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Students' and teachers' opinions pertaining to six thinking hats techniques on the web pages

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Abstract

We can see the technology in education like educational software, web sites and computer-aided education. Especially distance education covers all of the Technologies in education. Today we have lots of educational materials in electronic area (virtual area). And we can call them e-learning. In six thinking hats learning model is so important educational model and in this area there have lots of paper and article but you can never see any application in this area. According to that we start to prepare web site about six thinking hats. This web site has an interaction between teacher and students. This application prepared with ASP.NET 4.0 technology, Entity Framework Database First, Custom Membership System and Ms SQL Server 2008 R2 database systems. And we used the SPSS 15.0 programme for analyse the questionnaires. Our finding related usability of web site, contribution of web site to the students' success and teachers' role on the web site. We should observe the pedagogic structure of the students, because learning model and learning environment should be suitable for them. If we apply six thinking hat learning method in a correct way, the students success will be increase. Design of web site and choosing of their instruments like reading text, images, are important for students' interaction with the web and learning model. Our implementation we observed different case according to rules of six thinking hats techniques.

*Keywords***:** Six Thinking Hats; Web Page
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1. Introduction

Nowadays technology develops rapidly and this rapidly developing affected the educational area. Lots of technology was blended in educational area and now we have different and new educational definitions and concepts. Today both educational software and web-based and computer-aided education are the essential pairs of the education. Also the usage of educations like distance education are increasing every day. Therefore lots of people can reach the educational materials easily, especially persons who cannot attend the class environment because of his/her special condition (physical, psychological, place, etc.). With the blended educational electronic materials, we can use the technology effectively on educational side and prepare educational websites for his purpose.

At the present day because of the easy access to the Internet, the importance of the usage of web-based education and also with people choosing online education with the synchronous and asynchronous access to the internet has increased. Using the website in an education, the interaction

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between student and teacher is very important and the website should be providing this interaction. On the other hand the website should be design according to teaching models, pedagogical level and learning level. These should be prepared carefully and the scenario shall be appropriate according to teaching method and learning strategy.

Although we have lots of educational software, applications and computer-aided materials, have a few or not online learning environment on the Internet like websites. This is a very important and remarkable point in this subject.

Six thinking hats is a concept involves using six, imaginary hats to aid decision-making. Each hat represents a role that its wearer needs to play. White Hat: The wearer of this hat has to play the role of gathering information. He has to delve into past records and present data, related to the topic of the meeting. Black Hat: The one who wears this hat has to play the role of opposition for every idea suggested. That is think of the negative aspects or everything that can go wrong while executing or making a decision. Yellow Hat: Contrary to the black hat, in this role, one has to look only at the positive side and the benefits of the issue under discussion. Red Hat: While wearing this imaginary hat, the person has to base his thoughts on an emotive or intuitive feeling about the project or decision. Green Hat: While donning the green hat, the wearer has to use his Edward de Bono and come up with out-of-the-box ideas. Blue Hat: The wear ere of the green hat is the one that actually controls the proceedings of the meeting. That is he must ensure that the others stay focused, that the meeting goes on track and, finally, that the outcome is achieved [1].

Yellow suggests sunshine and optimism. Under the yellow hat we develop compelling goals for the future. We also make a direct effort to find the value and benefits in a suggestion. Even if we do not like the idea, the yellow hat asks us to seek out the good points: "Where are the benefits?", "Who is going to benefit?", "how will the benefits come about? "This is very useful in the initial part of the 'Goal' phase of the GROW Model. It is also useful during the 'Options' and 'Way Forward' phases to ensure all ideas are considered. The White Hat; White suggests paper. The white hat concerns information. When we wear the white hat, we ask the following kinds of questions: "What information do we have?", "What information do we need?", "What information is missing?", "How are we going to get the information we need?", "What questions should we be asking?" The white hat is used to direct attention to available or missing information. This hat if very useful for the 'Reality' phase of the grow model. The crystal clear thinking of the white hat is also useful for creating clarity around the goal and deadlines. Red suggests fire and warmth. The red hat is to do with feelings, intuition and emotions. You may not know the reasons why you like something or why you do not like something, but when the red hat is in use, you have the opportunity to put forward your feelings and intuitions without any explanation at all. Your feelings exist and the red hat gives you permission to put these feelings forward. This hat is very useful for challenging the goal established in the 'Goal' phase of the GROW Model. It also enables us to challenge the options for change and actions during the 'Way Forward' phase. Black reminds us of a judge's robes. The black hat is for caution. The black hat stops us from doing things that may be harmful. The black hat points out the risks and why something may not work. Without the black hat we would be in trouble all the time. However, the black hat should not be over-used, as over-use may be dangerous. This hat is very useful for challenging the goal established in the 'Goal' phase of the grow model. It also enables us to challenge the options for change and actions during the 'Way Forward' phase. Green suggests vegetation, which suggests growth, energy and life. Under the green hat, you put forward proposals, suggestions, new ideas and alternatives with energy. You become aware of many possibilities in every situation. When the green hat is in use, everyone is creative. This hat is very useful for the 'Options' phase of the grow model. The blue hat is for looking at the thinking process itself. Use the blue hat at the beginning of a discussion in order to define what we are thinking about and to decide what we want to have achieved by the end of our thinking. The blue hat is used to order the sequence of hats that we are going to be using and to summarise what has been achieved. The Improvement Team Leader should wear this hat. The Team should wear this hat when reviewing the effectiveness of the process followed [2].

The "Six Thinking Hats" model creates six artificial contexts for thinking, corresponding to the primary thought modes of objective, subjective, critical, and creative thinking, within a comprehensive framework that allows the thinker to direct attention to the desired thinking mode. Argumentativeness

is conceptualized as a generally stable trait which predisposes the individual in communication situations to advocate positions on controversial issues and to refute the positions which other people take on these issues [3].

If we range the benefits of the six thinking hats some of them must be beginning of the range, these are;

- Unleashes creativity by providing focus and a disciplined technique for exploring topics
- Enables us to put differences aside and focus on resolving the real issues
- Generates ideas quickly, evaluates them efficiently, and implements action plans effectively
- Used to immediately achieve long-lasting results [4].

As from primary level the learning environment should be provided for the students in order to able to present their creative thinking. In case that the other creative thinking techniques such as the creative drama, brain storming, synthetic as well as especially, six thinking hats techniques and qualification techniques are used in these environments, the creative characteristics as well as the learning that it is in the knowledge level of the students can be made progress. The creativity is a characteristic that can be acquired by education for each student. For this reason, it makes contributions to be raised individuals who are performed in the every stage of the system from the education programmes to teaching methods and techniques; used; can be enhanced the societies to welfare level in the future [5].

Although the technique has a so simple practice feature, it has the characteristic of a play; and it's some benefits are as follows. Because of the fact that it can be practiced easily, it is learned easily as well.

- It is prevented that different thoughts are melded.
- It is provided that the thinker thinks different instead of monotype thinking.
- It is prevented that the ego is effective in the thinking activity, and the talented brains that are not dependent finds an opportunity to examine the confessed subject absolutely. In other words it leads the way to creativity thinking.
- In order that the parties make discoveries it provides team work and it prevents that the discussions are become sterile.
- It is made easier to make decision.

There are some disadvantages of this technique during their practice in the other classes in techniques. Because of the fact that it's practice in the crowed classes causes confusion, it can be reduced the learning speed.

- The students must be adopted the rolls that are composed of the colours.
- The teacher must be good leader [6].

It is a basis to help to the individuals for important decisions, in judgement and provisions by looking at this subject from a different aspect. With this technique the sophisticated thinking is aimed by separating the senses from logic; the creativity from accumulation of knowledge. In-depth thinking hats are expressed with six different characteristic and different colours that each of them different with appropriate rolls for them. It is important that the student can act the roll that each colour is expressed [7].

The Six Hats Technique can fail to satisfy that the student's problem of knowledge and vocabulary relating to the subject removes although it remembers the every aspect of the subject to the student. At this point the visuals that are used for the subject are an important clue in order to provide the participation of the student in the subject more effective [8].

When the Six Hats Thinking Technique is used the order of hats can be changed according to the characteristic of the discussion. However, when a new offer is evaluated, before placing the black hat, it is beneficial to place the yellow hat. In a new offer, to find the errors and the negatives is easier than to find superiority. The reason is that during the negative thinking the chemical environment in the brain is adjusted as setting in motion the feelings of "fear" and "search for confidence" [9].

The knowledge provider roll of the teacher that are responsible in the traditional teaching method in the drama activities becomes the leader and the directive of the students. The teacher creates opportunities that the students discover this information and produce it themselves instead of giving the information directly to the students. The teacher incites the students to express their ideas, to

discuss, to criticize their friends' ideas and to produce new ideas altogether in the class. In addition to these the teacher can act with the students in some activities. In this way the teacher can communicate with the students more actively and the process of the activity is controlled by the teacher easily [10].

In the six hats thinking technique, looking at a subject from different aspect is a basis. With this method, the sophisticated thinking is aimed by separating the senses from logic; the creativity from accumulation of knowledge. This technique helps the individuals to able to think better and more practical, to make decision and to discover new ideas in the unique level and positive aspects. The technique gives result in order to gain behaviour, to discipline in the class, to solve some problems relating to the life processing as well to help to the students' thinking [11].

2. Materials and method

This research is about implementation of Six Thinking Hats Learning Method with the preparing application (website) and getting the teachers and students' opinions about the impact of the website by using a questionnaire.

This study is undertaken in the 3th class on the first grade students in the city of Niğde in 2012 – 2013 Academic years. The experiment is implemented only in one class and is retrieving opinions of five professional teachers about the website.

The website is prepared with usage of the ASP.NET 4.0 technology; Entity Framework Database First, Custom Membership System and Ms SQL Server 2008 R2 database technology.

The purpose of these studies related to the effects of the Six Hats Thinking Techniques on website and how to use these learning techniques on website and according to that trying to get teachers and students opinions about the website. When we are retrieving the opinions about the website we base them on some factors like pedagogic site and web design site. Thereby we can determine the effectiveness of the learning style on website.

In this study, we used questionnaire for retrieving teachers and students opinions and according to the results of the questionnaire we calculate the numerical values. After that we can try to evaluate these numerical values in the study field. When we calculate the numerical values of the questionnaire by using SPSS 15.0 and according to the results we determined our result tables.

This study is performed in the 3th class of first grade students at the primary school in city of Niğde in 2012-2013 Academic year. We chose twenty-five students and 5 teachers for this study. The pedagogic and learning levels of the students are on average level. Three of the teachers are class teacher and two of them are computer teacher. The class teachers analyse the pedagogic level of the website and the correct use of learning styles. The branch teachers analyse the design, speed and usefulness of the website.

In this study two different questionnaires are prepared for the students and teachers. Teachers 'questionnaire has 23 questions and 8 of them are about its design and usefulness and 3 of them are open-ended questions. The students have 22 questions and these are about students' opinions about the learning period on website. In other words, is learning period easy or difficult with using this website.

The work sheets in relation with the "Six Thinking Hats" and all the work sheets were prepared according to this technique. While choosing the topics of the work sheets, we especially have chosen "science" topics which are useful and appropriate for this technique. The work sheets topics are about technology, environment, health, communication etc. When we decided about the topics, we were be careful about the children's pedagogic level, social environment, topics' relationships with the lesson etc. and questions which are about short stories related with parallel topics like communication, technology etc. For preparing the piloting work sheets the third class science of life lesson books were searched and the topics were prepared and chosen in accordance to this framework. The piloting work sheet studies were applied in accordance with their classroom teacher to 25 students. In addition the other teachers who are from different branches will analyse work sheets on the web site and questionnaires. And all those work sheet retrieved from the teachers and student and also other questionnaires were used for analysing results.

There have two kinds of questionnaires, one of them prepared for teacher and the other one is prepared for students. They have different measurement criteria for students and teachers. The teachers

who search the web sites and work sheets on the web sites were asked different questions and evaluated them different way. And all data are based on from the classroom teachers, expert teachers and students' work sheets.

Our procedure takes as a reference Web-based programming and procedure based on effects of Six Thinking Hats between students and learning process. Procedure gives a change to the students for evaluate their selves, think more systematically and prevent idea disruption. When we provide these things for the students, we prepared a scale which evaluates this process in a correct, valid and confidential way.

In our research we took the teachers' and students' opinions with using different questions. We prepare and separate the questionnaires according to some criteria like learning model, usage of web site, students' interaction with implementation, getting opinions of teacher.

On the teachers' opinions be carefully to the correct usage of Six Thinking Hats and point out the web design according the students' pedagogic structure.

In addition we search the Six Thinking Hats' effects between student and teacher on the web site with using web-based technology. Probably, the important point of this search, we examine the students' success with Six Thinking Hats learning model, using web-based technology. In this search, on the purpose of the collecting data for web site which based on six thinking hats learning model, we benefit from the third-grade "science of life" lesson book.

In this process we use the questionnaires for taking the data from the teachers and students. The questionnaire has 34 questions, and for the effectiveness and productive of them we discuss these questions with lecturers who are expert in their area. According to their opinions, we did essential changing's and adding finally we created correct, effective survey questions.

The data which acquire on the students' and teachers' questionnaires evaluate with using SPSS 15.00. The questionnaires' evaluations on the SPSS are different because of different type of questions about the topic.

The teacher questionnaire's first six questions give an idea about the teacher's personal position in education. The other thirteen questions provide getting opinions about success, interaction of students, and add the advantages and disadvantages with using this web site. And web site has an concord and integration with the six thinking hats learning model and learning process. The other proceeded parts, all the questions are based on web site design, its usage and evaluate them according to the teachers' opinions.

On the other hand, the student questionnaire's first is five question about student's personal information and relationship between student and computer. The proceeded questions we try to learn web site's utility, manageability for the students. During try to learn these topics and especially we can use simple words to the students. This condition is created in a special way. Because of the students' small ages and we try to prevent thinking disturbance. Also, we searched the expectations about the learning style and compare the traditional and web-based learning style. And we got the students' opinions which learning style is better and permanent than the other.

The web site implementation process proceeds in computer laboratory, and continued in Turkish lesson hours because of similarities between Turkish and science of life lesson. According to the principles of Six Thinking Hats, the implementation of learning style should be minimum 4 or 6 hours. We always consider this principle. However we never hinder teacher's lesson plan. We prepared our plan with classroom teacher and spread this plan in two days. Before starting to the implementation we summarized to the teacher and explain the projects key points. Also we studied this project a few times from a few days ago for taking correct results.

Before preparing the web site, we analysed other web sites which are about educational thematic and took important notes about their design, which teaching style they used and how did they use it. In addition, we searched audiences of the (students) age range. We choose the appropriate colour, correct interface and font type which are important for the age range.

As it can be seen in the Fig. 1, while the questions that are relating to the subjects choose by the students are being asked to the each student in accordance with the Six Hats Thinking Technique, the each asked questions are taken into consideration the age range of the students and the pedagogic improvement of the student. In the section where the student is going to answer the question the hat

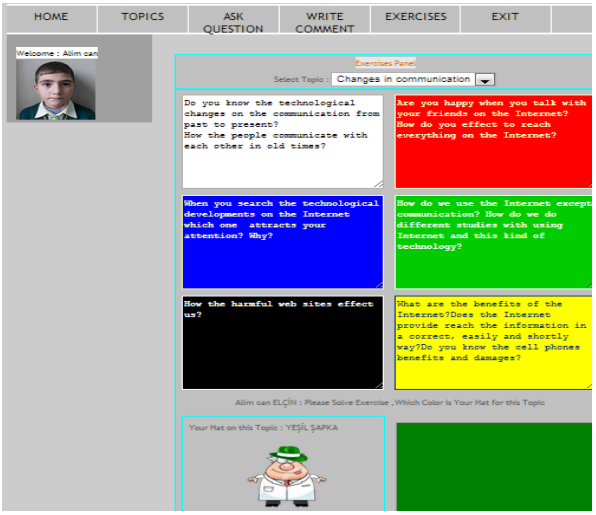


Fig. 1. Students can interact with their teachers using web site.

(colour) of the student is emphasised. In addition, in the Six Hats Thinking Technique, it is thought that this hat (colour) is represented with which character, and by finding suitable character in order to motive the student related character Fig. is placed in the answer section. As an illustration of this the green hat is represented with a scientist and the black hat is represented with a judge. This situation not only motives the students but increases the connection to the subject as well, besides provides that the students focus on the subject for a long time.

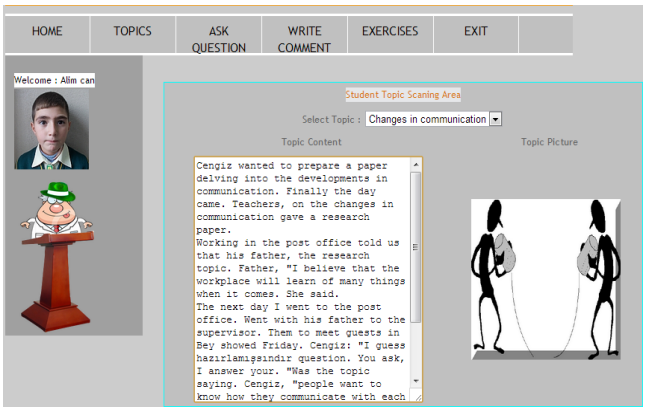


Fig. 2. Students learning process related with web site and learning model.

As it can be seen in the Fig. 2, by choosing the subject that the students are going to study on it the relating text and visuals are given. In addition to this, the hat that the student is going to place it in the subject processing in order not to remember the duty but also help and the Fig. that is characterized the hat are given.

On the other hand, we analysed the deficiency of web site and we were careful with these deficiencies. We also took in consideration the increase the usage of the web site understanding and we were carefully with positioning students to the web site. Students never felt alone. We provided this case with using some links. With those links students never panic and felt alone because the links were giving them a chance to communicate with their teacher.

In the Fig. 3, it is seen that how the student is registered to the practice. For the student in order to be more attractive the practice and to make more colourful it is benefited from the pictures of the students. Due to the fact that the student's age range is low, the user name and password is become from the students' name and surname in order not to confuse when giving the user name and password in the first time, also the secondary characters are not used (_,&,#).

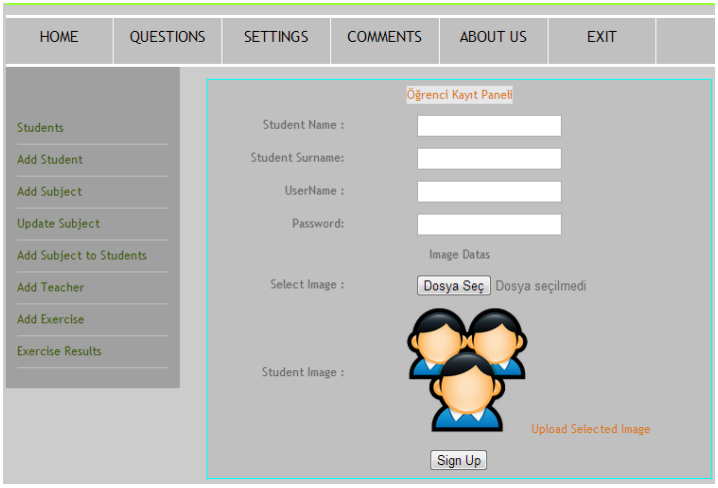


Fig. 3. Links provide easy connection and interaction with students.

For the web site instrument we used ASP Programming Language, java script and HTML. ASP (Active Server Pages) is a technology which accesses the Internet, it works based on server and is developed by the Microsoft. The main cause of choosing the ASP programming language is because it works compatible with Microsoft Server 2008 R2 database. At the same time the other causes of choosing ASP.NET programming language are its dynamic structure and knowledge of programming language.

We communicated with three classroom teacher and three computer teachers about the web site design and we always took their opinions in this process. According to this process we determined the additive parts and changing parts of the web site.

We created a database for collecting data about students, lessons and learning style, as well as for controlling the movements of the students and delaminating the entrance and exit of the students to the web site. On the other hand the pages of web site communication are provided by using database. At the second day of the implementation the studying process was easier and students adopted to the implementation and understood the process according to the day before. The students success increased, especially the students who have a low level of success, their interaction with lesson and attention to the topic increased as well. Also they invocation was less than the previous day.

At the end of the implementation firstly we gave the questionnaires to the students and took their answers. While answering the questionnaire the students did not understand some questions so we had to provide extra information about the question. And we gathered so different answers at the end of the questionnaire. After that we took the answer from teacher's questionnaire.

In the data analyse process; after taking the questionnaire results which try to collect data about the effects of learning style and web site interaction on the students, we evaluated the results with using SPSS 15.00 statistics packaged software. During evaluation process of the data we have used the percentage (%), frequency (f) and arithmetic mean, and standard deviation of the values.

- According to age and gender of students, who has a computer, how many times and how long times do they pass their times,
- Some results about web sites which is prepared according to Six Thinking Hat and explaining the relationship between web site and learning process.
- Show the cases if apply this learning style with this technique expect "science of life"
- With this web site we try to tell understanding the process of the six thinking hat to the students

Although The Ministry of Education propose Six Thinking Hats learning model beginning from first grade of school, this effective learning model is not preferred by the teachers. Because of that, we summarized the technique and showed how we will use this technique on our web site.

Our implementation continued for two days and, these two days we came across any problem with learning model, students or teachers. At the end of the implementation and questionnaires, we took

achieved exiting and pleasing reasons For this two days we were always paying attention to the steps of Six Thinking Hats learning technique.

Before staring the implementation we were taking opinions about hats and asked them which kind of hat they would like to use. The answer was especially the "blue hat". It was so surprising for us, because in similar implementations students usually choose the "white hat". When we asked the reason of their choices, we acquired information about their personal specialities. For example, information about the student's leadership is spirit and their organization ability. All these personal specialities affected their choices.

The successful students settled into the implementation easily and quickly but the other students who have lower success level, settled a little later with receiving some help. However, at the second day of the implementation all of the students attended the implementation easily and they get some help. Also all of them were very excited and enthusiastic for the implementation and lessons.

The reading text which was on the web site was relevant with the hat which was chosen by the students. In other words, the students wanted to study with subjects relevant to their hats. For example students, who choose yellow and green hats, wanted to study about subject of technology and science.

3. Results

Our implementation teacher and our expert teachers common opinion was that our web site and implementation could push the students and increase their success.

At the same time, one of the expert teacher indicated the students' computer usability and enough knowledge about using computer for this implementation. If we provide these cases, this implementation will improve the success of all of the students.

With using this implementation students can express themselves better and much easier and they learn the subject without feeling boring. This was the teacher's common opinion about the implementation. In addition the expert teacher asserted level of web site for the third grade students' cognitive and intellectual level.

At our meetings with the implementation teacher, he observed the increasing the success of students with using this implementation. And he wanted to continue this model with using our web site. All these shows that our web site reflected the learning model well.

Table 1. Evaluating the design specialities of web site which is prepared taken as a reference Six Thinking Hats Technique

	Definitely disagree		Disagre		Neither agree nor disagree		Agree		Definitely agree	
Questions,	f	%	f	%	f	%	f	%	f	%
1. Did you use the web site in a comfortable way?	1	4,0	4	16,0	8	32,0	12	48,0	12	48,0
2. Was the learning process enjoyable for you?	9	0,00	0	0,00	9	36,0	9	36,0	16	64,0
3. Did you understand the usage of links?	13	52,0	11	44,0	1	4,0	1	4,0	0	0,00
4. Did you have any disincentive cases on the web site?	17	68,0	7	28,0	7	28,0	7	28,0	1	4,0
5. Were you be happy to be able to explain your opinion about using web site ?	1	4,0	0	0,00	1	4,0	1	4,0	24	96,0

When evaluations in the Table 1, it is observed that the idea of not being any obstacles of prepared web site for the teaching or lesson processing is become a big percentage, the idea of being an obstacle is in direct proportion to adopt the teaching technique by the students and to be usable the web page.

In the Table 2, it is transparently seen that in the web page the subject are adopted by the students that are determined in order to be studied by the students, due to the fact that they can find something relating to themselves they listen to the lesson with a great claims and pleasure and these are reflected on the survey result and the teachers' views after the practice. While the answers are taken that is related to increasing the communication of the web page between the teachers and their friends, a big number of the students are stated that they are pleasure to learn the subject by discussing it with their friends. In addition the students stated that they want to learn the other lessons not only in the Internet environment but with the learning method as well.

Table 2. The effects of six thinking hats technique on topics which are studied on the web site

	Definitely disagree		Disagree		Neither agree nor disagree		Agree		Definitely agree	
Questions, n=114	f	%	f	%	f	%	f	%	f	%
1. Was your character suitable for you and did it help you understanding the topic?	0	0	1	0,0	1	4,0	14	56,0	9	36,0
2. Did you get the same pleasure studying with web site and lesson book?	17	68,0	0	0,0	0	0,0	8	32,0	0	0,0
3. Did you understand the topic well and interact with your teacher better because of the Internet?	1	4,0	0	0.0	5	20,0	15	60,0	4	16,0
4. Did you increase your learning by discussing the topic with your friends?	0	0	0	0,0	0	0,0	12	48,0	13	52,0
5. Did you enjoy your duty?	1	4,0	0	0,0	0	0,0	19	76,0	5	20,0
6. Do you want to learn the other lessons in this way?	0	0	0	0,0	0	0,0	3	12,0	22	88,0

Table 3. Compare the subjects which are studying on the web site and in a traditional methods

	Definitely disagree		Disagree		Neither agree nor disagree		Agree		Definitely agree	
Questions,	f	%	f	%	f	%	f	%	f	%
1. Did you enjoy the learning subject on the Web site?	0	0	16	5.3	0	0	9	36,0	16	64,0
2. Did the Web Site studying process affect your performance and interaction with your friend?	0	0	0	1.8	2	8,0	12	48,0	7	28,0
3. Was the lesson effective without studying Web site?	5,0	100	16	64,0	0	0	0	0	0	0,00
4. Did you understand the topic easily on the web-based environment and did the discussions with your friends increase your understanding?.	13	52	0	0,0	0	0	12	48,0	13	52,0
5. Did the studying the topic on the Internet provide understanding the goals of teacher and communication with him?	16	64,0	6	5.3	0	0	15	60,0	16	64,0
6. Is this implementation suitable for other lessons and topics?	2	1.8	3	3.6	0	0	3	12,0	22	88,0

According to the Table 3, it is seen in the students' survey that the some students are prefer to learn the subject both prepared web page and in the Internet environment, the lesson is not efficient without the web page, in other words the Internet; during both practicing and taking the teachers' ideas it is stated that the performance of the students are influenced by the Internet and the prepared web page. A lot of students have the same views about that this practice (the web page and the lesson processing) can be suitable for the other lessons.

Table 4. Evaluate the web site according to student-teacher relationship, utility and content based on six thinking hats techniques

	Definitely disagree		Disagree		Neither agree nor disagree		Agree		Definitely agree	
Questions,	f	%	f	%	f	%	f	%	f	%
1. Is the usability of web site suitable for students?	0	0	0	0	0	0	2	40	5	100
2. Did the Web Site interaction provide between student and teacher?	0	0	0	0	0	0	2	40	5	100
3. Is the design and content of the web site suitable for age range of the students?	0	0	0	0	0	0	1	20	4	80,0

According to the Table 4, the all students present a positive opinion about the usable of the web page that is prepared according to the six hats thinking technique; and at the same time the all students approve the relationship between the teacher and the students. The suitability of the web page related to the students in the suitable age range is stated by both the students and the teachers.

Table 5. Observing the circumstances originate from six thinking hats technique

	Definitely disagree		Disagree		Neither agree nor disagree		Agree		Definitely agree	
Questions,	f	%	f	%	f	%	f	%	f	%
1. Did the learning model cause the disruption because of the learning style which is used with web site?	5	100,0	6	5.3	6	5.3	21	18.4	0	0,00
2. How did they meet the requirements of the learning model, which was prepared according to the technique, provides a web page?	0	0	2	1.8	4	3.5	2	40,0	3	60,0
3. Was the learning model, used on the web-based environment, provide the process of lesson?	5	100,0	0	0,0	0	0,00	1	20,0	4	80,0
4. What is your opinion about implementing of technique on the web site?	0	0,00	0	0,00	0	0,00	2	40,0	3	60,0

When the Table 5 is examined, it is stated that the subject that is going to be learned is practiced by using the Six Hats Thinking Technique is not become an obstacle in the web environment, the related study is approved by the practical teachers, the subject matter teachers and the class masters have the same views whose views are taken with the surveys and the open ended questions. In addition to this, not only the class masters not the other teachers as well have the idea of that the web page is used in conformity with the this teaching model and the web page is designed in accordant with this learning model in conditions that specific criteria are obeyed.

Table 6. Evaluate the advantages of six thinking hats web implementation

	Definitely disagree		Disagree		Neither agree nor disagree		Agree		Definitely agree	
Questions,	f	%	f	%	f	%	f	%	f	%
1. Did you observe clear success because of using this technique?	2	1.8	6	5.3	6	5.3	21	18.4	79	69.3
2. Did the shy students Express themselves easily with using this technique on the web site?	0	0	2	1.8	4	3.5	21	18.4	87	76.3
3. Did manageability of the lesson and students is eased by the technique with using web site?	4	3.5	1	0.9	10	8.8	24	21.1	75	65.8
4. Did the studying of learning technique provide positive effect of the lesson process?	2	1.8	2	1.8	7	6.1	20	17.5	83	72.8
5. Did the technique used on the web-based environment in an effective way?	3	2.6	6	5.3	6	5.3	22	19.3	77	67.5

According to the results of the Table 6, due to the fact that the learning model is used and this model is reflected on the web environment, the increasing of the students' success is stated with the views of the teachers. However, the technique and the prepared web page provide opportunity that the performance of successful students is increased, the shy students are actively join to the lesson and for the students whose success rate is low the success rate resulted from the practice is not so high. It is emphasized that the class management is become easier due to practicing the web page with the learning technique of the class master, however, some of the teacher do not express positive opinions about becoming easier the management of the class and the big number of our teachers approve that the using of the Six Hats Thinking Techniques and the web page that is taken reference to Six Hats Thinking Techniques provides positive effects during the lesson processing.

Due to the age range and work experience of our teachers who participate in the practice it is observed that during evaluating of the six Hats Thinking Technique and the practice that is integrated not only their experiences but their relationships with the technology as well is come into forefront. Because of the fact that our teachers know the usage of computer, and they teach via computer it is not a problem. They adopt the practice easily, and they help to the students more. Branch teachers and class masters evaluate the practice with different criteria. It can be explained that their education is different. It is taken attention that their comments are close each other in the individual evaluations and they have same anticipations.

All teachers express positive thoughts about the using of the Six Hats Thinking Technique in the web environment, some of them emphasized the interaction of the students and the teachers, also occurring the speed and persistent learning is an important point. Gathering attention of the students

Table 7. Teachers demographic information and their opinions about usage of the six thinking hats techniques with software

Demographic Information	His/her answer to question
He/she is 54 years old, is a teacher for 28 years and uses a computer more than 8 years, the usage of computer level is intermediate level.	The Six Hats Thinking Technique is used effectively, suitable for the web page learning model and related age range and with this learning model and with integrating the student is become more active.
He/she is 43 years old, is a teacher for 18 years and uses a computer more than 13 years, the usage of computer level is intermediate level.	For working the practice in an appropriate way and being active the teachers and the students must have the computer using knowledge. This method and usage of this method are become the learning more persistent.
He/she is 40 years old, is a teacher for 17 years and uses a computer more than 13 years, the usage of computer level is intermediate level.	If the Six Hats Thinking Technique is transparently explained to the students, it can be provided a high performance from this practice. The usage of the learning model provides that each students (like shy students) express easily themselves.
He/she is 54 years old, is a teacher for 33 years and uses a computer more than 15 years, the usage of computer level is good level.	If the learning model is transparently taught to the students, it can be used easily. Due to meeting the age range of this practice with age range of class the usage of web page is pleasure and easy; in relating to this the attention of the students can be focused on for a long time.
He/she is 54 years old, is a teacher for 34 years and uses a computer more than 28 years, the usage of computer level is advanced level.	In the older age groups the technique is lower time more systematic is processed and it is increased the success of student. The student is not bored while he/she is learning and the subject and the lesson can be actives until the last moment.

Table 8. The answers of the teachers to the question of "What are the differences between using Six Thinking Hats and other learning model while learning subjects on the web site"

Answer Number	The Question: "What differences can you see when the usable of Six Hats Thinking Technique in the web page environment is compared to the other learning models?
1	With the using of the Six Hats Thinking Technique the students have already been become active and this model is used in the web environment that increases the performance of the students and it provides that all students become active during the lesson.
2	The learning is become more understanding and persistent because when the student teaches, he/she starts to learn by questioning himself/herself thoughts by expressing, thanks to the flexibility and the interaction features of the web environment the learning is become more quick and persistent.
3	The students express himself or herself better with teaching this technique because it can easily provide a interaction of communication between both the students and the teacher.
4	The attention of the students is caused that their attentions are persistent for a long time with the integrating the learning model and the web page.
5	It can be integrated to every lesson. In addition to this it is a practice that the interaction of the students about the subject is increased.

more easily and for a long time is attracted the attentions of the teachers and this situation is wanted by the teachers. A remarkable increasing of both successful and low successful students' performance is observed.

4. Discussion and conclusion

Although The Ministry of Education propose Six Thinking Hats learning model beginning from first grade of school, this effective learning model do not prefer by the teachers. Because of that, we summarized the technique and how we will use this technique on our web site.

Our implementation continued along two days and, these two days we came across any problem with learning model, students or teachers. At the end of the implementation and questionnaires, we took very exciting and pleasing reasons. Along two days we are always carefully to the steps of Six Thinking Hats learning technique.

Before starting to the implementation taking opinions about hats and asked them which kind of hat do you want? Especially they said "blue hat" It is so surprised for us, because similar implementations students usually choose "white hat". When we asked the causes of their choices, we acquired information about their personal specialities. For example students' leadership spirit and their organization ability. All these personal specialities effected their choices.

The successful students settled the implementation easily and quickly but the other students who have low level success, settled for a time later with getting same helps. However the other day of

implementation all of the students attended the implementation easily and that get any help. Also all of them are so excited and enthusiastic for the implementation and lesson.

The reading texts which are on the web site is relevant with hat which is chosen by the students. In other words students wanted to study with relevant subject with their hats. For example students, who choose yellow and green hats, wanted to study about subject of technology and science.

Our implementation teacher and our expert teachers common opinion is, our web site and implementation can be activate the students and increase the success.

At the same time, one of the expert teacher indicated the students' computer usability and enough knowledge about using computer for this implementation. If we provide these cases, this implementation will improve the success of the all students.

With using this implementation students can express themselves easily and better, they learn the subject without boring. This is the teachers' common opinion about the implementation. In addition the expert teacher assented level of web site for the third grade students' cognitive and intellectual level.

Our meetings with the implementation teacher, he observed the increasing the success of students with using this implementation. And he wants to continue this model with using our web site. All these show us, our web site reflect the learning model well.

Although the teachers who are practical teacher and participate in the our survey by examining the practice are different age range and their experience are different, all of them give the same positive responses about practicing of the Six Hats Thinking Technique in the web environment, and their views are same with the each other. The practice is increased the interaction of the teacher and the student is in our survey result that is done for both teachers and students. In addition to this, the usability of the web page's design and it's compliance with the learning model are approved by the not only the teachers but the students as well. The interaction of the teacher and the student is observed that the interaction between the students and the internet is increased during the lesson processing.

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