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Applying De Bono's six thinking hats for an anti-bullying program

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Article Info	ABSTRACT
	Bullying among school children is a complex problem that requires a multifaceted approach. De Bono's six thinking hats technique can help effectively approach the issue of bullying. The innovation of this scenario lies in the fact that it uses De Bono's technique to deal with bullying at school. In this way, students can gain a holistic knowledge and promote creative and critical thinking in addressing an issue by considering multiple points of view. The purpose of the paper is to present and highlight one more tool, a teaching scenario that uses De Bono's technique to address the issue of bullying at school. The scenario was implemented in 6th grade students the school year 2021-2022 to develop skills and examine if their attitudes about bullying can be changed. Finally, the students, as they wrote in their evaluation, changed their behavior, reflected, and discussed the problem of bullying and proposed solutions.

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1. INTRODUCTION

Bullying and violence affect both the perpetrator's and victim's psyches, as well as the psychological climate of the classroom and the school in general. Bullying can cause children depression, suicide [1], [2], low psychological well-being, poor social adjustment, psychological distress, physical unwellness [3]. It can also cause fear, anxiety, low self-esteem [4], [5]. Thus, it diminishes the school's psycho-pedagogical and socialization role. The formation of networks through group operation can have a positive impact on bullying's treatment within the classroom [6]. Because they spend so much time with the children and have daily interaction with them, the school's teachers are the best candidates to take over the management of the bullying in school [7]. Research has shown that when it comes to situations of bullying, teachers frequently use a strict punitive approach (informing the school principal, parents, and imposing punishments on those involved [8]–[11]. Few teachers, on the other hand, prefer to bring the issue into the classroom to intervene through group team building and conflict-resolution programs [12].

De Bono's "Six Thinking Hats" technique uses six different colored hats to facilitate group conversation and individual thought. The utilization of various mental processes (analysis, synthesis, comparison, generalization, classification), sense-creativity, freedom of choice, self-realization, and reflection are the major approaches to the technique's structuring. Its main aspect is all people involved in the educational process to participate in productive creative activities. The technique contributes to the construction of non-formal decision-making skills, aids in the analysis and evaluation of activities, and assesses the student's degree

of competence by implementing a certain way of thinking. The group is divided into subgroups, each of which assumes a productive role in the discussion. Each role is represented by a 'thinking hat', which brings a different perspective to the subject under discussion. Each hat represents a distinct cognitive approach to critical thinking and analysis in the context of gaining a better understanding of an issue to identify a viable solution [13], [14].

The technique of De Bono's six thinking hats has been used in school very often. It has been used in the development of critical thinking and solving ability [15] in the numerical sense in mathematics education [16], to develop creative abilities [17] and oral speech [18], to make educational decisions [19], in teaching subjects related to sustainable development in geography classes [20]. Six thinking hats has also been used in other areas to develop paragraph writing skills of university students [21], for evaluation and strategic formulation in postgraduate medical teaching system [22], in problem-solving with couples [23].

The approach uses six distinct hats (mainly fantastic hats). Each hat represents something different, and as a result, each hat has taken on its own colour. The white hat represents a clear shot, an open mind in which everything can be written as it is. It will remain impartial and will not attempt to make any judgements. It may not supply fresh information, but it does provide information on the topic at hand. The red hat represents the participants' emotions without requiring any thinking or logic. Emotions, perceptions, predictions, desires, and anxieties are all represented by this hat. Consider a judge enforcing the law against someone who has broken it. Precautions are expressed by the black hat, which is similar to a judge wearing a black cloak and making decisions with care and wisdom. It is not the "wrong" viewpoint. On the contrary, the black hat is the most valuable, according to De Bono, because it demonstrates prudence in thought while it also indicates any challenges or difficulties that may occur in the matter at hand. It is associated with Western societies' way of thinking since it emphasizes critical thought and prudence. "Danger to oneself, others, and society is averted" in this way [13]. Optimism is symbolized by the yellow hat, which, like the sun, represents perpetual hope. With suitable criteria, expresses the benefits and the advantages. The green hat has traditionally been associated with growth. New ideas and alternatives are suggested. In this process, we are looking for creativity in thought. Finally, the blue hat, which is the color of the sky, is the discussion's leader, helping to organize and improve the cognitive process [15].

According to the new Greek curriculum, linguistic and literature in elementary and high school intends to cultivate students' language and social abilities so that they may control and "critically co-shape the political, social, and cultural becoming" [24]. Teachers are encouraged to use collaborative learning and teaching in this environment by creating work plans that lead to exploratory learning using a variety of learning methodologies [25] so as students can develop important mental functions, such as critical thinking, eliminate the egocentric way of thinking, acquire increased possibilities of personal expression, realize the value of cooperation gain knowledge as they communicate with their classmates through the use of language, build academic skills and obtain social and psychological benefits [26].

According to Vygotsky, learning is a social process of interaction, in which students learn via problem-solving experiences [27]. Thus, the teacher, whose function as an adult is vital in Vygotsky's theory, is called upon to create an environment of interaction and dialogue [28]. He/she is there to plan flexible activities customized to students' interests, talents, and level, and to reinforce personal perspectives [29]. As a result, social-affective techniques can be applied. Students connect with one another by working in groups to comprehend or solve a problem and set their priorities. At the same time, the teacher offers rights and freedoms to the students while decreasing his/her own involvement [30].

A didactic scenario is a teaching approach that emerged in the context of "constructivism" over the previous two decades. It is based on the belief that knowledge is a subject's production, and that students learn via self-action rather than instructor transmission [31], [32]. Vygotsky's constructivist theory is based on the idea that students learn more effectively when they learn together [33]. Through collaborative learning students help each other construct and maintain knowledge through their immediate use or action [34]. Vygotsky's zone of proximal development (ZPD) describes precisely this process of acquiring knowledge through the collaboration and direction of team members [35]. Because it consists of "organized" and detailed student-centered activities that fulfil a specified aim," the didactic scenario is considered appropriate [24]. Creative and critical thinking are nurtured using teaching scenarios based on the interests of students, while the teacher is given the option to apply differentiated instruction based on students' level and needs [36]. Students can also get familiar with exploratory learning and collaborative abilities as well as acquire and use metacognitions, as a result of their active participation in the learning process [37]. The ability to be creative is a 21st century requirement. That is why they are actively involved in research, at ever-increasing rates, in practically every scientifically regarded and practiced area, with education being the primary field of implementation [38].

An important factor in the processing of cognitive information provided to students is learning in technological environments. Information and communication technology (ICT) is a tool through which information is either presented to students or used by students to process information [39]. One of the most important benefits of this process is to provide incentives to both teachers and students [40]. In fact, according

to Vygotsky, learning requires the mediation or guidance of concepts within a space called the ZPD [41]. The use of ICT corresponds to "tool mediation" which derives from Vygotsky's constructivist theory [42].

In the present scenario the collaborative strategies "focused listing" [43], [44], combined with the strategy "guided-reciprocal peer questioning" [45]–[47], were used, as it is crucial to foster creative thinking based on students' creative abilities. Students are required to delve into deeper thinking process, according to Bloom's taxonomy which consists of six levels of cognitive skills [48]. Teachers are expected to be constantly educated and to seek scientific training to use innovative teaching approaches and procedures [49]. Collaborative learning is a problem-solving strategy through which each student takes on a specific role to achieve a collective goal. Through discussion, students interact and support each other, resulting in students gaining knowledge more effectively [35]. Students' work in the context of collaborative learning is evaluated both as a group and individually [50]. When children are taught problem-solving techniques and involved in making documented decisions, while working in groups, they can achieve satisfactory learning outcomes [51].

The research was conducted with 6th grade students because of their level of development. According to Piaget [52] cognitive theory, at age 11 and beyond children reach the formal operational stage. In this stage, children master logical thinking, the ability to draw conclusions and abstract thinking, as they can answer hypothetical questions and dilemmas.

All rules of ethics and research ethics were followed [53]. The research was approved by the competent Authority. Then, a letter was distributed to the children's parents asking for their consent for their children's participation in the research. We confirmed that all personal information and students' responses would be anonymous and confidential. In addition, we assured them that the data resulting from the research would be used exclusively for the program and there would be no personal or financial benefit for the researchers. Finally, we made it clear to the students' parents that the children's participation was voluntary and that refusing to participate in it wouldn't have any negative impact on them or their child, while the child retained the right to withdraw from the program at any time.

2.   THE DIDACTIC PROPOSAL

The three-hour teaching plan could be utilized in a program about racism and bullying in schools. It can be used in the framework of social and political education in the thematic field "life in my school," and in the context of religious education in the thematic units "god as love," and "we and the others." Students in the upper grades of primary school and/or high school can use it. The program, which was utilized for this aim, was accomplished using a springboard story [54]. The story was written by the researchers for the purpose of the project and is included in the appendix. Students know to work collaboratively in teams and use the software of presentation. They understand the purpose of the hats, which was discussed in a previous lesson. The goal is to cultivate students' creative thinking, their ability to perceive events from different perspectives using thoughtful hats, as well as the adoption of anti-racist and anti-bullying attitudes. At the end of the scenario students are expected to: i) Understand the phenomenon of bullying; ii) Consider the impact of racist behavior; iii) Recognize the perpetrator and victim's views; and iv) Provide solutions to the problem.

The scenario was implemented in February 2022, in the 6th grade of a primary school in Patras, a city West South in Greece. The students were 11 boys and 9 girls of different abilities. The worksheets and the material produced by the students as well can be found in the https://drive.google.com/file/d/1dxae0hKghVj4QWXZXvgJ1cAL3j_aXcJf/view.

2.1. Preparation

The projection of an image related to intimidation is used as a motive for the emotional mobilization of the students as shown in Figure 1. They are asked to formulate with the help of brainstorming their thoughts, not specifically about the projected image, which are recorded by the teacher on the board. Afterwards, the teacher reminds the students how to use the six hats (Activity 1, Goal 1, Duration 15').

Figure 1. Speak up!!! You're not alone!

2.2. Contact with new information–analysis–conclusion

The teacher reads the students a story (Worksheet 1). Then, the students are separated into five groups to represent each of the five hats, except for the green one. They work on Worksheet 2. The blue hat oversees the conversation and guides it in the right direction. During the work in groups, the participants of the blue hat watch the discussion in other teams (hats) and take notes on its progress. Students who utilize the blue hat, according to De Bono, are urged to repeat their initial reasoning to redefine the modifications that must be done [14].

The white hat has the task to gather all available information about the protagonists and events. The following inquiries may be beneficial: i) Who is the main character? ii) What issue does he have to deal with? iii) Is there any other issue that needs to be addressed? iv) Where did it come from? and v) Who is he as a character?

The protagonist's feelings will be described through the red hat. This group will describe Ali's feelings. It's critical not to concentrate solely on negative feelings, nor on those triggered by the most recent incident. The emotional shifts of the protagonist in each period must be taken into account.

The black hat is called to criticize Ali's attitude, as well as his parents', manager's, and classmates', who carried out the verbal and/or physical attack. Students should be asked to verify the evidence that supports their opinions, consider whether their plans are possible, given the current circumstances, and analyze the repercussions of their actions before carrying them out by checking the impact of their positions. In any event, the yellow hat is the one who will look for the silver lining. The team will try to think positively about Ali, his parents, and his new classmates in the hope that things would improve, even after the recent incident. He will represent Nickolas or Joanna trying to find a positive solution to the incident (Activity 2, goal 1, worksheets 1 and 2, duration 45').

2.3. Implementation-presentation of the results

Students are invited to offer their views and opinions in the class plenary after the group elaboration is completed. Students move to the computer lab. Each team must prepare a presentation using the relevant software. The blue hat coordinates the discussion following and the overall process. Each group elects a leader who presents their assignment (Activity 3, goals 1,2,3, duration 45').

2.4. Summary-reflection

Students are again divided into groups. The teacher nominates a member from the blue team of the previous stage to each new team to continue to have a regulatory role. At this stage all teams get the green hat, which doesn't represent a person in the story, but students are summoned to think creatively and provide fresh, innovative solutions to avoid bullying. They work on Worksheet 3. Students record some words or phrases, discuss them with the group and come up with the ones they agree on, which they present in plenary (Activity 4, goals 1,2,3,4, duration 45').

2.5. Assessment

At the end of the activity, they express their ideas and opinions about what was mentioned throughout the discussion. Each team will create a poster. They discuss the title, the image they will paint or use, and the text they will write. They will present it at a school event with parents on tackling school bullying (Activity 5, goals 1,2,3,4, duration 30').

3. RESULTS

A didactic scenario of an anti-bulling program was implemented for three hours in elementary school students using De Bono's six hats to see if the students' behaviors can be differentiated. Not many articles have been written using De Bono, at least in Greece, that utilizes the De Bono's hats in an anti-bullying program. The scenario was succeeded in changing students' behavior. They thought about the consequences of bullying in other students, they discussed about the problem, and they found out practical solutions.

This scenario applied only in the context of one classroom. Students were divided into four groups of five students per group. All of them responded eagerly during the whole procedure. School bullying, as a phenomenon, isn't unknown to them. It exists in their everyday school life through mild or more severe incidents that may occur. Of course, it is often widely discussed in the classroom.

The choice of the initial image was appropriate, to present the content of the scenario to the students. After the division in groups according to the color of the hats, it was essential for all students to wear a paper ribbon of the suitable color. All students instantly felt that they had a specific task to accomplish. Our former experience in class shows that the members of the blue hat team should be students of high perceptive capabilities, as well as increased communicative skills. This is because these students should be aware of all the tasks of each color group and, due to their obligation to lead their team into the right track, without causing any kind of tension, whatsoever. In addition to all the above, we made sure that there is a member with organizational skills in each group.

The groups accomplished their hats' obligations to a large extent, according to their age maturity. Surely, if the scenario was held with students of older age, we would have more to-the-point observations. Either way, with the guidance of the blue hat team, the groups did not exceed the limits of the hat they represented, and they produced a clear image of the incident with Ali. During the process of the scenario, apart from the manual work the students accomplished, they produced some digital content as well, with the use of online digital tools, such as WordArt and PosterMyWall. In the first tool, the students brainstormed and noted their emotions that the initial image caused. In the second tool, each group wrote down their final observations. Furthermore, at the end of the scenario, everyone expressed their thoughts and emotions to the class plenary.

It is worth noting that all students, during the whole procedure, expressed their anger about school bullying for the specific incident. This fact probably shows that they have never been victims, or viewers of a similar incident in school, something that can only be an advantage as far as the quality of their school environment is concerned. Should we express our reflection, it is certainly about the procedure of the teams' formation. We believe that at this age, it should not be done randomly. As mentioned above, it is very essential that the members of the blue hat team are carefully chosen. This of course, can only be done by the class's teacher, provided that he/she knows the students of the class for an amount of time, in order to have already identified their skills successfully.

4. DISCUSSION

Using de Bono's six thinking hats, the implementation of the didactic scenario led to some important conclusions; the students understood that violence affects both the perpetrators and victim's souls. It deteriorates the classroom's psychological climate and in general, the school's function. Also, such situation causes psychological and other kind of problems to all the people involved in the school process [1], [2] or people may feel negative emotions [1].

Because of the students' active participation in various activities [31], [32], students managed to learn how to find solutions to various problems [13]–[27]. Thus, these activities contributed to the development of students' critical thinking [15]. At the same time, the concepts' teaching and the ICT use led to students' cognitive growth [42]. Obviously, teachers who spend much time with their students every day, must raise such issues within the school classroom [12] while dealing with such behaviors [7], in a classroom environment of cooperative learning [33], [34]. It is teachers' duty to take charge of the anti-bullying prevention programs in schools [7], [8] and to promote active and collaborative actions with the families [2].

5. CONCLUSION

The application of the didactic scenario led to the conclusion that education can contribute to the adopting of correct behaviors through the regular informing of the students from a young age. The aim is the creation of democratic citizens that respect differentiation and solve any differences peacefully. It is crucial for the schools to provide opportunities to their students to participate in group activities, to learn how to cooperate, to communicate and solve issues that relate to a good ambience in class, through conversation.

The teachers' false beliefs about bullying could undermine their initiative for intervention. Effective school prevention programs can lead to the alteration of false beliefs and the avoidance of the use of violence,

but they need to be implemented in the long term and lead to the participation of school, and not partially in a random classroom. The significance of the cooperation with the family is also pointed out, that plays an important role in children's behavior. Because of the small sample size, the findings cannot be generalized. Nevertheless, the findings do not lose their value, as they highlight the usefulness of De Bono's six thinking hats technique as another tool for dealing with bulling at schools.

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