practice of art education process, including of the qualitative and quantitative data, as well as on the code of ethics for educational research (BERA, 2018). The theory analysis included works of signature pedagogics, art education, methods of art teaching, distance learning education. The analysis of practice was based on the learning of documents, visiting lectures and master-classes, taking part in distance learning. Experimental part of the research work includes qualitative (analysis of the interviews, essays, musical performances, student`s and teacher`s feedback, observations and personal experience) and quantitative data for testing hypotheses based on numerical measurement and statistical analysis.

The research project will be structured in three differentiated stages, schematized as follows:

PHASE 1: Analysis of the concept of signature pedagogy in art teacher education.

PHASE 2: Design of the online learning course in the format of SPOC in MOODLE based on the principles of signature pedagogy in art teacher education.

PHASE 3: Applying the online learning course based on the principles of signature pedagogy in the process of art teacher education.

PHASE 1: ANALYSIS OF THE SIGNATURE PEDAGOGY OF ART EDUCATION

During the period of 2019 – 2020 years will have done a theoretical analysis of the Shulman`s concept signature pedagogics in the aspects of its content, principles, structure and the research area in modern science. Also, will studied theoretical background of the art education, the most significant directions in the development of this sphere, the implementation of which will contribute to the signature pedagogics. The purpose of this phase will be to conduct a meta-analysis.

At this stage will be research the possibilities and potential of distance learning, types of online courses, ways of organizing online training, the necessary settings. Also, will be considered various possibilities of improving the educational process through online learning technologies.

PHASE 2: DESIGN OF THE ONLINE LEARNING COURSE IN THE FORMAT OF SPOC IN MOODLE BASED ON THE PRINCIPLES OF SIGNATURE PEDAGOGY IN ART EDUCATION

Based on the results of Phase 1 will be design the content of the online learning course as well as chosen the settings of online environment for effective learning in art education. This course will demonstrate the main principles of signature pedagogy in art education that will allow to improve a teacher practice in the university.

For the creation of the course were researched two platforms LMS Moodle and Course Builder. According to the works of Kerimbayev LMS Moodle is one of the most popular platforms today. It allows to provide strategic planning solution, to manage all training activities, including e-learning, virtual classrooms and online courses, to monitor the progress of each student as well as of group (Kerimbayev et al., 2019).

Course Builder is one of systems were available for the Macintosh. This system provides the easiest way for developing interactive presentations, self-paced learning sequences, intelligent tutoring systems, customized performance reports and simulations. Researches prefer to use this platform because it is more cost-effective and easier to learn with available technical support and flexibility design of courseware (McDade, 1992).

The process of designing an online course was researched in different points of view. The most earliest description of designing of online developmental education courses was made in the Caverlys` works (Caverly et al., 1999) where authors researched three levels or generations in the development of online courses. Bozarth in his works described the way of designing an online course based on student oriented approach (Bozarth et al., 2004). The description of principles of online teaching was presented in the works of Koeckeritz (Koeckeritz et al., 2002).

PHASE 3: APPLAYING THE ONLINE COURSE IN THE EDUCATIONAL PROCESS AND EXPERIMENTAL WORK

The research work of this phase will include creation of the diagnostic tools for the experimental work such as tests, questionnaire, feedback, special art methods. These tools will use in the work with three groups of students selected from among the students of Kazan Federal University (in 2019/2020 there were – 36602 students who study on high education programs). All these students have their own regular professional experience in art pedagogy as music teachers and were enrolled in part-time programs in Kazan Federal University include online learning:

- 1) students who have training in b-learning way combined traditional face-to-face practice and an online course based on MOODLE (140 persons, who are working as music teachers at schools. Each of them studied on refresher course. Duration of each course is 3 weeks. These courses were realized since March 2016 till December 2021);
- 2) students studied online course in the format of SPOC in MOODLE based on the signature pedagogics of art education (105 persons, who are working as music teachers at schools. Each of them studied on part-time bachelor program since September 2018 till June 2022);
- 3) students studied in normal pedagogical training program in the format of SPOC in MOODLE (120 persons, who are working as music teachers at schools. Each of them studied on professional training course during the period six month. The program for this group was realized since June 2018 till December 2021).

MATERIAL MEANS AND RESOURCES

This work is developed in the PhD program: Education in the Knowledge Society (García-Peñalvo, 2014, 2019; García-Peñalvo et al., 2019a), being its portal, accessible from <http://knowledgesociety.usal.es>, the main tool of communication and visibility of the advances (García-Holgado et al., 2015; García-Peñalvo et al., 2019c). It will include all the publications, stays and attendance at conferences during the course of the work.

The criteria of students' critical thinking and creative skills will be selected for the experimental work, that need to analysis by quantitative and qualitative methods. All the results will be studied through statistical methods.

Participants consent will be sought and ethical obligations will be respected.

The data obtained during the testing conducted by the practice teachers will be analyzed using SPSS (quantitative data analysis software that allows the use of advanced techniques to obtain significant information from the data obtained). This will allow for: descriptive analysis (frequencies, percentages, typical deviation, variance, etc.) and comparative analysis (T Student and effect size).

Nvivo 10 software will be used for qualitative analysis because its design allows you to analyze and sort qualitative or unstructured data, facilitating the task and reducing the time spent on its implementation.

- Software Nvivo 10 for qualitative analysis.
- SPSS: software to perform quantitative data analysis.
- Tools online: Google Drive, Hangout and Skype, Moodle.
- Cloud storage tools: Dropbox.
- App design tool: iNvision.

This PhD thesis is developed in collaboration with the GRIAL Research Group of the University of Salamanca (García-Peñalvo et al., 2019b; GRIAL, 2019).

TIMING SCHEDULE

Choice of subject: October 2019

Literature review (PHASE 1): October 2019 - July 2020

Theoretical framework (PHASE 1): October 2019 - July 2020

Research plan: October 2019 - February 2020

Meta-analysis of the signature pedagogy (PHASE 1): October 2019 - May 2020

Analysis of online learning courses: January - July 2020

International Pedagogical Forum IFTE (28-31 May 2020): May 2020

Article (start writing a draft according to the rules for authors of the Journal of Education): April 2020

Annual review of the thesis: June 2020

SECOND YEAR 2020/2021

Literature review (PHASE 2): September 2020 - June 2021

Theoretical framework (PHASE 2): September 2020 - June 2021

Technical work with the tools: November 2020 - April 2021

Design the distance learning course: November 2020 - May 2021

Technical development (technical external): January/March 2021

Design of the questionnaire: January/March 2021

Validation of the questionnaire (20 questions): March 2021

Search and acceptance of 5 experts: March 2021

Use of the questionnaire by experts and survey response: March - April 2021

Ethical permits (PHASE 3): April/May 2022

Conference HELMeTO 2020: September 2020

Send article "Meta-analysis of the signature pedagogy" for publishing: October 2020

Conference TEEM 2020: October 2020

Send article "Using SPOC in education" for publishing: October 2020

International Pedagogical Forum IFTE (28-31 May 2021): May 2021

Send article PHASE 1: December 2020

Article PHASE 2 (to begin to write a draft according to the rules for authors of the journal): December 2020 – May 2021

Send article PHASE 2: December 2020 – May 2021

Annual review of the thesis: June 2021

THIRD YEAR 2021/2022

Literature review (PHASE 3): September 2021 - November 2021

Theoretical framework (PHASE 3): September 2021 - December 2021

Data collection (PHASE 3): October 2021 - December 2021

Factorial analysis (confirmatory)): December 2021

Descriptive analysis (frequencies, percentages, standard deviation, variance, etc): December 2021

Comparative analysis (Student T and effect size): December 2021

Final revision of the thesis (if necessary): November 2021 - January 2022

Submission of the thesis: February 2022

Defence of the thesis: February/March 2022

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