The role of workbooks in the learning process in primary schools in the Republic of Macedonia

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ABSTRACT: This paper aims to obtain the information on the role of workbooks on student learning in primary schools in the country. Workbooks as educational aids in educational process lead students through the theory of the subject and help them solving and learning simpler and even more difficult cognitive tasks, help in creating a natural period of thinking through various activities and therefore quite prevalent teaching in primary schools in the country. Because of their structure, students use them in the school, but very often used them at home as aids in learning or simply to solve homework tasks. During the preparation of tasks in worksheets are taken into consideration the interaction between the individual tasks, as well as the development of the basic structure and intellectual abilities of students. Research by space – according the time dimension it is transversal, because it studies the act at the same time in different places, and on the other hand according to the carácter it is developmental because it contributes to the development of the phenomenon. Also, the research is actional, because its course means taking corrective measures. The results of this research contribute to the promotion and improvement of teaching practice and confirmation of the important role of the workbooks in the teaching process.

KEYWORDS: workbooks, primary schools, study, students, research.

1 INTRODUCTION

The workbooks should guide the students in solving the simplest cognitive tasks. The essential aim of the workbooks is that if they are used properly, to create a natural period of thinking with the help of specific items, by using images to solve theoretical tasks ie initial abstract thinking. Because of this importance in the development of the opinion of the students from the particular to the abstract, the workbooks in our educational practice in recent years often find application in the educational process.

The choice of context and the preparation of the workbooks is guided by several principles: the global structure, the composition and the articulacy of the contexts presented in the workbook. These principles are taken into consideration for the students to fulfill their task which means to connect, to finish a drawing, to color, to circle etc. [1] If we don’t take these principles into consideration there is a possibility for the task to not get finished.

2 ILLUSTRATIVE-TECHNICAL COMPONENT OF THE WORKBOOKS

Given the fact that the workbooks are not used in every teaching areas and according the level of development of students in the lower grades, the subjects in the workbooks are presented in vivid and attractive colours. [5] It is important the colours to be adequate to the natural colours of the subjects in order to attract the students’ attention, to arouse their senses and perceptions and to assist in meeting the objectives.
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The illustrations in the workbooks of the upper classes are not so colourful but simple - White drawings which present the most characteristical marks. It is so for the illustration to serve as mean of the thinking task.

2.1 GRADUALNESS AND CONTINUITY OF THE TASKS IN WORKBOOKS

This applies both to the procedure of tasks in the workbooks of every class and to the gradualness and continuity of the tasks in the class.

2.2 PRINCIPLES OF MAKING TASKS FOR THE WORKBOOKS

In the process of making tasks for the workbooks we need to take into consideration:
- The developmental structure of the basic and intellectual abilities
- The cumulative impact of the individual tasks

The previous observations and evaluation of the results show that the use of workbooks lead to: independence of work, individual advancement, expansion and deepening of knowledge, skills and habits and acquiring new ones, application of acquired knowledge in new situations of learning, developing creativity, creative thinking etc.

3 THEORETICAL-METHODOLOGICAL APPROACH

3.1 CONCEPTUALIZATION

- The teaching process is one of the important components of upbringing - educational process, in which by the direct participation of the teacher and students is realized the goal of upbringing - educational process.
- The students’ place for learning is a specific location (home, classroom, cabinet)
- The time for studying is a strictly determined time for class (introduction, main part, closing part)
- The duration of the studying answers the question about the time needed for acquiring knowledge, skills and habits.

3.2 PROBLEMS OF THE RESEARCH

1. The tasks in the workbooks
2. The language-stylistic component in the workbooks
3. The clarity of the workbooks' contents
4. Illustrative-technical component in the workbooks
5. The guidelines for using the workbook and the age of the students
6. The workbooks as means in the educational process
7. The workbooks as an aid in the educational process.

This research is focused on the problem: ‘The workbooks as means in the educational processes’.

3.3 PURPOSE OF THE RESEARCH

The purpose of the research will be collecting data about the impact of the workbooks on students’ studying in the primary schools in Macedonia.

3.4 SUBJECT OF THE RESEARCH

Subject of the research is the role of the workbooks in the process of studying.

3.5 MOTIVE FOR THE RESEARCH

The research was conducted in order to be obtained data about the role of the workbooks on the studying process of the students in the primary schools.
3.6 **JUSTIFICATION OF RESEARCH**

The results of the research will contribute to the promotion and improvement of teaching practice and workbooks that will play an important role in the teaching process.

3.7 **TYPE OF THE RESEARCH**

1. According the spatial-temporal dimension the research is transversal; it studies the phenomenon at the same time in different places.
2. According the nature the research is development, contributing to the development of the phenomenon, and also in its course is taken corrective measures.
3. According the item (aspect) it is a disciplinary research, the problem is considered by three aspects.

3.8 **RESEARCH PARADIGM**

The results of the research will be presented with numbers, the research paradigm is quantitative, and it’s get in the quantity of the aspect: the role of the workbooks in the teaching process.

3.9 **RESEARCH DESIGN**

The research design is descriptive, the aspect is described by a descriptive method.

3.10 **VARIABLES AND INDICATORS**

3.10.1 **INDEPENDENT VARIABLES**

1. Use the workbooks as sources of knowledge.
2. Use the workbooks to practice their newly acquired knowledge.
3. Use the workbooks for repetition of the acquired knowledge.
4. Use the workbooks to determine the acquired knowledge.

3.10.2 **DEPENDENT VARIABLES**

1. The place the learning of students
2. Time of learning students
3. Duration of teaching students
4. Methods of teaching students

3.10.3 **INDICATORS**

The indicators of this research are the students’ opinions and views.

3.11 **HYPOTHESES**

1. The workbooks as sources of knowledge. The students use them during the introductory part of the class.
2. The workbooks are used while studying in the classroom.
3. The workbooks are used for rehearing by the students (silent studying).
4. The workbooks are used for practicing the acquired knowledge at home.
5. The workbooks are used for determining the acquired knowledge; students use them while studying out loud.
6. The workbooks as sources of knowledge. The students use them while studying out loud.
7. The workbooks as sources of knowledge. The students use them while studying for a long time.
8. The workbooks as sources of knowledge. The students use them while studying for a short time.
9. The students use the workbooks for practicing during the main part of the class.
10. The workbooks are used for practicing the acquired knowledge while studying quietly.
11. The workbooks as sources of knowledge used by the students when studying at home.
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3.12 PROCEDURES AND TOOLS

From the many procedures in this research will be used the questionnaire, and from the instruments- the questionnaire with combined type of questions. The questionnaire gives opportunity a large amount of data to be collected for a short period of time.

3.13 POPULATION AND SAMPLE

The population of this research consists of the students from 3rd and 4th grade from the primary schools in Bitola. The sample consists of 25 students from 3rd and 4th grade from the schools ‘Todor Angeleski’ and ‘Dame Gruev’ in Bitola. The sample is intentional and stratified.

3.14 PRE-RESEARCH

The pre-research was conducted on ten respondents from the primary school ‘Todor Angeleski’ in Bitola, where the students were willing to be questioned. By the questionnaire were measured their attitudes and opinions.

4 DATA PROCESSING

4.1 CHI-SQUARED

Question no. 1. You use the workbooks when:
   a. You study new content
   b. You study loud
   c. At the beginning of the class
   d. ______________________

<table>
<thead>
<tr>
<th>fo</th>
<th>ft</th>
<th>(fo – ft)</th>
<th>(fo – ft)^2</th>
<th>Ｇ□□□□□□□□□□√</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>6,25</td>
<td>4,75</td>
<td>22,56</td>
<td>3,60</td>
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<tr>
<td>8</td>
<td>6,25</td>
<td>1,75</td>
<td>3,06</td>
<td>0,48</td>
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<tr>
<td>3</td>
<td>6,25</td>
<td>-3,25</td>
<td>10,56</td>
<td>1,68</td>
</tr>
<tr>
<td>3</td>
<td>6,25</td>
<td>-3,25</td>
<td>10,56</td>
<td>1,68</td>
</tr>
</tbody>
</table>

χ²=7,44
fo-number of frequencies (1,8,3,3)
ft-the expected frequency (6,25)
The degree of freedom is 3
The limit of function for 3 is 7, 815
χ²=7,44 < 7,815

The value of χ² is smaller than the limit of the function which means that the hypothesis:
- The workbooks as source of knowledge are used during the introductory part of the class.
- Is accepted.

Question number 3. You use your workbooks:
   a. When practicing at home
   b. When learning something new
   c. When repeating the already learned
Table 2. Frequency of use of workbooks

<table>
<thead>
<tr>
<th>fo</th>
<th>ft</th>
<th>(fo – ft)</th>
<th>(fo – ft)^2</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>8,33</td>
<td>0,67</td>
<td>0,44</td>
</tr>
<tr>
<td>10</td>
<td>8,33</td>
<td>1,67</td>
<td>2,78</td>
</tr>
<tr>
<td>6</td>
<td>8,33</td>
<td>-2,33</td>
<td>5,42</td>
</tr>
</tbody>
</table>

\[ x^2 = 1,03 \]
fo-number of frequencies (9,10,6)
ft-the expected frequency (8,33)
The degree of freedom is 2
The limit of function for 2 is 5,99
\[ x^2 = 1,03 < 5,99 \]
The value of \( x^2 \) is smaller than the limit of the function which means that the hypothesis:
- The students use the workbooks for practicing at home.
- Is accepted.

**Question number 6.** You use the workbooks for repeating the already learned material for:

a. A short time
b. A long time

Table 3. Frequency of usage time of workbooks

<table>
<thead>
<tr>
<th>fo</th>
<th>ft</th>
<th>(fo – ft)</th>
<th>(fo – ft)^2</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>12,5</td>
<td>2,5</td>
<td>6,25</td>
</tr>
<tr>
<td>10</td>
<td>12,5</td>
<td>-2,5</td>
<td>6,25</td>
</tr>
</tbody>
</table>

\[ x^2 = 1 \]
fo-number of frequencies (15,10)
ft-the expected frequency (12,5)
The degree of freedom is 1
The limit of function for 2 is 3,84
\[ x^2 = 1 < 3,84 \]
The value of \( x^2 \) is smaller than the limit of the function which means that the hypothesis:
- The students use the workbooks when they study for a longer time.
- Is accepted.

### 4.2 PERSON’S PROCEDURE (RXY)

**Question number 5.** When you study loud you use the workbook for:

a. Determining the already learned
b. Studying something new
c. __________________________
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\[ \text{Table 4. Correlation of the linear relationship between } x \text{ and } y \]

<table>
<thead>
<tr>
<th></th>
<th>x</th>
<th>y</th>
<th>x²</th>
<th>y²</th>
<th>xy</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>11</td>
<td>100</td>
<td>121</td>
<td>110</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>36</td>
<td>36</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>8</td>
<td>25</td>
<td>64</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>16</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

\[ \sum_{x} = 5 \quad \sum_{y} = 5 \quad \sum x^2 = 177 \quad \sum y^2 = 221 \quad \sum xy = 186 \]

The value of the Rxy is in the interval 0,90 – 1,00 which shows that:

- The use of the workbooks for determining the already acquired knowledge and
- The way of students’ learning is in a very correlative relationship.

4.3 **Percentage calculation and display of the data on graph**

**Question number 4.** When determining a studied material by the workbook you study:

a. Loud
b. Silent
c. With a friend
d. __________________________

This data can be presented in the following graph

![Pie chart diagram showing responses to question 4](image)

**Fig. 1.** Percentage represented workbooks in determining the learned material

From this graphic we can see that the question number 4 was answered this way:

14 students answered that they study with a friend; 8 of them answered that they study loud and just 3 students say that they prefer to study silent. Because the most of the participants answered under the (c), it means that the hypothesis:
The workbooks are used for determining the acquired knowledge; students use them while studying out loud.

Question number 7. You use the workbooks for practicing:

a. At the beginning of the class
b. At the end of the class
c. ______________________
d.

From the total number of participants 11 answered a or 44%, 9 answered b or 36% and 5 of them answered c or 20%.

This data can be presented in the following graph:

![Pie chart](image)

Fig. 2. Percentage represented workbooks in practicing

From this graphic show we can see that the most of the participants answered a) which means that the workbooks are used for practicing at the beginning of the class.

5 Conclusion

According the collected data and the results obtained in the research we came to the following conclusions:

- The students use the workbooks as sources of knowledge during the introductory part of the class.

We think this is a good approach in the introduction, because it increases motivation and interest among students towards successful approach to the target class. This provides a good basis for further effective and efficient running of the main part of the class. Thus the working class atmosphere is guaranteed.

- The students use the workbooks for practicing what they’ve learned at home.

If we start from the premise that one of the goals of learning is training students for practical use of acquired knowledge, we can easily see the important role of the workbooks in the learning process.

- The workbooks are used for determining the acquired knowledge; students use them while studying out loud.

From the above mentioned it is easy to notice the possibility of multiple students' opportunity to use different learning styles through the use of workbooks.

- The students use the workbooks as source of knowledge when they study longer.

It follows that workbooks are a great tool for recapitulation of learned material.
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- The use of the workbooks for determining the acquired knowledge and the ways of studying are in a very strong correlative relationship.

That's because they represent necessarily teaching tool for achieving adequate learning results.

The final conclusion of this paper is that the workbooks represent essential teaching tool for performing quality educational process. Teachers, as organizers of the teaching process, have the main role in frequency and the way of their using.

REFERENCES