Psychological and professional readiness for applying e-portfolio in the digital educational environment of universities

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Abstract

The aim of the article is to look at the concept of e-portfolio for language learners, discuss the perspectives of its application in higher educational institutions of Russia and analyse the degree of readiness for introducing it in the system of education on a wide scale. Using the observations described by different researchers, training experience in teaching foreign languages and the results of interviewing students and University professors and tutors the authors arrive at a conclusion that the educational community is generally prepared for e-portfolio application. Most difficulties are related to the absence of administrative regulation, insufficient digital competency and other reasons of psychological origin which make the university staff and the students prejudiced against this highly efficient digital tool. The authors formulate a number of didactic recommendations to facilitate the introduction and effective application of e-portfolio for language learners.

Психологическая и профессиональная готовность к применению электронного портфолио в цифровой образовательной среде университетов

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Аннотация

Цель статьи заключается в рассмотрении понятия «электронный портфолио» обучающегося иностранному языку, обсуждении перспективы его применения в высших учебных заведения России и анализе степени готовности системы образования к его полномасштабному практическому использованию. Опираясь на наблюдения, описанные исследователями, собственный опыт обучения языку и результаты опроса студентов и преподавателей университетов, авторы пришли к выводу о том, что образовательное сообщество в целом готово к внедрению e-portfolio. Основные трудности связаны с отсутствием административного регулирования, недостаточным уровнем цифровой компетентности преподавателей и студентов и другими причинами психологического характера, которые порождают их настороженное отношение к данному эффективному цифровому инструменту. Авторы сформулировали ряд дидактических рекомендаций, направленных на облегчение процесса внедрения и эффективного использования электронного портфолио студентов, изучающих иностранный.

Ключевые слова

Электронный портфолио, цифровая образовательная среда, смешанное обучение, овладение иностранным языком, обучение иностранному языку, обучающиеся языку, цифровая компетентность, цифровое благополучие

INTRODUCTION

According to the requirements of the Federal State Educational Standards of Higher Education, digital environment of Universities is regarded as one of the most essential prerequisites of efficient professional training. One of the key elements of this environment is the so-called e-portfolio, which is widely discussed by the scientific community of the most technologically developed countries. Its role in modern education can hardly be overestimated as it is regarded as the digital space of personality development [1], an effective pedagogical diagnostic tool [2], and a means of self-development and self-control [3] at all the levels of educational paradigm. E-portfolio is especially important in the case of teaching foreign languages in all the types of educational institutions because it performs the function of a specific passport which is used to describe each learner as a constantly developing personality [4] in the process of life-long learning. But, our own practical experience shows that the attitude to e-portfolio is different, and Universities tend to be rather slow in introducing it into the educational process, which could result from a wide variety of factors.

The principal aim of this article is to analyse the reasons which slow down the introduction and wide application of e-portfolio in the system of education as a whole, and higher education, in particular. We hypothetically presuppose that there are several groups of reasons, such as psychological, professional and technological, that prevent the university community from using e-portfolio in the process of education on a wide scale. But, we do not know for sure which of them bring about the greatest number of difficulties. Our primary task was to find out the attitude of students, university professors and tutors to e-portfolio in order to understand its positive and negative impact on their activities. The second task consisted in analysing our own teaching experience related to e-portfolio application concentrating on its advantages and difficulties caused by its introduction. The third task was to summarise the main results of scientific analysis of e-portfolio carried out by Russian and foreign researchers.

METHODOLOGY

In order to achieve the aim and solve all the problems mentioned above, we decided to conduct our research activities as a sequence of three stages. The first stage was aimed at analysing the results of using e-portfolio described by specialists in different areas by studying the most important publications. During the second stage we tried to summarise the results of our own educational experience and formulate the principal aspects of a more profound research. The third stage consisted in questioning the university community and analysing the data received. Finally, we tried to compare our own ideas with those expressed by university professors and students in order to see points of similarity and difference in our attitude to this digital tool and evaluation of its effectiveness in foreign language acquisition.

The stage of analysing scientific publications concerning the use of e-portfolio allowed us to pick up the key ideas expressed by the researchers and summarise them in the following way:

1. E-portfolio can be regarded as an effective tool of the present-day digital environment of educational institutions aimed at recording students' individual achievements, assessing their academic results and individual trajectories of development, and monitoring the quality of their learning progress [5]. E-portfolio is an innovative tool of controlling and assessing the results of education by measuring the materialized products of the students' cognitive academic activities [2].

2. E-portfolio is an effective instrument for developing the mechanisms of objective self-control, self-assessment and reflexivity of the students' own results and achievements [1; 3; 6]. Special research of reflective thinking development as a result of e-portfolio introduction allowed the authors [4] to describe two levels of critical analysis and reflection. The higher the level, the better developed is the ability of the students to learn on a life-long basis and the more self-regualed their activity is. High level of introspection and writing skills [7] indicate that e-portfolio creation is a highly developing and complex type of activity which requires a lot of time and effort.

3. Specialists emphasise high diagnostic, motivating and developing power of e-portfolio, which can encourage the students to increase the results of education. Another motivating factor is a teacher who turns out to be a decisive variable in student satisfaction as a result of e-portfolio application [8].

4. Modern technologies open up wide opportunities for e-portfolio application in the educational environment of universities [9], which is very convenient, on the one hand, and require special digital competences, on the other hand. This concept is far beyond information and data literacy and requires a lot of specific skills such as communication, collaboration, ability to create digital content, critical thinking, etc. All of them serve as a basis for creating the so-called digital well-being [10].

5. One of the most essential contributions to the idea of e-portfolio for language learners was made by foreign researchers who worked out the so-called European Language Portfolio for the Council of Europe which consists of three basic elements: Language Passport, Language Biography and Dossier [11].

6. A verified version of e-portfolio adapted to the requirements of higher educational institutions of Russia was described in our previous publications [12] in which we focused on its content and structure. From our point of view this document is supposed to cover three major areas:

– Passport of language and speech development of a student as a language personality;
– Speech and language experience in communicative competence development;
– Major achievements in foreign language acquisition and products of verbal activity.

For language teaching and language acquisition assessing the results of education with the help of e-portfolio is especially important. It has been experimentally proved that e-portfolio positively effects students' language progress in general, and writing, listening and reading skills, in particular, making practically no impact on speaking skills [13]. The authors mention that students treat positively portfolio application and even like it.

In our practical teaching experience we mainly deal with summarising the results of our own training activity and the students' learning activity constantly updating the information as we are moving along the educational trajectory and the students are acquiring new verbal skills. Being beginners in e-portfolio application we experience some difficulties and even certain resistance from the students who sometimes try to avoid written types of work. Their main argument against e-portfolio application is that it takes a lot of extra time. University professors and tutors also seem to ignore a number of activities which they consider to be very time-consuming. But, as the students and teachers are getting used to this mode of recording and monitoring the results of education, they start realising how convenient it is. It allows us to analyse the individual educational trajectory of each student, be aware of the progress and individual pace of development, objectively assess the achievements and difficulties, and keep electronic record of this information for a long time. After all, e-portfolio saves a lot of time, effort and paper work. During the pandemic e-portfolio turned out to be an indispensable instrument of assessment and monitoring the students' results, a very important issue to be discussed with the students, a matter of profound linguistic analysis and an effective teaching device.

This contradictory experience of introducing e-portfolio in our work encouraged us to analyse the reasons for accepting or rejecting it as an educational tool in order to understand how to overcome this resistance and make this electronic device more user-friendly and efficient. For this purpose, we decided to question anonymously the key participants of the educational community, i.e. students and teachers, and understand their general attitude to e-portfolio, as well as difficulties they may have in using it. Therefore, we worked out two questionnaires: one for the university professors and tutors who work for different higher educational institutions of Russia and another one for the students of the State University of Management.

The one intended for the university professors and tutors included 12 questions. They fell into six areas: the role and functions of e-portfolio, its content and structure, the technological aspect, the didactic impact on the educational process, and the attitude to this pedagogical tool. In most cases the respondents were supposed to answer multiple-choice questions and sometimes they were invited to provide their own variants. Three questions were of the open type and required longer and more detailed answers.

The questionnaire for the students was aimed at finding out general understanding of e-portfolio as a comparatively new didactic concept, its role in modernising higher education, digital technologies and platforms appropriate for using it in the educational environment of universities, and the general attitude of the students to this instrument. We were also interested in the students' previous experience of using e-portfolio at school. It was one of the primary areas of importance for us because we are sure that recording language experience and describing the development of verbal competency is supposed to begin no later than at the stage of secondary education and reflect the entire process of life-long learning [12]. To compile a questionnaire, we made use of 10 multiple-choice questions, some of which required "yes or no" answers. A number of questions intended for the students coincided with those given to the teachers.

RESULTS

The results obtained were analysed in four different ways. The first line of analysis dealt with the differences in the attitude of the students and teachers to applying e-portfolio in the digital educational environment of universities. The second research direction consisted in pointing out the key features in the attitude

to e-portfolio within two groups of interviewees. The third aspect of analysis concerned advantages and difficulties in applying e-portfolio mentioned by the students and the teachers. The essence of the fourth line of analysis consisted in comparing our results with those obtained by other Russian and foreign researchers referred to in our paper.

Summarising briefly the information obtained as a result of questioning students, it is necessary to point out that the total number of interrogated first-, second- and third-year students of the State University of Management amounted to 721. Most of these students did not have any experience in using e-portfolio at school and very little university experience mainly related to learning foreign languages. But in spite of this fact, the overwhelming majority of students suppose that e-portfolio is important (44.1%) or extremely important (10.7 %) with only 4 % of those who think that using e-portfolio is not necessary. The respondents presume that e-portfolio is necessary at all levels of education from school to postgraduate study, but it is especially useful at the level of study at Bachelor's Degree (67.8 %) and Master's Degree (45.8 %) courses.

According to the results of the survey, the university student and faculty personal accounts are considered to be quite convenient for the creation of e-portfolio, the general attitude to this educational resource being absolutely favourable (73.9 %). As for the readiness of the students to form and replenish e-portfolio for arranging the individual trajectory of professional development, the majority of the respondents (49 %) expressed their willingness to do it, while only 11.4 % found it difficult to give a definite answer. Among the most convenient functions of e-portfolio mentioned by the respondents were "Evaluation and monitoring the quality of individual achievements" (61 %), "Recording skills and abilities acquired" (58.5 %), "Monitoring the individual trajectory of development" (55.9 %), "Planning the educational process" (47.3 %). Considering the most appropriate platforms for this activity the students referred mostly to Google sites (63.2 %), Wix (16.2 %) and Jimbo (10.4 %).

With regard to the section "Achievements", the respondents emphasized that the most notable of them are "academic competitions confirmed by certificates" (43.6%), "certificates of professional education" (21.1 %), as well as "articles in a foreign language" (13.7 %) and "different verbal products of professional and business communication" (30.5 %). It is noteworthy that some skills of oral business communication, such as "making business presentations" (26.6 %) and "participating in round-the-table business discussions" (18.2 %) have already been acquired by the students in the course of learning foreign languages.

The results of questioning academic teachers and tutors from several universities of Russia revealed several outcomes which we can interpret as more or less unexpected and predictable at times. Primarily, the major part (54 %) of the teaching staff confirmed that e-portfolio is not used in their educational institutions as a special training tool, at least they do not have any instructions on how to implement it in the language acquisition process. Nevertheless, the fact that it is necessary at every level of education, especially for training future bachelors, which is emphasized by 75 % of respondents, is generally admitted by most of them. Its importance is recognised not only in education, but in some other spheres, for example job application, career growth, transition between education levels and types of institutions. Among the most useful e-portfolio functions the academicians mentioned information storage and analysis, tracking individual development trajectory, recording individual achievements, monitoring educational results, and their quality assessment. In teachers' opinion, a student's e-portfolio requires to include information of their individual achievements, such as international language proficiency certificates, professional retraining programmes, scientific articles written in foreign languages.

Technologically most teachers seem to be prepared for applying e-portfolio and mentioned several digital devices and platforms familiar to them: Google applications (79 %), uCoz (12,5 %) and Jimbo (8 %), although 20 % of teachers do not use any of these digital resources. Unexpectedly, despite the experience of distance training during the pandemic, some university professors and tutors still have difficulties in using Internet resources and platforms for e-portfolio creation. The major part of the respondents (55 %) agreed that the platform of their own university would be especially convenient for them in applying e-portfolios. Nevertheless, 40 % are not sure of it.

Most teachers (91,5 %) are convinced that it is the students' responsibility to control their e-portfolios independently, but teachers and dean's office stuff should participate as well, which was mentioned by 41,5 % and 37,5 % respectively. Some respondents believe that the students' activity aimed at e-portfolio creation is to be organised at the start of a language course by means of working out precise instructions supplied with matrix samples, which could facilitate the assessment of achievements on a regular basis and give valuable incentives to increase motivation.

It is worth mentioning that the majority of the teachers (65,7 %) agree that e-portfolio is of special importance for blended learning. It is also suitable for job application because it contains essential information about candidates empolyers are usually interested in. However, there are certain difficulties that retard its implementation in higher educational institutions. Some of them are slow administration response to e-portfolio introduction, absence of didactic requirements in the curricula and programmes, and poor didactic recommendations for e-portfolio application. As a result, both students and teachers are reluctant to do extra work. Besides, work overload and high intensivity of teachers' classroom activities prevent them from being loyal to the introduction of new digital educational tools, which require a lot of time and effort. Moreover, there are no universal requirements concerning the content, structure and design of e-portfolio.

DISCUSSION

The results obtained allowed us to draw a number of conclusions and formulate certain recommendations for foreign language departments.

The key conclusions to be drawn can be briefly formulated as follows:

1. On the whole, the academic community seems to be tolerant enough to applying e-portfolio and can see its positive perspectives. Although, the university professors and tutors turned out to be more critical about it than the students. Both groups realise that e-portfolio is very convenient and useful in the long run, but rather time-consuming especially at the initial stage of its introduction. Meanwhile, it is the only possible way of monitoring and recording individual results in the situation of distance learning which we had during the pandemic.

2. As for the key features in the attitude to e-portfolio mentioned by the students and the teachers, both of them realise the necessity of e-portfoilo at all the levels of education, positively evaluate its perspectives and reveal an unexpectedly high level of readiness for its introduction.

3. Speaking about advantages of e-portfolio and difficulties in its application, it is necessary to point out that being aware of most of them both teachers and students turn out to be quite objective in their attitude and realise that there is no alternative to e-portfolio, on the one hand, and the application of this innovative digital tool requires a lot of time, effort, administrative coordination and clear-cut requirements, on the other hand.

4. Summarising the answers received from the respodents and interpreting the results obtained, we cannot but mention a comparatively low level of difficulties brought about by the absence of digital competency of most university professors and tutors.

5. Analysing the results obtained we can easily compare them with the conclusions made by Russian and foreign researchers. This line of analysis reveals a lot of similarities described by different authors working in various areas of education [2; 3; 7; 13, etc.]. It is noteworthy that our principal research results coincide with the conclusions made by the majority of other authors. However, some of the data obtained by them were not confirmed in our research. For example, some authors mention the unwillingness of students to share their personal achievements with educational community by means of university e-environment, whereas they prefer to use social networks for this purpose [14].

6. As for the psychological and professional readiness, we can say that on the whole it is rather high, which fully coincides with the data obtained by other researchers [15; 16; 13]. Students turn out to be even more prepared for e-portfolio wide-scale application mainly because of being digitally native. They seem to be less psychologically prejudiced against this new educational tool, whereas a considerable number of teachers regard it as extra work to be added to their daily responsibilities and provides certain discomfort in the area of their digital well-being [10].

CONCLUSION

Several conclusions are to be drawn as a result of the research and the analysis of the most significant trends described above. The first is that there is practically no alternative to e-portfolio in the present-day system of education, and its role is sure to grow in future with wide-scale introduction of blended learning as the key ideology of the 21st century education. The second conclusion we arrive at is that the educational community is more or less psychologically ready for the introduction of e-portfolio, although some teachers and students are prejudiced against it to a certain extent as something technologically new. The third conclusion of great importance consists in the fact that modern digital technologies play the leading role in introducing e-portfolio, which means that students and teachers have to be aware of these technological advances and constantly undergo special professional

training in this area in order to substantially improve the level of their digital competence. The fourth aspect to emphasise is that e-portfolio is especially convenient for language learners and teachers if it is applied as an element of life-long learning and could serve as a passport of communicative competency development.

The recommendations for the wide-scale introduction of e-portfolio that we consider reasonable to make as a result of our research are related to several aspects. First of all, the students' activity aimed at e-portfolio creation is to be organised at the start of a language course by means of working out precise instructions supplied with matrix samples, which could facilitate the assessment of achievements on a regular basis and give valuable incentives to increase motivation. Secondly, special universal requirements are to be worked out by educational officials and further introduced in the university curricula and programmes of teaching all the subjects, foreign languages being one of them. University administration should take care of developing friendly educational digital environment and adapt the Student and Faculty Profile to the content and structure of e-portfolio. Thirdly, it seems reasonable to work out and conduct educational programmes for the university staff aimed at developing digital competences necessary for e-portfolio application.

References / Библиографический список

1. Boyarinov D.A. *Information educational space of personal development of students: monograph*. Smolensk: SmolSU Publ. House; 2014 (In Russian).

2. Golub G.B. Churakova O.V. *Portfolio technology in the system of pedagogical diagnostics: methodical recommendations for the teacher to work with the portfolio of the students' project activities: monograph*. Samara: Profi; 2004. (In Russian).

3. Manakova I.P. "Portfolio" technology as a method of self-organization and self-development of students and teachers. *Kontsept*. 2017;39:961–965.

4. Sultana F., Lim C.P., Liang M. E-portfolios and the development of students' refective thinking at a Hong Kong University. *Journal of Computers in Education*. 2020;7(3):277–294. https://doi.org/10.1007/s40692-020-00157-6

5. Van Wesel M., Prop A. The influence of Portfolio media on student perceptions and learning outcomes. *Paper presented at Student Mobility and ICT: Can E-LEARNING overcome barriers of Life-Long learning?* 19–20 November 2008, Maastricht, The Netherlands.

6. JISC. *Effective practice with e-portfolios: Supporting 21st century learning*. UK, Bristol; 2008.

7. Van der Gulden R., Heeneman S., Kramer A.W.M., Laan R.F.J.M., Scherpbier-de Haan N.D. and Thoonen B.P.A. How is self-regulated learning documented in e-portfolios of trainees? A content analysis. *BMC Medical Education*. 2020;20:205. https://doi.org/10.1186/s12909-020-02114-4

8. Gámiz-Sánchez V., Gutiérrez-Santiuste E., Hinojosa-Pareja E. Influence of professors on student satisfaction with e-portfolio use. *Journal of Educational Computing Research*. 2018;57(3):646–669. https://doi.org/10.1177/0735633118757016

9. Ilicheva S.V. Development of an electronic portfolio model based on Mahara/Moodle as a technology for managing the quality of the educational process and individual progress of the student. In: *A collection of abstracts of the conference of young scientists reports*, 2011. SPb.: St. Petersburg State University of ITMO; 2011:R. (In Russian).

10. Mezentceva D.A. et. al. On the question of pedagogical digital competence. *Vysshee obrazovanie v Rossii = Higher Education in Russia*. 2020;29(11):88–97. https://doi.org/10.31992/0869-3617-2020-29-11-88-97

11. Modern languages: Learning, teaching, assessment. *A Common European Framework of Reference*. Council for Cultural Co-operation, Education Committee. Strasbourg;1998.

12. Putilovskaya T.S. E-portfolio as a means of monitoring the results of education. *Foreign languages at school*. 2020;4:45–52.

13. Demirel M., Duman H. The use of portfolio in english language teaching and its effects on achievement and attitude. *Procedia – Social and Behavioral Sciences*. 2015;191:2634–2640. https://doi.org/10.1016/j.sbspro.2015.04.598

14. Svec P., Drlik M., Noskova T., Pavlova T., Yakovleva O., Munk M. Analysis of University e-Environment in Selected European Countries – IRNet Case Study. In: Issa T., Isaias P., Issa T. (eds) *Sustainability, Green IT and Education Strategies in the Twenty-first Century. Green Energy and Technology*. 2017. https://doi.org/10.1007/978-3-319-57070-9_17

15. McGarr O., McDonagh A. *Digital competence in teacher education*. Oslo: Oslo Metropolitan University; 2019.

16. Usacheva O.V., Chernyakov M.K. Assessment of University Willingness to the Transition to Digital Educational Environment. *Vysshee obrazovanie v Rossii = Higher Education in Russia*. 2020;29(5):53–62. https://doi.org/10.31992/0869-3617-2020-29-5-53-62