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Peculiarities of Organization of Students' Online Educational Internship

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Abstract

The paper sets out to present the experience of organizing students' online educational internship. The educational internship for the bachelors of Education, majoring in Health and Safety & Physical Education, is introductory, the first one in the curriculum. The distance educational internship was organized on the MS Teams digital platform using team work. The students' online activities involved analyzing scientific, popular science, methodological and official information on health and safety and physical education, as well as on the disciplines that provide the meta-subject approach and inter-subject communications when teaching these subjects at school. The key methods were the project method and the case method. The students were given different cases, such as to analyze the content of video clips and websites, to develop environmental excursions and algorithms for modeling the volcano, to determine the optimal physical recreation and its components for people of different ages. The main advantages of students' distance educational internship are a larger number of tasks completed by students compared to the full-time format, the use of different methods and technologies to organize students' team work. The main problems concerning the distance educational internship include teachers significantly overloaded with the task development and evaluation, the long hours students spend working at the computer and technical issues. It is important to find a reasonable compromise between the amount of the proposed work with the information, the optimal time and safe operation in an electronic environment when organizing internships in an online format.

Keywords: educational internship, e- learning, electronic educational resources, case study method, competences.

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Introduction

The COVID-19 pandemic has significantly accelerated the global digitalization of education. The forced transition to distant learning required alternative forms of learning, changes in the technology and methods of organizing classroom and extracurricular students' activities (Besshaposhnikov, Leonov & Prilipko, 2018). Teaching and education at universities, difficulties, evaluating the effectiveness and identifying problems of distant learning, as well as its risks and opportunities, during the pandemic have been the subject of research by a number of authors (International Commission on the Futures of Education, 2020; Shtykhno, Konstantinova & Gagiev, 2020; Trifonova, Korolev & Khutieva, 2020; World Bank, 2020). Most authors note that in the post COVID-19 world education will be partly digital, which will make learning more flexible, personalized, and effective. Since the effective educational process is determined by the detailed digital educational resources (Magomaev, 2019), it is relevant to present the effective experience in using the online format to organize various forms of university classes. Besides, lectures, practical or laboratory lessons presented in most works do not pay sufficient attention to organizing students' internship (Shcherbakova E. & Shcherbakova T., 2020).

Purpose and objectives of the study

Within this study, we share the experience of distance educational internship for future bachelors of Education. The aim is to present the experience of organizing students' online educational internship. The basis of the study is an educational (introductory) internship for the bachelors of Education, majoring is Health and Safety & Physical Education.

Literature review

Currently, the goals and contents of education in Russia have changed; it has become person- and practice-oriented (Gorchakova, 2018). A modern university graduate should be able to creatively implement the educational process (Lamanauskas & Augienė, 2015). The training of future teachers focuses on the forms and methods that encourage creative search and thinking, activity, independence, and responsibility (Lamanauskas & Augienė, 2015, 2016; Gorchakova, 2018). In this regard, students' research activities are becoming an important part of the educational process, and the educational internship is the form of research activities (Aleksanova G. & Aleksanova S., 2016; Kadyseva, Ermakova, Kozlovceva, & Gubanova, 2018; Shmul'skaya & Mamaeva, 2018; Yudenkova, Gorskaya & Gubanina, 2018).

The aim of students' educational internship is to consolidate and make the theoretical training more profound, acquire universal and general professional competencies which are necessary for future professional activities (Arzamastseva & Kurochkina, 2020). Well-organized internship activities develop operational, organizational, practical and communicative research skills which are necessary for future teachers to organize students' educational and research activities (Shmulskaya & Mamaeva, 2018).

A number of authors (Arzamastseva & Kurochkina, 2020; Banar & Timofeeva, 2020; Burcev, 2020; Popova, 2020; Pozdnyakova & Kuleshova, 2020; Shmulskaya & Mamaeva, 2018) presented their experience of organizing students' educational internship, including information and communication technologies and remote learning. Most authors note a number of problems which arise when a full-time internship is organized. Among them is the restricted training under real educational conditions on the "continuous internship" principle, the lack of an on-site internship, the impossibility to publicly defense the internship report in the presence of future employers and many others.

Distance internship has its advantages and disadvantages. According to Pozdnyakova and Kuleshova (2020), the advantages include multiple viewing of video materials for analysis, gaining experience in organizing remote work. The main disadvantage is the lack of real-life communication. However, these conclusions relate to obtaining primary professional skills, including primary research skills; this kind of full-time educational internship involves working under real educational conditions. Therefore, most tasks proposed by the teachers cause difficulties among the students due to the lack of pedagogical terminology and experience in pedagogical observations.

Methodology

The study applied both theoretical and empirical methods. The theoretical methods included 1) the analysis of the university teachers' works on the research problem (the experience of organizing students' distance educational internship in Russian universities); 2) the analysis of the normative documents; 3) methodological and educational literature review. We analyzed the Federal State Educational Standard of Higher Education in the relevant area of training bachelors (FSES HE 3++, 2018), the curriculum for bachelors of Education (with a double major), as well as the curriculum of the discipline "Educational (introductory) internship" for bachelors of Education (whose major is Health and Safety & Physical Education). On the basis of systematic, meta-subject and practice-oriented approaches, the principles of organizing educational internship were developed, the main methods and technologies were determined. The empirical methods included the reflexive system analysis of the justified pedagogical activity at the Vyatka State University.

The research was conducted in the Pedagogical Institute, the Vyatka State University. The experiment was carried out during 2018-2019 and 2019-2020 academic years. The study involved three stages. At the first stage, we analyzed the students' full-time educational internship conducted in 2019. 33 first-year students (Health and Safety & Physical Education) took part in the experiment. 36 first-year students (Health and Safety & Physical Education) took part in the experiment in 2020. All participants voluntarily agreed to participate in the study. At the second stage, during the COVID-19 pandemic, the theoretical concept of organizing students' educational (introductory) internship was improved and adapted for the remote format. At the third stage, we analyzed, synthesized and systematized the data obtained.

Results

The educational internship for the bachelors of Education, who major in Health and Safety & Physical Education, is introductory, the first one in the curriculum and is done at the end of the first year. The educational internship aims to consolidate and deepen the theoretical training in health and safety and physical education, which allows students to acquire appropriate practical skills that are necessary for their future professional activities. The educational internship is an immediately continued studying of such academic disciplines as Theoretical Foundations for the Natural Hazards Study & Training Methodology and Theory and Methodology for Training in Basic Physical Education.

The purpose of the educational internship is to acquire knowledge and skills to carry out various forms of practical activities with students, conduct design and research work, its goal setting, stages of organization in accordance with regulatory legal acts in education and ethics.

The main task of the educational internship is to develop the following competencies:

- to acquire knowledge and practical skills in Autonomous Existence in the Natural Environment and Geophysical and Geological Natural Hazards in accordance with the requirements of regulatory legal acts and professional ethics (general professional competence);
- to form skills to define the purpose, tasks and stages of professional activities during the project and extracurricular activities on Health and Safety & Physical Education (universal competence);
- to develop skills for organizing professional activities and team work during the project and extracurricular activities on Health and Safety & Physical Education (general professional competence).

The internship involved 5 sections (Table 1). The features of each section during full-time and distance internship are presented in Table 1.

Table 1. The main differences between full-time and distance educational internships.

Sections	Internship Format	
	Full-time internship	Distance internship
1. Organizational and preparatory	Introductory conference	Introductory conference (via conference call in MS Teams)
	Safety instructions	Safety instructions (in the personal account in the Educational Internship e-resource).
2. Interactive and meta-subject learning technologies for natural hazards	Conducting excursions to nature, performing tasks in the natural environment	<ol style="list-style-type: none"> 1. Determining the criteria for the methodology of the study excursion analysis (analysis of scientific and methodological articles) 2. Analyzing the video excursion (with pre-scheduled errors) 3. Performing team and individual tasks on the excursion process map (quest technologies with elements of project activities) and creative tasks during the excursion
	Developing the process map and making an active volcano model. Presenting and defending the completed model and the technology selected (design method)	<ol style="list-style-type: none"> 1. Analyzing geographical sites and video fragments according to the specified criteria, identifying outsider and leading sites from the point of view of their use in the training process (team work) 2. Analyzing photo reports on the students' models, including those of different countries. Evaluating various volcanic modeling technologies. <p>Creating a sketch and the model execution route using inter-subject relationships (Geography, Physics, History, Literature, Arts)</p> <ol style="list-style-type: none"> 3. Defending the project (presentation) via

3. Organizing physical recreational activities	Evaluating sports facilities and recreation sites suitable for classes in various districts of Kirov. Writing a report (team work)	conference call with the speaker and the opponent roles distributed 1. Analyzing the information on the basic regional sport on the official websites and the Region Sports Ministry. Identifying major reporting issues. Developing the contents of the campaign sports selection stage in a particular kind of sports. Defending the project (presentation) via conference call with the speaker and the opponent roles distributed. 2. Solving the case using the “brainstorming” method to choose the optimal type of physical recreation taking into consideration its main components for people of different ages. Developing recreation elements based on preferences, occupation, place of residence (search for optimal places and institutions using interactive maps of residential areas) Defending the project (presentation) via conference call with the speaker and the opponent roles distributed.
4. Final 5. Preparing and passing intermediate certification	Writing internship reports Presenting the reports in the electronic resource The final conference with the team reports presented on the results of the work. Evaluating the work	Writing internship reports Presenting the reports in the electronic resource The remote final conference with the team reports presented on the results in MS Teams. Evaluating the work

The organizational and preparatory section involves the students' activities during the first day of the internship and includes the introductory conference and safety instructions. At the introductory conference, the students are given the information about the terms and site of the educational internship, its goals and objectives, the task types, the reporting types and deadlines. They are divided into teams for further work and choose a leader.

The main tasks of the educational internship are solved in Sections 2 and 3 (table 1); from 2 to 11 day of the internship. The main tasks of the section "Interactive and meta-subject learning technologies for natural hazards" are to develop a model of a certain volcano (for example, Fujiyama, Kilimanjaro, Vesuvius, Koryakskaya Sopka) and the methodology for educational excursion on Health and Safety. Topics for excursions: "Terrain orientation", "Organization of bivouac work", "Safety in reservoirs", "Safety in the city" and many others.

The tasks of the section "Organizing physical recreational activities" during the full-time and distance internships are completely different. During the full-time internship, the students evaluated the demand for physical recreation sites in Kirov and worked out physical recreation programs for children and adults taking into account the site exercise equipment. During the distance internship, the students had to solve two cases: 1) to analyze the information on the basic sport for the Kirov region and develop the contents for the campaign sports selection stage in a particular kind of sports; 2) to develop a justified physical recreation program depending on preferences, occupation and place of residence for a certain person. As a result of both cases, the students defended their projects online.

The "Final" and "Preparing and passing the intermediate certification" sections (table 1; 12 and 13 days of the internship) involve preparing and presenting reporting documents in the electronic resource and the final conference with the team reports presented on the results of the work.

The Department of Medical and Biological Disciplines, the Vyatka State University, developed the electronic resource "Educational Internship" on the LMS Moodle. It includes specially selected texts and theory presentations, practical activities, knowledge testing, video fragments for analysis, individual tasks, requirements for creating presentations and reports, hyperlinks to additional material, safety instructions, test questions, etc.

The distance educational internship was organized on the MS Teams digital platform using team work. The students' online activities involved analyzing scientific, popular science, methodological and official information on health and safety and physical education, as well as on the disciplines that provide the meta-subject approach and inter-subject communications when teaching these subjects at school.

The key methods were the project method and the case method; the cases altered and became more complex as the internship progressed. The students were given different cases, such as to analyze the content of video clips and websites, to develop environmental excursions and algorithms for modeling the volcano, to determine the optimal physical recreation and its components for people of different ages.

Team work was the main form used. Six teams of five or six students with a leader worked throughout the entire internship period. In the first week, the teacher gave individual tasks to the team members; in the second week, it was the team leader's duty. As part of the team, almost every student had the opportunity to act as a speaker (project defense), reviewer or opponent of other projects. It turned out that it was easier to find the project drawbacks rather than its advantages.

The teacher advised on all emerging issues via videoconference or chat on a daily basis.

Each team member's self-reflection on the task weakness and the team members' competence was considered to be compulsory. The teachers used the reflection elements as a feedback when editing the tasks of each subsequent day.

As a result, the main internship tasks on developing the competencies were completed. The distance educational internship was more effective in comparison with the full-time activities. In particular, it relates to developing the skills to analyze data, conduct an expert assessment and select educational information on compliance criteria. In addition, the skills to search for the network, select the corresponding content of the presentation design, develop the presentation in accordance with the rules, the ability to report the results and oppose, distribute work among the team members in accordance with their capabilities were consolidated.

Discussion

In general, the educational (introductory) internship of the bachelors of Education, majoring in Health and Safety & Physical Education, significantly increased the teacher's workload when drawing up assignments, selecting material for analysis, checking intermediate elements, consulting, as well as organizing the project defense. Petrova (2021) and Drozdova (2021) presented similar results; the authors also noted the advantages of the LMS Moodle remote platform for organizing internships.

A large number of tasks to analyze information and conduct an expert assessment are considered as a positive aspect of the internship. During the full-time classes, "information saturation" competence is insufficiently developed.

Due to the complex cases, surfing the Internet for information was substituted by the use of selection criteria. Thus, distance internship develops future teachers' digital culture. Professional digital competence is an integral part of the future professional activities of the bachelors of Education (Brevik, Gudmundsdottir, Lund, & Strømme 2019), who are supposed to know how to maximize the inherent learning potential in information and communication technologies. A number of authors (Brevik et al., 2019; Kamysheva, 2020) state that modern students' digital competence is not sufficiently developed. Despite the fact that modern young people spend most of their time online, they can hardly find the information according to the criteria given, they cannot create their own presentation in accordance with the requirements (it is easier to download a ready-made one) or assess the information on a given topic. In other words, there is now a clear contradiction between the expansion of the information field when using the Internet space and the de-motivation of acquisition of knowledge (Smith, Hewitt & Skrbiš, 2015; Stornaiuolo, 2017).

The research skills formed are an undoubted advantage of the educational internship, including its remote format. A number of Russian authors (Gorchakova, 2018; Yudenkova et al., 2018) recommend introducing research activities in the first year of studying at the university. When working with various cases during the educational internship, students learn:

- 1) to develop basic research skills (selecting and justifying the research topic, searching and referencing the information, compiling a list of the sources used, etc.);
- 2) to provoke students' scientific interests (it allows them to determine the topic for their future senior thesis: if it will be methodological or applied);
- 3) to develop their own judgments (Gorchakova, 2018; Yudenkova et al., 2018), they learn to act as reviewers or opponents of the project.

To stimulate students' research activities, it is possible to encourage them to present the best projects developed during the educational internship at various contests of scientific and methodological students' works (in case their projects are refined in accordance with the terms of the competition). Lamanauskas & Augienė (2015) suggested that lecturers and students should cooperate in scientific research (joint publications, reports at conferences, development of inventions and their registration as intellectual property).

Certainly, the main drawback of distance learning is a number of hours students spend working at the computer.

Therefore, at the introductory conference, it is of great importance to remind students of the hygienic requirements for the PC user, as well as the measures preventing mental and visual disorders and locomotor apparatus abnormalities. During daily consultations with students, the teacher may perform a set of exercises to relieve muscle or eye fatigue. The health preservation competence in the FSES HE (2018) is universal to “self-education and self-development” and “health and safety.” Moynihan et al. (2015) state that due to the low level of teachers’ health preservation competence students’ health may be negatively affected. Therefore, during the entire period of studying at the university, it is very important to pay sufficient attention to developing health preservation competence of future bachelors of Education, as well as motivate them to lead a healthy lifestyle.

Conclusion

The main advantages of students’ distance educational internship are a larger number of tasks completed by students compared to the full-time format, the use of different methods and technologies to organize students’ team work. The students were able to communicate more within the team in an online format. In addition to the universal and general professional competencies identified in the curriculum of educational internship, its remote format develops students’ research, digital, and health preservation competences.

The main problems concerning the distance educational internship include teacher overload with the task development and evaluation, the long hours students spend working at the computer and technical issues. It is important to find a reasonable compromise between the amount of the proposed work with the information, the optimal time and safe operation in an electronic environment when organizing internship in an online format.

The results of the research can be used when developing curricula and electronic educational resources for educational internship of Health and Safety & Physical Education teachers.

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