REQUIREMENTS FOR STUDYING SCIENCE IN “ADAB-UL-MUTA’LLIMIN” TREATISE OF NASIRIDDIN TUSI

Abstract. In this article, the ways of acquiring knowledge and the duties of the teacher and the student are presented in Nasiriddin Tusi’s treatise “Adab-ul-muta’llimin”. The content, essence, methods, and means of education of students are analyzed in the treatise. Also, this article highlights the organization of independent education of students and youth and the improvement of spiritual and educational outlook and thinking. For this purpose, the pedagogical analysis of Nasiriddin Tusi’s treatise “Adab-ul-muta’llimin” is given as an example of the works of Eastern thinkers on the education of a well-rounded personality. This serves to reveal the essence of teacher-student activity in the educational process, to enrich the effectiveness and quality of education. The article includes the scientist’s opinion about acquiring knowledge at an early age, the teacher’s attitude toward lessons and students even the time of starting learning along with some instructions about how to motivate and support students which is very important for the modern education system.

Keywords: ways of acquiring knowledge; the essence of knowledge; duration of education; size and order of lessons; content of education; methods of education and training.

Introduction. For centuries, the principles, patterns, and content of education and training have been at the center of attention of scholars. An assessment is given of the activities of teachers and students who are participants in the educational process indicating the ways of obtaining knowledge. Particularly, the student is subject to certain requirements for obtaining an education. An example of this is several works and pedagogical views of thinkers of the Eastern Renaissance and other scientists who lived in the Middle Ages. For example, Nasiriddin Tusi, the 13th-century encyclopaedist created his great works in the field of education and teaching.

Literature review. Nowadays, the role of Nasiruddin Tusi’s spiritual and educational heritage in modern development, and its importance in the development of human thinking are discussed and researched by scientists M. Agatehrani [1], R. Deniz [6], H. Dadashi [3], H. B. Sayed [4], P. M. Hossein [7], V. M. Amin [2].

In Tusi’s treatise “Adab-ul-muta’llimin” (“Education of the Learner”) consisting of 12 chapters, he focused on the content, essence, methods, and means...
of education of students. In the first chapter of the treatise “On the Essence and Virtue of Science”, the wise saying is quoted, “The best science is the study of the situation, and the best action is the manifestation of the (achieved) result” [5, p. 16], and it is also said, “The essence of knowledge is a quality that is obvious to those who are involved in science” [5, p. 18].

**Research methodology.** The scientist emphasizes “learner [disciple] should be in difficulties, work with all his strength, not waste his life in useless things in the mortal and meaningless world, not indulge himself due to greed, and be far from grudge and should be free from arrogance” [5, p. 18]. First of all, “the learner (disciple) chooses the best of the sciences, the ones he feels the need for in religious affairs, and then he feels the need the sciences for gaining wealth” [5, p. 18] comments on. In addition, “a student learning science must be diligent and persistent” [5, p. 19], he says. “He should spend his youth and the blooming days of his youth” [5, p. 19], and especially, “strength and health are necessary for a learner of knowledge so that while studying knowledge, his thoughts and comprehension are clear” [5, p. 19], he says. Moreover, the scientist said to those who look down on the study of science, “there is no good reason why a person who is physically and mentally healthy should not study science” [5, p. 20], he says.

In the seventh chapter “About the period of education” in the brochure, it is said that “the period of learning is from the cradle to the grave. The best times for studying in this period are the early years of adolescence, the time of dawn, and between the two evening prayers. All the indicated times should be taken into account. When you get tired of one science, you should be busy with another science” [5, p. 20], he explains.

In addition, the scientist expresses his views on the teacher’s responsibility in organizing the educational process. For example, “The field of knowledge is chosen not by the student, but by the teacher because the teacher gets the necessary experience in this regard during the process of "Teaching" (“interpretation”, “explanation”, “tafsir”, “discussion”). The teacher knows very well what is necessary for everyone and what is suitable for everyone's nature” [5, p. 20], he says, and in the fifth chapter “On the beginning, size, and order of the lesson” of the treatise “Teachers choose small texts that are better understood and remembered [for students]. After a lot of reading and repetition, it is necessary to move to a new lesson” [5, p. 21], he says. And in the eighth chapter “On Compassion and Advice” he says that “A teacher should make an effort so that his student becomes a scientist in his time. To be superior to the scholars of the world, he should show mercy to his students” [5, p. 21].

In the fifth chapter of Tusi’s treatise “On the beginning, size, and order of the lesson” it is stated that “the lesson should be started on Friday evening” [5, 21 p], and when it comes to its size at the beginning of the lesson, “the size of the lesson (for the student) should be such that (the student) can repeat it twice with pleasure and gradually. This is also the case when the lesson is long and there is a need to repeat it ten times, because (the student) gets used to it and continues to repeat it with great effort”. (About this) "A lesson is a word practice is a thousand" [5, p. 21], he says.

Tusi emphasizes that a student learning science should prepare himself, know the limit of repetition, and work tirelessly until he reaches this limit. At this point, “(Student) should repeat yesterday’s lesson five times, the next day’s lesson four times, the previous day’s lesson three times, the previous day twice, and finally, the previous day’s lesson once” [5, p. 23], and “this is the lower and upper limit of memorization and repetition” [5, p. 23], – specifies. The scientist elaborated on the method of repetition in the student’s achievement of enlightenment and said, “(Student) should not be afraid of repetition, lesson and repetition should be done with full strength and activity. He should not tire himself by repeating (the lesson), (because) the (best) of things is the middle state. (Student) should continue studying from beginning to end in learning science” [5, p. 23], he says. About the method of memorization, Tusi said that “a
person advised his son to memorize something from science every day, it will gradually rejuvenate and increase knowledge quickly" [5, p. 23], he believes.

It is necessary to start the lesson with something closer to (the student’s) comprehension. A student should not write what he does not understand. This condition exhausts him, weakens his mind, and takes his time. (The student) must try to understand, think and learn from his teacher through a lot of repetition. If (the student) reduces the lesson, repeats a lot, and understands, then he will perceive and understand. At this point, the scientist quoted a wise saying: “It is better to remember two words than to hear two pages of text” [5, p. 21], he says.

The scientist says that mutual question-and-answer and discussions are necessary for a student learning science, and “Argument and discussion are mutual consultations that reveal the truth” [5, p. 21], as he defines. In his opinion, mutual questions and answers are more useful than unknown repetition, because at this time additional knowledge is imparted along with repetition. In this regard, the following: “One hour of question and answer is better than one month of repetition” [5, p. 22] quotes a wise word. “But a person of healthy nature and justice should refrain from arguing with a person of bad nature, because his nature is hidden, his morals are aggressive and he takes the attitude under his influence” [5, p. 22], advises and “if you understand, you will perceive” [5, p. 22], strengthens his opinion with the wise words. The scientist said, “Before speaking a word, it is necessary to understand it so that the spoken word is correct. Indeed, words are like bullets. Before saying a word, it is necessary to understand, so that when you say it, you hit the right target in the method of fiqh (fiqh method)” [5, p. 22], he says.

The scholar, while distinguishing the educational subjects that make up the educational content of students, says that “(Student) should not be engaged in anything else, he should not give up fiqh, hadith, tafsir, and the Qur’an”. Tusi also defines educational tools that play an important role in the educational process. He said: “The only way to gain benefit is that [the student’s] ink pen should always be with him to write down the useful things he hears” [5, p. 23], – he says and “The student should improve the quality of the writing while writing, not to write densely and small, if necessary, refer to the margin…” [5, p. 23], he says. And “(Student) should carry a notebook with him just in case to study. (This is related to this) who said: “Whoever does not have a notebook in his hand, wisdom does not have a firm place in his heart. (The student) should have a white notebook and an inkwell with him so that he can write down what he hears” [5, p. 24] – he says.

Analysis and results. From the above-mentioned points, it is clear that in the implementation of the activity criteria of continuous education and training, the oral education method is the leader, and as a result of the methods of education in the form of conversation, example, model, a pedagogical effect is shown to the students. Below is the classification of educational and training methods in the pedagogical activity of the scientist (see Tables 1 and 2).

<table>
<thead>
<tr>
<th>№</th>
<th>Method</th>
<th>Content</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>method “Spelling”</td>
<td>Listen, write, and repeat what you hear</td>
<td>Gradually repeat what you read, memorize and record</td>
</tr>
<tr>
<td>2</td>
<td>amri ma’ruf, hukmu taklif</td>
<td>Teaching “rajaz” first, then “qasida”;</td>
<td>To memorize words, wise words, instructive verses, to learn</td>
</tr>
<tr>
<td>3</td>
<td>Method “Tadris” (“comment”),</td>
<td>To clearly state the final goal and to say the word gracefully.</td>
<td>understanding the content of education through discussion and argument;</td>
</tr>
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</table>
Section 4. History of education and pedagogy

### Table 2. – Classification of educational methods

<table>
<thead>
<tr>
<th>№</th>
<th>Method</th>
<th>Content</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>fazlu hunar</td>
<td>role model, example, practical work, experience, profession</td>
<td>arousing hatred for bad habits and bad deeds, giving examples of the opposite, revealing the essence, giving advice, apologizing, setting an example, taking lessons</td>
</tr>
<tr>
<td>2</td>
<td>fazlu danish</td>
<td>advice, wisdom, instruction</td>
<td>Explaining the essence, teaching-getting used to it, training; to teach the students the essence, that is, self-awareness; surprising the listener by using powerful words; giving the student examples from life stories and relying on symbolism;</td>
</tr>
<tr>
<td>3</td>
<td>Encouragement</td>
<td>Appreciation, praise, glorification, promotion</td>
<td>It was carried out by the king and his servants, teachers, and parents;</td>
</tr>
<tr>
<td>4</td>
<td>Punishment</td>
<td>Reprimand, silence, and severe punishment only in some cases</td>
<td>It was carried out by the king and his servants, teachers, and parents;</td>
</tr>
<tr>
<td>5</td>
<td>Requirement</td>
<td>Asking, listening, comparing, summarizing, combining, and separating.</td>
<td>To give an idea to the intellect, as a result of observation, to determine which art and science it is most inclined to in its nature, and then to engage in this work. Demand is always twofold.</td>
</tr>
</tbody>
</table>

**Conclusion/Recommendations**

At this point, it can be emphasized that today’s development of continuous education is nourished by the content of continuous education and training described in teaching and educational works created in the Middle Ages and serves to enrich the essence of several pedagogical activities.

In conclusion, it can be noted that in the treatise “Adab-ul-muta’llimin” (“Education of the Learner of Science”), information on the content, nature, methods, and means of education of students can be used to qualitatively enrich the content of the history of pedagogy.

In addition, the educational process shown in the work and the requirements specified in it serve to strengthen the principles, factors, and laws of modern national education.

**References:**


