

## INFORMATION APPROACH TO THE PROBLEM OF IMPROVING THE READINESS OF FUTURE TEACHERS FOR THE SPIRITUAL AND MORAL DEVELOPMENT OF JUNIOR SCHOOLCHILDREN

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**Abstract:** The article considers information aspects of the spiritual and moral development of primary school children in frames of future teachers' readiness for teaching, thus, the problem of readiness of future teachers for spiritual and moral development of schoolchildren. Information approach is used as the method of analysis. It is shown that, in order to successfully solve the problem of readiness for the spiritual and moral development of the child, it is necessary to provide students with dosed information, and exactly what is really necessary for their personal progress.

**Keywords:** Information approach, Junior schoolchildren, Moral development, Primary education, Spiritual development.

### 1 Introduction

The solution of the tasks of quality education should be preceded by scientific processing and mastering of information by those who are called to educate the younger generation. After 2015, Ukrainian society identified eight priorities, including "affordable and quality education: spiritual development and competitiveness in the labor market" [16].

Without thorough approaches, it is impossible to form a modern understanding of the importance of developing the phenomenon of readiness of future teachers for the spiritual and moral development of students and the implementation of new ideas in the educational practice of the New Ukrainian School [28, 29, 30].

The problem of readiness of future teachers for spiritual and moral development of schoolchildren has long been in the field of view of scientists, as well as teachers-practitioners [23, 24]. Today, there is an increasing interest in this issue, because there are objective reasons, including the following: weakening of spiritual and moral guidelines in the activities of many people, strengthening the concept of "economic man," weakening the concept of "spiritual man," aggravation of relations in various social spheres, spread of unfavorable childhood environments, etc. [12, 13, 14, 15, 20, 21]. In this regard, we quote the words of L. Bertalanffy, which are still relevant today: "We have lost intellectual comfort. Most likely, we seem to have fallen victim to "historical forces" – whatever that means neither national leaders nor society as a whole seem to be able to do anything" [5].

All of the above convinces that, at the present stage, there is a need to change approaches in the work of higher education institutions, in particular, in the field of educational work with students majoring in "Primary Education".

### 2 Literature Review

Among the general scientific methodological approaches aimed at solving the problem of improving the readiness of future teachers for the spiritual and moral development of primary school children, there is an informational approach [1, 3, 7, 26, 27, 34]. Let us describe it in more detail.

The relationship between the provision of educational information to the subjects of the educational process for personal and professional growth is not in doubt, and, therefore, taking into account the information approach is due to understanding the processes of digitalization and Internet dissemination, which change public life in general and future teachers in particular [8, 10, 11, 17, 19].

The information approach, as noted by O. Belyaev, M. Gulakova, G. Kharchenko, "Allows studying from a single standpoint those aspects of natural and social objects for which there is a process of information exchange" [4]. We believe that the information approach provides an opportunity to involve such concepts as "information," "information exchange," "information slice," "information flow," "information model," and so on in the problem of readiness of future teachers for spiritual and moral development of students.

As noted by Blumenau, without operating on the concept of "information," information approach is not thought [6].

Investigating the specifics of information exchange, Arlichev pointed out that at the level of living matter, the information process has acquired a specific function mediation. The scientist noted that the information process is a key one in the interaction of biological systems with the environment. Also, the information process plays a role in the implementation of the orderliness of their internal organization: "In general, this role," the scientist wrote – "is that a living object uses information, reproduced by its invariant structure, as a signal capable of preventing and directing its energy actions according to its biological needs or, as cybernetics say, according to the necessary parameters of the system" [2]. Summarizing the views of scientists, we emphasize that the exchange of information between people involves not only the transfer of information, but also its transformation.

Let us note that Ursul emphasized that the problem of information is of general scientific nature, not just a problem of information theory and cybernetics. This problem, as noted by the famous philosopher, in different fields of knowledge appears in its own way and is not limited to a range of issues of interest to specialists in the field of information theory [32]. The scientist also pointed out that from the beginning, the concept of "information" was associated only with the communicative activities of people, exclusively with the social sphere.

Ursul's opinion on the theory of information value, information management theory, as well as coding and storage of information for its further use is important. Also interesting one is the idea put forward by scientists about the "excess of information" [32], which later developed in the psychological aspect and, in particular, about its impact on humans. For example, in the work of T. Klingberg *Overloaded brain. Information flow and the limits of working memory* (Klingberg, 2010), there is about "attention deficit syndrome" associated with information overload. The scientist writes: "Our brain is overloaded with information. But is it only the powerful information flow that is to blame? And in general – what is the ability to concentrate? What intellectual tasks do we perceive as difficult to perform or completely impossible in the process of work?" [15].

Pointing to the limited capabilities of the human brain, Klingberg at the same time revealed such a quality as plasticity. At the same time, he argued that any new knowledge and experience changes a person's consciousness: "The brain changes, not only when we are deprived of a certain source of information, but also in the process of learning or acquiring new skills" [15]. Also, the scientist, referring to the "Flynn effect," wrote about the intellectual acceleration of modern youth and pointed to the trend of constant intellectual growth of mankind as a whole.

This problem is also pointed out by O. Dzoban and S. Romanyuk: "The world of modern man, - the authors note, - began to be filled with avalanche-like different information, i.e., human environment is fundamentally changing, which is largely determined by the information revolution" [9].

Thus, our opinion is based on the belief that all future teachers, who are not indifferent to the problems of spiritual and moral development of the individual, should understand that profound changes in the child's growth are possible only if the necessary and really valuable information gradually unfolds, which will increase the level of the child's spiritual and moral potential.

### 3 Materials and Methods

If information so affects the intellectual development of man, then does it have a similar effect on the spiritual and moral development of the individual? Is it safe to say that a change in the information environment can also change the level of spiritual and moral development? Is it possible that the increasing information flows will positively affect the readiness of the future teacher to solve problems of a spiritual and moral nature?

As already noted by scientists (V. Peshkova, E. Semenyuk, A. Sokolov, I. Yuzvishin, etc.), the information approach is used in many fields of knowledge. Thus, V. Peshkova wrote that any system is an interaction, and in any system it is necessary to exchange information with the environment, that is, in any system, the existing relationships are informative: "Namely information said the author, determines the direction of motion of matter in the universe, namely it becomes the bearer of the meaning of all processes occurring in nature and society."

According to V. Peshkova, the essence of the information approach is that "when studying any object, process or phenomenon in nature and society, first of all, the most characteristic information aspects are determined and analyzed" [22].

The key role and characteristic feature of the information approach, as noted by E. Semenyuk, is the "general orientation of the scientist to the analysis of the information "slice" of reality. The task of the researcher is ultimately to reveal the specifically unique informational role of each specific phenomenon in all the richness of its properties and relationships" [25].

Originating in cybernetics, the information approach has spread to other sciences. These include mathematics, biology, psychology, sociology, and the humanities. Much attention is paid to this approach in pedagogy, in particular, in the system of distance education, which allows the use of flexible learning schedules. In this regard, as Yuzvishyn emphasized, the information approach "is quite important in world science and practice" [33].

The information approach, according to Sokolov, has a greater cognitive potential for empirical and theoretical and methodological research. Using the information approach to address the readiness of future teachers for the spiritual and moral development of the child, we agree with the opinion of Sokolov that it is necessary to distinguish three of its cognitive goals, namely: the use of information as a quantitative measure; construction of information model; definition of regularities [31].

### 4 Results and Discussion

Taking into account the above ideas of researchers, we emphasize that, in our opinion, Ukraine has an unfavorable environment for improving the readiness of students for the spiritual and moral development of the child. In order to correct it, in addition to the introduction of innovative developments in the process of professional development at the university, it is necessary to introduce procedures and incentives, as well as state support and development of existing national programs.

It should be noted that the education of students majoring in "Primary Education" in the field of spiritual and moral development of the individual, in our opinion, depends too much on changing ideological views, which quickly lose relevance. A lot of effort is spent to teach the student advanced pedagogical

technologies, pedagogical methods and techniques, and very little time is given to identify and explore the fundamental ideas of spiritual and moral development of the individual. For example, interesting, but not entirely relevant topics (and even those that have lost relevance) pedagogical theories of cognition can be considered, and then students are introduced to the content of the leading provisions of didactics in primary education and teaching methods for primary school.

The disadvantage of this approach is that students are asked to consider several theories selected by the teacher, omitting the formation of ideas about the development of personal abilities for spiritual and moral development of the child, which will play a crucial role in future professional activities.

To put it another way, it is necessary for teachers to pay more attention to the analysis of leading ideas and principles of improving students' readiness for spiritual and moral development of children. Also one of the problematic aspects is the low level of information about the work of teachers in this area.

In addition, it should be noted that the media do not cover this issue enough, and to form a positive emotional background, it is necessary to organize more frequent discussions, meetings, round tables and seminars. Proper argumentation, beliefs, as well as the variety and originality of ideas about the spiritual and moral development of the younger student can have a real impact on the minds of future teachers.

We are convinced that in order to successfully solve the problem of readiness for the spiritual and moral development of a child, it is necessary to provide students with dosed information, and that is exactly what is really necessary for their personal progress. The methodological provisions derived by us using the information approach are as follows:

1. The readiness of the teacher for the spiritual and moral development of the child as a phenomenon arose together with the need to improve the quality of social life and characterizes all the pedagogical science and pedagogical skills necessary to achieve the educational goal. Deviation from the spiritual values, moral norms of society in the mind and behavior of a particular person occurs because he/she does not think about this problem and does not know the current laws of spiritual and moral development of the individual.
2. Since students are only preparing for teaching, when improving their readiness for spiritual and moral development of primary school students, it is necessary to take into account the factors of information overload of their working memory, the consequences of the information crisis, as well as correctly use information flows on spiritual and moral development.
3. The readiness of students for the spiritual and moral development of junior high school depends on their current need for this type of activity and the probability of meeting this need. We believe that this readiness should be improved in a positive emotional field, and the positive emotional state of students depends on three components: 1) the strength and quality of their need for this type of activity; 2) assessment of the probability of meeting this need on the basis of existing first experience in school with children; 3) awareness of the time, means, and resources needed to perform such work at school.
4. Informational, educational, and alternative programs that contain accurate and detailed information about the spiritual and moral development of the individual help future teachers to improve their abilities, make responsible decisions for their professional development and meet personal needs so that there is a positive emotional field, which evokes the joy of learning and practice.

- Progress of students' readiness for spiritual and moral development of junior schoolchildren is possible only by continuous improvement of their personal and professional abilities, and, therefore, they need to know what abilities should be improved, what methods and means, what time resources should be spent.

The practical significance of the results of using the information approach is in the development of information and methodological materials for independent work of students on improving the readiness for spiritual and moral development of primary school children in cross-cultural space, available online (<https://mase.org.ua/>).

**4.1 Example of Program Work**

The site is available at the following address: <https://mase.org.ua/> (Figure 1).

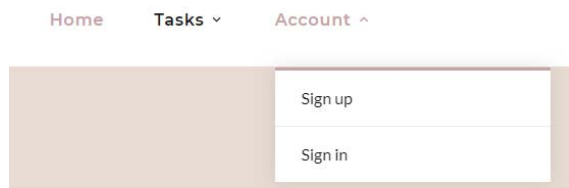


Figure 1 – Account pop-up window

In the mobile version, click on the three dashes (“hamburger”) at the top left, and click on the “Account” item (Figure 2).

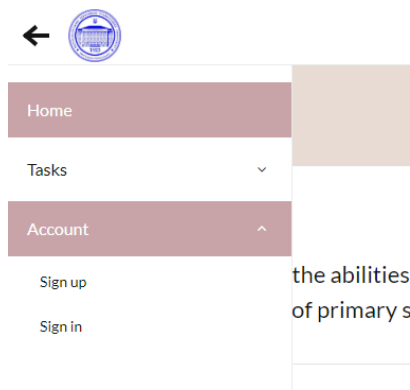


Figure 2 – Hamburger menu and Account item

To register, click on the element “Registration,” the registration page will be loaded (Figure 3).

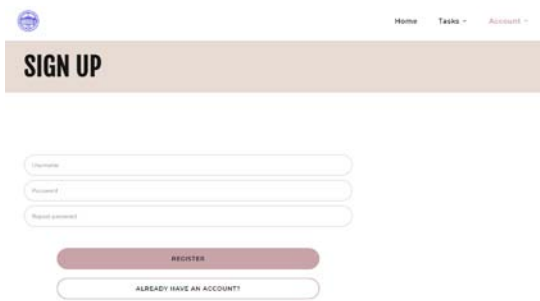


Figure 3 – Registration page

**4.2 Multi-User Access, Registration and Authorization**

To go to the registration/authorization page, one must first hover the mouse cursor over the inscription “Account” on the main page; a pop-up window will appear with the specified elements (Figure 4).

If the passwords do not match, the corresponding message will be displayed (Figure 4).

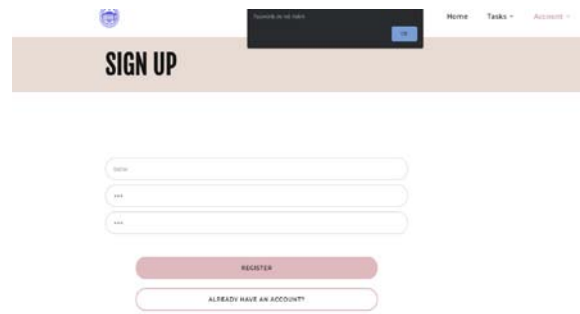


Figure 4 – The passwords entered do not match

If the user with the specified name already exists, the corresponding message will be displayed (Figure 5).

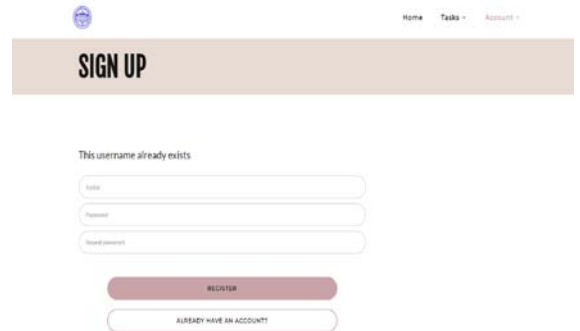


Figure 5 – Existing username when registering

After successful registration, the authorization will be performed automatically, and the main page with the greeting will be loaded (Figure 6). The same will be done in case of successful authorization.



Figure 6 – Home page with greetings after registration/authorization

The authorization page is shown in Figure 7.

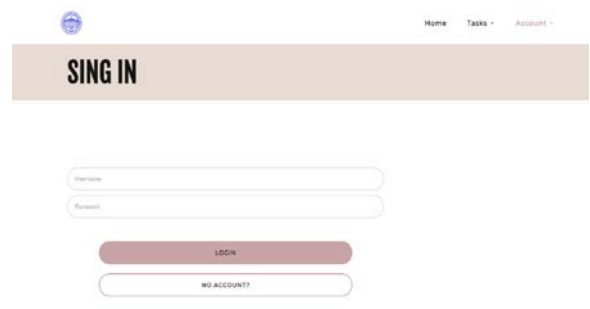


Figure 7 – Authorization page

If the username or password was entered incorrectly during authorization, an authorization error message will be displayed (Figure 8).

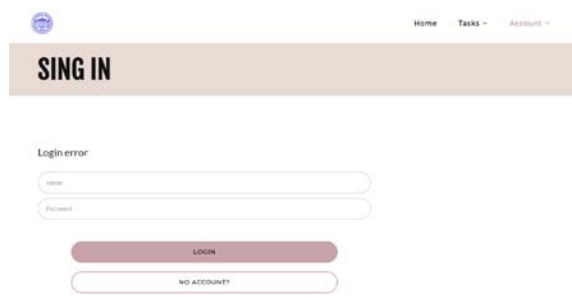


Figure 8 – Authorization error

4.3 Task

All tasks are displayed when the user hovers the mouse cursor over the menu “Tasks” of the site header (Figure 9).

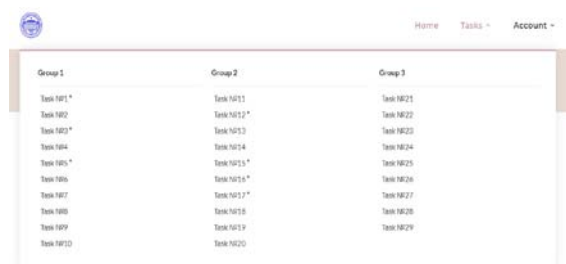


Figure 9 – All tasks

On a mobile device, the menu looks different, but is not functionally different from what it looks like on a computer. However, not all tasks fit on the screen.

List of theoretical tasks: 2, 4, 6, 7, 8, 9, 10, 11, 13, 14, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29.

List of practical tasks: 1, 3, 5, 12, 15, 16, 17.

Practical tasks are marked with an asterisk.

The division into three groups is conditional, it is necessary to accurately display all tasks.

Theoretical tasks require the study of the literature presented on the pages of these tasks.

Practical tasks require entering of answers to questions. Practical tasks can be classified into several types: test task, compliance task, free answer task, extended (free) answer task. All practical tasks represent a combination of certain types of tasks.

4.4 Checking Answers

An observer with administrator privileges must verify user responses. To do this, click on the appropriate item, “Check answers” (Figure 10). This element is available only to administrators, the conditions are issued by the site developer.

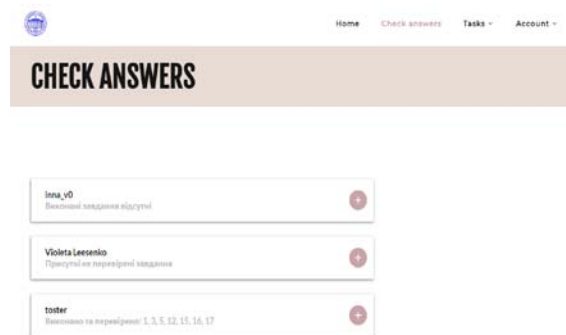


Figure 10 – Check tasks, display a list of all accounts

When clicking on any account, a list of completed tasks from that account will be displayed.

An example of checking the task is shown in Figure 11.

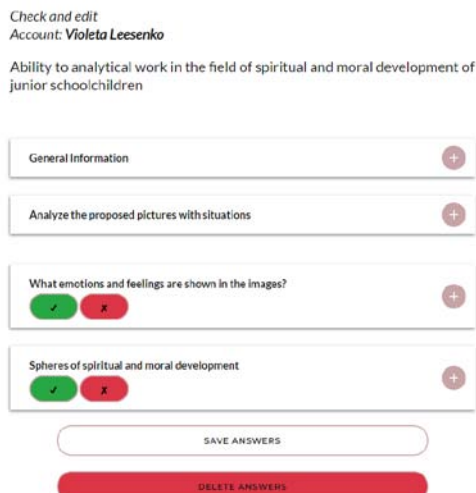


Figure 11 – Example of task checking

After determining the correctness of the answers, the button “Save check” will appear (Figure 12).

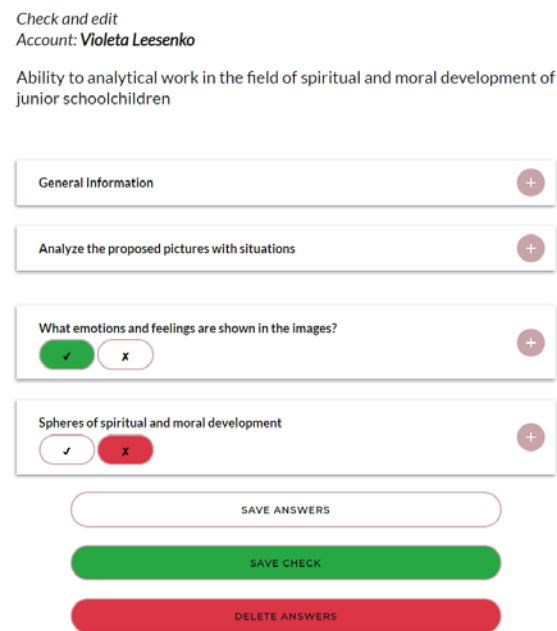


Figure 11 – Fill out the check and the “Save check” button

5 Conclusion

The approach in this research aims to study the possibilities and patterns of such procedures in improving the readiness of future teachers for spiritual and moral development of primary school students, such as search, evaluation, processing, storage, representation of necessary, valuable and diverse information.

We also plan to use this approach to increase the level of readiness of future teachers to obtain results in the process of generalization and study of the experience of teachers, primary school psychologists, as well as the experience of research and teaching staff with students majoring in “Primary Education.” This approach will allow the application of the following methods: observation, interview, survey, organization of

questionnaires, testing (including the use of information and communication technologies).

We are also convinced that this approach to improve the readiness of future teachers will allow justifying the ways of systematization and presentation of results (methods of registration, ranking, scaling), as well as processing of the obtained research data. In this way, the provision of information on the problem of readiness of the future teacher for the spiritual and moral development of primary school students will contribute to the actual improvement of the educational component of the institution of higher education.

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#### Primary Paper Section: A

#### Secondary Paper Section: AM