

# The Use Of Mental Maps In Teaching The Topic Of Polimer Inheritance

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**Annotation:** The article is based on usage of mental map for consolidation in teaching and understanding the theme “Polimer inheritance”

**Keyword:** Polymer , polymer , cumulative , non - cumulative , mental map.

## Introduction

Today, reforming and improving the continuous education system of our country, which is on the path of independent development, raising it to a new level of quality, introducing advanced pedagogical and information technologies to it, and increasing the effectiveness of education have been raised to the level of state policy.

mental maps , the right and left half of the brain balloons strong work is provided . Mind map, mental map, mind map, associative map, associative diagram, thinking scheme are all just a few names of the way we organize our personal thoughts. We think from the center to the side with associations. There will be a single central idea, through which connecting threads lead to other associations, and from them to others. It reminds me of a tree in some way. Its body is the central idea, and its branches are the ideas that spring from it. A mental map is created in this way. There is no single rule about how it should be. The main task is to define the main idea, many links can be created using associations. With the help of mental maps, it can be used to learn a new topic, to consolidate the previously learned topic.

So, there are several stages of creating a mental map. The first is to create the main idea and idea, the second is to create first-level topics, the third is to develop the second level of topics,

red white

$PR_1R_1R_2R_2XR_1r_1r_2r_2$

gam  $R_1R_2r_1r_2$

and the fourth is to clarify the topic. For example, we want to learn polymeric inheritance from Genetics . Basically , we get polymer inheritance . Then we divide it into groups depending on the type of heredity ratio. Then you determine the genotypic and phenotypic ratios of these items. You can give a complete description of the new topic through the created mental map. (Figure 1)

No allele genes polymer type to the characters effect reach first in 1908 swedish genetics Nielson Ele by discover done \_ Polymer of heredity to himself special aspect from that consists of nonallelic dominant genes mutually effect one directional will be No allele of genes polymer heredity to two : cumulative and non-cumulative polymer types is divided .

Cumulative polymer more \_ amount of characters in heredity manifestation will be For example , cotton in the plant in the bush cysts Number of seeds weight , stem length polymer to heredity is an example . Nielson Ele in experiments full of steam cereal of the bark color one , two , three genes under the influence of development determined . There is steam cereal of the bark red color to 2 nonallelic dominant genes assumed to be related if we do , then red cereal wheat with white cereal wheat when crossed at the bottom the result is taken .

pink pink

$F_1 R_1 r_1 R_2 r_2 \times R_1 r_1 R_2 r_2$

F2

1-jadval

♂ ♀	$R_1 R_2 \_ \_$	$R_1 r_2$	$r_1 R_2$	$r_1 r_2$
$R_1 R_2$	red $R_1 R_1 R_2 R_2$	hungry red $R_1 R_1 R_2 r_2$	pale red $R_1 r_1 R_2 R_2$	pink $R_1 r_1 R_2 r_2$
$R_1 r_2$	pale red $R_1 R_1 R_2 r_2$	pink $R_1 R_1 r_2 r_2$	pink $R_1 r_1 R_2 r_2$	hungry pink $R_1 r_1 r_2 r_2$
$r_1 R_2$	pale red $R_1 r_1 R_2 R_2$	pink $R_1 r_1 R_2 r_2$	pink $r_1 r_1 R_2 R_2$	hungry pink $r_1 r_1 R_2 r_2$
$r_1 r_2$	pink $R_1 r_1 R_2 r_2$	pale pink $R_1 r_1 r_2 r_2$	pale pink $r_1 r_1 R_2 r_2$	white $r_1 r_1 r_2 r_2$

It is known from the data presented in the table that the development of the trait in the first and second generation of hybrids depends on the number of nonallelic dominant genes in the wheat genotype. If  $R_1 R_1 R_2 R_2$  the grain is red, if there are three dominant genes it is light red, if there are two dominant genes it is pink, if there is one dominant gene it is light pink, if there is no dominant gene in the genotype it is wheat the grain is white. Therefore, the phenotypic ratio is 1:4:6:4:1. If the development of the trait occurs under the influence of three different dominant nonallelic genes, the diversity in  $F_2$  will be in the scheme 1:6:15:20:15:6:1.

Such a situation is not observed in non-cumulative polymerization. Regardless of the number of dominant nonallelic genes in a genotype, they are phenotypic and have a diversity ratio of 15:1 or 63:1 in  $F_2$ . In the first case, two pairs of dominant nonallelic genes, and in the second case, three dominant nonallelic genes, occur in the development of the trait. For

example, in the achambiti (*Capsella bursa pastoris*) plant, the fruit is triangular and egg-shaped. If the triangular fruit of the fruit is crossed with the egg-shaped fruit of the fruit, the triangular shape of the fruit of the fruit will be dominant in the  $F_1$  generation. In the case of cross-breeding of  $F_1$  hybrids, 15/16 of  $F_2$  hybrid fruits are triangular, and 1/16 are ovoid. Therefore, non-cumulative polymorphism, if the trait develops under the influence of two pairs of nonallelic genes, two phenotypic classes are formed in the  $F_2$  generation.

mental map can be used to narrow down this topic. For this purpose, the genotypic and phenotypic ratios are lost and the students are asked to clarify. (Figure 2)

The subject of the lesson: Polymeric heredity

The scientific purpose of the lesson: to acquire the competence of the students in Polymer heredity and teach them to think

independently, analyze, come to a conclusion and explain them.

Educational importance of the training : introducing knowledge about the subject and forming a scientific worldview.

Developmental goal of the lesson: To develop the skills of independent work, analysis and creative thinking on the polymer genetics lesson.

Training equipment : Exhibitions on polymer genetics, computer, projector , handout materials .

Technology used in training : Technologies of mental maps

Main concepts and support Knowledge :  
Foundation words : Polymer , polymer , cumulative , no cumulative , mental map

The course of the training .

1. Organizational part : Greetings , attendance taken , news with will be introduced .

2. Pupils are introduced to the topic, purpose, course of the training.

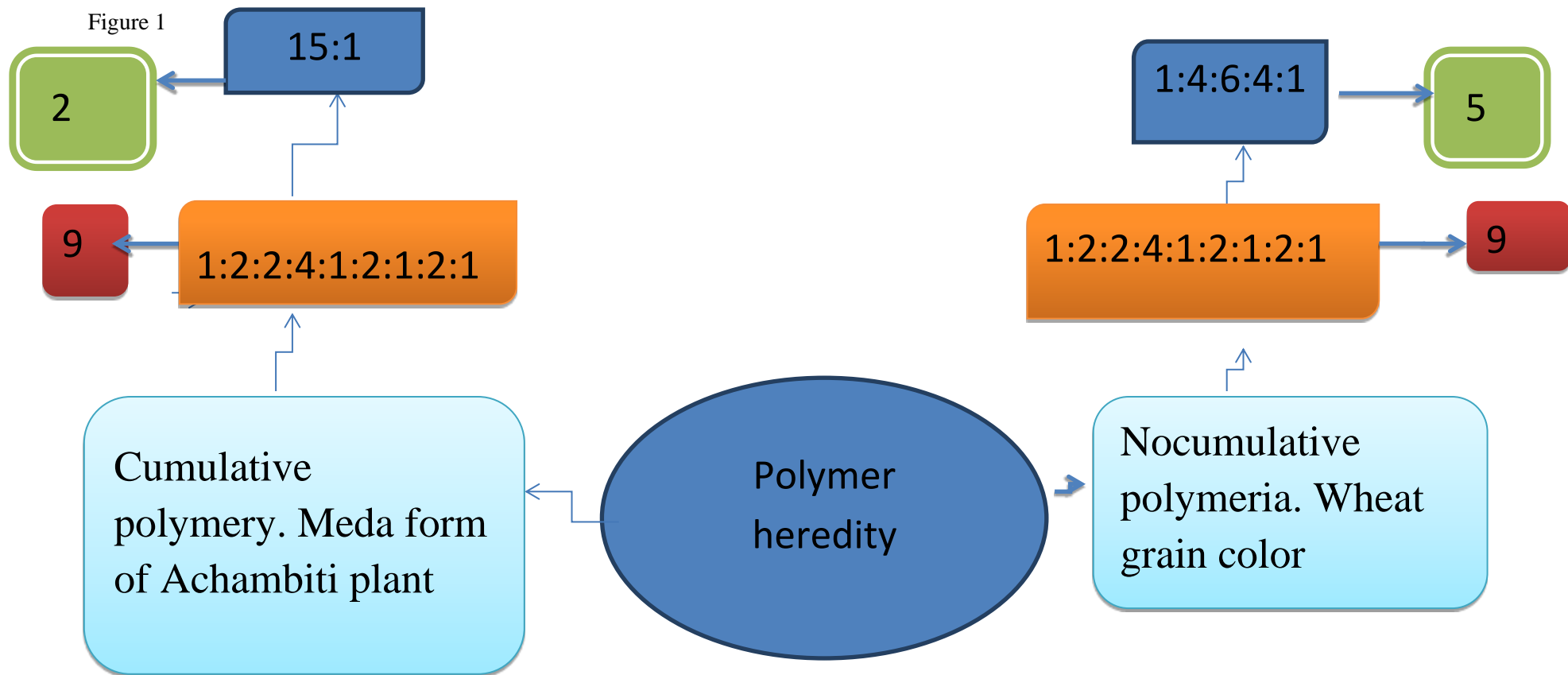
3. Learning a new topic : Based on the teacher's statement and mental map slides . 1 - picture

4. Consolidation of a new topic: with the help of a mental map Picture 2

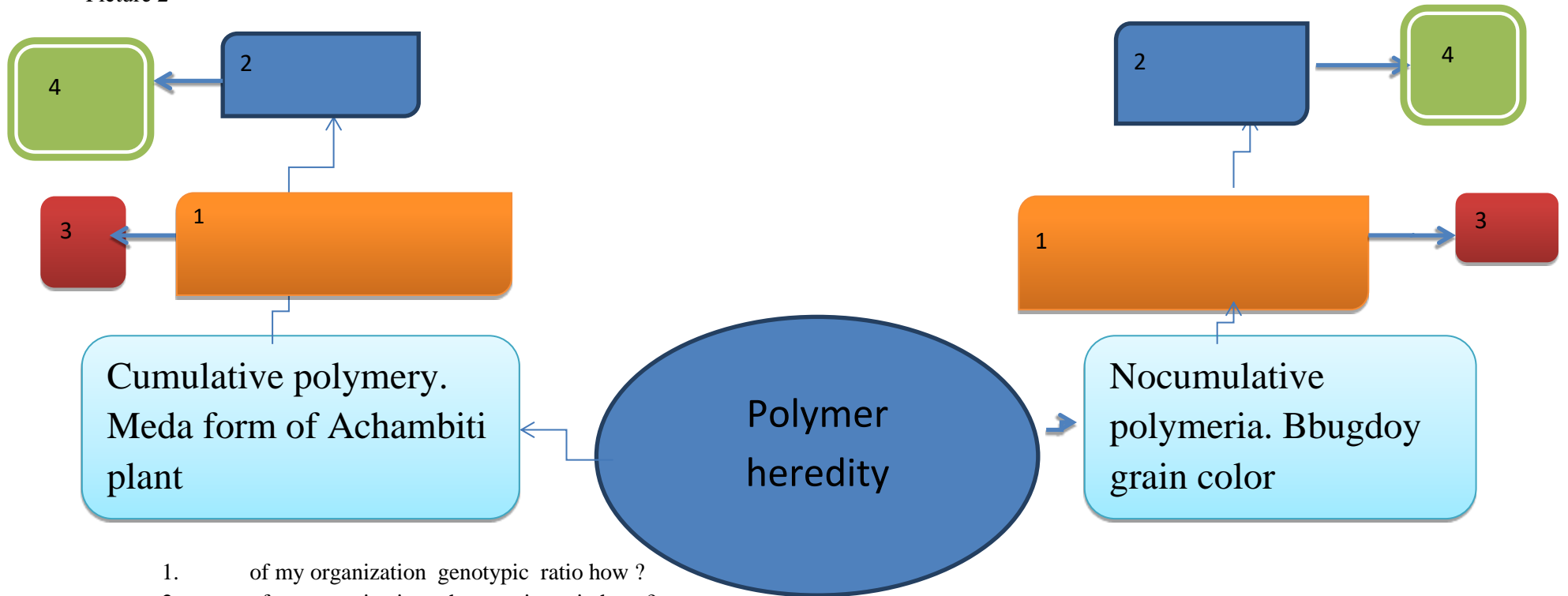
End of lesson: The teacher summarizes the topic. Students' grades will be announced.

Homework: Learning a new topic.

Thus, if we explain and reinforce the topic with the help of mental maps, we will make students think logically, develop their acquired knowledge, skills and abilities, and increase their interest in the lesson.



Picture 2



1. of my organization genotypic ratio how ?
2. of my organization phenotypic ratio how ?
3. of my organization how many genotypic class harvest does ?
4. of my organization how many phenotypic class harvest does ?

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